

Project ESCAPE

Full Scale Exercise

April 26, 2012

AFTER ACTION REPORT/IMPROVEMENT PLAN

FINAL

PREPARED BY

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EXECUTIVE SUMMARY

Healthcare facilities must embrace and expand upon their knowledge of emergency management methodologies National Incident Management System (NIMS) / Incident Command System (ICS) that are congruent with their external healthcare, public health, homeland security and emergency management partners with whom they may be required to work in conjunction with during large scale emergencies.

The Project ESCAPE full scale exercise was specifically designed to leverage expanded Central West Medical Coordination Center (CW-MCC) region collaboration, in an effort to integrate response to a mass casualty impacting a long term care facility and an acute care hospital. Several previous real events including hurricane Irene and a fire requiring the evacuation of a long term care facility provided the initial concepts for exercising, however, the exercise team recognized the importance of integrating a medical surge component in coordination with an acute care hospital that could be impacted if the scenario presented were actually to occur.

The objectives of this exercise were designed to build upon the Health Care Association of New Jersey's (HCANJ) previous full scale exercise involving evacuation and medical surge by allowing for a "role reversal". Hamilton Continuing Care Center (HCCC), who during the previous year's exercise, played as the recipient of a medical surge from another long term care facility, participated as the evacuating facility while the acute care hospital, Robert Wood Johnson University Hospital – Hamilton (RWJH) participated as the recipient of medical surge.

Based on the exercise planning team's deliberations, the following objectives were developed for Project ESCAPE:

- **Objective 1:** Evaluate the ability to safely and efficiently evacuate residents from a long term care facility. Hamilton Continuing Care Center staff are expected to establish internal command and control structure in response to an internal emergency event, communicate effectively, ensure the medical needs and safety of residents are met at all times, establish a triage area for coordination of the evacuation of residents, ensure that all necessary medical records and other immediately essential information is communicated and/or transported to receiving agencies.
- **Objective 2:** Evaluate medical surge into an acute care hospital from the CW-MCC regional community. Robert Wood Johnson Hospital – Hamilton staff are expected to manage and expand the capacity of their existing health care system in order to provide appropriate levels of triage and subsequent medical care. This will include providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications associated with burns and smoke inhalation as a result of an event resulting in a number and/or type of patients that stress the day-to-day medical capacity of the hospital.

Project ESCAPE was conducted on the "third shift" between the hours of midnight and 7:00am, in order to allow healthcare workers who commonly do not have opportunity to participate in full scale exercises, the opportunity to play. Additionally, this exercise used human patient simulator technology to provide an extra measure of realism, test logistical medical material needs within both facilities and challenge the critical decision making skills of healthcare workers.

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support the development of corrective actions that will guide healthcare coalition initiatives in order to advance overall emergency preparedness within the CW-MCC region. As such, this AAR/IP will be made readily available to all CW-MCC region members upon request.

Major Strengths (Hamilton Continuing Care Center)

The major strengths identified during this exercise are as follows:

- Implementation of evacuation order
- Implementation of Incident Command System
- Alert and dispatch of healthcare workers to incident site

Primary Areas for Improvement (Hamilton Continuing Care Center)

Throughout the exercise, several opportunities for improvement in the response to the scenario were identified. The primary areas for improvement are as follows:

- Continued patient management within triage area
- Patient triage and transport prioritization
- Internal communications
- Familiarization with command and control structure with external emergency management partners.

Major Strengths (Robert Wood Johnson Hospital - Hamilton)

The major strengths identified during this exercise are as follows:

- Continued patient management and triage
- Utilization of additional human resources and equipment to address medical surge
- Communications with outside agencies to address burn medical surge

Primary Areas for Improvement (Robert Wood Johnson Hospital - Hamilton)

Throughout the exercise, several opportunities for improvement in the response to the scenario were identified. The primary areas for improvement are as follows:

- Clear identification of Emergency Room (ER) staff within the Incident Command System
- Delayed response to ER by physicians and medical specialists
- Availability of critical patient care supplies in some ER rooms including burn packs and suction canisters

This exercise met all pre-established objectives related to the identification of internal plans, policies and procedures essential to address a regional catastrophic weather-related event

resulting in evacuations and medical surge. HCANJ member participants indicated that the exercise was a positive learning experience, that they had the opportunity to network with their colleagues, and expressed an increased interest in HCANJ's emergency preparedness program.

SECTION 1: EXERCISE OVERVIEW

Exercise Details

Exercise Name

Project ESCAPE

Type of Exercise

Full Scale Exercise – (FSE)

Exercise Start Date

April 26, 2012 – 12:00am

Exercise End Date

April 26, 2012 – 7:00am

Duration

7 hours

Location

Hamilton Continuing Care Center/Robert Wood Johnson University Hospital - Hamilton

Sponsor

Robert Wood Johnson University Hospital-Hamilton

Grant funding provided under the auspices of the New Jersey Department of Health and Senior Services (NJDHSS), United States Department of Health and Human Services (HHS), Assistant Secretary for Preparedness and Response (ASPR), Office of Preparedness and Emergency Operations (OPEO), Division of National Healthcare Preparedness Programs (DNHPP) Hospital Preparedness Program (HPP)

Program

Central West - Regional Healthcare Facility Emergency Preparedness Program

Mission

Response

Capabilities

Evacuation, Medical Surge, Communications, Incident Management

Scenario Type

Fire

Exercise Director

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Participating Organizations

Hamilton Continuing Care Center, Robert Wood Johnson University Hospital – Hamilton,
Burlington County College – Center for Public Health Preparedness, New Jersey Department of
Health and Senior Services, New Jersey Hospital Association, New Jersey Office of Homeland
Security and Preparedness

Number of Participants

Player Facilities - 2

Evaluators - 7

Controllers- 8

Observers – 3

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Christopher Neuwirth

SECTION 2: DESIGN SUMMARY

Scenario Summary

On the early morning hours of April 26, 2012, unbeknownst to the healthcare workers at Hamilton Continuing Care Center, accumulated paper debris falls into the base of a window heating unit and begins to smolder. Within minutes, a fire erupts and quickly travels inside the wall between two residential rooms that are occupied by elderly residents of the nursing home. The fire results in burn and smoke inhalation injuries to both residents and staff of the nursing home facility.



There is an unusually high emergency room volume across the Central West Medical Coordination Center Region of New Jersey. Hospitals within Hunterdon and Somerset Counties are on **“DIVERT”** status as indicated in Hippocrates. The Hamilton Continuing Care Center must initiate an evacuation of their facility, while Robert Wood Johnson University Hospital – Hamilton is expected to receive a large medical surge of critically ill patients directly related to this incident.

SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and associated activities. The capabilities linked to the exercise objectives of Project ESCAPE are listed below, followed by the corresponding activities. Each activity is followed by related observations, which include analysis and recommendations.

Capability 1: Evacuation (Hamilton Continuing Care Center - HCCC)

Capability Summary: Citizen evacuation and shelter-in-place is the capability to prepare for, ensure communication of, and immediately execute the safe and effective sheltering-in-place of an at-risk population, and/or the organized and managed evacuation of the at-risk population to areas of safe refuge in response to a potentially or actually dangerous

environment. In addition, this capability involves the safe reentry of the population where feasible.

Activity: Activate Evacuation

Observation: Strength HCCC's night staff cooperated extremely well and demonstrated a high level of teamwork in order to accomplish specific tasks and overcome challenges as presented to them during the evacuation component of this exercise.

Recommendation:

1. HCCC administration should continue team building activities that encourage healthcare workers to cooperate during all shifts. High levels of employee confidence and the ability of healthcare workers to problem solve in a constructive manner will ultimately prove beneficial to HCCC's residents during emergency events.

Observation: Strength HCCC's Administrator leveraged existing MOU/MOAs with "in kind" receiving facilities to accept residents in case of evacuation.

Recommendation:

1. Previous exercises identified gaps in the number of potential beds that should be maintained as part of HCCC's emergency management plan. These issues were addressed; however, HCCC's Administrator should review existing MOU/MOAs to ensure that these are validated on a yearly basis and expand them as deemed necessary.

Observation: Area of Improvement Although HCCC staff were familiar with the use of the front foyer area as an evacuation staging and triage area, they appeared unfamiliar with the prioritization process as related to patient triage. HCCC patients were not effectively triaged by priority of evacuation and were comingled within the triage area. The triage area was not effectively organized and at times, the means of egress out of the fire/smoke impacted area was blocked.

Recommendation:

1. The triage area should be divided into "quadrants" based on triage assessments (uninjured, minor, delayed, and immediate) for prioritization of residents requiring transport to the hospital or other healthcare facility. Clear patient care assignments should be designated for healthcare workers upon reporting to triage area.
2. Provide additional education and training on emergency triage of residents and the universal use of the New Jersey Disaster Triage tag system.

Observation: Area of Improvement Some medical conditions presented during the scenario were not promptly recognized and basic clinical interventions were not appropriate given the illnesses/injuries presented by the human patient simulators. For example, HCCC healthcare workers initiated cardiopulmonary resuscitation (CPR) on a patient simulator who complained of

“difficultly breathing”, critical burns were overlooked, and a cervical collar was applied to a patient simulator in the incorrect manner. At least some of these findings may be attributed to unfamiliarity with the human patient simulators. However, this does not negate the importance of recognizing that basic first aid and triage principles were not consistently met throughout the duration of the evacuation component of the exercise.

Recommendation:

1. Employees should be provided with education on basic first aid to include proper airway management, spinal immobilization, CPR. Access to spinal immobilization equipment should be provided within the immediate triage area.
2. HCCC healthcare workers should be provided with American Heart Association Healthcare Provider BLS Refresher Course.

Observation: Area of Improvement During the resident elopement component of the exercise, residents who had been previously evacuated into the triage area were left on their own and were not attended to by healthcare workers at all times.



Recommendation:

1. HCCC Administrators should review and update their current elopement policy, plans and procedures to ensure that residents can be effectively accounted for at all times during an emergency event while ensuring concurrently that prioritization of care is ensured for those residents having the highest acuity levels. Residents staged for evacuation within the established triage area must be attended at all times.

Observation: Area of Improvement Although newly purchased items such as Resident Evacuation Documents (RED envelopes) were utilized effectively to ensure accurate and efficient transport of items such as medical records and patient medicines, equipment that might be essential to ease evacuation procedures and/or ensure continuity of medical care was not readily available within the triage area.

Recommendation:

1. Items such as a “crash cart”, AED, cervical collars, flashlights and handheld radios should be readily available within the triage area when evacuation procedures are executed. These materials should be inventoried and staged in a pre-designated area that provides ease of access by all personnel if needed.

Observation: Area of Improvement HCCC healthcare workers did not utilize specific visual designators to indicate that they had searched all potentially affected resident rooms. This observation could be a result of unfamiliarity with the newly created “900 Wing” a necessary artificiality created for the exercise.

Recommendation:

1. HCCC Administration should review the facility policies and procedures that have been established to ensure that resident rooms have been completely evacuated during a fire or other emergency event and review with all employees.

Capability 2: Medical Surge (Robert Wood Johnson Hospital - RWJH)

Capability Summary: Medical Surge is the capability to rapidly expand the capacity of the existing healthcare system in order to provide triage and subsequent medical care. This includes providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications. The capability applies to an event resulting in a number or type of patients that overwhelm the day-to-day acute-care medical capacity. Medical Surge is defined as the rapid expansion of the capacity of the existing healthcare system in response to an event that results in increased need of personnel (clinical and non-clinical), support functions (laboratories and radiological), physical space (beds, alternate care facilities) and logistical support (clinical and non-clinical equipment and supplies).



Activity: Hospital Medical Surge/MCI plan was implemented.

Observation: Strength Delivery of patient care was prompt and appropriate to the level of care required. Consults were placed for medical burn specialists, respiratory therapists, as

well as, additional in-house nurses and physicians.

Recommendation:

1. NA

Activity: Provide treatment appropriate to the nature of the incident and number of injured/ill.

Observation: Strength Upon initiation of Code Triage/MCI, additional staff from other departments (security, maintenance, housekeeping) responded to the emergency room to support delivery of medical care.

Recommendation:

1. Although additional staff did respond to the overhead paging system, there was a delay in response by the hospital medical officer and some inpatient personnel were not provided with prompt direction for response tasks. Additionally, it was not always clear who was in charge of emergency room operations since the command and control structure within the emergency room was merely verbalized to personnel. Incident Command System vests could allow outside agencies to quickly identify key personnel in charge of medical surge within the ER until the hospital EOC is activated.

Activity: During emergency response, the hospital monitors resource mobilization and asset allocation, including equipment, supplies, PPE and transportation.

Observation: Area of Improvement Emergency room personnel indicated that there was only one (1) burn pack available within the emergency room (although additional units are available within central supply). Additionally, emergency room staff found that suction canisters were missing within some of the emergency rooms as were patient information such as medical records transferred from HCCC. Emergency room staff did not review triage tags, were not all aware of their purpose and did not recognize that these tags remain part of the patients hospital records.

Recommendation:

1. RWJH should evaluate the need to maintain additional burn packs within the emergency room and should determine where additional suction canisters should be installed within specific rooms where they currently do not exist.
2. Whenever possible, healthcare facilities should ensure that as much patient information as possible is transported directly with the patient. Moreover, triage tags may provide valuable information collected during evacuations that could influence patient treatment and should be reviewed upon patient entry into the facility. This issue would be of greater importance during a mass casualty incident with large numbers of patients or when patients were not able to communicate with caregivers.

Capability 3: Incident Management (HCCC)

Capability Summary: Onsite incident management is the capability to effectively direct and control incident management activities by using the Nursing Home Incident Command System (NHICS) consistent with the National Incident Management System (NIMS).

Activity: An Incident Command Post is clearly established and equipped with processes and/or technologies to maintain accountability of deployed resources and personnel

Observation: Strength The HCCC Administrator's office was established as an Incident Command Post, but this was not clearly recognized until the Administrator arrived onsite. The Administrator's office is provided with computer technology that allows many areas of the facility to be monitored remotely; however, it was not evident if the Administrator's office is powered via the emergency generator. The front entrance to the HCCC facility was effectively secured to restrict access into/out of the building.

Recommendations:

1. The Administrator's office or other safe location should be clearly denoted as an Incident Command Post (ICP) for first responders and other personnel who may report to the facility.
2. HCCC should determine if the HCCC Administrator's office is covered by emergency power in the event of power outage, establish pre-designated alternate ICP that is powered by electrical generator, and ensure that an alternate ICP location is designated within facility emergency management plan.

Activity: Establish the command structure to manage the incident and meet objectives. Personnel have had experience (e.g., through exercises) in activating and implementing onsite incident command operations.



Observation: Area of Improvement Upon recognition of the initial “fire” event, the incident priority of “life safety” was clearly understood by all HCCC response personnel; however, the initial Incident Commander did not assign roles and responsibilities to general staff and was observed moving throughout the incident scene, delivering oxygen and other

medical supplies. Further into the event, an incident action plan (ICP), to establish and document incident goals and objectives had not developed in coordination with outside response agencies.

Recommendations:

1. Players should review previous HSEEP After Action Reports/Improvement Plans from exercises that they have participated in as many of the issues identified during previous full scales exercises were found to be problematic during this exercise.
2. HCCC employees should become familiar with job action sheets specific to ICS positions that will clearly identify tasks to be completed across various operational periods.
3. HCCC should explore the viability of their decision not to transfer command from the initially designated Incident Commander to the facility administrator upon his arrival as some staff may not be comfortable with providing operational directives to the administrator.
4. The HCCC Incident Commander should establish incident priorities and objectives and ensure that these are properly communicated to all response personnel in a timely manner.

Capability 3: Incident Management (RWJH)

Capability Summary: Onsite incident management is the capability to effectively direct and control incident management activities by using the Nursing Home Incident Command System (NHICS) consistent with the National Incident Management System (NIMS).

Activity: Establish the command structure to manage the incident and meet objectives. Personnel have had experience (e.g., through exercises) in activating and implementing onsite incident command operations.



Observation: Area of Improvement RWJH emergency room personnel participated in command and control roles in which they were not familiar. Off-shift employees should

become familiar with job action sheets specific to ICS positions that will clearly identify tasks to be completed and there should be a more clear delineation of roles of between charge & triage nursing.

Recommendation:

1. Additional HICS training is suggested as well as, development of hospital specific triggers related to the activation of HICS during emergency events. More RWJH employees should become familiar with job action sheets specific to the hospital ICS (HICS) positions. These job action sheets will clearly identify tasks to be completed across various operational periods. Although Command Staff positions within the HCIC had not been activated, the establishment of the Nursing Unit Leader and Patient Tracking Officer positions within the HICS may have been appropriate to ensure more efficient tracking of patient arrivals, location, and disposition if the event had expanded to a true MCI.

Capability 4: Communications (RWJH / HCCC)

Capability Summary: Communications is the fundamental capability within disciplines and jurisdictions that practitioners need to perform the most routine and basic elements of their job functions. Agencies must be operable, meaning they possess sufficient wireless communications capabilities to meet their daily internal and emergency communication requirements before they focus on interoperability.



Activity: Use established response communications language to ensure information dissemination is timely, clear, acknowledged, and understood by all receivers.

Observation: Strength Internal communications were established during response using common language (i.e. plain English) to ensure information was clear, acknowledged, and understood by receivers. Correct terminology was used by all personnel involved in response.

Recommendation: NA

Activity: Percent of communications sent and received that are completely understood without ambiguity by the sender or the intended receiver (90%).

Observation: **Strength** Handheld radios were readily available during the event, however, the vast amount of communications throughout the event were achieved verbally person-to-person. Healthcare workers within both facilities communicated well to achieve response goals. RWJH initiated communications with outside agencies such as EMS and St. Barnabas Burn Center (via SIMCELL). Overhead paging systems within both player facilities were used effectively to announce initial emergency situation (Code Red & Code Triage/MCI) and employees within both facilities responded as designated in policy.

Recommendation: NA

SECTION 4: CONCLUSION

The Project ESCAPE full scale exercise proved successful as a means of educating participants about the importance of exercising their internal plans, procedures and protocols in response to a emergency event requiring long term care facility evacuation. Moreover, this exercise provided the opportunity for healthcare workers from the long term care and acute care settings within the Central West Medical Coordination Center Region to collaborate exercise project. This After Action Report and the completion of the enclosed Improvement Plan are contingent upon partnerships that we will seek to expand upon on both a regional and statewide basis.

The Improvement Plan enclosed herein focuses on three primary capability elements including:

- ***Training/Education*** – program development to educate and train healthcare workers
- ***Planning*** – Refinement of existing emergency plans to address identified gaps
- ***Equip*** – Purchase of additional hospital medical surge supplies within ER

The success of public health emergency preparedness across the Central West Medical Coordination Center Region hinges on active participation and the continued development of healthcare coalitions across the healthcare continuum, so that the region can assist our stakeholders in preparing for, responding to, and recovering from emergencies that impact their facilities. It is the responsibility of each participating organization to reflect on the analyses and recommendations contained herein and to further develop improvements to their own emergency management plans.

APPENDIX A: IMPROVEMENT PLAN

This Improvement Plan has been developed as a result of the Project ESCAPE full scale exercise conducted on April 26, 2012. These recommendations draw on issues identified during the player hot wash and evaluator EEGs.

Table A.1 *Improvement Plan Matrix*

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
Evacuation	HCCC triage area appeared chaotic and resulted in diminished levels of basic clinical intervention	HCCC should “map” and organize their triage area in quadrants that are congruent with New Jersey Disaster Triage Tag designations and should provide CPR, AED and basic first aid refresher training for staff	Augment employee training and education	Training	HCCC	DeCampe	5/29/12	9/1/12
Evacuation	HCCC evacuees within the triage area were left on their own and were not attended to by healthcare workers at all times.	HCCC should review current policies and procedures related to resident elopement procedures and establishment of triage area	Augment employee training and education	Training	HCCC	DeCampe	5/29/12	6/30/12

Evacuation & Medical Surge	Healthcare workers within both player facilities were not familiar with the function and purpose of the NJ Disaster Triage Tags	Provide additional education and training on emergency triaging of residents and the universal use of the New Jersey Disaster Triage tag system.	Augment employee training and education	Training	HCCC RWJ	DeCampe Gordon	5/29/12	9/1/12
Evacuation	Inconsistent use of New Jersey Healthcare Emergency Codes – Code Gray was not initiated during resident elopement	HCCC staff should be provided with refresher training on proper use and NJ Healthcare Emergency Code designations	Augment internal employee training and education	Training	HCCC	DeCampe	5/29/12	6/30/12

Medical Surge	Sufficient number of burn packs and suction canisters were not readily available within all RWJ's ER	Evaluate the need to maintain additional burn packs within the emergency room and determine where additional suction canisters should be installed within specific rooms where they currently do not exist.	Evaluate current surge supplies and ER patient rooms	Equip	RWJ	Gordon	5/29/12	9/1/12
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On Site Incident Management	HCCC healthcare workers did not establish “ EVACUATED ” room checks according to internal policy	Provide HCCC staff with training and education on the use of a visual means of delineating that resident rooms have been effectively evacuated	Augment internal employee education and training	Training	HCCC	DeCampe	5/29/12	6/30/12
On Site Incident Management	Clearly denoted central point of command or “Incident Command Post” was never established at HCCC	HCCC emergency management plan should designate specific “ideal” locations that might be used during an emergency (including inside resident triage areas) depending on the scope of the incident	Revise plans to corporate maps and visual indicators ideal locations for Incident Command Posts. Evaluate current emergency generator capability	Planning	HCCC	DeCampe	5/29/12	9/1/12
On Site Incident Management	Portions of the ISC were not operationalized effectively during emergency response	Healthcare workers require additional training and education on the Incident Command System (ICS) to become more familiar with its proper use during events via Job Action Sheets	Continue to promote ICS within healthcare organizations and market accessibility via online FEMA Independent Study website. Provide Job Action Sheets consistent with NHICS and HICS	Training	HCCC/RWJ	DeCampe Gordon	5/29/12	9/1/12

