After Action Report

Photo courtesy of Dr. Paul Zeveruha

Shake, Rattle and Roll 2011

Region 1 Healthcare Coalition

HANDLING INSTRUCTIONS

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3. For more information about the exercise, please consult the following points of contact (POCs):

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Security Classification

Concerns are often expressed about the potential that a comprehensive and well-documented evaluation to identify vulnerabilities could be used by the media to criticize the participating agencies, departments or organizations or worse, help potential terrorists plan an attack. Agencies need the ability to discuss areas for improvement and actions that they plan to take without concern that the information carries political or operational risks.

Therefore, this After Action Report (AAR) and Improvement Plan (IP) matrix are classified as "For Official Use Only." This document shall be accounted for and disposed of by shredding. Distribution beyond participant departments, organizations and agencies is prohibited without written consent from the Healthcare Region 1 Exercise and Training Committee.

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SECTION 1: EXECUTIVE SUMMARY

On May 18, 2011, the Region 1 Healthcare Coalition conducted a functional exercise, Shake, Rattle and Roll 2011. The purpose of the exercise was to test the regions ability to respond to an earthquake, and to set up an alternate care facility (ACF) to house patients evacuated from damaged hospitals. The exercise required agencies from all over the region to come together and work as a team. This included hospitals, public health agencies, emergency management, and various community partners. The Snohomish Health District had just completed an ACF plan which was tested for the first time during this exercise. This exercise also tested, for the first time, Region 1's ability to set up an ACF away from an existing hospital. The ACF was set up at the Arlington Airport, in a field next to the old runway.

Major issues this exercise brought up included where to find staffing to assist in hospital evacuations and staffing an ACF, and communications with the ACF, area hospitals, bed control, and Snohomish County ESF 8. The Medical Reserve Corps provided an invaluable resource for staffing for the ACF. The Tulalip Tribe Medical Reserve Corps also provided needed tents for use at the ACF. One of the main points for this exercise was to set up an ACF at the Arlington Airport using surge tents from 4 hospitals within the region. ARES/RACES provided much needed communications support throughout the exercise. This enabled communications between the ACF site and some hospitals and partners within the region.

Based on the exercise planning team's deliberations, the following objectives were developed for Shake, Rattle and Roll 2011

- Objective 1: Demonstrate the ability to establish multiple points of communication.
- Objective 2: Determine ACF communications process with ESF 8 desk and hospitals
- Objective 3: Demonstrate the ability to acquire resources to set up an ACF
- Objective 4: Demonstrate the ability to activate the Medical Reserve Corps units in Region 1 for ACF staffing
- Objective 5: Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
- Objective 6: Identify ways to manage the disposition of multiple fatalities region wide
- Objective 7: Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
- Objective 8: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
- Objective 9: Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)
- Objective 10: Demonstrate the ability Region wide to track 50 patients or more from point of collection to point of definitive care
- Objective 11: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Center's

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

1.1 Major Strengths

The major strengths identified during this exercise are as follows:

- The ability of the Region 1 Healthcare Coalition to establish a fully operational Alternate Care Facility at the Arlington Airport. The Region was able to produce 4 surge tents, and Medical Reserve Corps volunteers for staffing of an Alternate Care Facility away from any other hospital or healthcare facility.
- Jurisdictions were able come up with identified gaps during the evaluation phase of the exercise that will help categorize future regional training and exercises.
- Large number of participating agencies. Agencies outside of the healthcare coalition were encouraged to participate (i.e. Homeland Security, Civil Support Team, private ambulance, State DOH, Emergency Management)
- The Healthcare Coalition was able to utilize regional equipment.
- The Coordination of Staffing from M.R.C. to staff ACF Operations.
- DMCC set up and staffed at St Josephs for the 1st time (process, planning, and education)
- Hospital evacuations took place successfully
- ACF supplies were moved without incident

1.2 Successes

- First Regional Healthcare Coalition functional exercise
- First attempt at setting up an Alternate Care Facility (ACF)
- DMCC set up and staffed at St Josephs for the 1st time (process, planning, and education)
    - Created ICS structure for DMCC aspect outside of St Josephs ICS structure
    - Need boards, contact numbers, staff training
- First time ARES/RACES met on a regional basis.
- Safety was always maintained at the ACF. (however tent entrances need to be examined to look out for tripping hazards)
- Hospital evacuations took place successfully
    - Patient movement
    - Staging
    - Transport
- ACF supplies were moved without incident

1.3 Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in Region 1 ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Identified need to have a DMCC plan. (Identification, communications, training, checklists)
- Need for training on WATRac. Use of command boards, etc.
  - Use of all features that could be used during a disaster.
  - Need to understand it is web-based and not software based (listing of staff who have passwords/access)
  - How will resource page be used, input/staff time. How to get this to match Regional Resource list?
- Inability to track patients. Forms made it to ACF, but then didn't get sent out from the ACF to receiving hospitals or DMCC
  - Patients were tracked using the # on wrist bands
  - Possible solution – Computer on Wheels (COW). Skagit Valley hosp has a tracking form that could be used
- Development of a Regional Communication Plan between the 5 counties and the multi disciplines represented at the exercise.
- Improve the communications processes between the Hospitals, clinics, the County Emergency Operations Centers and the Regional Bed Control distribution network.

SECTION 2: EXERCISE OVERVIEW

2.1 Exercise Details

Exercise Name

Shake Rattle and Roll 2011

Type of Exercise

Functional

Exercise Start Date

May 18, 2011

Exercise End Date

May 18, 2011

Duration

7:00 am through 4:00 pm

Location

Various locations in Island, San Juan, Skagit, Snohomish and Whatcom Counties.

Sponsor

Region 1 Healthcare Coalition

Program

ASPR 10/11

Capabilities

Medical Surge
Communication
Emergency Triage and Pre-Hospital Treatment
Medical Supplies Management and Distribution
Fatality Management

ASPR deliverables

Interoperable Communications
ESAR/VHP
Partnership Coalition
Alternate Care Facility Planning
Fatality Management
Tracking of Bed Availability.

Scenario Type

7.5 Earthquake on the South Whidbey Fault.

2.2 Exercise Planning Team Leadership

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2.3 Participating Organizations

Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, St Joseph's, Cascade Valley,

Valley General, Providence Everett, Swedish- Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

Participating agencies and private sector groups supplementing the hospitals include:

- Airlift Northwest
- American Medical Response Ambulance
- ARES/RACES for Island, Snohomish, Skagit and Whatcom Counties
- Arlington Fire Department
- Bowman Manufacturing Company, Inc
- Cascade Ambulance
- Cascade Valley Smokey Point Clinic
- Cascade Valley Hospital
- City of Arlington
- Island Hospital
- Island County Public Health
- Northwest Ambulance
- North Region EMS and Trauma Care Council
- Providence Regional Medical Center
- Public Health Seattle-King County
- Rural Metro Ambulance
- San Juan Health and Community Services
- Skagit County Public Health Department
- Skagit Valley Hospital
- Snohomish and Skagit County Emergency Management
- Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
- Snohomish Health District
- St Joseph Hospital
- Swedish Edmonds Hospital
- Tulalip Tribe Medical Reserve Corps
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

2.4 Number of Participants from Your Organization

- Players: 200
- Controllers: 10
- Evaluators: 5
- Observers: 5
- Simulation Cell: 5
- Victim Role Players: 54

SECTION 3: EXERCISE DESIGN SUMMARY

The Region 1 Healthcare Coalition solicited regional partners for the design team. The design team was comprised of public health, hospital, medical reserve corps, emergency medical services, and emergency management representatives. The design team worked over a period of 9 months developing the scenario, MSEL that would allow all agencies within region 1 to actively participate in a response to an earthquake and subsequent need for an ACF. This exercise also provided the region the ability to test the new ACF plan created by the Snohomish Health Department. Along with overarching objectives, each participating agency provided objectives specific to their agency.

Exercise Purpose and Design

Shake, Rattle and Roll is the 2nd in a series of three exercises based around an earthquake scenario. This exercise built on Shake, Rattle and Blow a tabletop exercise held in April 2010. The current exercise took into consideration the improvement plan from the previous exercise and implemented key pieces to further test the regional capacity. This exercise was organized through the Region 1 Healthcare Coalition training and exercise sub-committee, and funded through the 2010/2011 ASPR grant.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- **Objective 1:** Demonstrate the ability to establish multiple points of communication
  - Capability: Communications
    - Activity: Alert and Dispatch
  - ASPR Deliverable: Interoperable Communications
- **Objective 2:** Determine ACF Communications process with ESF 8 desk and hospitals
  - Capability: Communications
    - Activity: Provide incident command/first responders/first receiver/interoperable communications
  - ASPR Deliverable: Interoperable Communications
- **Objective 3:** Demonstrate the ability to acquire resources to set up an ACF

- Capability: Medical Supplies Management and Distribution
  - Activity: Direct medical supplies management and distribution tactical operations
  - Activity: Activate medical supplies management and distribution
- ASPR Deliverable: Alternate Care Facility Planning

- **Objective 4:** Demonstrate the ability to activate the Medical Reserve Corps unties in Region 1 for ACF staffing
  - Capability: Medical Surge
    - Activity: Activate Medical Surge
  - ASPR Deliverable: Alternate Care Facility Planning
- **Objective 5:** Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
  - Capability: Medical Surge
    - Activity: Activate Medical Surge
  - ASPR Deliverable: ESAR/VHP

Due to circumstances outside the control of the Region 1 Healthcare Coalition, this objective was not met. As of May 2011 ESAR/VHP was unavailable for use.

- **Objective 6:** Identify ways to manage the disposition of multiple fatalities region wide
  - Capability: Fatality Management
    - Activity: Develop and maintain plans, procedures, programs, and systems
  - ASPR Deliverable: Fatality Management
- **Objective 7:** Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
  - Capability: Medical Surge
    - Activity: Implement surge patient transfer procedures
  - ASPR Deliverable: Tracking of Bed Availability
- **Objective 8:** Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
  - Capability: Medical Surge
    - Activity: Activate Medical Surge
  - ASPR Deliverable: Tracking of Bed Availability
- **Objective 9:** Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)
  - Capability: Communications
    - Activity: Alert and Dispatch
  - ASPR Deliverable: Interoperable Communications

- **Objective 10:** Demonstrate the ability region wide to track 50 patients or more from point of collection to point of definitive care
  - Capability: Medical Surge
    - Activity: Implement surge patient transfer procedures
  - ASPR Deliverable: Tracking of Bed Availability
- **Objective 11:** Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Center's
  - Capability: Communications
    - Activity: Provide assistance to regional hospitals for transferring patients, staff, and equipment.
  - ASPR Deliverable: Interoperable Communications

Scenario Summary

This exercise is based around a 7.5 magnitude earthquake along the South Whidbey Fault line. The epicenter is on the South Whidbey Fault, 2 miles southeast of Mukilteo. This fault is believed to stretch 250-300 miles from Victoria BC to Yakima crossing the Cascade Mountains. The South Whidbey fault is shallow, running beneath Mukilteo and southeast to Woodinville. An earthquake of this size is capable of causing serious damage over a large area.

In addition to the earthquake, Cascade Valley Hospital will also have the added pressure of dealing with a chemical incident. A member of a local terrorist group the "Washingtonians Against All People", is in the process of trying to release Sarin when he is injured in the earthquake. The individual is brought to Cascade Valley Hospital where the chemical is found spilling out of a vial. This necessitates the evacuation of the hospital. These patients will be sent to the Alternate Care Facility set up at the Arlington Airport.

Cultural Observations

The Region 1 Healthcare Coalition was able to obtain two observers from the community who focused on cultural issues related to this exercise. Cultural competency was not a specific goal of this exercise, however the observers provided some good insights for the region as a whole to consider when a real event or future exercises take place. Below are a few of the observations made during the exercise:

- There are various Muslim Communities; this is especially true for north Everett. Hospitals and public health agencies should consider how they would work with women who wore various degrees of covering. Cultural issues may arise for Muslim women who wear a full Burka and could only be examined by other women. In an Alternate Care Facility environment this may pose a challenge.
- During an event or exercise it may be beneficial to have a way to mark which victims did not speak English. During the exercise this could have been done using the white boards

that were in each ACF tent. It may also be beneficial to have information within the ACF plan about how to reach interpreter services within the community.

- An observation was made that while the victims were be escorted from the ambulance to the ACF tent often times the staff would place a hand on the persons back or elbow. It should be noted that this may not be acceptable in all cultures. Volunteers and staff should be informed prior to the start of operations to always ask if it is ok to touch someone. It is understood that at certain times a person will need to be assisted and touching is unavoidable.

SECTION 4: 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 Shake, Rattle and Roll 2011 are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

Shake, Rattle and Roll tested the following Homeland Security Target Capabilities:

Capability 1: Communications

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 must have sufficient wireless communications to meet their everyday internal and emergency communication requirements before they place value on being interoperable, i.e., able to work with other agencies.

Capability 2: Medical Surge

Medical surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternative care facilities and public health departments) in order to provide triage and subsequent medical care. For the purposes of this exercise, medical surge is the capability to set up and staff an Alternate Care Facility within the Region.

Capability 3: Emergency Triage and Pre-Hospital Treatment

Emergency Triage and Pre-Hospital Treatment is the capability to appropriately dispatch emergency medical services (EMS) resources; to provide feasible, suitable, and medically acceptable pre-hospital triage and treatment of patients; to provide transport as well as medical care en-route to an appropriate receiving facility; and to track patients to a treatment facility.

Capability 4: Medical Supplies Management and Distribution

Medical Supplies Management and Distribution is the capability to procure and maintain pharmaceuticals and medical materials prior to an incident and to transport, distribute, and track these materials during an incident.

Capability 5: Fatality Management

For the purposes of this exercise, fatality management will be the capability to store the deceased in an appropriate manner until the medical examiner/coroner is able to take custody of the deceased.

Hospital Evacuation

Activity 1.1: Evacuate 4 Snohomish County Hospitals

Observation Strength**:** 4 Snohomish County Hospitals were evacuated in a timely manner and without injury to patients or staff

Observation Strength: Sleds and Stryker chairs worked extremely well to evacuate patients down stairs. One item to note the Stryker chairs do require a little extra man power.

Observation Strength: Swedish Edmonds Hospital, Providence Regional Medical Center, Valley General Hospital, and Cascade Hospital were able to successfully activate their EOC and evacuation plans.

Observation Improvement opportunity**:** There was not enough explanation of how to use the triplicate patient tracking form, and the 1 page patient transfer form.

Analysis: Prior to the start of the exercise hospital staff were not provided education on how and when to fill out the triplicate patient tracking form, and the 1 page patient transfer form.

Recommendations: A training on how to complete these forms may need to be held once the Russell Phillips project is complete and forms have been reviewed.

It may be that filling out the triplicate patient tracking form and 1 page patient transfer form needs to be assigned to a specific person, or added to a job action sheet.

Alternate Care Facility

Reference: Snohomish County ACF Plan

Activity 1.1: Activate Alternate Care Facility Plan by the Snohomish Health District

Observation Improvement opportunity**:** Clarification of who has the authority to authorize an Alternate Care Facility, and clarification on the term "Regional ACF"

Analysis: During the planning of the exercise and during the exercise it because clear that Region 1 needs to provide education to all partners on who has the authority to authorize an Alternate Care Facility. In addition a few people kept referring to a "Regional ACF" this term is confusing for some people since there is no "Regional" authority or governing body. Each county Health Officer has the authority to stand up an ACF, but they cannot request one in another county.

Recommendations: Review ACF plan for each county and provide training opportunities for healthcare and response partners.

Activity 1.2: Set up Alternative Care Facility

Observation Improvement opportunity**:** The role of ESF 8 and the Disaster Medical Coordination Center (DMCC) needs to be clarified

Analysis: During the exercise there were times when the Snohomish County ESF 8 was unclear as to what responsibilities they had for the set up of the alternate care facility. In addition, the DMCC staff at times were unclear what areas of the ACF set up were their responsibility

Recommendations: Each county public health agency should work with the two bed control hospitals (Providence Regional Medical Center and St Josephs Hospital) to delineate which tasks would fall to each agency.

Observation Improvement opportunity: An organizational structure needs to be created for the ACF.

Analysis: During the exercise an incident command structure was not set up at the ACF site. This was due to the fact that the ACF plan had not been shared with the Medical Director prior to the start of the exercise. The Snohomish County ACF plan does list an ACF structure, however this information was not provided onsite. In addition, there was some confusion as to who was actually in charge of the ACF site.

An additional point is the need to clarify who will take on medical direction of the ACF site. This person will need to be extremely familiar with both the medical field and incident command.

Recommendations: Prior to the activation of an ACF site whomever will be taking on medical direction should be provided with a copy of the Snohomish County ACF plan, and given any necessary documents to properly set up onsite incident command system.

An educational opportunity should also be created for response and healthcare partners within the region. This educational opportunity should cover any completed county ACF plan. This could help to alleviate confusion during an actual event or future exercises.

Local public health agencies should continue to work with the medical community to determine who has the skills and resources to assume medical direction of an ACF.

Observation Strength: Hospitals within Region 1 were able to bring surge trailers to the ACF site and set up surge tents.

Observation Improvement opportunity: The regional healthcare coalition or each individual public health jurisdiction needs to determine how supplies will be acquired for the set up of an ACF.

Analysis: during the exercise there was some confusion over which agency was responsible for obtaining supplies for the ACF. Some thought that ESF 8 should take on this task, while others thought that the DMCC should be requesting supplies from area hospitals.

Recommendation: A workshop or meeting may need to be held in each county with public health, hospitals, and emergency management agencies to determine the best methods for requesting and allocating regional resources.

Activity 1.3: Operate an ACF at the Arlington Airport.

Observation Strength**:** the Medical Reserve Corps Units within Region 1 were able to respond to the ACF site and provide medical triage to arriving patients.

Observation Improvement opportunity: Job action sheets need to be shared with Medical Reserve Corps staff so that they can begin to identify volunteers who have the skills needed, and to begin training volunteers on what will be expected at an ACF.

Analysis: Prior to the exercise the MRC units asked for job action sheets for the ACF so that they could pre-determine volunteers who would be appropriate for the ACF.

Recommendations: Create job action sheets, and share with MRC units in Region 1.

Observation Improvement opportunity: a region or county wide credentialing of staff is highly recommended.

Analysis: The region needs a way to quickly identify staff who have medical skills or skills to support an Alternate Care Facility.

Recommendations: It was suggested during the exercise debrief to investigate the creation of a regional credential card possibly using the Salamander system.

Communications

Activity 1.1: Set up multiple methods of communication

Observation Improvement opportunity: WATrac did not provide a method of communication as was thought prior to the exercise.

Analysis: The day of the exercise numerous hospitals attempted to use WATrac to send and post messages. However, for some reason these messages were not visible to all participants. Providence Regional Medical Center created a command center board but no one else in the region was able to see or access the board. Providence Hospital also attempted to transfer bed control using WATrac however St Josephs Hospital did not receive that information.

Recommendations: Additional training on the use of WATrac is needed within the region to ensure that it becomes a usable tool that all hospitals feel comfortable using. Also, information on what features are active on the DEMO site may also be needed.

The Region may need to determine which agencies other than hospitals should have access to WATrac to monitor message traffic. This could be a tool for Emergency Management to have situational awareness.

Observation Strength: ARES/RACES were able to provide communication support at area hospitals and at the ACF site.

Observation Improvement opportunity: Additional communications staff were needed at the Snohomish DEM to accommodate all of the methods of communication that were used.

Analysis: Multiple forms of communications were utilized during the exercise. Only one person monitored every communications tool---HAM, 800 mHz, and phones. He did not have back-up during the exercise, making it difficult to monitor all communications. ESF8 communications with partners was conducted primarily by phone. Communications with Region 1 Bed Control did not occur. No communication between hospitals and ESF8 occurred related to the number of deceased. There was no direct communication between ESF8 and Arlington Emergency Operations Center. The Health Officer attempted to send a SECURES alert to the other health officers in Region 1, but this task was unsuccessful.

Recommendations: Assign 800 MHz radio to the ESF 8 representative at the Snohomish DEM. Additionally, ESF 8 personnel should have a listing of direct phone numbers assigned for communications.

Observation Improvement opportunity: Snohomish Health District staff need additional training on how to send out SECURES alerts.

Analysis: ESF 8 representatives at Snohomish DEM were not familiar with the procedure to send out a WA SECURES alert, and were unsuccessful in their attempt to send an alert.

Recommendation: Ensure staff is routinely trained on how to send a WA SECURES alert and test the system quarterly to maintain skills

Observation Strength: The Snohomish Health District was able to communicate via phone with the other four health officers in Region 1 and with Public Health Seattle King County to provide situational awareness

Observation Improvement opportunity: The Snohomish Health District did not fully communicate needs to activate the regional Mutual Aid Agreement (MAA).

Analysis: The Snohomish Health District was able to contact the other four health jurisdiction within Region 1 and Public Health Seattle King County, however the Health Officer did not ask for support for Snohomish County so the MAA was unable to be fully tested between the counties. A list of needed supplies may have aided activating the MAA.

Recommendations: Re-test the MAA through a drill in the future, to include other Snohomish Health District staff to provide a learning experience beyond the Health Officer.

Bed Control and Patient Tracking

Activity 1.1: Update WATrac within 30 minutes of event

Observations Improvement opportunity**:** This event was unsuccessful at many hospitals

Analysis: A few of the exercise evaluators noted that in some cases WATrac was brought up but then no one monitored the system, and in some cases the hospital staff were busy with patient care and WATrac was not forefront on their minds to update.

Recommendations: Additional training for unit clerks/supervisors regarding how and when to update WATrac.

Activity 1.2: Track patients from point of collection to point of definitive care

Observation Improvement opportunity**:** Patients ended up being tracked using 800 MHz radios and ARES/RACES.

Analysis: During the exercise each hospital was supposed to complete a 1 page patient transfer/movement form and fax it to the DMCC (or send it via Amateur Radio). The DMCC would then have an idea of how many patients were being evacuated to the Alternate Care Facility.

Once the patients arrived at the Alternate Care Facility another 1 page patient transfer/movement form should have been filled out and sent to the DMCC. The DMCC would then provide the Alternate Care Facility with information on where to send each patient.

Recommendations: Hospital staff and volunteer staff need to be educated on the use of the 1 page patient transfer/movement form.

ARES/RACES staff should be provided a copy of the 1 page patient transfer/movement form so they can practice sending the information via amateur radio.

Observation Improvement opportunity: Need to determine a way to designate if a patient is coming into an ACF from a hospital, a clinic, or from the field.

Analysis: During the exercise patients were brought to the ACF from 4 area hospitals and from 1 clinic. Once the patients were dropped off there was no way to identify where they had come from. Everyone had on the same wrist band regardless of if they came from a hospital or clinic. A method or system needs to be set up at the ACF site to identify where patients came from. This will be important for those doing triage, if a patient is coming from a hospital they may not require as much triage as someone coming directly from the field.

Recommendations: The Healthcare Coalition should work with community partners to determine a method for tracking and identifying patients once they arrive at the Alternate Care Facility.

Mass Fatality

Activity 1.1: Determine where deceased individuals could be stored within a facility

Observations Strength**:** The majority of hospitals within the region were able to identify additional morgue space either within their hospital, or outside of their hospital using refrigerated trucks.

Recommendations: The Region 1 Healthcare Coalition should continue to work on mass fatality planning with the Medical Examiners/Coroners/Prosecuting Attorney Coroners within the region.

The region should also continue to work on increasing capacity for mass fatalities

Hospital Surge

Activity 1.1: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans

Observations Strength**:** The four receiving hospitals within the region were able to activate their surge plans and prepare to accept surge patients from the Alternate Care Facility.

Observations Strength: One hospital within the region was able to utilize their surge tent to accept patients from the Alternate Care Facility.

SECTION 5: CONCLUSION

Shake, Rattle and Roll 2011 provided an opportunity for the Region 1 Healthcare Coalition and community partners to test their ability to respond to an earthquake along the South Whidbey Fault. This functional exercise provided the venue to test hospital evacuation and surge, and the regions ability to set up, staff and operate an Alternate Care Facility. This exercise was complex in nature and tested some plans and procedures for the first time. This exercise provided an opportunity for public health agencies, hospitals, emergency management, ARES/RACES, and emergency medical services to work together and test out response plans.

Shake, Rattle and Roll 2011 brought to light some communication issues that the region will need to work on in the future. One of the biggest focus areas will need to be communications between hospitals, public health, emergency management and Regional Bed Control. Bed control is typically done in this region by Providence Regional Medical Center with PeaceHealth St Joseph Hospital as the backup. Communications between the Alternate Care site and St Joseph Hospital were problematic. Without ARES/RACES communications between these sites would have been minimal at best.

The Snohomish Health District learned a lot of valuable lessons regarding the setting up and operation of an Alternate Care Facility. This included the complexity of obtaining staff, equipment, and supplies for the facility. Command and Control at the Alternate Care Facility will also need to be examined as future plans are made. More education and training will be needed in the future.

Overall this exercise provided a great venue for multiple agencies and jurisdictions to practice a response to an earthquake. The lessons learned will provide great starting points for future training, planning, and exercises.

Appendix A: Improvement Plan

This IP has been developed specifically for Region 1 Healthcare Coalition as a result of Shake, Rattle and Roll 2011 conducted on May 18, 2011. These recommendations draw on both the After Action Report and the After Action Conference.

Observation	Recommendation	Assigned to	Start Date	Completion Date
There is not a standardized form for data transfer	Create a regional form for patient tracking and patient movement	Healthcare Coalition / Russell Phillips	July 1, 2011	June 30, 2012
	Provide a training opportunity for ARES/RACES group	Healthcare Coalition	July 1, 2011	June 30, 2012
There is no standard credentialing system within the region	Investigate a credentialing system that could be used by all hospitals within the region	Healthcare Coalition	July 1, 2011	June 30, 2012
Amateur radio communications between all of the hospitals in the region is problematic	Look into the purchase of a digital repeater to be placed within the region to facilitate amateur radio communications	Healthcare Coalition	July 1, 2011	June 30, 2012
The role of EFS 8 and the DMCC needs to be better delineated	A meeting between public health, hospitals, and emergency management could be held in each county to	Healthcare Coalition	July 1, 2011	June 30, 2012

	begin working on roles and responsibilities			
Lack of Command and Control at Alternate Care Facility Site	Once a county has completed an Alternate Care Facility plan a training may be set up with community partners to provide education.	Healthcare Coalition	July 1, 2011	June 30, 2012
	An organization chart and job action sheets should be shared with community partners and the Medical Reserve Corps	Healthcare Coalition	July 1, 2011	June 30, 2012
	Medical Reserve Corps volunteers to be included in any Alternate Care Facility training held within the region	Healthcare Coalition	July 1, 2011	June 30, 2012
Patient tracking forms and patient movement forms were not used correctly	A standard patient tracking form and a patient movement form should be created and disseminated to all healthcare partners in the region	Healthcare Coalition / Russell Phillips	July 1, 2011	June 30, 2012

WATrac was not utilized	Additional training on the use and features of WATrac. This training should include community partners who may use the system for situational awareness	Healthcare Coalition / WATrac staff	July 1, 2011	June 30, 2012
Community partners were not fully engaged in the exercise	Community partners need to be more actively recruited and incorporated into future exercises. This should include police, fire, emergency management, Medical Examiners, coroners, and first responders.	Healthcare Coalition	July 1, 2011	June 30, 2012

APPENDIX B: TABLETOP QUESTIONNAIRE

Cascade Valley Hospital and Clinics

1) What/how would the hospital activate after an earthquake of this magnitude?

It would depend on the time of the EQ. If during the weekday, after the earthquake a hospital administrator will call an external triage code activating the Hospital Incident Management Team to meet at the Rainer Room to set up Incident Command. The IC will assign Section Chief's who would then assign others to their section depending on the severity of the situation. Safety and Security would immediately inspect the outside of the building while inside Floor Managers or Nursing Supervisors would be checking on the "floor" status and sending a runner to with their report to the Incident Command Post.
During a nightshift the Shift Supervisor would call for the external triage and coordinate with the floor managers to check on the status of the hospital. Employees and evaluators

2) How would the hospital get their information about what is happening outside of the hospital, such as road routes, damages, etc….

As soon as possible the radios would get set up to receive and intercept information regarding the status outside of the hospital. In addition if phones were working, a staff member of the EOC is assigned to check in with all of the Clinics owned by the Hospital. These clinics are in various parts of Snohomish County and would be a good information source. Someone in the ED would be listening to the 800 Mhz radio as well as the scanner. The HEAR radio if working could be used to call other hospitals. The PIO would be checking the internet and news channels for information and route challenges. The City EOC and the Hospital EOC are connected by radio, phones and email if working. The City EOC is connected to the County EOC for additional information.

3) Discuss how the hospital will perform an evacuation of specific areas of the hospital due to damages.

The hospital staff practiced evacuating patients from the 3rd floor into the basement and into the CDU following the Hospital Evacuation Plan. The labor pool staff utilized the Striker Sleds and Chair to perform these evacuations down 3 or more floors. Our local fire department were "evaluators" in the Stairwells to make sure all was safe while conducting evacuations and the evaluations received were very favorable saying that employees were very careful of patients and watched to make sure both staff and patients were kept safe at all times. The Stairwell evacuations were conducted swiftly and methodically, communication we consistent.
The Plan had a few holes and needs more specific information regarding who and how to fill out forms necessary to go with the patients to alternate facilities.

The need for an internal horizontal evacuation also needs to be added to the current evacuation plan.

4) If the hospital was taking in large number of injuries and needs to surge, how would the hospital credential medical personnel that are available to come work in this hospital, that are not credentialed to work in the hospital currently. Where could the hospital look for additional personnel?

The hospital Incident Commander could make the call to close all of the clinics and have all of the office workers come over to the hospital to assist with surge.
It will be a little more difficult to handle medical personnel coming in from "outside" of the Cascade Hospital and Clinic System since there is no current credentialing tool in place. We could look to the hospitals and clinics in the Skagit Hospital System now that we are starting to share facilities with staff from these two systems. Eventually having an MOU/A in place with Region 1 Hospital Coalition will help with this so long as there is also some sort of web based credentialing/verification tool in place.

5) An Alternate Care Facility is being set up at the Arlington Airport to assist with the staging of patients that need to be moved out of the area. The ACF is in need of additional medical staff. How will the hospital handle the "sharing" of staff to assist at the ACF.

The hospital would not be able to send staff but could possibly release some staff from the clinics to assist with the ACF. A lot will depend on the status of the facilities and what time of day this incident happens.
If the hospital is being evacuated, we possibly could send staff to the ACF with the patients depending upon the nature of the incident occurring.

6) How will the hospital deal with transportation for staff that need assistance getting in and out of the hospital?

In the past we have asked for assistance from Snohomish County Search and Rescue who have 4-wheel drive vehicles for incidents such as snow. The hospital itself does have a van that could do a run east and west on Hwy 530 if roads are passable. The majority of our employees live within the City or along the 520 heading out towards Darrington.

7) How will the hospital handle transportation for resources (regional supplies need to be moved South).

We currently have a U-Haul type vehicle that we transport our supplies from the hospital to the surrounding clinics. If roads are passable we could load resources into this vehicle for transport. Transporting of the trailers will be a bit more difficult as other than using employee's personal vehicles we do not have a vehicle that can move the trailers on the Hwy.

8) How will Public Information be released and shared?

Public information will be released through all mechanisms possible including Face Book, Twitter, Email, Interviews, Website, and shared the same way. Within the City, the PIO from the Hospital, City and School District have met to coordinate release of messages several times in the past and are quite well versed on this. Sharing information with the County and other hospitals (other than the H1N1 of 2009) is a bit more challenging as it has not been practiced much if at all. We have written in our plan to coordinate through a Join Information System if one is activated by a lead organization.

9) How will the hospital manage the increased number of fatalities coming into and being dropped off at the hospital?

Our morgue capabilities are VERY limited and we would quickly be asking the City EOC for assistance. The City has had conversations with the local mortuary service regarding this issue as well as they have an MOU with Twin City Foods to obtain a refrigeration truck as soon as possible. If we had "bodies stacking up" we would use the space in our basement currently that is used for this purpose but would need to make some accommodations to hold more bodies. We would need additional body bags.

10) What contact numbers are currently missing from the hospital's Emergency Operations Plan?

Hospital Bed Control, and updated employee roster and numbers for the Skagit Valley Clinics. We should also add the direct EOC lines, cell phones and emails for those designated to the City EOC into our EOP. We need to create a better communications notebook that would also include the Region 1 Hospital Coalition members (hospitals and clinics) and radio operators.

United General Hospital

1) What/how would the hospital activate after an earthquake of this magnitude?

The hospital's Disaster Plan would be activated as described on page 13 of the hospital's Disaster Plan.

2) How would the hospital get their information about what is happening outside of the hospital, such as road routes, damages, etc…

ARES/RACES would be instrumental in keeping the hospital informed. In addition, it was decided that a radio would be a good tool to have in the HICS bag. Internet and television could also be utilized providing power is not an issue.

3) Discuss how the hospital will perform an evacuation of specific areas of the hospital due to damages.

The hospital has a specific section of the Disaster Plan dedicated to evacuation – page 47. This section is likely to be enhanced after the May 26th visit by Russell Phillips.

4) If the hospital was taking in large number of injuries and needs to surge, how would the hospital credential medical personnel that are available to come work in this hospital, that are not credentialed to work in the hospital currently. Where could the hospital look for additional personnel?

The hospital would notify the local Medical Reserve Corps if additional clinical personnel are needed. Credentialing would be handled by the Labor Pool, which would use the internet and/or the health department to verify credentialing of staff without proper identification. This is outlined in the hospital's disaster plan on pages 13-14.

5) An Alternate Care Facility is being set up at the Arlington Airport to assist with the staging of patients that need to be moved out of the area. The ACF is in need of additional medical staff. How will the hospital handle the "sharing" of staff to assist at the ACF.

The hospital's needs will come first, but several staff members are MRC members. Eventually, it is likely that Region One will have a MOU regarding this issue.

6) How will the hospital deal with transportation for staff that need assistance getting in and out of the hospital?

In the past, other hospital staff members and/or DEM have helped with this issue. However, we would now utilize the Labor Pool to assign staff to this role.

7) How will the hospital handle transportation for resources (regional supplies need to be moved South).

The Plant Operations department has made sure the hospital's pick up can pull the trailer. Staff would be assigned to transport regional supplies either from Plant Operations or via the Labor Pool (if the Disaster Plan has been activated).

8) How will Public Information be released and shared?

Via the hospital's PIO with Incident Commander approval and/or via a regional JIC.

9) How will the hospital manage the increased number of fatalities coming into and being dropped off at the hospital?

The hospital does have a mass fatality plan (page 15 of the Disaster Plan), but there are holes in that plan that will need to be addressed as funding allows.

10) What contact numbers are currently missing from the hospital's Emergency Operations Plan?

The contact numbers appear to be in order at this time.

PeaceHealth St. Joseph Medical Center

1) What/how would the hospital activate after an earthquake of this magnitude?

- Immediate activation of the Hospital Command Center.
- Activate our Emergency Operations Plan
    - Activate Command Staff
        - Hospital Administration
        - Medical Staff
            - Emergency conditions may require modifications of normal patient care routines including treatment and standards of care and may require altering or discontinuing services, suspension of non-emergent procedures, and discharge of patients, patient transfers, and facility evacuation.
    - Activate General Staff
        - Medical Care Branch
        - Communications Branch
        - Resources and Assets
            - Call in Armature Radio Operators
        - Security Branch
- Code Triage Level External Level I announcement
- Initial damage assessment
- Initial Staff availability
- Activate Labor Pool
- Friends and Family – Red Cross - HEC
- Local DEM, Health Dept

2) How would the hospital get their information about what is happening outside of the hospital, such as road routes, damages, etc….

- PIO, Liaison communications with Local DEM
- My State USA Notification
- Media broadcasts, radio, television (if up)

3) Discuss how the hospital will perform an evacuation of specific areas of the hospital due to damages.

- Planning, Operations and Logistic Sections
- Review of Damage Assessments
- Activate Surge Plan for Horizontal Evacuation
    - Capacity Management Overflow
    - Surge Capacity Stages
- Request Local Fire Assistance (if available)

- Notify Red Cross
- Activate Patient Family and Reunification Program
- Initiate Rapid Discharge Plans
- Activate Staff and Physician Call back lists

4) If the hospital was taking in large number of injuries and needs to surge, how would the hospital credential medical personnel that are available to come work in this hospital, that are not credentialed to work in the hospital currently. Where could the hospital look for additional personnel?

When the disaster plan has been implemented and the immediate needs of patients in the facility
cannot be met, the Regional CEO/CMO or the Chief of Staff may use a modified credentialing process
to grant disaster privileges to eligible volunteer licensed independent practitioners ("volunteers"), MRC,

5) An Alternate Care Facility is being set up at the Arlington Airport to assist with the staging of patients that need to be moved out of the area. The ACF is in need of additional medical staff. How will the hospital handle the "sharing" of staff to assist at the ACF.

In accordance with the Healthcare Mutual Aid Agreements, if requested by the DMCC, medical staff would deploy with the evacuating patients.

6) How will the hospital deal with transportation for staff that need assistance getting in and out of the hospital?

- Where travel is difficult or impossible because of weather conditions, disaster conditions, the hospital will work with volunteer groups with appropriate vehicles to assist them in getting to and from the hospital.
- Where necessary because of conditions, the hospital will accommodate staff that need to sleep, eat, and/or other services in order to be at the hospital to provide needed services.
- Community Partnerships with local transportation, Fire and Rescue, Red Cross, Internal Labor Pool Protocols for staff transportation and family needs

7) How will the hospital handle transportation for resources (regional supplies need to be moved South).

- Primary attempt to utilize Hospital resources.
- Reach out to DEM
- Request additional resources from ESF-8

8) How will Public Information be released and shared?

- Hospital PIO and Liaison Officer through hospital protocols and established lined of communications with Media.

- Initiate Communications with Patients and Families Plan

9) How will the hospital manage the increased number of fatalities coming into and being dropped off at the hospital?

- Security
  - Access and Egress Control
  - Traffic Control

Mass Fatality Plan:

- Whatcom County Emergency Management / City of Bellingham Office of Emergency Management will recognize that St. Joseph Hospital has limited capacity for the placement of bodies post mortem.
- When an emergency event occurs that has the potential to, or will generate mass fatalities, the hospital will communicate with the Medical Examiner's office and Whatcom County / City of Bellingham Emergency Management for information, coordination and instruction. There are a few facilities owned by one company in Whatcom County. One facility at this time has the ability to cremate.
- PeaceHealth St. Joseph Medical Center staff will strive to adhere to hospital policies and follow procedures as required by law enforcement in the post mortem care of bodies that are under the jurisdiction of the Medical Examiner's office to maintain chain of evidence.
- Victims expiring in the field will not be brought to the hospital. Victims expiring en route to hospital will be pronounced in triage and moved directly to the Black Treatment Area upon arrival.

10) What contact numbers are currently missing from the hospital's Emergency Operations Plan?

Real and pertinent numbers will be updated per the May 18, 2011 Exercise Communications Plan.

Valley General Hospital

1) What/how would the hospital activate after an earthquake of this magnitude?

After an earthquake we would activate our Incident Command System and severity of the event would help determine if we would activate a Tier I, Tier II or Tier III alert. The difference in the Tiers is related to level of call out for the HCC with Tier I being Senior Administration only and Tier III being all in charge staff plus Managers, Directors and Senior Administration. If unaffected our External/Internal Triage alert would be called on our enunciator panel overhead paging system and the information would be put on our intranet home page. The intranet would be used for updates to the staff from the HCC. If our electrical system, telephone system and computer system has been rendered unusable, announcements would be sent over our two-way radio system on radios that are pre-staged and monitored.

2) How would the hospital get their information about what is happening outside of the hospital, such as road routes, damages, etc….

If unable to use telephones we would use our radio systems such as 800 MHz or HEAR in our ED or our HAM radio in our communications center. We have one FCC licensed member of our staff who could provide communications until our ARES volunteers arrive. In addition, we would use the disaster flag signal if needed to alert our fire and police of our needs during their windshield surveys.

3) Discuss how the hospital will perform an evacuation of specific areas of the hospital due to damages.

We have predesignated holding areas in the hospital for each of our clinical departments. Communications would be as previously described as well as the use of runners.

4) If the hospital was taking in large number of injuries and needs to surge, how would the hospital credential medical personnel that are available to come work in this hospital, that are not credentialed to work in the hospital currently. Where could the hospital look for additional personnel?

Our Medical Staff have an emergency credentialing policy. Our EOP includes activating the Medical Reserve Corp if needed.

5) An Alternate Care Facility is being set up at the Arlington Airport to assist with the staging of patients that need to be moved out of the area. The ACF is in need of additional medical staff. How will the hospital handle the "sharing" of staff to assist at the ACF.

At the present time we don't have any provisions in our EOP for the sharing of staff. However, we are working with the group from Russell Phillips and Associates and our administration is supportive of a Memorandum of Understanding which would provide such a provision.

6) How will the hospital deal with transportation for staff that need assistance getting in and out of the hospital?

We have used Snohomish County Search and Rescue in the past during times of inclement weather which make travel to the hospital difficult. We also have discussed ATV posses' and the use of AWD vehicles.

7) How will the hospital handle transportation for resources (regional supplies need to be moved South).

At the present time we do not have reliable transportation for moving heavy supplies. For example if our decon trailer is needed somewhere else, that facility would have to pick it up. We ensure that the proper titles and licensure are done. We can move light weight supplies in our pickup.

8) How will Public Information be released and shared?

Our Public Information Officer position is always filled when we activate our Internal/External Triage alert and our EOP. That individual would handle releases to the media as well as information provided to staff and patients/patient families to ensure a consistent and accurate message is released.

9) How will the hospital manage the increased number of fatalities coming into and being dropped off at the hospital?

Valley General Hospital does not have a morgue so our plan for a mass fatality event includes placing bodies in body bags and storing in our plant ops shop. Our plan is to purchase portable air conditioners and palettes which will enable us to properly and respectfully hold the deceased.

10) What contact numbers are currently missing from the hospital's Emergency Operations Plan?

Our EOP includes the telephone numbers, satellite telephone numbers, radio frequencies, etc that we have been given. The concern is that many times, specific numbers are provided for exercises which would not be the preferred contact information in a real event.

APPENDIX C: PARTICIPANT FEEDBACK SUMMARY

SR&R Exercise Participant Survey Results

<u>*The comments are copied and pasted from the survey directly.*</u>

1: Please rate the exercise on the following scale

Avg Rating: 7.67	Very Poor				OK					Very Good
Results:				1	1		1	2	3	1

2: Did the exercise effectively simulate the emergency environment and emergency response activities?

100% of the surveyors say ***<u>yes</u>***

Comments:

They learned what they didn't know, which I think was wonderful
Nice patient flow, EMS use
it was very confusing - ICS was not followed as outline by all agencies/too many chief
I have no experience in this area but it seemed pretty chaotic to me at times

3: Compared to other exercises this was:

Avg Rating: 7.33	Very Poor				OK					Very Good
Results:				1	1	1	2	1	1	2

4: Did the problems presented in the exercise adequately test readiness capability to implement the plan?

8 people voted yes
1 person voted no

Comments:

These was my first exercise and as such, feel that it [the exercise] did.
Definitely, the communications breakdowns were real-time issued that need resolution especially the DMCC pass off.
There was two extremes - I felt comfortable with Incident Command as a volunteer/as a staff leadership was split
It was a real learning experience for me
I was at the AFC and through time all seemed able to adjust to circumstances as they occurred.
there were many different problems presented

5: Please list what you found to be the most valuable or useful from this exercise

Exercising my ability to use 900mHz radios *[probably meant 800mhz]
Of personal value, I wondered if, with my lack of medical background, my involvement in MRC would be of value. This exercise proved to me that "Support Staff" are of great value in these situations and will feel better, and more competent, in MRC because of this exercise.
The necessity for conformity in the operation, both with paper and white board and with unity of thinking.
Evac Planning ACF Set up and movement
I was able to work with each agencies in a Medical related capacity (MRC Volunteer) I found work that had been overlooked and was able to fill the void during the exercise (from past experiences)
I found the presence of people who knew what they were doing to be most useful.
This is the first time I was part of a drill of this nature. So to me it was a very valuable experience to be around the people I would most likely be around in a real disaster. Becoming familiar with the set up and take down of the tents. Learning what useful information needed to be gathered. Ideas and actions that I need to initiate instead of waiting for direction. It seems to me everything that went on becomes valuable information in [one] way or another. Either by things that went right or wrong it all becomes a learning experience that helps make the next experience better and more prepared of what needs to be done.
I was able to see everything that went wrong and how the attempts to get things back on track worked. It was pretty chaotic a good portion of the time and the ic staff were not sure what information they needed. They did good figuring out the things they really needed to know.

6: Please list what you found to be the least useful or valuable from this exercise

Needed to test amateur radio communications to/from Snohomish County EOC.
While we are supposed to have fun in these exercises, it seemed like many were not taking it seriously enough and many parts seemed scattered and most people did not care. I felt I would have learned more if it was taken "more seriously”
Too many chiefs, not enough Indians
Sim cell function on-site communications
The confusion that was created by the various entities and the lack of cooperative spirit that should have been there for this exercise between the coalition members and Incident Commander
Criticism aimed at a learning experience. Helpful feedback was good though. I am sure it was quite typical, but I found the lack of communication from IC down through the chain to be lacking about what was going on.
the waiting time

7: Please list any plans/policies/equipment ect… that you would like to see tested during the next exercise

Amateur radio communications
Being my first exercise, I was at a loss as to my participation and what I would be doing. It may have been more helpful if the "Participant Play Book Draft" had a bit more detailed description of what the non-medical players roles would have been, I feel like I would have been more helpful in more areas if I would have been armed with a bit more knowledge beforehand.
Follow through on tracking of patient whereabouts; many tracking numbers recorded wrong and their destination not completed adequately.
actual ACF full scale operations
The evacuation tents need consistent set up protocol between all groups//a Talley sheet of what is needed for setup for each tent to function/test the communication systems before event to ensure continuity between coalition members and incident command vehicle.
Communication through MyState to MRC members
I would like to see a form put together for the ACF area that breaks down the workers and their basic duties and expectations put in each trailer. That way if you had not been trained you would have a better idea of what duties you need to perform and a basic knowledge of how and what everyone else is doing. Also there was a communication break down along with the drill and so I would like to see that being tested again.

8: Any additional comments or suggestions

I had a great deal of fun during this exercise and as I stated earlier, I also learned a great deal. I will be much more comfortable participating in further exercises and will feel like an asset if ever called out to help in a real life situation. Thank you for the opportunity to do this.
Training in the use of specific equipment, such as fax machine, and availability beforehand of all of those fax and telephone numbers
A big thank you to Doctor Mitchell and Chris Badger for taking on the rolls they did and seeing it through.
There was more space than required which was a plus/The set-up prior to the start of the exercise seemed well thought out/When the exercise started the tension doubled and cooperation became antagonistic. Make sure all the beds from various hospitals are marked before deployment/have a shut down protocol before starting - bits and pieces were scattered and had to be found after the event.
Well done for MRC.
I think that a uniform way to track patients would be beneficial to the ic and staff. Each hospital had [it's] own system.

SR&R Exercise Volunteer Survey Results

<u>*The comments are copy and pasted from the survey directly.*</u>

1: What was your role in the exercise?

Victim: 18
Scribe: 1
Logistics Volunteer: 2

2: Overall, how did you feel the exercise went?

Avg Rating: 6.24	Very Poor				OK					Very Good
Results:			2	1	6	3	3	3	2	1

3: Please list what you found to be the most valuable or useful from this exercise

The need to be a volunteer in the community, I joining Red Cross.
To see how many assets were available and how confusing it can be to coordinate. I was impressed with the military personal and their capabilities
Watching the HCC function at SJH
I got an idea of the chaos an unexpected group of injured people will cause in a waiting room. I heard the triage nurse say, many times, "I need a runner!" And I felt the value of someone taking the time to explain my "diagnosis" to me, even tho, as a nurse, I understand it already. I learned something about ham radio operators. I really appreciated the fact that it was a drill, and, this time, we could all walk away from the disaster. I also really appreciated coffee in the morning and the good food and drinks you provided.
record keeping, communication (I didn't get much from the hospital I went to-Valley General)
The morning hospital evacuation
The emergency workers were learning about a disaster and learning from the drill. I think most liked the experience. Good training.
Realizing that there are not enough beds at cascade valley hospital to manage many patients in a disaster. Practicing communicating between nurses and health care workers in a disaster.
I was not in a position to have perspective on anything that is "valuable" or "useful"
There were a lot of volunteers
Seeing what it would be like to be involved in a disaster
Just witnessing what a disaster drill is like...as a nursing student, I'm always expecting to learn about patient care or simulations that mimic real life, but this was more about exposure to what DRILLS are like, instead of what a real life disaster may be like.
a lot of agencies or groups need to coordinate in a structure outside their own structure
I did learn that there is a lot of time that you do end up waiting for the ambulances; I did like it a lot because I did get to ask the emt a lot about the ambulances.
The nursing staff got to practice using the Para slide carriers and see how those worked in a real transport situation. Tested out the "triage tents" in the field.
It was sunny out.

Organization Preparation Communication
seeing how doctors would handle the pressure
Gave an insight to what MRC does. Maybe I can help someday, maybe.
It was an eye opener to see how effective various agencies were in interfacings with each other, and hopefully learning from the shortcomings.

4: Please list what you found to be the least useful or valuable from this exercise

I thought it all good. But next time I want to be helping with patients and setting up.
At the hospital I went to, we were mock evacuated, the nurses did not seem to interested in doing it but I also realize they were fitting it into their usual day.
The afternoon - triage exercise in the afternoon. We didn't do anything.
I believe everything was a valuable learning tool. When you had to wait for medical help it was as it would be in a disaster.
There was a lot of waiting around for the victims, and some of the nurses during the exercise were not taking it as serious as they should.
See above, lack of perspective
There was a lot of sitting with nothing to do. We could have been put to good use on a community activity while waiting. Basically, a lot of wasted volunteers.
The time waiting on others, but it was not a problem.
I wish I'd had more of an experience in acting the part of the role I was assigned.. the environment of the drill did not promote real-life acting, but rather that it just required bodies to transport around and this was my role.
sitting around and not being able to act out my patient role---nobody wanted to hear my symptoms. a sack of potatoes could have worked.
it seemed that in a real disaster we would have been inefficient....I decided not to be a victim because there was a lot of down time; logistics had a lot of down time as well. The check in should have had everyone's names alphabetically on one master list; also I did not know the acronyms ARC or MRC or whatever it stood for; seems there was a lot of paperwork going on rather than saving lives :) Since parking only had 40ish cars expected and field was large, a sign saying parking would have been sufficient...in a real emergency, one would keep traffic flowing and the rest of us would be organizing victims, workers or digging for bodies....
Nothing
The volunteer victims were under-used. It was too easy to just collect the paperwork, rather than view us as actual problems to be dealt with.
we didn't need to be there so early in the morning and for a set up exercise it didn't seem to be very organized.
Preparation, no one can really prepare for a world disaster and people were kind of freaking out.
doctors would skip procedures or 'pretend' things didn’t happen
Sitting around
In my personal experience, the staff at the hospital barely took the drill seriously, and was more irritated at having to participate than trying to get the most out of it. Upon getting us into our emergency staging area in the hospital, we were literally not talked to for a solid hour. Given the person who was with me's symptoms, and those given to me, if we had been left unattended for that length of time we would very likely have died. I was showing symptoms of stroke, and she

was showing symptoms of cardiac arrest. It was frustrating also, in that when we arrived at the emergency staging area that a lot of our prior treatment and equipment was disregarded as we were placed into our tents.

5: What do you feel was the most valuable part of your role?

I can play a very severe COPD patient and I fell through the cracks. I think made a few people understand the need to be calm and remain focused. Don’t just check a real pulse, but read the scenario to see what my "victims" problem. I did get the care I needed.
For me it was a good opportunity to help the system get tested and be a body and not just a theoretical patient being transported
Documenting SIM
It challenged the OB staff to treat a post-op bilateral mastectomy patient, manage pain, and arrange for follow-up wound care.
Having the variety of injuries and situations for all to work with and learn from
Being carried down the stairs in an evacuation chair by hospital staff.
Two things: First, to be a victim for the medical staff to work with. Second, to observe how trained medical professionals respond, and to learn more as a CERT member.
Being able to see the different jobs that people have and watching how the nurses triage patients.
I don't feel like real people were really necessary for the drill, as it was a "bed exercise" anything could have been transported. No assessments were done, so sandbags with tags of diagnosis and vital signs could have been used
The tent triage at the end of the day.
Being a part of the overall flow of people
At least it was something kind of fun... I got to be a woman in labor, and there was 1 nurse in the tent that catered to my condition and asked me simulated questions.
I got to go down the stairs in a sling so I guess I gave the people carrying me some practice.
I recognize we had an important job; we could have done it with half the number of people
I acted like we were high school students and went to this doctors office that wouldn’t be expecting these kinds of patients
I took up a seat in the ambulance....
I don't feel like I really contributed by being there.
Making it seem like a real life situation. Learning how people react with pressure, and how hectic the exercise was.
had to prioritize the victims
Being dead weight
Sadly, due to the lack of enthusiasm from the hospital staff, we were unable to truly "act the part" of our symptoms. No attempt to assess was ever done, and for all intents and purposes a card attached to a pillow would have been just as useful in keeping the drill going.

6: Did you receive the appropriate information that you needed, in a timely manner?

Yes – 19 people

mo – 2 people

I was with 2 women, 80+years old, One was post-op 2wks from rotor cuff surgery and had an

arm in a sling and has asthma, and The other was 1 yr. post op from hip replacement surgery. The fellow who handled the evac from Prov made every one walk up 2 flights of stairs for the evac. My one lady was short of breath after the first flight and my other lady was complaining of hip pain and limping. I made my first lady take the elevator for the next set of stairs. She actually needed to use her inhaler. Next time the facilitator should check the health status of volunteer victims to see what they can or cannot do
Some info was not received at all. I did not know what was actual exercise and what was just preparatory info
Yes, everything I needed
Several people were told that ambulances would be leaving for Port Angeles at approx 2pm. That would have been fine for most "victim" as it would have gotten them back in a timely manner. The ambulances actually ended up leaving after 3pm. Most people didn't sign up to be at this event until after 6pm which is what it would have ended up being.
At times, depends on the nurse or doctor at the location

7: Would you want to volunteer again in the next exercise?

Yes- 15
no -6

I had a great day, met a lot of wonderful people and will happily do it again
Thanks, I had a good time and the lunch was really good. I hope it helped.
This was my first time at volunteering and I did not know what to expect and the degree of seriousness to expect. The size of the exercise was overwhelming to me.
Just call, and I will be there. (CERT is ready)
With the understanding that volunteers don't volunteer to just sit around. Likewise, it needs to be recognized that some of the victims never even got triaged so that needs to be investigated.
I would if my time was used well; I think Jarrod kept his cool and was very available; I didn't know till the end of the day that some doctor was in charge of the medical and Jarrod in charge of other things
It seemed chaotic and disorganized. Staff seemed unsure of what to do with us. We had to wait a long time for ambulances to arrive - miscommunication? I think it would have been helpful to have victims carry around pretend IV bags, oxygen tanks etc (maybe just an empty shoe box or 2-ltr of pop) to make it more real, more difficult to ignore the symptoms. Instead we were just walking around with papers that we handed to one person, then another. Would Coma Girl really ride in the front seat of the ambulance? Would Broken Leg Guy just "hop in" the back? etc. The plastic beds in the tents are unstable - I was supposed to be "ambulatory with assistance" but the nurse just pointed to a bed and told me to lie on it. When I did, I stupidly sat on the end and fell off! Glad I didn't have a real needle stuck in me. Ouch.
Maybe, Want either different job or role play with lots of moulage. I already do some of these type of drills in SAR

APPENDIX D: EXERCISE EVENTS SUMMARY TABLE

Time	Personnel	Activity	Location
April 22, 2011			
1:00 – 4:00 pm	Exercise staff	Exercise planning meeting	Burlington Fire Station
April 29, 2011			
1:00 – 4:00 pm	Exercise staff	Exercise Planning Meeting	Arlington Airport Conference Room
May 2, 2011			
1:00 – 4:00 pm	Sim Cell Staff	Sim Cell Training	Arlington Airport Conference Room
May 4, 2011			
9:00 – 12:00 pm	Evaluators	Evaluator Training	Burlington Fire Station
12:00 – 3:00 pm	Exercise Planning staff	Exercise design meeting	Burlington Fire Station
May 6, 2011			
1:00 – 4:00 pm	Exercise staff	Exercise Planning Meeting	Arlington Airport Conference Room
May 13, 2011			
1:00 – 4:00 pm	Exercise Staff	Exercise Planning Meeting	Arlington Airport Conference Room
May 17, 2011			
2:00 pm	Exercise Command Staff	Set up of exercise venue	Arlington Airport
4:00 pm	Exercise Command Staff	Final Planning Meeting	Arlington Airport
May 18, 2011			
05:30 am	Jarrod, Kenda, Therese	Arrive onsite to prepared for role players	Food Pavilion parking lot
05:45 am	All role players	Arrive onsite for moulage and instructions	Food Pavilion parking lot

Time	Personnel	Activity	Location
07:00 am	Exercise Command Staff – Airport site	Arrive onsite to prepare for exercise	Station 48
07:00 am	All role players	Depart for assigned hospital	Station 48
07:45 am	Sim Cell staff	Arrive onsite to prepare for exercise	Arlington Airport Conference room
08:00 am	Communications team	Amateur radio (ARES/RACES) operators arrive at designated location and check in with lead controller at main site	Various
08:15 am	**All**	**EARTHQUAKE OCCURS** **Fax is sent to all hospitals / public health agencies**	**Various**
08:30 am	Controllers/ evaluators	Arrive at assigned location and check in with lead controller at main site	Various
09:15 am	Hospitals	Sit Rep sent to Sim Cell from each hospital	Various
09:15 – 11:00 am	All	Tabletop or Functional exercises conducted at each participating agency location	Various
09:15 – 11:00 am	Hospitals	Victims are evacuated and transported to ACF at Arlington airport	Swedish Hospital, Providence Regional Medical Hospital, Valley General Hospital, & Cascade Hospital
09:20 am	Cascade Hospital	Terrorist found in ER. Brought in as	Cascade Hospital

Time	Personnel	Activity	Location
		earthquake victim	
09:30 am	Cascade Hospital	Initiate communications with CST	Cascade Hospital
10:15 am	Hospitals	Inject of #'s of deceased at each hospital sent	Sim Cell
11:30 am	**All**	**Exercise is halted** **Lunch is served**	**Various**
May 18, 2011 – Phase 2			
1:00 pm	All	ACF opens	Arlington airport
1:00 pm – 3:00 pm	All	Patients are re-triaged Treatment is initiated Patient tracking continued Patients are packaged for transport	ACF
1:30 – 3:00 pm	Victims/Pre-Hospital	Patient transport begins	Island Hospital Skagit Valley Hospital St Joseph Hospital
3:00 pm	All	Exercise play ends	All
3:00- 3:30 pm	All	Brief hot wash	Arlington Airport
3:30 – 5:00 pm	All	Repacking of tents Clean up of exercise site	Arlington Airport
June 3, 2011			
9:00 – 12:30 pm	All	After Action Conference	St Luke's Education Center (Bellingham)

APPENDIX E: ACRONYMS

ACF	Alternate Care Facility
ALS	Advanced life support
BLS	Basic life support
CAP	Corrective Action Plan
CST	Civil Support Team (National Guard)
DEM	Department of Emergency Management
EEG	Exercise Evaluation Guide
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function (there are 15 of these, i.e. ESF 8)
ExPlan	Exercise Plan. This document lists out the purpose and scope of the exercise
FE	Functional Exercise
IC	Incident Commander
ICS	Incident Command System
HICS	Hospital Incident Command System
HSEEP	Homeland Security Exercise and Evaluation Program
JIC	Joint Information Center
JIS	Joint Information System
MAA	Mutual Aid Agreement
MCI	Mass Casualty Incident
MOU	Memorandum of Understanding
MRC	Medical Reserve Corps
MSEL	Master Scenario Events List. This document outlines the sequence of events for the exercise

PIO	Public Information Officer
Sim Cell	Simulation Cell
SitMan	Situation Manual
SNS	Strategic National Stockpile
UC	Unified Command

APPENDIX F: AFTER ACTION REPORTS

This section contains the individual After Action Reports from key participating agencies. It includes 8 hospitals, 5 public health jurisdictions, and the Medical Reserve Corps.

Agency	Page
Cascade Hospital	51
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Swedish Edmonds Hospital	107
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Cascade Hospital

Island Hospital

HRSA Specific After-Action-Report Information

To the extent possible, please provide the following information as part of your summary post-exercise report describing actual hospital participation in a local or regional public health drill/exercise.

1. Date of Event: May 18th, 2011

2. Location: Tabletop: Island Hospital Guemes Room – AM
Arlington Airport and Island Emergency Dept. - PM

3. Personnel Involved: Tabletop: Incident Command Staff at Island Hospital
Functional: Island Hospital Team Delta and Island Hospital ED staff

4. Participating Agencies: **Functional** – Region 1 Hospitals, Airlift NW, Cascade Ambulance, Region 1 MRC, Region 1 DEM offices, Regional EMS agencies, Region 1 Public Health**,**

5. Funding Sources (State, Local, Federal, or a combination of all three): Hospital and ASPR

6. How the needs of special populations were incorporated? Translator on Team Delta for Hispanic speaking population. Pediatric victims.

7. How will the needs of special populations be incorporated in the future? Need to work on this in future exercises in making signs in two languages, incorporate more pediatric and geriatric

8. Did all health care workforce practice? No, the tabletop incorporated the Incident Command Team and the functional part of the exercise was practiced by HAM radio operators, ED staff, Nursing supervisor, and admissions staff

9. Did each participant understand their specific role(s)? **YES**

10. Lessons Learned:

- HAM radio operations need to be utilized in all exercises.
- FAX via HAM did not work well.
- Everbridge System worked to notify all Incident Command Staff but still needs testing for staff.
- Lockdown not initiated and should be an early component of any incident.
- Need to have discussions with local resources regarding Mass Fatality Incidents.
- HAM Radio needs to exercised monthly and the forerunner for communications during all exercise.
- HEAR Radio not functioning like it should, monthly testing should be mandatory.
- All Team Delta need to be on hospital car insurance policy to ensure an insured driver for any event.

- The Disaster Patient Tracking System was tested again for 3rd time. All patients tracked.

11. How will Lessons Learned be applied to future exercises and drills?
    Communication should always be a main priority for patient care exercises.
    Future testing of communications systems will increase to a monthly basis for both HAM and HEAR radio.

12. How will Lessons Learned be incorporated into response plan updates?
    - Our Disaster patient tracking system has been tested three times, each one successfully
    - And has now been added to our live system for used for all further events.

Other After-Action-Report Information

1. Exercise Name: **Shake Rattle, and Roll 2011**

   Duration (days, hours): May 18th –
   - 2 hours for Tabletop
   - 6 hours for Functional

2. Type of exercise (seminar, workshop, games, tabletop, drill, functional, or fullscale):
   - Combination of tabletop and functional

3. Focus *(life safety response, medical, EOC operations, recovery, damage assessment, communications, logistics, PIO, information handling, other – should be associated with exercise goals and objectives)**:***

   - *Incident Command Staffing*
   - *Communications from field to hospital for patient's received from other hospitals*
   - *Patient Tracking*
   - *Staff Notification and Call-back*
   - *Mass Fatality*

4. Overview of exercise design – Who designed the exercise and how? Over what timeframe? What criteria were used? Is this part of a series? Are corrective action effectiveness being evaluated?
   - The exercise was designed by the Exercise Design Team in Region 1 and was comprised of Hospital planners, EMS, MRC, DEM, and Clinical staff.
   - The exercise has been in the planning phase since September 2010.
   - Corrective Actions will be reviewed and set I place for the next exercise.
   - The Exercise Design Team was originally set up in Incident Command Format but not adhered to as close as it could be.
   - This is part two of three years of exercise planning.

5. Exercise Goals and Objectives:

   Island Hospital's goals were to:

   - Test the operations of the Everbridge System for notification of the Incident Command Staff.
   - Utilize the HAM radios in testing our redundancies.
   - Utilize the Tabletop Exercise to begin discussions at the Incident Command Level.
   - Receive and track patients from an evacuated facility and surge the hospital to meet those needs.
   - To deploy our Team Delta with equipment to a Regional Site for a Mutual Aid response.

6. Evaluation Methodology – Who comprised the evaluation team? How were they selected? How were they trained? What plans or procedures are being evaluated? Is a sample evaluation from available as an attachment? Was a hot wash/debrief part of the evaluation process?

   - Evaluators were trained at a Regional Evaluator Training either this year or last year according to the HSEEP process

7. Please list any training needs identified as a result of this drill/exercise:

   - Island Hospital will incorporate the Disaster Patient Tracking in all actual real events and exercises.
   - Need to do more training in the local area with local resources.
   - Need to work on the utilization of the redundancy of our communication systems.

8. Please include any other information you feel important to note:

   - Currently working on a written Mass fatality plan for our facility.
   - Also participated in a City wide Exercise just two weeks after the Shake Rattle and Roll 2011

Providence Regional Medical Center

Section 1: Executive Summary

On May 18, 2011, the Region 1 Healthcare Coalition conducted a function exercise, Shake, Rattle and Roll 2011. The purpose of the exercise was to test the regions ability to respond to an earthquake, and to set up alternate care facility (ACF) to house patients evacuated from damaged hospitals. The exercise required agencies from all over the region to come together and work as a team. This included hospitals, public health agencies, emergency management, and various community partners. The Snohomish Health District had just completed an ACF plan which was tested for the first time during this exercise. This exercise also tested for the first time, Region 1's ability to set up an ACF away from an existing hospital. The ACF was set up at the Arlington Airport, in a field next to the old runway.

The major issues this exercise brought up were where to find staffing to assist not only in hospital evacuations, but in staffing an ACF. Communications with the ACF, area hospitals, bed control, and Snohomish County ESF 8 was also an issue for this exercise. The Medical Reserve Corps provided an invaluable resource for staffing for the ACF. The Tulalip Tribe Medical Reserve Corps also provided needed tents for use at the ACF. One of the main points for this exercise was to set up an ACF at the Arlington Airport using surge tents from 4 hospitals within the region. ARES/RACES provided much needed communications support throughout the exercise. This enabled communications between the ACF site and some hospitals and partners within the region.

Based on the exercise planning team's deliberations, the following objectives were developed for Shake, Rattle and Roll 2011

- Objective 1: Demonstrate the ability to establish multiple points of communication.
- Objective 2: Determine ACF communications process with ESF 8 desk and hospitals
- Objective 3: Demonstrate the ability to acquire resources to set up an ACF
- Objective 4: Demonstrate the ability to activate the Medical Reserve Corps units in Region 1 for ACF staffing
- Objective 5: Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
- Objective 6: Identify ways to manage the disposition of multiple fatalities region wide
- Objective 7: Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
- Objective 8: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
- Objective 9: Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)
- Objective 10: Demonstrate the ability Region wide to track 50 patients or more from point of collection to point of definitive care
- Objective 11: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Center's

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

1.1 Major Strengths

The major strengths identified during this exercise are as follows:

- The ability of the Region 1 Healthcare Coalition to establish a fully operational Alternate Care Facility at the Arlington Airport. The Region was able to produce 4 surge tents, and Medical Reserve Corps volunteers for staffing of an Alternate Care Facility away from any other hospital or healthcare facility.
- 10 Non Ambulatory Patients were successfully evacuated (using Med Sleds and Paraslydes) and transferred from PRMCE via Rural Metro Ambulance Service to the Alternate Care Facility.

1.2 Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in Region 1 ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Establishment of Staging and Transportation Areas.
- Communication with Hospital Bed Control.
- Training of individuals to erect and utilize Surge Tent.

Overall, the exercise was successful in identifying training and communication opportunities.

Section 2: Exercise Overview

2.1 Exercise Details

Exercise Name

Shake Rattle and Roll 2011

Type of Exercise

Functional

Exercise Start Date

May 18, 2011

Exercise End Date

May 18, 2011

Duration

7:00 am through 4:00 pm

Location

Various locations in Island, San Juan, Skagit, Snohomish and Whatcom Counties.

Sponsor

Region 1 Healthcare Coalition

Program

ASPR 10/11

Capabilities

Medical Surge
Communication
Emergency Triage and Pre-Hospital Treatment
Medical Supplies Management and Distribution

ASPR deliverables

Interoperable Communications
ESAR/VHP
Partnership Coalition
Alternate Care Facility Planning
Fatality Management
Tracking of Bed Availability.

Scenario Type

7.5 Earthquake on the South Whidbey Fault.

2.2 Exercise Planning Team Leadership

Incident Commander Chris Badger Exercise Director City of Arlington / Cascade Hospital 6231 188th Street NE Arlington, WA 98223 (360) 403-3618 cbadger@arlingtonwa.gov	**Deputy Incident Commander** Dr. Robert Mitchell
Operations Section Chief & **Simulation Cell Co-Controller** Anthony Christoffersen	**Planning Section Chief &** **Simulation Cell Lead Controller** Katie Denter Region 1 Public Health Snohomish Health District 3020 Rucker Ave, Suite 208 Everett, WA 98201 (425) 339-8711 kdenter@snohd.org
Logistics Section Chief Mark Nunes	**Finance/Admin Section Chief** Brittany Litaker

Swedish Hospital 21601 76th Ave West Edmonds, WA 98026 (425) 640-4993 Mark.nunes@swedish.org	North Region EMS and Trauma Care Council 325 Pine Street Suite A Mt Vernon, WA 98273 (360) 428-0404 brittany@northregionems.com
Public Information Officer (1) Linda Seger Island Hospital 1211 24th Street Anacortes, WA 98221 (360) 299-4226 lseger@islandhospital.org	**Public Information Officer (2)** Suzanne Pate Snohomish Health District 3020 Rucker Ave Everett, WA 98201 (425) 339-8704 spate@snohd.org
Gilbert Bodrak **Exercise Controller** Providence Regional Medical Center Everett 1321 Colby Ave. Everett WA 98201 (425) 261-3912 gilbert.bodrak@providence.org	

2.3 Participating Organizations

Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, St Joseph's, Cascade Valley, Valley General, Providence Everett, Swedish- Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

Participating agencies and private sector groups supplementing the hospitals include:

- Airlift Northwest
- American Medical Response Ambulance
- Arlington Fire Department
- Bowman Manufacturing Company, Inc
- Cascade Ambulance
- Cascade Valley Smokey Point Clinic
- Cascade Valley Hospital
- City of Arlington
- Island Hospital
- Island County Public Health
- Northwest Ambulance
- Providence Regional Medical Center
- Public Health Seattle-King County

- Rural Metro Ambulance
- San Juan Health and Community Services
- Skagit County Public Health Department
- Skagit Valley Hospital
- Snohomish and Skagit County Emergency Management
- Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
- Snohomish Health District
- St Joseph Hospital
- Swedish Edmonds Hospital
- Tulalip Tribe Medical Reserve Corps
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

2.4 Number of Participants PRMCE

- Players: 48
- Controllers: 1
- Evaluators: 4
- Facilitators: 2
- Observers: 3
- Simulation Cell: 5
- Victim Role Players: 10

Section 3: Exercise Design Summary

The Region 1 Healthcare Coalition solicited regional partners for the design team. The design team was comprised of public health, hospital, medical reserve corps, emergency medical services, and emergency management representatives. The design team worked over a period of 9 months developing the scenario, MSEL that would allow all agencies within region 1 to actively participate in a response to an earthquake and subsequent need for an ACF. This exercise also provided the region the ability to test the new ACF plan created by the Snohomish Health Department. Along with overarching objectives, each participating agency provided objectives specific to their agency.

Exercise Purpose and Design

As required by Joint Commission and Department of Health regulations Providence Regional Medical Center Everett is involved in Regional planning and preparedness efforts and regularly participates in Region 1 exercises. The Region 1 exercise and training committee developed a regional earthquake scenario requiring the evacuation the south Snohomish county medical facilities.

Exercise Objectives, Capabilities, and Activities

To fully test regional surge capacity and other regional objectives (communication with EMS, evacuation, transportation, etc.) while testing the ability of PRMCE personnel to evacuate non-ambulatory patients (specifically from the Rehab department and orthopedic nursing unit) using specified equipment (Med Sleds and Paraslydes).

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- **Objective 1:** Asses the ability to communicate with internal and external entities using the following communication devices:

  a) Determine if the Satellite phones can be used successfully during a disaster response
  b) Evaluate the effectiveness of Portable Radio use by staff
  c) Examine the effectiveness of the WaTrac Bed Capacity Website.
  d) Demonstrate the effectiveness of communications with HAM radio operator

- **Objective 2: Evacuation**

  a) Demonstrate the ability to use the patient evacuation equipment.
  b) Demonstrate the ability to establish staging areas.
     i) For equipment
     ii) For Patients
  c) Demonstrate the ability to establish transport areas.
  d) Demonstrate the ability to establish a transport control function.
  e) Evaluate Hospital Bed Controls ability to identify and communicate alternate care site.

- **Objective 3: Patient Tracking**

  a) Demonstrate the ability to effectively use the Region 1 Patient Tracking form.
  b) Assess the communication between the transportation areas and the PRMCE EOC.
  c) Determine the ability to accurately track patient movement in the EOC.

Scenario Summary

This exercise is based around a 7.5 magnitude earthquake along the South Whidbey Fault line. The epicenter is on the South Whidbey Fault, 2 miles southeast of Mukilteo. This fault is

believed to stretch 250-300 miles from Victoria BC to Yakima crossing the Cascade Mountains. The South Whidbey fault is shallow, running beneath Mukilteo and southeast to Woodinville. An earthquake of this size is capable of causing serious damage over a large area.

In addition to the earthquake, Cascade Valley Hospital had the added pressure of dealing with a biological incident. A member of a local terrorist group the "Washingtonians Against All People", is in the process of trying to release a biological when he is injured in the earthquake. The individual is brought to Cascade Valley Hospital where the biological is found spilling out of a vial. This necessitates the evacuation of the hospital. These patients will be sent to the Alternate Care Facility set up at the Arlington Airport

Section 4: 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 Shake, Rattle and Roll 2011 are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

Capability 1: Communications

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 must have sufficient wireless communications to meet their everyday internal and emergency communication requirements before they place value on being interoperable, i.e., able to work with other agencies.

Activity 1.1: Asses the ability to communicate with internal and external entities

- **Observation 1.1:** Overall an ***Area for Improvement***

  a. The functionality of WaTrac was not fully realized
  b. Satellite phones were not operational
  c. Confusion between campuses of the availability of Red (Emergency) phones availability.
  d. Radios were not distributed.

References: Code Triage Policy

a. Communication Process

Analysis:

- The WaTrac demo site was used for communication, but any communication sent to other area hospitals was not acknowledged.
- Satellite phones were not activated within the EOC during the time of the drill.
- Communication between campuses continues to be a challenge.
- The communication between the EOC and the HAM radio operator has been enhanced as a result of communication issues identified in earlier drills. The purchase of a in-house PRMCE walkie talkie and a portable 800 Mhz radio has greatly assisted the EOC to communicate with HAM radio personnel without requiring a runner.

Recommendations: Additional Communications Training

1. WaTrac training for the individuals likely to staff the hospital bed control function.
2. Training in use of the Satellite Phone system.

Capability 2: Evacuation

Capability Summary: Evacuation may be activated for any emergency crisis that calls for the emergency evacuation or relocation of patients, staff or critical services. Partial or total evacuation may be necessary in the event of a large fire, bomb threat, large scale disasters or other condition which threatens the safety and well being of staff, patients or guests.

Activity 1.1: Move mobility impaired patients from 2nd floor to awaiting EMS vehicles using nearest stairwells.

- **Observation 1.1:** Overall ***Area for Improvement***

    a. The staff were able to demonstrate the proper use of the Med Sleds and Paraslydes
    b. Staging areas were not effectively established.
    c. Transport areas were not effectively established
    d. The transport control function was not established.
    e. Hospital Bed Control was not effectively engaged in the evacuation process.

- **References:** Evacuation Plan

External Evacuation Procedures:

1. If it becomes necessary to order an external evacuation, a transportation staging area will be needed. The location of the staging area will vary depending on the event. Consider using the following lobbies and adjacent parking lots:
    a. Colby Campus: MOB meeting rooms, MOB Garage, 14th Street lobby, physician parking lots (last resort).
    b. Pacific Campus: Main lobby, meeting rooms, Pavilion (via skybridges).
    c. Pavilion: Pacific main lobby, meeting rooms, Pacific Garage (last resort).
2. Staffing of Staging Area
    a. Security to direct people and vehicular traffic.
    b. Admitting clerks to record:
        i. Patients' names.
        ii. The destination(s).
        iii. Time of departure.
        iv. Type of transport - private car, ambulance, etc.
    c. Personnel from Labor Pool to monitor patient well-being.
    d. Pastoral Care and/or Social Workers for emotional support.
    e. Other staffing will be determined by need and augmented by the Labor Pool.
3. Equipment Required for Staging Area
    a. Wheelchairs.

b. Linen carts as available from Laundry.
c. Crash cart(s).
d. Portable oxygen tanks.
e. Portable suction (ED, CCU & CS).
f. Other medical equipment & supplies deemed critical.

4. Traffic Control Outside the Building
    a. Hospital Security will keep access drives, walks, and exit doors clear.
    b. Contact police for assistance if necessary.
    c. Obtain additional staff from the Labor Pool to help with or take charge of traffic control.

Analysis:

Overall, the Hospital EOC was very reluctant to call for an evacuation, even while the injects reflected the building infrastructure could not support patient care activity. As a result, with the exception of use of equipment, the mechanisms established for effective evacuation could not able to be evaluated. The exercise controller proceeded with the evacuation to test the staff ability to use the equipment and to facilitate movement of patients to the ACF.

Recommendations:

1. Scenario based training provided to PRMCE Administration and Administrative Supervisors.

Capability 3: Patient Tracking

Capability Summary: The tracking of patients evacuated is the responsibility of the evacuated organization and is critical to the continuity of care.

Activity 1.1: Utilizing the Region 1 Patient Evacuation Form track patients transferred to the Alternate Care Facility.

Observation 1.1: Overall ***Area for Improvement***

References: Evacuation Plan

Patient Evacuation Procedure:

1. Ambulatory patients
    a. A unit nurse must accompany the group; other staff members, volunteers, or visitors may help. The nurse leads the group.
    b. Another staff person should be the last member of the group to ensure all patients are accounted for.
    c. A staff member should check the stairwell before use to make sure it is safe to use.

d. The preferable routes of exit are noted on the evacuation diagrams, but may need to be altered based on the situation.

2. Non-ambulatory Patients
    a. If the elevators are safe to use, transfer wheelchair and bed patients by using the elevator nearest the unit.
    b. If necessary, transport non-ambulatory patients via the stairs using as great care as possible.
    c. The nurse in charge, with a physician if possible, will decide which treatments to discontinue or modify.
    d. The nurse accompanying each group of patients to another health care facility will remain with them until transportation is complete and the accepting facility has assumed responsibility for care.
    e. Critically ill and bed ridden patients must be transferred by an advance life support vehicle or ambulance.
    f. Request assistance for patient transport from the Labor Pool.

Analysis: Overall, the Hospital EOC was positions designed to track patient movement and coordinate evacuation were not established. As a result the Incident Commander was not able to effectively manage or track patient movement.

We did complete the Region 1 Patient Evacuation forms and simulated a transportation area to move the moulaged patients.

Recommendations:

1. Provide additional direction in the Evacuation Policy related to patient tracking requirements.
2. Scenario based training provided to PRMCE Administration and Administrative Supervisors.

Section 5: Conclusion

Overall, this drill further demonstrated the need for Hospital Incident Command System training. Without the regular HICS training, the appropriate positions were not established and the appropriate job actions sheets were not referenced. This left the Command staff making it up as they went, reacting to events without the proper knowledge or information. As a result, many of the objectives were not able to be effectively evaluated.

Regionally, we were not in communication with Hospital Bed Control and many of the actions taken were coordinated with the simulation cell rather than Hospital Bed Control. This is a significant concern.

Appendix A: Improvement Plan

This IP has been developed specifically for Providence Regional Medical Center Everett as a result of functional exercise conducted on May 18, 2011. These recommendations draw on both the After Action Report and the After Action Conference.

Improvement Plan Matrix

Issue & Recommendation	Staff/Program responsible for correction	Supporting staff or programs	Target date for resolution or completion	Date Completed
Contract with Structural Engineer for Emergency Response	McIrvin		9/31/09	
Schedule PRMCE emergency responders to attend ATC-20 training	Bodrak/McIrvin	Everett Fire Department training department	9/1/11	
Additional WaTrac Training for PRMCE staff	Bodrak/Allen	Barbara Andrews	9/1/11	
Training for Administration and Administrative Supervisors	Bodrak		8/30/11 and ongoing	
Add Region 1 evacuation form to the Evacuation plan	Bodrak		6/31/11	

Skagit Valley Hospital

HRSA Specific After-Action-Report Information
To the extent possible, please provide the following information as part of your summary post-exercise report describing actual hospital participation in a local or regional public health drill/exercise.

1. **Date of Event:** May 18th 2011

2. **Location**: Skagit Valley Hospital

3. **Personnel Involved:** All on duty personnel and volunteers in the hospital.

4. **Participating Agencies**:

- Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, St Joseph's, Cascade Valley, Valley General, Providence Everett, Swedish- Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

- Regional
  - Airlift Northwest
  - American Medical Response Ambulance
  - Arlington Fire Department
  - Bowman Manufacturing Company, Inc
  - Cascade Ambulance
  - Cascade Valley Smokey Point Clinic
  - Cascade Valley Hospital
  - City of Arlington
  - Island Hospital
  - Island County Public Health
  - Northwest Ambulance
  - Providence Regional Medical Center
  - Public Health Seattle-King County
  - Rural Metro Ambulance
  - San Juan Health and Community Services
  - Skagit County Public Health Department
  - Skagit Valley Hospital
  - Snohomish and Skagit County Emergency Management
  - Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
  - Snohomish Health District
  - St Joseph Hospital

- Swedish Edmonds Hospital
- Tulalip Tribe Medical Reserve Corps
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

5. **Funding Sources (State, Local, Federal, or a combination of all three):**
    - ASPER Grant and hospital funds.

6. How the needs of special populations were incorporated?
    - When we activated our Incident command our interpreter services responded and checked in. They were advise of the scenario and activated their call back list for support

7. **How will the needs of special populations be incorporated in the future?**
    - This is our standard practice.

8. **Did all health care workforce practice?** Yes

9. **Did each participant understand their specific role(s)?**

    - Not all understood their roles completely at the time of the drill. After the drill they were educated during a hot wash that was attended by all participants. Further education will be done throughout the hospital with all staff and what their role will be in disasters.

10. **Lessons Learned:**
    - Please see Skagit Valley Hospital objectives chart

11. **How will Lessons Learned be applied to future exercises and drills?**
    - The Hospital Disaster Committee will review the After Action Report and will advise on what changes will need to be made and present to all parties.

12. How will Lessons Learned be incorporated into response plan updates?
    - After review of lessons learned with all parties and recommendations are made, these recommendations will be placed into the disaster plans.

Other After-Action-Report Information

The following items are also <u>*suggested*</u> for inclusion:

9. **Exercise Name:** Shake, Rattle, and Roll 2011

10. **Duration (days, hours):** 8-9 hours

11. **Type of exercise:** Functional

12. **Focus:** The focus of this exercise was that of communications, development of ACF with regional resources, hospitals having to deal with both evacuation and surge of patients.

13. **Overview of exercise design – Who designed the exercise and how? Over what timeframe? What criteria were used? Is this part of a series? Are corrective action effectiveness being evaluated?**
    - Regional
      The Region 1 Healthcare Coalition solicited regional partners for the design team. The design team was comprised of public health, hospital, medical reserve corps, emergency medical services, and emergency management representatives. The design team worked over a period of 9 months developing the scenario, MSEL that would allow all agencies within region 1 to actively participate in a response to an earthquake and subsequent need for an ACF. This exercise also provided the region the ability to test the new ACF plan created by the Snohomish Health Department. Along with overarching objectives, each participating agency provided objectives specific to their agency. This exercise is the 2nd part of a series over 3 years. Next year will be a Full scale exercise. Corrective action effectiveness is being evaluated and being shared throughout the North Region.

    - Skagit Valley Hospital: Exercise objectives were developed by the Hospital Disaster Committee.

14. Exercise Goals and Objectives:

Based on the exercise planning team's deliberations, the following objectives were developed for Shake, Rattle and Roll 2011 Regional Drill

- Objective 1: Demonstrate the ability to establish multiple points of communication.
- Objective 2: Determine ACF communications process with ESF 8 desk and hospitals
- Objective 3: Demonstrate the ability to acquire resources to set up an ACF
- Objective 4: Demonstrate the ability to activate the Medical Reserve Corps units in Region 1 for ACF staffing
- Objective 5: Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
- Objective 6: Identify ways to manage the disposition of multiple fatalities region wide
- Objective 7: Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
- Objective 8: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
- Objective 9: Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)

- Objective 10: Demonstrate the ability Region wide to track 50 patients or more from point of collection to point of definitive care
- Objective 11: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Center's

15. **Evaluation Methodology – Who comprised the evaluation team? How were they selected? How were they trained? What plans or procedures are being evaluated? Is a sample evaluation from available as an attachment? Was a hot wash/debrief part of the evaluation process?**

    - Our evaluators have taken evaluating course either in classroom or on-line. Each of the evaluators are also on our Hospital Disaster Committee. All of the evaluators were given a copy of both the objectives and MESL to track drill activities.

16. **Please list any training needs identified as a result of this drill/exercise:**
    - Will be having training/education with individual department leads to go over how they will respond in their department and how they become a part of the Incident Command.

17. **Please include any other information you feel important to note:** Please see attached items.

- **Hot wash comments from Incident Command**
    - Incident Commander -Gregg- "Felt Rusty" Flowed quickly

    - Safety Officer -Kyle/Security- Did do real total lockdown which worked well. Fuel and water status biggest concern status

    - PIO - Kari Ranten- Media staging 12th street house. Direct all media over there. Runners and word of mouth until we have power and ham radios. High need for volunteers if no power and runners for each floor. Need to set a pool of runners to communicate to floors/depts. Etc. Too much noise in nursing admin for Ham Radio staff.

    - Liaison Officer - Corrin Schneider - Challenges, no phones to communicate with outside facilities, nursing homes, care facilities, etc. Would need to develop a runner system to SNF for bed availbilty. Transport companies, cabs, ambulances, buses etc. personal cars. Where do we stage pts waiting for transport? Ambulances may not be available? If we have to evacuate where do we go? Where Vents, oxygen, and other resources available to send patients Etc.

- Medical/Technical Specialist – Jessica Bell- Decon tent needs to be set up early. Separate space for clinical staff to gather. Decon area needed for contaminated staff and pts.

- Operations Section Chief – Lori Daisley- pleased with status, meds/supplies etc. Personnel pool- where do they go? Need 1 check in area. Unit sheets, what exact staff does each unit have? No emergency power in diagnostics and Cat Scan etc. Mobile MRI is on emergency power. Very pleased on how well we are set up for 96 hours with both water and fuel for the generator.. Lori suggests looking at packets and combining jobs, specific forms needed for each job.No radios to communicate within the hospital. Need to have them.Communication piece, need to work on that.

- Planning Section Chief – Bill Thomas, Difficult to assign rolls. Not all forms in all packets.

- Logistics Section Chief – Candace Wittenberg - SRC, employee health need to up water supply to include daycare and extra staff

- Finance/Administration Section Chief –Tom Litaker- Infrastructure/systems, time keeping system, computers, etc on emergency power. Map of what is on emergency power. Need to get MOU's established so we are 1st in line for fuel/water etc before other people. Utilize Chaplain/MSW and hospice for fatal pts. Family.

Pros and cons from the Evaluators

Pros

- -Drill called away at 0828 and Incident Command System activated 7 minutes later at 0835. (Excellent – 7 minute response time)
- -RACES set up in 17 minutes? (Possible pre-staging?)
- -IC positions assigned within 13 minutes.
- -Set up Surg. Tent as temporary morgue at 0920 (Con: initially asked for decon tents instead).
- -Regular IC Briefings at 0905 and 0935.
- -Frequent mention of 96 hour planning and supplies.
- -Established minor treatment area for staff at Urgent Care at 0930, and Sauk rm. at 0950.
- -Staffing pool set up in Jan Iverson's office at 0845.
- -Outbuildings were being notified by 0830.
- They worked well together making this happen quickly.
- Command staff quickly assembled and was eager to step into rolls. Staff quickly looked through folders to familiarize them self's with role and asked questions and collaborated with each other on positions Used charts on cart to make sure all rolls were filled. Staff continued to communicate well with each other and asked questions of each other to make sure everything was covered and addressed. A lot of who, what, where, how questions.

- Thinking ahead realizing we will need a large area out of sight that can be controlled easily. Used white boards on walls in conference room to show time line and communicate numbers of patients in house as well as other pertinent info.
- Great out of box thinking on how to solve issues that have come up. Established area for staff to be treated incase of injuries. Had idea of how to manage daily/weakly cancer and dialysis patients.
- The drill went well. Communication was an issue; only VOCERA was available.

Cons:

- Called "Internal Triage" initially vs. the correct call of "External Triage".
- Lots of mgmt. staff milling around in Nursing Admin spaces.
- Difficult to hear announcements from IC team due to large amount of staff milling around.
- Many people assigned to positions out of their scope when better positions or staff were available.
- No serious mention made of obtaining outside resources (see recommendations)
- Didn't hear any mention of disaster phone tree and/or results of activation.
- Operations Section Chief tied up trying to fill positions on IC board when could have been delegated.
- Initially someone tried to assign the House Supervisor a position – she needs to be kept at house supervisor. A miscommunication between code operator and Nursing Sup, resulting in the overhead page was called as internal triage instead of external triage, this was quickly corrected. Command staff only wants CEO to initiated External Triage. This could and will lead to time loss of getting things up and going especially if after hours or if communications down.
- Command HICS cart was at other end of hospital in storage and if there had been damage to hospital they may not have been able to get to it. May want to find a place to store it closer to command center or parts of it. Should try to have staff branch out into offices in the area to decrease noise level. It became hard for HAM operators to hear radio
- Noise level could leaved to miscommunication of information. Some lack of communication/knowledge of /between groups leading to some things being done twice. Lack of knowing what number of supplies we have and what MOU's we have with the community.
- Decon showers need to be free and ready for use during initial hours of event especially since total scale of event hasn't been seen if real world event. Plus if real earthquake after shocks could lead to patents requiring mass DECON.
- Lack of communication devices to hand out to people as alternative sources of communication, only have 5 hand held radios and at time of drill only 3 working(all 5 now working). No contact information to local SNF's to be used as ACF's. No planned staging area for staffing pool that hospital staff can show up to for placement into hospital. No planned daycare for staff with small children and no number of how many staff would need to use a service like this in the event of External or even Internal triage. No MOU's on file to know what suppliers will respond automatically in and emergency. Need to discuss what to do with chronically ill and wounded patients that have low survivability high drain of resources. Need to have very clear cut palliative care documentation on file.

-

Recommendations:

- City maps on foam board.
- Campus maps on foam board.
- Utilizing distribution drawing showing “RED” Emergency Outlook.
- Consider vendor relationships with water – fuel for long term.
- Ensure the door lockdown is on Emergency Power.
- Consider adding Emergency Power to X-ray and KD.
- Recommend making the “Facility Assessment” process a LEAN Project.
- Obtain Microphone / Megaphone for use in IC area to enable messages to be passed more clearly.
- Hold class with managers and above discussing each role in the ICS and their working relationship with each other.
- Hold additional drill with middle management (especially shift supervisors) shadowing leadership team and learning responsibilities and roles of each position in the IC.
- Work on MOU’s (Memorandums Of Understanding) with outside agencies to ensure their support in the event of an actual emergency.
- Open communications with the Medical Reserve Corps to assist with staffing concerns – especially if we set up the Surg. Tent outside.
- Next time, lets not tell the radio operators about the drill and see accurately how long it takes to get them set up in here.
- Play to our strengths – We had a Security person as Safety Officer, A business manager as Security, A non-Business person as the Business person, and our materials manager Bill Thomas wasn’t Logistics Chief, just to name a few. As mentioned before, there were plenty of middle and upper managers / directors available, and positions are fluid - can be changed on the fly when more qualified personnel become available. (i.e. CFO – Finance Chief (which did happen), or Risk Manager as Safety Officer)
- Have Section Chiefs assemble their own staffs, freeing up the Operations Section Chief quicker.
- Have additional staff assigned as Deputies to the chiefs or runners and scribes.

Communications Critique by Ham Radio Operators:

Location: Skagit Valley Hospital

18May11 SET Review Gary W7CRW

I intended doing logging using digital recorder. For an unknown reason it stopped recording shortly after initiating and I didn’t notice the problem until much later in the afternoon. My assumption is that somehow the recorder Stop button got bumped. I still think using the recorder is a good way to go but it needs to be checked far more often to make certain it’s functioning. The recorder I was using has a red light to indicate that it’s recording and is specified for 17 hours of recording.

The noise level was extremely high due to the number of people in the area during the morning. The radio operator had to use earphones to hear the radio traffic and this left the other station operators “in the dark” as to what was going on. It would have been much better if we had at least 3 sets of earphones available for the radio so additional operators or an observer could listen in on what is going on.

The digital Winlink node connection would occasionally hang up during a message transfer – especially after a message had been received and the application was attempting to Kill the received message. Recovery was easily done by Aborting the connection and trying again but it was annoying when it happened. It appeared that this may have been happening when another station was attempting a Winlink connection.

There was insufficient desk space to take notes and was especially noticeable when attempting to write a message being received. It would be preferred if the radio equipment was on a shelf and the area underneath left available for the computer equipment and a writing area.

We never received the Patient Transfer form that had been proposed. The form we finally received was only slightly similar to the one proposed. We had to essentially create a new form to be transmitted that added some delay to completing the task. I did make an error when creating the new form – the entry for “Triage Color From Receiving Facility: RED” should have been “Triage Color From Receiving Facility: UNKNOWN”. This type of problem could easily occur during Emergency or SET exercises and we should consider additional operator training on how to create a new report form.

We met with the SVH observer very early in the exercise but didn’t meet with the actual liaison person till much later in the morning. We apparently managed to get our message handling assignments completed adequately by going through the observer for direction.

A couple of messages were intended to go to SVH but were directed to SJH instead. We managed to get it corrected but it did create a delay in transfer. A significant contributor to this problem was that only one radio operator could really hear what was going on due to the noise level in the area.

Although it wasn’t a significant problem two radio operators should be available at all times. I was alone for a couple of hours during the afternoon. The radios were un-attended a couple of times when I had to take a break and when I had to deliver a message to the SVH Emergency Coordinator.

Late in the afternoon I noticed that KE7VQG had been added to the digital message routing list. As a precaution I added KE7VQG to our digital message routing list to make certain all interested parties were receiving them. We need to be certain of which stations outside of our normal operating area need to be on the message routing list prior to or at the very start of emergency conditions. The correct routing list is especially required when using Winlink because it doesn’t recognize bulletins to ALL. It would probably be better to have to many on the list than to risk missing one critical message recipient.

Location: Stanwood and Camano Skagit Regional Clinics:

As per your request, I am sending you some "lessons learned" from our local communications group relating to the exercise. First, I want to thank you and the clinic staff for asking us to participate in the exercise. The clinic staff was very courteous, cooperative and helpful and we appreciate every opportunity we get to practice message handling and test our equipment.

We identified a number of areas that need improvement, some of which relate to our internal plan and training and some relate to the exercise and equipment/facilities. I will focus my comments to the latter.

- As you know, there was a pretty complicated band plan for the exercise, perhaps too complicated. Our instructions were to check-in and send messages to Skagit hospital on 2 meters (145.19Mhz). There was some confusion between Skagit hospital and Skagit EOC. The messages were sent to the EOC then relayed to the hospital. This worked fine but perhaps if the EOC opened a formal Net and acted as Net Control, they could coordinate direct contact between the clinics and the hospital.

- There was no initial start description at the beginning of the exercise on 145.19 and no updates during the exercise. Our portable radio stations did not have multiple band capability so we didn't know when the exercise started or the exercise scenario.

- There was a question about a sign-in sheet at the clinics. Would it be helpful in coordinating staff to have a sign-in sheet for all "workers" at each clinic during an event?

- Some equipment deficiencies were identified. Radio rooms can be noisy and radio headsets would have been very helpful in reducing ambient noise. Also, if you intend to use amateur radio as back-up communications for the clinics, installation of permanent antennas would greatly improve our communication capability. We set up our radio stations with portable antennas outside and coax running through doors and windows. The coax can be a trip hazard and if someone does trip on the coax, it can disable the radio station. The metal roof on the clinic buildings can interfere with communications unless the antennas are above the roof or far enough away on a ground stand. Our group would be happy to assist with antenna installation; if that is the direction you want to go.

- The location of the radio rooms worked well for the exercise. The room at the Camano Clinic would be a bit small for a real event. We should look for an alternate location in the building for a future radio room.

St Joseph Hospital

Section 1: Executive Summary

On May 18, 2011, the Region 1 Healthcare Coalition conducted a function exercise, Shake, Rattle and Roll 2011. The purpose of the exercise was to test the regions ability to respond to an earthquake, and to set up alternate care facility (ACF) to house patients evacuated from damaged hospitals. The exercise required agencies from all over the region to come together and work as a team. This included hospitals, public health agencies, emergency management, and various community partners. The Snohomish Health District had just completed an ACF plan which was tested for the first time during this exercise.

This exercise also tested the following two scenarios for the first time:

1. Region 1's ability to set up an ACF away from an existing hospital. The ACF was set up at the Arlington Airport, in a field next to the old runway.
2. Region 1's and PeaceHealth St. Joseph Medical Center first attempt of setting up a Region One Disaster Medical Coordination Center (DMCC) area hospital bed control.

Major issues while planning this exercise were where to find staffing to assist not only in hospital evacuations, but in staffing an ACF. Communications with the ACF, area hospitals, bed control (DMCC), and Snohomish County ESF 8 was also an issue for this exercise. The Medical Reserve Corps provided an invaluable resource for staffing for the ACF. The Tulalip Tribe Medical Reserve Corps also provided needed tents for use at the ACF. One of the main points for this exercise was to set up an ACF at the Arlington Airport using surge tents from 4 hospitals within the region. ARES/RACES provided much needed communications support throughout the exercise. This enabled communications between the ACF site and some hospitals and partners within the region.

Based on the exercise planning team's deliberations, the following objectives were developed for Shake, Rattle and Roll 2011

- Objective 1: Demonstrate the ability to establish multiple points of communication.
- Objective 2: Determine ACF communications process with ESF 8 desk and hospitals
- Objective 3: Demonstrate the ability to acquire resources to set up an ACF
- Objective 4: Demonstrate the ability to activate the Medical Reserve Corps units in Region 1 for ACF staffing
- Objective 5: Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
- Objective 6: Identify ways to manage the disposition of multiple fatalities region wide
- Objective 7: Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
- Objective 8: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
- Objective 9: Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)

- Objective 10: Demonstrate the ability Region wide to track 50 patients or more from point of collection to point of definitive care
- Objective 11: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Center's

PeaceHealth St. Joseph Medical Center Hospital's Exercise Planning Team identified the following hospital specific objectives in support of the Regional Exercise Objectives:

1. Demonstrate the ability to establish multiple points of communication
   1. Hospital will test all communications equipment from printers, fax machines, cell phones, Satellite phones, WATrac, and ARES/RACES.
2. Determine Hospital Communication process with Alternate Care Facility (ACF) and ESF 8.
   1. Demonstrate the ability to accumulate and communicate surge and Alternate Care Facility information with the local health jurisdiction; DOH, DEM/EOC, and ESF 8.
   2. Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to regional Emergency Operation Center (EOC).
3. Demonstrate the ability within Region 1 to receive "surge" needs to the Disaster Medical Coordination Center (DMCC); PeaceHealth St. Joseph Medical Center.
   1. Demonstrate the ability within Region 1 to track patients being evacuated from hospitals to (ACF) (Up to 50 patients).
   2. Demonstrate the ability, Region wide, to track 50 patients or more from point of collection (ACF) to point of definitive care.
   3. Demonstrate the ability to rotate House Mangers schedule during an event.
4. Demonstrate the ability to place, register and track up to 10 exercise patients at PeaceHealth St. Joseph Medical Center.
   1. Determine possibility of using an electronic medical record and account number under a disaster naming convention.
5. ED Nurse Team Lead able to articulate and execute role in disaster event.
6. Security
   1. Traffic Control at the ED ambulance Entrance
   2. Communications Protocol with Security Officers

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

1.1 Major Strengths

Models and Promising Practices - Strengths identified during the exercise and observations and ideas that may be incorporated into future preparedness planning.

- Whatcom Emergency Communications Group (WECG) met the goals of their mission despite difficulties with technologies of which there would be many in an actual event. WECG's familiarity with SJH staff and systems speaks well of the relationship and understanding that each has with the other.

- PeaceHealth St. Joseph Medical Center has a good IT staff and an active ARES/RACES team that was extremely valuable in establishing communications before the exercise play began (replicating what their roles would be in a real situation) and also provided good IT support during the exercise.

- The House Managers Office ran the management of the PeaceHealth St. Joseph Medical Center DMCC. The House Managers were efficient, knew their jobs, knew WATrac, were able to get the correct resources when there were problems with data connectivity, and are familiar with all aspects of hospital operations.
- PeaceHealth St. Joseph Medical Center has had Hospital Incident Command System (HICS) training, and it was strength to see that as the IC was set up, positional charts, vests and equipment was ready to be used and the personnel expected to use HICS.

- When notified the House Manager immediately assumed the role of Incident Commander (IC) and facilitated an orderly transfer to the Administrator- On-Call who assumed role as IC for the remainder of the exercise. This is a major strength as the House Manager will almost always initially assume the IC role as the first notified.

- Communications within the Hospital Command Center (HCC) were excellent. Briefings were concise and held often. The overhead PA announcements contributed to keeping the entire hospital staff apprised of the general status of the incident. The HCC leadership was constantly sharing and soliciting information between and among the HCC staff. The leadership was also clear in assigning responsibilities and delegating the authority to obtain whatever resources were needed to accomplish the position's mission.

1.2 Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in Region 1 ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- The concept of an entity having responsibilities for distributing surge patients from one area to outside hospitals has been in the background for at least the past ten-years or so. For many years, it was understood that Providence Everett would be the primary entity

for this function with St. Joseph Medical Center acting as the alternate. I may be mistaken, but I believe that among emergency planners that the concept often referred to as "bed-control was thought to have been well established and tested practice in Region One. I am now under the impression that the "Shake, Rattle and Roll" exercise may have been the first attempt of setting up a Region One DMCC.

- There was difficulty in transferring DMCC responsibilities from Providence Everett to St. Joseph. This was largely due to several technical communication problems as referenced above. In a large earthquake there will likely be numerous communication system failures. Therefore it may be prudent to develop some criteria that could lead to an automatic transfer of DMCC responsibilities.

- When activating a DMCC the interrelationships and communication pathways between several entities need to be clearly defined and understood. These entities include the DMCC, Hospital Command Centers, Emergency Departments, state and local Emergency Management agencies and/or Emergency Support Function (ESF) desks. It may be useful to develop and have the entities concur on a flow chart to graphically illustrate communication pathways.

- There were a variety of problems associated with use of the Hospital Incident Command System (HICS). These included confusion about the use of ICS forms, expanding sections when needed, and the absence of any written Incident Action Plan (IAP).

- Signage noted the location of the Hospital Command Center but there was no security guard to prevent unauthorized entry to the HCC. The same holds true for the DMCC. Both locations can often be the source of highly confidential or otherwise sensitive information. The national media can be tenacious in their efforts to gather competitive information and unguarded command and or coordination centers can be a tempting target for media infiltration. Also, any incident that involves human tragedy can result in high emotions from friends and family members who may want access to real or perceived decision makers. Efforts should be made to ensure that only authorized personnel are allowed entry into command and or coordination centers.

For PeaceHealth St. Joseph Medical Center, the overall exercise was successful as it tested many internal and regional capabilities, some new, providing excellent feedback for improvements. The staff at St Joseph Medical Center worked extremely well and provided significant feedback that will be instrumental in the development of the Disaster Medical Coordination Center (DMCC) Plan as well as the continued operations of the Hospital Command Center (HCC).

Significant recommendations were noted for the roles of IT and TeleCom.

Ideas and recommendations were discussed and noted regarding internal communications, the HICS process specific to Command and General Staff roles, the use of the ICS Forms as well as other needs that would allow for smoother operations within the Hospital Command Center.

Section 2: Exercise Overview

2.1 Exercise Details

Exercise Name

Shake Rattle and Roll 2011

Type of Exercise

Large Scale Functional Exercise

Exercise Start Date

May 18, 2011

Exercise End Date

May 18, 2011

Duration

7:00 am through 4:00 pm

Location

Various locations in Island, San Juan, Skagit, Snohomish and Whatcom Counties.

Sponsor

Region 1 Healthcare Coalition

Program

ASPR 10/11

Capabilities

Medical Surge
Communication
Emergency Triage and Pre-Hospital Treatment
Medical Supplies Management and Distribution

ASPR deliverables

Interoperable Communications
ESAR/VHP
Partnership Coalition
Alternate Care Facility Planning
Fatality Management
Tracking of Regional Bed Availability

Scenario Type

7.5 Earthquake on the South Whidbey Fault.

2.2 Exercise Planning Team Leadership

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2.3 Participating Organizations

Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, PeaceHealth St Joseph Medical

Center, Cascade Valley, Valley General, Providence Everett, Swedish- Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

Participating agencies and private sector groups supplementing the hospitals include:

- Airlift Northwest
- American Medical Response Ambulance
- Arlington Fire Department
- Bowman Manufacturing Company, Inc
- Cascade Ambulance
- Cascade Valley Smokey Point Clinic
- Cascade Valley Hospital
- City of Arlington
- Island Hospital
- Island County Public Health
- Northwest Ambulance
- Providence Regional Medical Center
- Public Health Seattle-King County
- Rural Metro Ambulance
- San Juan Health and Community Services
- Skagit County Public Health Department
- Skagit Valley Hospital
- Snohomish and Skagit County Emergency Management
- Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
- Snohomish Health District
- PeaceHealth St Joseph Medical Center
- Swedish Edmonds Hospital
- Tulalip Tribe Medical Reserve Corps
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

2.4 Number of Participants from Your Organization

PeaceHealth St. Joseph Medical Center:

- Disaster Medical Coordination Center (DMCC) Players: 6
  - DMCC Photographers/Scribes: 2
  - DMCC Admin Support: 2
- Hospital Command Center (HCC) Players: 15
  - HCC Photographers/Scribes: 2
  - Admin Support: 2
- Communication Players: 7
  - Emergency Communications Center Photographers/Scribes: 2

- Controllers: 2
- Evaluators: 3
- Observers: 1 (DMCC)

Section 3: Exercise Design Summary

PeaceHealth St Joseph Medical Center participates in regional cooperative planning for emergencies with healthcare organizations in our five county geographic areas. Our planning region mirrors the Washington State Department of Health regional composition and is identified as Region 1. It includes Whatcom, Skagit, Snohomish, Island, and San Juan Counties.

Partner agencies are committed to integrated community preparedness activities and planning efforts including revisions of agency Emergency Operations Plans to reflect interoperability, alignment with the National Incident Management System (NIMS) and Incident Command System (ICS) principles in an all hazards approach.

PeaceHealth St Joseph Medical Center exercise design team involved staff from the following departments: Emergency Department, Patient Registration, Communications, Local ARES/RACES, Facilities, Security, House Managers, Hospital Administration/Leadership, Nursing Leadership, American Academy of Disaster Medicine Representative, Hospital Public Relations, and Safety and Preparedness.

Exercise Purpose and Design

PeaceHealth St. Joseph Medical Center believes that disaster exercises are a fundamental tool in helping the organization prepare for an all hazards approach to disaster response and are committed to the implementation of the hospital's Emergency Operation Plan at least semi-annually either in response to an emergency or as a planned exercise.

This exercise, Shake, Rattle and Roll 2011, is the sequel to the very successful “tabletop” exercise, Shake, Rattle and Blow, held in April 2010 in Bellingham.

The Region One Healthcare Coalition’s planning efforts on the regional Shake, Rattle and Roll exercise tied in nicely with hospitals exercise plans because earthquake was rated as a high probability event and one of the hospital’s top three hazards, as outlined by the hospital’s 2011 Hazard Vulnerability Analysis (HVA).

The drill was mostly about communication; one of the main goals was to determine how well health-care personnel across the counties use ham radio as the primary method of communication during a disaster of this magnitude.

PeaceHealth St. Joseph Medical Center served as the coordination center for the five-county region; this involved directing the relocation of patients and the distribution of medical resources. Approximately 54 "actor-patients" participated with 10 (seven virtual and three actual) of those being transported to St. Joseph Medical Center.

This exercise satisfied the region ASPR Grant requirements, met the Hospital's Joint Commission Accreditation Requirements, as well as provided hospital participants to exercise revised or new hospital objectives that may have been identified from previous exercise after action reports. In addition, this exercise provided the opportunity to activate and test objectives for a Disaster Medical Coordination Center (DMCC).

This exercise was organized and developed through the Region 1 Healthcare Coalition and funded primarily by the Assistant Secretary for Preparedness and Response (ASPR) Grant.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based on the Regional Exercise Planning Team's deliberations, the following objectives were developed for Shake, Rattle and Roll 2011 based upon The Target Capability that examines Region 1's ability to respond to a **Disaster.** The subsequent Activities identify PeaceHealth St. Joseph Medical Center's objectives in support of the Regional Exercise Objectives:

- Objective 1: Demonstrate the ability to establish multiple points of communication.
  - Activity 1: Hospital will test all communications equipment from printers, fax machines, cell phones, Satellite phones, WATrac, and ARES/RACES.
- Objective 2: Determine Alternate Care Facility (ACF) communications process with ESF 8 desk and hospitals.
  - Activity 1: Determine Hospital communications process with ACF and ESF 8.
    - Demonstrate the ability to accumulate and communicate surge and Alternate Care Facility information with the local health jurisdiction; DOH, DEM/EOC, and ESF 8.
    - Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to ACF
- Objective 3: Demonstrate the ability to acquire resources to set up an ACF
  - Activity 1: Demonstrate the ability to accumulate and communicate surge and Alternate Care Facility information with the local health jurisdiction; DOH, DEM/EOC, and ESF 8.
- Objective 4: Demonstrate the ability to activate the Medical Reserve Corps units in Region 1 for ACF staffing
  - No activity from PeaceHealth St. Joseph Medical Center

- Objective 5: Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
  - No activity from PeaceHealth St. Joseph Medical Center

- Objective 6: Identify ways to manage the disposition of multiple fatalities region wide
- Objective 7: Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
  - Activity 1: Demonstrate the ability within Region 1 DMCC to track patients being evacuated from hospitals to (ACF) (Up to 50 patients).
  - Activity 2: Demonstrate the ability, Region wide, to track 50 patients or more from point of collection (ACF) to point of definitive care.
- Objective 8: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
  - Activity 1: Demonstrate the ability to place, register and track up to 10 virtual patients at PeaceHealth St. Joseph Medical Center.
- Objective 9: Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)
  - Activity 1: Demonstrate the ability within Region 1 to receive "surge" needs to the Disaster Medical Coordination Center (DMCC); PeaceHealth St. Joseph Medical Center.
- Objective 10: Demonstrate the ability Region wide to track 50 patients or more from point of collection to point of definitive care
  - Activity 1: Demonstrate the ability within Region 1 DMCC to track patients from ACF to point of definitive care (Up to 50 patients).
  - Activity 2: Demonstrate the ability to place, register and track up to 10 virtual patients at PeaceHealth St. Joseph Medical Center.
    - Determine possibility of using an electronic medical record and account number under a disaster naming convention.
- Objective 11: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Centers.
  - Activity 1: Demonstrate the ability to accumulate and communicate surge and Alternate Care Facility information with the local health jurisdiction; DOH, DEM/EOC, and ESF 8.
  - Activity 2: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to regional Emergency Operation Center (EOC).

Scenario Summary

A 7.5 magnitude earthquake along the South Whidbey Fault line hits northern Washington State. The epicenter was on the South Whidbey Fault, 2 miles southeast of Mukilteo causing serious damage over a large area.

Throughout the morning hours police, fire, law enforcement, public works and emergency management agencies assessed the damage done by the earthquake. There were numerous reports of injuries and deaths. Providence Hospital, Swedish-Edmonds Hospital, Valley General and Cascade Valley Hospital all sustained major damage and patients needed evacuating to other hospitals within Region 1. It was quickly determined that a “Patient Reception Center” and “Alternate Care Facility” was necessary.

Due to major highway damage along 405/I-5 interchange and at Northgate, going south was basically impossible. Patient movement was routed to the North.

The Arlington Airport had space to house the Patient Reception Area and Alternate Care Facility but the Healthcare Coalition equipment needed to be relocated and set up at the location.

During the earthquake the Twin Bridges that run along US-20 was severely damaged and the Washington State Patrol closed them. Whidbey General Hospital was damaged and numerous patients needed to be transported to other hospitals. Patients were transported via ferry over to Port Townsend and transported to Jefferson or Olympia Hospital.

During the majority of the morning all telephones (cellular and landlines were not functioning).

Section 4: 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 Shake, Rattle and Roll 2011 are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

Capability 1: Communications

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 must have sufficient wireless communications to meet their everyday internal and emergency communication requirements before they place value on being interoperable, i.e., able to work with other agencies.

Activity 1.1: Demonstrate the ability to establish multiple points of communication.

Observation 1.1: Strengths:

Hospital Command Center:

1. Strength: The hospital did communicate with the DMCC regarding the ability to accept patients.

2. Strength: Communications within the HCC were excellent. Briefings were concise and held often. The overhead PA announcements contributed to keeping the entire hospital staff apprised of the general status of the incident. The HCC leadership was constantly sharing and soliciting information between and among the HCC staff. The leadership was also clear in assigning responsibilities and delegating the authority to obtain whatever resources were needed to accomplish the position's mission.

3. Strength: Hard wire was needed for the extra out of hospital visitors. IT Helpdesk was called and quickly responded with wiring and turning on the computer access ports in the room to use the wires.

Disaster Medical Coordination Center (DMCC):

1. Strength: PeaceHealth St. Joseph Medical Center was able to establish communications internally, and within a couple hours communications were established with the ACF, and other area hospitals from within their DMCC.

2. Strength: PeaceHealth St. Joseph Medical Center DMCC did regularly update WATrac throughout the exercise and when the hospital DMCC was activated they were able to monitor WATrac to determine available beds/resources.

3. Strength: PeaceHealth St. Joseph Medical Center DMCC regularly updated WATrac, communicated with area hospitals and maintained lists of supplies and available beds by area hospitals.

4. Strength: Communications were observed with DMCC (0956hrs) & Local Emergency Management (1435 hrs).

Hospital Emergency Communications Center (ECC):

1. Strength: PeaceHealth St. Joseph Medical Center has a good IT staff and an active ARES/RACES team that was extremely valuable in establishing communications before the exercise play began (replicating what their roles would be in a real situation) and also provided good IT support during the exercise.

2. Strength: PeaceHealth St. Joseph Medical Center – Objectives were met and the Whatcom Emergency Communications Group successfully worked through problems that arose while maintaining HIPAA standards of confidentiality.

3. Strength: Whatcom Emergency Communications Group (HAM Radio) successfully worked to ensure communications between DMCC and ESF 8 throughout the exercise while maintaining strict confidentiality in keeping with HIPAA.

4. Strength: Whatcom Emergency Communications Group (WECG) met the goals of their mission despite difficulties with technologies of which there would be many in an actual event. WECG's familiarity with hospital staff and systems speaks well of the relationship and understanding that each has with the other.

Observation 1.1: Areas for Improvement:

Hospital Command Center (HCC):

1. Areas for Improvement: The satellite phones in the HCC did not work each time they were tried. The signals were either busy or there was no connection.

2. Areas for Improvement: The hospital did attempt to contact another agency via satellite phone. In the end, the satellite phone did not work.

3. There were no observed communications with local emergency management or Operational Level Providers.

4. Areas for Improvement: The hospital did test all communications equipment prior to the exercise, but several communication failures occurred during the exercise.

5. Areas for Improvement: PeaceHealth St. Joseph Medical Center was able to communicate, however there were multiple communication problems encountered early

on in the exercise that were eventually overcome. There was also confusion on when the hospital DMCC was actually asked to be stood up.

6. Areas for Improvement: E-Mail from hospital internal email system does not put email address on the email. Suggest that email address be part of message. Also, staff needs to identify themselves with department with which they are working (DMCC, HCC).

7. Areas for Improvement: The Logistic Section Chief (LSC) assumed the responsibility of answering phones in the HCC. While this is a Logistic Section issue, it might be better handled with the assignment of a Communications Unit Leader (COML). Additionally a pre-scripted Comm Plan might be drawn up for both radio and telecommunications. The pre-scripted plan could be easily amended and distributed to reflect any changes that might be needed for specific incidents.

Disaster Medical Coordination Center (DMCC):

1. The fax communications were not established with the ACF for some time as the ACF fax machine was set on "send only". Once the communication issues were resolved, which took approximately 2 hours, all activities were observed.

2. Areas for Improvement: These are some of the communication problems: phone number confusion – calls coming into PACCAR intended for HCC, computers in PACCAR had start-up issues to lack of routine use, phones down – initially 48 minutes to reestablish, WiFi 4 hours to establish – Emails outgoing but no incoming.

3. Areas for Improvement: Use of SAT phones or ham radio should be considered if communication challenges can't be corrected.

4. Areas for Improvement: (DMCC) Request was made for additional personnel for phone operations and to provide additional phones but this was not executed.

Hospital Emergency Communications Center (ECC):

1. Areas for Improvement: Space is very limited for the amount of operators needed during a large incident with communication outages.
2. Areas for Improvement: There is a program that SJH IT uses to encrypt all files saved to a thumb drive that password protects the files. I think it encrypts the whole thumb drive and when we supply our personal thumb drives, it is a nuisance to the radio operators.
3. Areas for Improvement: Trying to figure out who was sending the message and whom to send it to was difficult. It would be better if the To; and From; was specified by the message originator rather than requiring us to try to figure it out.
4. Areas for Improvement: The syntax of the email address seems to be a stumbling block. The differences between the Outlook program, Exchange, and the Airmail program created many failures in sending through the WL2K system. The only way I could make

sure there were no bounces was to remove everything from the email address that interfered with the routing. Maybe an IT issue to be worked out between PHSJMC and Radio Operators.

5. Areas for Improvement: Battery backups be installed on desktop machines in the ECC in the event of power outage to prevent data loss before generator becomes active.

References:

PeaceHealth St. Joseph Medical Center Emergency Management, Safety & Security, Emergency Operations Plan, Mass Casualty Plans and the SJH HICS

Analysis:

1. Even without the loss of communication functions caused by the earthquake, the single largest problem experienced at St. Joseph centered on communications.

   Prior to the beginning of the exercise, the morning began with a Telecom Analyst setting up the Hospital Command Center (HCC) communication systems. Everything was said to have been tested and ready to go. This included the hospital's satellite phone which reportedly had not been a dependable communication link. In the end, the satellite phone did not work.

   Most of the communication difficulties appeared to be technical and easy to resolve. This includes the fact that overhead Public Address announcements were not reaching everyone that needed the information.

   Not all of the communication problems were technical, however. The addition of the Disaster Medical Coordination Center (DMCC) created an additional level of communication complexity that resulted in confusion about the flow of communications throughout the system.

   Communications within the HCC were excellent. Briefings were concise and held often. The overhead PA announcements contributed to keeping the entire hospital staff apprised of the general status of the incident. The HCC leadership was constantly sharing and soliciting information between and among the HCC staff. The leadership was also clear in assigning responsibilities and delegating the authority to obtain whatever resources were needed to accomplish the position's mission. It may be useful in future exercises to have the Command and General Staffs more fully expand their sections and practice ordering personnel and material resources through the Logistics Section.

Both the HCC and the DMCC would benefit from additional phone capabilities. Also consider adding more power outlets and hard-line computer hubs.

The Logistics Section Chief should consider appointing a Communications Unit Leader (COML). The COML should prepare an advance Communications Plan for both radio and telecommunications. Once designed, the plan could be easily adapted or changed to more accurately reflect the exact nature of a specific incident. Once a plan is developed it can be used to develop simple radio instructions for each user. Basic radio training should be provided to each user to make them comfortable with the hospital radio protocols.

During activations, the COML would oversee call takers, using staff that has been trained on the use of appropriate message forms (ICS 213) and the routing of the messages to the appropriate sections.

2. TeleCom had to put a patch cord on a dead data jack in the closet so the network printer would work in CR5. TeleCom also had to replace a circuit board for a ring down phone in PACCAR so that CR5 and PACCAR could ring-down to each other.

3. PeaceHealth St. Joseph Medical Center has a good IT staff and an active ARES/RACES team that was extremely valuable in establishing communications before the exercise play began (replicating what their roles would be in a real situation) and also provided good IT support during the exercise.

4. Consideration should be given to consolidation of the DMCC, HCC and ARES/RACES workspaces into a single location or in areas that are nearly immediately available to each other. In this exercise all three were on different floors and there were communication problems, both technically and for face-to-face discussions. For example, when the DMCC needed IT help because their communications were down, they needed to send a runner to find their IT resources that were in the ARES/RACES room. This is a problem both from the time lost for sending a runner, but also because with the limited resources available, the person who did go to the other room was not available for the DMCC.

5. Whatcom Emergency Communications Group (WECG) met the goals of their mission despite difficulties with technologies of which there would be many in an actual event. WECG's familiarity with hospital staff and systems speaks well of the relationship and understanding that each has with the other.

Recommendations:

1. Continued importance on the role of Communications and IT in supporting any major event. This should include immediate activation and response.

2. It may be useful in future exercises to have the Command and General Staffs more fully expand their sections and practice ordering personnel and material resources through the Logistics Section.

3. Both HCC and the DMCC would benefit from additional phone capabilities. Also consider adding more power outlets and hard-line computer hubs.

4. Future discussions on the use of too many wireless PCs in the PACCAR as this will cause problems as was seen during the exercise.

5. The Logistics Section Chief should consider appointing a Communications Unit Leader (COML). The COML should prepare an advance Communications Plan for both radio and telecommunications. Once designed, the plan could be easily adapted or changed to more accurately reflect the exact nature of a specific incident. Once a plan is developed it can be used to develop simple radio instructions for each user. Basic radio training should be provided to each user to make them comfortable with the hospital radio protocols.

6. During activations, the COML would oversee call takers, using staff that has been trained on the use of appropriate message forms (ICS 213) and the routing of the messages to the appropriate sections.

7. There is a need for sender identification (name, branch/department and email address) in the body of the email on all hospital internal emails as this information is not automatically supplied by the system.

8. Uninterrupted power supply (UPS) units are needed on desktop computers, fax machines, etc. in EM COMM Room to prevent data loss during generator power up interval after a power outage.

9. Message content needs to include more information (who, what, when, where, why) and specific action being requested of recipient so that intent is clear to transmitter.

10. Facilities should evaluate if it is possible for the DMCC, HCC and ARES/RACES can be either physically located in the same space(s) or made to be immediately adjacent to each other.

11. Work orders be established for quarterly (at a minimum) checks, software updates, battery checks, etc. for all IT and TeleCom Emergency response equipment located in the PACCAR and CR 5.

12. Create laminated information sheets with instructions on how to use the 800 MHz Radios. Create duplicate pocket size laminated sheets for ICS vest pockets.

13. Conduct semi-annual 800 MHz Radio Training for Key Response Staff.

Capability 2: Medical Surge

Capability Summary: Medical surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternative care facilities and public health departments) in order to provide triage and subsequent medical care. For the purposes of this exercise, medical surge is the capability to set up and staff an Alternate Care Facility within the Region.

Activity 2.1: Patient Tracking

Observation 2.1: Strengths:

Hospital Command Center (HCC):

1. Strength: The hospital received 10 (seven virtual and three actual) patients who were all placed, registered and tracked. The hospital did also demonstrate the ability to receive many more patients if needed.

2. Strength: Accounts where created in CE by using the trialed naming convention for disasters.

3. Strength: Accounts information flowed through Imagecast and Lab programs without causing any know errors at this point.

4. Strength: Naming Convention appeared to be clear that the entry is a code triage patient. No comments from any staff otherwise. This may need to be clarified further at next drill.

Disaster Medical Coordination Center (DMCC):

1. Strength: Disaster Medical Coordination Center (DMCC) communications with ACF as to how many patients each hospital could take. This task was completed within 20 min with good communication and teamwork.

Hospital Emergency Communications Center (ECC):

1. Strength: ECC notified that DMCC set up for Bed and Patient Tracking.
2. Strength: Radio communications contacting all hospitals by Email establishing PeaceHealth St. Joseph Medical Center as DMCC.
3. Strength: Confirmation received that PeaceHealth St. Joseph Medical Center established Winlink communications.

Observation 2.1: Areas for Improvement:

Hospital Command Center (HCC):

1. Area for Improvement: Registration will identify areas in internal process for patient data collection that will need to be improved or designed. This will need to be clarified further at next drill.
2. Area for Improvement: Develop final procedure for patient registration and registration discharge. Decisions need to be made about entry points before this can be finished.

Disaster Medical Coordination Center (DMCC):

1. Areas for Improvement: A HICS organization chart needs to be created specific for the DMCC roles. The organization structure will be defined as the DMCC Plan is developed.
2. Areas for Improvement: Region wide expectations and requirement for WATrac Updates need to be defined in the DMCC Plan.

Hospital Emergency Communications Center (ECC):

References:

PeaceHealth St. Joseph Medical Center Emergency Management, Safety & Security, Emergency Operations Plan, Mass Casualty Plans and the SJH HICS

Analysis:

1. The concept of an entity having responsibilities for distributing surge patients from one area to outside hospitals has been in the background for at least the past ten-years or so. For many years, it was understood that Providence Everett would be the primary entity for this function with St. Joseph Hospital acting as the alternate. I may be mistaken, but I believe that among emergency planners that the concept often referred to as "bed-control was thought to have been well established and tested practice in Region One. I am now under the impression that the "Shake, Rattle and Roll" exercise may have been the first attempt of setting up a Region One DMCC.

   When activating a DMCC the interrelationships and communication pathways between several entities need to be clearly defined and understood. These entities include the DMCC, Hospital Command Centers, Emergency Departments, state and local Emergency Management agencies and/or Emergency Support Function (ESF) desks. It may be useful to develop and have the entities concur on a flow chart to graphically illustrate communication pathways.

   There was difficulty in transferring DMCC responsibilities from Providence Everett to St. Joseph Medical Center. This was largely due to several technical communication problems as referenced above. In a large earthquake there will likely be numerous

communication system failures. Therefore it may be prudent to develop some criteria that could lead to an automatic transfer of DMCC responsibilities.

2. The House Managers Office ran the management of the hospital DMCC. The House Managers were efficient, knew their jobs, knew WATrac, were able to get the correct resources when there were problems with data connectivity, and are familiar with all aspects of hospital operations.

Recommendations:

3. If possible, it may be useful for the DMCC to have a liaison attend HCC briefings.
4. More tabletop and functional exercises involving the activation of the DMCC are warranted.
5. It may be prudent to develop some criteria that could lead to an automatic transfer of DMCC.

Capability 3: Hospital Incident Command System (HICS)

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

Activity 3.1:

Observation 3.1: Strengths

Hospital Command Center (HCC):

1. Strength: Communications within the Hospital Command Center (HCC) were excellent. Briefings were concise and held often. The HCC leadership was constantly sharing and soliciting information between and among the HCC staff. The leadership was also clear in assigning responsibilities and delegating the authority to obtain whatever resources were needed to accomplish the position's mission.

2. Strength: PeaceHealth St. Joseph Medical Center has had Hospital Incident Command System (HICS) training, and it was a strength to see that as the IC was set up, positional charts, vests and equipment was ready to be used and the personnel expected to use HICS. However its lack of regular use did lead to some limited confusion, but when this is taken into account, the overall fact remains that SJH recognizes and uses HICS.

3. Strength: There was a good use of color-coded Incident Command vests in the HCC

Disaster Medical Coordination Center (DMCC):

1. Strength: Since PeaceHealth St. Joseph Medical Center has had Hospital Incident Command System (HICS) training, the set up of the DMCC ran smoothly.

Hospital Emergency Communications Center (ECC): N/A

Observation 3.1: Areas for Improvement:

Hospital Command Center (HCC):

1. Areas for Improvement: Communications and IT; incorporate as first tactical people.

2. Areas for Improvement: Although Hospital Incident Commander reminded the Section Chiefs of their authority to add additional staff in order to fulfill the responsibilities of their assigned position, there was no evidence of this resulting in some frustration. Additional HICS training will be recommended.

3. Areas for Improvement: The HCC room was not set up to allow for optimal use. A lot of floor space was unavailable. Organization of room for HCC activation should be designed and tested.

4. Areas for Improvement: There may not be consistency look with the HICS Organization Charts (large board v. the paper copies). Perhaps continued HICS training will resolve these concerns.

5. Areas for Improvement: Security did participate in the HCC as the Safety Officer, but there were not security personnel assigned to determine who was authorized to enter the HCC or DMCC and this should have occurred as part of the exercise play. Activating Security Branch Director needs to be considered by the Operations Section Chief at the onset of each event.

6. Areas for Improvement: Although there were administrative assistants for both the HCC and the DMCC, there appeared to be a need for a scribe or assistant for each of the Command and General Staff positions, specifically for the filling out of the ICS Forms.

7. Areas for Improvement: PIO does not have dedicated laptop, cell phone, access to Front Page, and does not hear overhead pages in office building. It is noted that not all buildings and locations have the overhead PA system and thus do not receive the notices that are issued via the PA. The IC asks the Safety/Security Officer to look into addressing this problem for the future.

Disaster Medical Coordination Center (DMCC):

1. Areas for Improvement: A HICS organization chart needs to be created specific for the DMCC roles. The organization structure will be defined as the DMCC Plan is developed.

2. Once a DMCC HICS organization chart is established, DMCC HICS position vests need to be ordered.

3. Areas for Improvement: See comments under Capability 2 Medical Surge.

4. Areas for Improvement: Although there were administrative assistants for both the HCC and the DMCC, there appeared to be a need for a scribe or assistant for each of the Command and General Staff positions specifically for the filling out of the ICS Forms.

Hospital Emergency Communications Center (ECC):

1. Areas for Improvement: See comments under Capability 1 Communications.

References:

1. PeaceHealth St. Joseph Medical Center Emergency Management, Safety & Security, Emergency Operations Plan, Mass Casualty Plans and the SJH HICS

Analysis:

1. There were a variety of problems associated with use of the Incident Command System (ICS). These included confusion about the use of ICS forms, expanding sections when needed, and the absence of any written Incident Action Plan.

   Only a few organizations regularly use ICS. For everyone else, it can be a struggle to maintain the familiarity that is needed to successfully implement ICS. The use of ICS in the community response to the H1N1 pandemic was a great opportunity for some hospital staff to become more acquainted with ICS. That was evident with the development of operational periods and incident objectives.

   It’s clear that all of the HCC staff have been through Incident Command training. If you don’t use it regularly, it’s hard to maintain the knowledge. Rather than trying to get students to take long refresher courses, it may be preferable to develop a refresher program that is delivered in short email sessions that can be sent on a weekly or monthly basis.

   Signage noted the location of the Hospital Command Center but there was no security guard to prevent unauthorized entry to the HCC. The same holds true for the DMCC.

Both locations can often be the source of highly confidential or otherwise sensitive information. The national media can be tenacious in their efforts to gather competitive information and unguarded command and or coordination centers can be a tempting target for media infiltration. Also, any incident that involves human tragedy can result in high emotions from friends and family members who may want access to real or perceived decision makers. Efforts should be made to ensure that only authorized personnel are allowed entry into command and or coordination centers.

2. At one point Incident Command made a pointed remark about the need to maintain an audit trail with the message forms. ICS form 214 is a Unit Log and should be filled out by each unit. Individual logging is difficult and takes great discipline but should be encouraged. Often key players like Incident Command and the Section Chiefs are too busy to maintain accurate logs of when events unfold and what actions were taken. In that case, scribes should be assigned to maintain those logs. Individual logs may be the only accurate memory available three years after the incident when you are asked to provide court testimony.

3. Each of the rooms that were used in the exercise used flip charts to record major activities and additionally some personnel kept their own logs. The use of the HCIS 214 form helps with Unit Logging, however even if this is used it is still a paper-based system that does not provide a detailed audit trail of information.

4. PeaceHealth St. Joseph Medical Center Safety & Security did participate in the HCC as a player, but there were not security personnel assigned to determine who was authorized to enter the HCC or DMCC and this should have occurred as part of the exercise play. Should an actual event occur, this could be a potential problem for the protection of sensitive data, functioning of the HCC and DMCC and potentially the possibility of a security violence event should a victim's family member gain access to these spaces.

5. SJH Security was present throughout the exercise however safety and security issues existed and went uncorrected.
    a. The HCC was not protected from intrusion of unauthorized personnel.
    b. The HCC is very small and has two doors, the main entrance and a marked emergency exit. The emergency exit was blocked by the communications cart and extension cords were posing a trip hazard to anyone attempting to use the exit.

6. The overhead PA announces the upgrade of the Code Triage Level and that a briefing will be held. The IC questions whether the location of the briefing should also be announced. Note: this could create security issues for media or victim family members that may overhear the PA announcement. The location of the HCC and the DMCC

should be well known to everyone who needs to know. The only reason to announce the location of a briefing is if the HCC needs to be moved to a new location.

7. The House Managers are in the best position to be the core group for running the Hospital Command Center and this could be more clearly reflected in the PeaceHealth St. Joseph Medical Center Emergency Operations Plan.

Recommendations:

1. Develop a refresher program that can be delivered in short sessions, perhaps electronically, that can be sent on a weekly or monthly basis.
2. PeaceHealth St. Joseph Medical Center should evaluate, based on this exercise, the use of a simple Incident Management and Tracking system that can be used across the internal IT network so that all activities, requests, actions and details can be recorded into a single location. Consideration should be given to the use of this system across the PeaceHealth system.
3. PeaceHealth St. Joseph Medical Center should determine the optimal staffing levels and equipment requirements for physical security protection for the HCC, DMCC and other areas of the Hospital during emergency operations.
4. PeaceHealth St. Joseph Medical Center Security plans should be reviewed for improvements to access control during crisis and particular attention must be given to protecting the HCC, DMCC and Communications sections of the hospitals operation.
5. The HCC would benefit from expansion into the adjacent conference room. With the increase in size the DMCC and Communications could be moved into closer proximity of one another, thereby reducing some of the need for security staffing at these locations during events. The additional space would also make it possible to maintain the required clearance on the emergency exits.
6. There was a good use of color-coded Incident Command vests in the HCC. Consider adding position specific checklists in the pockets of each vest. Also consider adding position specific vests for the DMCC.

Capability 4: Medical Supplies Management and Distribution

Capability Summary: Medical Supplies Management and Distribution is the capability to procure and maintain pharmaceuticals and medical materials prior to an incident and to transport, distribute, and track these materials during an incident.

Activity 4.1: Communicate to and from DMCC and Regional Hospitals for Hospital and ACF needs.

Observation 4.1: Strengths

Hospital Command Center:

1. Strength: Liaison Section Chief has requested the ACF tent to be deployed from PeaceHealth St. Joseph Medical Center. (Unclear if request came from DMCC)

1. Strength: Conversation re patient reunification/location. Call to SimCell re family reunification (liaison officer). Per SimCell, County Emergency Mgmt setting up call center for family reunification.

2. Strength: PeaceHealth St. Joseph Medical Center prepared and demonstrated the ability to accept ACF patients.

Disaster Medical Coordination Center (DMCC):

1. Strength: PeaceHealth St. Joseph Medical Center was able to establish communications internally, and within a couple hours communications were established with the ACF, and other area hospitals from within their DMCC.

2. Strength: Equipment and bed tracers coordinated with WATrac.

Hospital Emergency Communications Center (ECC):

1. See Communications ECC Comments

Observation 4.1: Areas for Improvement:

Hospital Command Center:

1.Area for Improvement: Continued understanding of the HICS Position description and the roles and expectations when PeaceHealth St. Joseph Medical Center stands up the Regional DMCC.

Disaster Medical Coordination Center (DMCC):

1. Area for Improvement: Should DMCC have access to all regions to update WATrac information?

2. Area for Improvement: St. Joseph Medical Center was able to overcome communication challenges but was unable to direct patients from ACF to area hospitals because ACF did not communicate to DMCC. ACF communicated tent status but not patient info/status.

3. Area for Improvement: Coordination with Regional WATrac users.

4. Area for Improvement: Complete medical supplies and materials inventory into WATrac.

Hospital Emergency Communications Center (ECC):

1. Area for Improvement: Create comprehensive Communications Plan in DMCC Plan.

References: PeaceHealth St. Joseph Medical Center Emergency Operations Plan; HICS

Analysis:

1.Arlington Airport update – all 4 tents erected and now being loaded with equipment.
2.Skagit Valley Hospital/Island Hospital – Staff training for WATrac bed updates (These hospitals are not updating in WATrac). Did send message via the ECC Radio Room.

3.Radio Communications issues between ACF and St. Joseph Medical Center Emergency Communications Center. There was more communications between the DMCC and the ACF, and hospitals via fax.

4.St. Joseph Medical Center Controller received call from Sim Cell that ACF has patients and ready to transport but St. Joseph Medical Center has not received patient data from ACF.

Recommendations:

1.Region 1 to draft DMCC Plan

2.Create comprehensive Communications Plan to be included in DMCC Plan.

3.PeaceHealth St. Joseph Medical Center to input medical equipment and supplies into WATrac.

Section 5: Conclusion

This exercise was the first exercise for PeaceHealth St. Joseph Medical Center that included activation of the Disaster Medical Coordination Center DMCC. All participants within the DMCC, the Hospital Command Center HCC and the Emergency Communication Center ECC performed very well.

Exercise participants from all three areas demonstrated successful capabilities in the following performances:

- The value in training and exercising full capabilities of each Command Staff and General Staff positions
- Institute coordinated emergency management using HICS and NIMS
- Operating the DMCC using the HICS and NIMS emergency management structure

Exercise participants identified several lessons learned as areas for improvement. To address these lessons learned, an Improvement Plan was developed. As the improvement plan is implemented it is the hopes to test these areas again during subsequent exercised.

Appendix A: Improvement Plan

This Improvement Plan has been developed specifically for PeaceHealth St. Joseph Medical Center as a result of the Large Scale Functional Exercise, Shake, Rattle and Roll conducted on May 18, 2011. These recommendations draw on both the After Action Report and the After Action Conference.

Capability	Recommendation	Corrective Action Description	Primary Responsible Documents and POC	Start Date	Completion Date
Capability 1: Communications	1.2 Emergency communication equipment must be regularly inspected and maintained. The Safety and Preparedness Department will identify emergency communication equipment and work with appropriate departments to create a regular inspection and maintenance programs.	1.2.1 Inventory and determine location and maintenance requirements.	Safety & Preparedness POC – Safety Coordinator	July 1, 2011	Sep 24, 2011
		1.2.2 Work with content experts to establish regular inspection and maintenance.	Safety & Preparedness Telecommunications IT, POM POC – Safety Coordinator	July 1, 2011	Sep 24, 2011
Capability 2;	2.1 The DMCC requires	2.1.1 Organize an HICS structure	Safety & Preparedness	July 1,	Dec 31,

Medical Surge - DMCC	a command organization specific to DMCC responsibilities.	for DMCC	House Manager POC – Safety Coordinator	2011	2011
		2.1.2 Establish a physical organization in the PACCAR to be used when occupied by the DMCC	Safety & Preparedness House Manger POC – Safety Coordinator	July 1, 2011	Dec 31, 2011
Capability 3: Hospital Incident Command System (HICS)	3.1 Continue to provide HICS and NIMS training to all identified caregivers that have been identified as key responders to disaster events.	3.1.1 Develop concise training programs for caregivers responding to the HCC	Safety & Preparedness Learning & Development POC - Safety Manager	July 1, 2011	Dec 31, 2011
		3.1.2Organize IC response material by role including Job Actions Sheets, Vests, Forms, Radios, etc. Locate in HCC.	Safety & Preparedness POC – Safety Manger	July 1, 2011	Sep 24, 2011
Capability 4; Medical Supplies Management and Distribution	4.1 Draft DMCC Plan	4.1.1 Support Regional development of a Regional Disaster Medical Coordination Center Plan 4.1.2 Incorporate DMCC into the Hospital Emergency Operations Plan	Safety & Preparedness POC – Safety Manager	July 1, 2011	July 1, 2012

Swedish Edmonds Hospital

After Action Report
Shake, Rattle, & Roll 2011

Capability Description: This capability examines Region 1's ability to respond to a **Disaster**. The assumption is that local public health, hospitals, and emergency management are all participating in the response.	
Jurisdiction or Organization: **Swedish Edmonds**	**Name of Exercise:** **Shake, Rattle and Roll** **Nature of Event:** **7.5 Earthquake Whidbey Island Fault**
Location: Edmonds, WA	**Date:** **5/18/2011**
Evaluator (s): Ruth Westergaard Mark Nunes, Director of Facilities/Safety	**Evaluator Contact Info:** (360) 337-5752, wester@health.co.kitsap.wa.us (425) 640-4993 mark.nunes@swedish.org
Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned. Items in RED indicate the venue at which the activity will happen	

Organization Objectives:

3. Demonstrate the ability to evacuate ambulatory and non-ambulatory patients from the PCU area using current evacuation equipment/procedures.

4. Test Competency of Respiratory Care to ventilate an intubated patient from PCU to Staging Area using portable transport ventilators.

5. Demonstrate the ability of the departments to complete the damage assessment form and deliver to the EOC within 15 minutes of the initial event.

6. Demonstrate the ability to successfully utilize the Incident Command System by assigning at least 2 section chiefs and utilizing ICS Forms on a consistent basis throughout the exercise.

7. Demonstrate functionality of back up communications during simulated telephone/cell phone outage.

8. Demonstrate the ability to keep WATrac Bed Capacity Website (test) updated every 15 minutes during the course of the exercise and converse in the command center function.

Activity 1: Demonstrate the ability to establish multiple points of communication (All venues)

Activity Description: In response to a **Disaster**, agencies within region 1 establish multiple points of communications between public health, hospitals, emergency management, and the alternate care site.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	**Time of Observation/ Task Completion**
1.1	Agency determines how to communicate with the following as appropriate: - *Local public health* - *Area hospitals* - *Disaster Medical Coordination Center (DMCC)* - *Local Emergency Management* - *Operational Level Providers (I.E. Fire, Police, Transport Agencies)*	8:21 am – Fax received 7.5 earthquake 9:46 am – Call re: AMR problems with staging locations (Sim cell call)
Notes: Other than the entries noted in the "time of observation" box above, I did not observe communications with the contacts listed. The Safety Officer noted that he had not received a call from the alternative care site re: patients that had been transported. AMR was given directions of where to stage prior to exercise with map		
1.2	Agency demonstrates the ability to monitor and update WATrac (not applicable for emergency management agency's) - *Hospital updates WATrac with bed status on a continual basis* - *Public Health monitors WATrac for hospital status within their county* - *DMCC monitors WATrac to determine available beds/resources*	
Notes: I did not observe use of WATrac during the exercise although the WATrac program was posted on the overhead computer screen in the EOC and may have been accessed while I was evaluating other aspects of the exercise.		
	WATrac is updated within 30 minutes of Disaster (earthquake) (All Hospitals)	**Target: 30 Minutes**

		Actual:
1.3	ARES/RACES provide communications support for hospitals and the Alternate Care Facility - *Information is sent via radio in a timely manner* - *Information is received and given to appropriate personnel* - *HIPAA requirements are met regarding patient data*	**9:34 am – Ham operators notified**
Notes: At 9:30 EOC received word that all phones were out; cell phone connections were sketchy. The Incident Commander issued a directive at 9:34 am for the ham operators to report in.		
1.4	Satellite phones are used as a form of communication **(Public Health, Hospitals)** - *Agency attempts to connect to one other agency using satellite phone*	
Notes: I did not observe use of satellite phones.		
1.5	Region 1 Bed Control (DMCC) will communicate and coordinate patient information with Snohomish County EOC/ESF 8 **(Snohomish EOC, St Joseph Hospital)** - A method of communication is established between the DMCC and Snohomish EOC/ESF 8 - Communications are maintained throughout the entire exercise - Patient information is communicated in accordance to HIPAA regulations	
Notes:		
1.6	Area hospitals will communicate "surge" needs to the Disaster Medical Coordination Center **(all hospitals)** - *Hospital will communicate with DMCC if additional supplies are needed* - *Hospital will communicate with DMCC if additional patients can be accepted (this could be done via WATrac)*	
Notes: I did not observe communications with DMCC.		
1.7	Disaster Medical Coordination Center will communicate with Snohomish EOC/ESF 8 desk with "surge" needs or needs for Alternate Care Facility	

Notes:		
Activity 2: Patient Tracking (Hospitals, ACF)		
Activity Description: Following the evacuation from the hospital patients will be tracked to location of definitive care		
Tasks Observed (check those that were observed and provide comments) Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure		
	Task /Observation Keys	**Time of Observation/ Task Completion**
2.1	Evacuating hospitals will provide patients with tracking form prior to leaving their site (Swedish, Providence, Cascade, Valley) - ***Each patient has a patient tracking form on their person prior to transport to ACF***	**8:59 am Patient Tracking Manager designated by Incident Commander** **9:40 am Evacuation teams in place** **9:44 am Patients staged** **9:48 am Non-ambulatory, non-vented patient evacuation begun** **10:40 am Non-ambulatory, vented patient evacuation begun** **11:00 am Non-ambulatory evacuation complete**
Notes: **I observed the evacuation of 7 non-ambulatory patients, 4 requiring ventilation. The Patient Tracking Manager and her designee filled out tracking forms and accompanied each patient to the evacuation staging site and ensured that the tracking forms were with the patients at the time they were loaded into the aid car for transport to the ACF.**		
2.2	Alternate Care Facility will set up a method to track patients from moment of arrival until moment of transport - *Patient tracking for is kept with patient* - *Patient tracking for is updated with new information during triage*	
Notes: I was not at the ACF to observe.		
2.3	Receiving hospital will track patient upon arrival (Island, Skagit, United, St Joseph) - *Receiving hospital will update patient tracking form* - *Patients are entered into normal hospital tracking system* - *Receiving hospital alerts DMCC as to the arrival of patients*	
Notes:		
2.3	Disaster Medical Coordination Center (DMCC) will alert ACF and pre-hospital agencies as to the number of patients to send to the receiving hospitals - *DMCC communications with ACF as to how many patients each hospital could take*	

Notes:

Activity 3: Fatality Management (Hospitals)

Activity Description: in the event of a **Disaster (I.E. earthquake)** a hospital can expect to have an increase in the number of deceased within their facility. The medical examiner/coroner's office will be overwhelmed and bodies may need to be housed within the hospital for an unknown amount of time. Agencies will need to determine where bodies can be stored appropriately and away from other patients.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	**Time of Observation/ Task Completion**
3.1	Hospital determines where deceased will be stored within their facility - *Bodies will need to be refrigerated* - ***Bodies will need to be out of sight of patients and community***	

Notes: Swedish Edmonds did not practice fatality management for this exercise.

3.2	Hospital will need to alert local Emergency Management Agency / ESF 8 desk as to the number of deceased onsite - *ESF 8 will be responsible for working with medical examiners/coroners for disposition of bodies*	

Notes:

Activity 4: Hospital Evacuation (Swedish, Providence, Valley, Cascade) Hospital Surge (Island, Skagit, United, St Joseph)

Activity Description: area hospitals will need to activate their surge or evacuation plan depending on the amount of damage they have sustained.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	**Time of Observation/ Task Completion**
4.1	Damaged hospitals will active evacuation plan - *Demonstrate the ability to stage patients* - *Demonstrate the ability to prepare patients for transport to ACF*	**9:40 am Evacuation teams in place** **9:44 am Patients staging begins** **9:48 am Non-ambulatory, non-vented patient evacuation begun** **10:25 Second evacuation time activated** **10:40 am Non-ambulatory, vented patient evacuation begun** **11:00 am Non-ambulatory evacuation**

		complete
Notes: **The Swedish Edmonds evacuation teams consisted of 3 staff plus the patient tracker. The first 3 patients were loaded onto flexible transfer boards (Medsleds) and evacuated via the sky bridge through the 76th Street lobby to waiting aid cars. The sky bridge was reported impassable so teams transported the next 4 by lowering them down 3 flights of stairs utilizing a carabineer and rope. Total evacuation time took 1 hour and 12 minutes. A second team was added at 10:25 am.**		
4.2	Hospital will active surge plan to prepare for incoming patients - *Demonstrate the ability to accept patients from ACF*	

Observations Summary

08:21 – 0845
Fax arrived at the Swedish Hospital Edmonds command center that a 7.5 magnitude earthquake had occurred.
Hospital disaster alert team was paged.
Team members assembled and incident command roles assumed. The Safety Officer issued brief relaying details about the earthquake. Damage assessment ongoing.
Level 1 Code Triage called. Protocols reviewed.
Operations Chief assigned staff to manage the labor pool. Logistics Chief checked in with the labor pool to determine who had reported in. Reports began coming in from the floors on bed and patient status.

0845 – 0900
Command team reviewed patient numbers, locations, staff status. Situation Unit Leader was assigned.
Different staff person was assigned to take over labor pool.
Incident Commander activated the call roster.
Outpatients staged for evacuation.
Chaplain reported that her pager to did not go off.

0900 – 0915 Briefing held – lines of people showing up at the ED. ED handling surge but no beds or doctors available. Fire Marshall noted a large crack in the side of the building and ordered evacuation of ICU/PCU patients. At this time it was structurally safe to transport via the 3rd floor sky bridge to the west side entrance. Ambulatory were to evacuate first.
Completed evacuation of the walking wounded and 4 PCU patients were also evacuated. Seven patients remained in the ICU. The Incident Commander ordered the non-vented, non-ambulatory patients be evacuated first. Incident Command also directed to call for complete reports on patient status and locations.
All patients on 9, 7, 8 and 5 had been discharged/evacuated. All ambulatory evacuated. Only PCU/ICU non-ambulatory remained.

0915 – 0930
Elevators reported to be nonfunctioning. Structural damage deemed not super critical except for PCU/ICU. Command team determines that 4 person evacuation teams assemble sleds and coordinate packing with easiest patients to go first.
Incident Command determined need to mobilize labor pool and determined how many were needed.
EOC moved to West Tower and reported move to engineering. Situation report issued – preparing to move non-ambulatory and evacuation teams to assembly on 3rd floor to begin moving non-vented

patients.
Engineer update report – initial assessment: West Tower okay, ED okay; only structural problems in PCU/ICU. Questions arose regarding running of generators and availability of diesel.

9:30 – 0945
EOC received report that all phones were out and cell reception "sketchy." Determined need for runners and external communications alternatives – ham radios, satellite phones.
Ham operators directed to report in.
Labor pools identified and evacuation teams in place.
Patients staged on 3rd floor by sky bridge.

0945 – 1000
Runners called to EOC
Non-ambulatory patient evacuation begun via sky bridge. First team and patient tracking manager in place.
Incident Command reported problems with staffing.

1000 – 1015
Patient # 3 tracking and loading to aid car completed. Second patient tracker reported for duty.
Incident Command reported damage to sky bridge and evacuation to continue on east side of building.
Evacuation from ICU on 3rd floor via stairs on east side begun.

1015 – 1030
Additional evacuation team requested and evacuation begun.

1030 - 10:45 Power and phones reported to be back on.

10:58 Last patient evacuated.

11:15 Exercise all clear given.

11:20 Received call from Sim Cell requesting use of the ACF shelter and related equipment

11:30 Left Edmonds campus for Arlington Airport

12:30 Arrived at Arlington Airport ACF staging site, unloaded shelter and equipment and set up

13:15 Ready to receive patients

13:30 – 15:00 processed patients through ACF system

Evaluator ObservationsRecord your key observations using the structure provided below. Please try to provide a minimum of three observations for each section. There is no maximum (three templates are provided for each section; reproduce these as necessary for additional observations). Use these sections to discuss strengths and any areas requiring improvement. Please provide as much detail as possible, including references to specific Activities and/or Tasks. Document your observations with reference to plans, procedures, exercise logs, and other resources. Describe and analyze what you observed and, if applicable, make specific recommendations. Please

be thorough, clear, and comprehensive, as these sections will feed directly into the drafting of the After-Action Report (AAR). Complete electronically if possible, or on separate pages if necessary.

Strengths

1. Observation Title: Patient evacuation

1) Analysis: (Include a discussion of what happened. When? Where? How? Who was involved? Also describe the root cause of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the positive consequences of the actions observed.)

- **The patient evacuation teams and the patient trackers assembled organized and proceeded with minimal delay. As the teams identified problems, i.e. the need for another tracker, the need for an additional team, they notified Incident Command and continued evacuations. The team continually modified and corrected their coordination and gained acuity with their equipment as they went along, getting better and better at the team work and the process, particularly during the stair evacuations. Problems were noted at the time and rectified as possible.**

- **The patient evacuation teams were awesome!**

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Even though you have identified this issue as strength, please identify any recommendations you may have for enhancing performance further, or for how this strength may be institutionalized or shared with others.)

- **Tracking forms need to be reviewed for possible revisions and updates and staff should be trained to become familiar with the forms.**
- **Support or Rehab for evacuation teams, e.g. water, relief, monitoring for over exertion should be included in the future.**

Areas for Improvement

Observation Title: **EOC/Disaster Alert Team Activation & Function**

1) Analysis: (Include a discussion of what happened. When? Where? How? Who was involved? Also describe the root cause of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the negative consequences of the actions observed.)

- **EOC staff responded quickly. Within ten minutes of the activation call the EOC team member reported for duty. While people were clear on their specific assignment within the incident command structure they had difficulty locating and then understanding their job action sheets and what their specific functioning should be in their assigned role. Member indicated lack of clarity on response process. In the early stage of the response the team especially needed prompting on what to do next.**
- **A real plus, though, was that the command team were really engaged in the process and worked hard to figure out what they didn't understand. They took prompts and ran with them.**

2011

3) Recommendation: **Systems need to be checked out for operability. For example, when the Incident Commander called for PA announcements they were not heard clearly throughout the building.**

- **More training on role specifics would help but it would also be good if staff had access to quicker and easier role specific checklists rather than having to comb through the entire emergency response plan to find just-in-time refreshers on duties. I also heard command staff complain about the lack of plain language and they suggested that the language be "plain English."**
- **More departmental/staff familiarity with plan**
- **Simplification of Emergency Operations Plan for HICS Command team**
- **HICS Command needs to update the floors more frequently**
- **Need more radios for EOC and specialized teams**
- **Conduct more frequent training with HICS Command personnel and House Supervisors**

2. Observation Title: **Staff/labor pool activation & response**

- There was initial confusion and miscommunication about where exactly the labor pool was to report. They also didn't appear to be getting information about what was happening with the response and their role. Also, while staff in the ICU seemed to be responding well to request for equipment and space, exercise responders reported that some staff were asking what the exercise response had to do with them. Staff who did respond did not quickly understand their response roles and actions.
- Another area of confusion was around the location of the emergency evacuation equipment.

3) Recommendation: **One suggestion that staff posed was to have emergency response checklists or directories of equipment, response roles, etc. located in strategic areas throughout the hospital. Training on how to respond to specific incidents and requests for labor pool would be advisable.**

Improvement Matrix

Task	Problem	Solution	Status	Time Line	Person Assigned
Communications	**Not enough radios for all HICS Command and specialized teams**	• Place radios on the FY11 ASPR grant request		Q4-11	Nunes/Region One Healthcare Coalition
Equipment	**Not enough evacuation sleds,**	•Request equipment from FY11 ASPR		Q40-11	Nunes

	evac kits (gloves, hard hats, etc)	grant			
Training	**Code Triage needs to be drilled more frequently at a minimum with HICS Command and House Supervisors**	• Schedule six tabletops exercises with the small group and review top six scenarios from ASPR		Q3-11 thru 2012	Nunes/Leveque/ Emergency Preparedness Committee
Training	**Not enough familiarity with plan/locations of critical areas/equipment**	• Attend staff meetings to review material		Start Q3-11	Nunes/Leveque
Plan Layout/Content	**Simplify the current Emergency Operations Plan**	• Re-model the current plan to what the I/C and House Supervisors feel is the most critical information in the first 2 hours		Q3-11	Nunes/Leveque/ Emergency Preparedness Committee
Exercise Schedule	**Need to have an exercise schedule laid out for the departments**	• Create 2012 exercise planning schedule and post on the shared drives			Nunes/Leveque/ Emergency Preparedness Committee

United General Hospital

EXECUTIVE SUMMARY

The United General Hospital (United) earthquake tabletop and functional exercises known as 2011 Shake, Rattle & Roll (SR&R) were developed to determine the effectiveness of United's Communications, Resources and Assets, Security and Safety, Staffing, Utilities, Patient Care and Volunteer Management capabilities. These disaster exercises provided the hospital an opportunity to showcase successful planning efforts, while at the same time outlining new opportunities for improvement. United's participation in the Region One Shake, Rattle & Roll exercise, which was composed of numerous and diverse agencies, including EMS, hospitals, health departments, clinics and other partners, provided United the opportunity to foster relationships and team building with regional partners across the healthcare continuum. The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential opportunities for further improvement, and support development of corrective actions.

Major Strengths

The major strengths identified during this exercise are as follows:

- Recent Center for Domestic Preparedness HICS training of key personnel (IC and Logistics Section Chief) provided confidence and leadership.
- By assigning employees to HICS roles similar to their every day position in the hospital, United was able to utilizing each person in a role best suited to them. This made the chain of command, responsibilities and team work seem second nature during the exercise.
- Patient care was provided quickly, effectively and with compassion despite the less than ideal location and circumstances.
- Labor Pool pre-planning by Human Resources proved to be very effective in this exercise.
- ARES/RACES proved to be an invaluable resource to the hospital.

Primary Areas for Improvement

Throughout the exercise, opportunities for improvement regarding United's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Additional disaster response training is needed, including HICS training fo nonmanagement employees. Furthermore, employees who would not normally be involved in disaster exercises at the hospital should be included so they understand the importance of preparedness and mitigation regarding all hazards.
- Expectations and training regarding the Everbridge system (senders and receivers of messages) must be a priority.
- Planning for 96 hours of stand-alone disaster response is a challenge that needs more attention by departments such as Materials Management, Plant Operations, Pharmacy and the Staffing Office.

- Traffic control could be a challenge considering the size of the campus and available staffing resources.
- Regional collaboration has improved however sharing of staff and resources could prove difficult without a regional Memorandum of Understanding.
- Lack of planning to provide shelter, food, daycare, transportation for staff during large disaster events.
- Mass fatality planning efforts have been minimal at best. A predetermined supply list and staff training would provide a more comprehensive mass fatality plan.
- The hospital's Disaster Plan response section should include checklists to ensure all predetermined and departmental tasks are accomplished.
- A system must be developed to ensure patients can be accounted for during and after a disaster situation.

SECTION 1: EXERCISE OVERVIEW

Exercise Details

Exercise Name

United General Hospital 2011 Shake, Rattle & Roll

Type of Exercise

United General Hospital participated in a tabletop and functional exercise.

Exercise Start Date

Tabletop: 5/18/11 0830-1130
Functional: 5/18/11 1300-1400

Exercise End Date

5/18/11

Duration

See above

Location

United General Hospital's tabletop was conducted in a conference room in the main building, however, the functional was conducted in an alternative treatment area. That alternative treatment area was located on campus in the now vacant Dietrich and Smith building.

Sponsor

ASPR, Region One Healthcare Coalition & United General Hospital

Program

ASPR

Mission

Planning and Response

Capabilities

Communications, Resources and Assets, Security and Safety, Staffing, Utilities, Patients, Volunteers and Evaluation

Scenario Type

Earthquake

Exercise Planning Team

Karla Strand: Quality Resources Chelan Robbins: Human Resources
Bette Barlond: Quality and Safety Director Georgia Lauder: Registration

Cindy Hamming: Assistant Director of Nursing Lindsey Dostart: Communications
Tracie Skrinde: Human Resources Director Tom Barnts: Plant Operations Director

Participating Organizations

Region One Healthcare Coalition partners, including hospitals, public health and EMS ARES/RACES, etc.

Number of Participants

- Players: 9-10
- Controllers: 1
- Evaluators: 1
- Facilitators: 0
- Observers: 0
- Victim Role Players: 6-8 (from the Region; planned for 10)

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

United General Hospital believes that disaster exercises are a fundamental tool in helping the organization prepare for an all hazards approach to disaster response. The Region One Healthcare Coalition's planning efforts on the regional Shake, Rattle and Roll exercise tied in nicely with United's exercise plans because earthquake is one of the hospital's top three hazards, as outlined by the hospital's Hazard Vulnerability Analysis (HVA). In addition, participation in this exercise also helps the hospital meet the ASPR grant requirements and The Joint Commission accreditation requirements.

By having a tabletop exercise prior to the functional exercise, the hospital's exercise planning team hoped to provide participants with a positive exercise experience.

Tabletop exercises are designed to test the theoretical ability of a group to respond to a situation. One of the big advantages of a tabletop exercise is that it can allow people to test a hypothetical situation without causing disruption in the facility and/or services provided while functional exercises test plans, procedures and policies. The hospital will be utilizing these exercises to highlight the effectiveness of the hospital's disaster plan, communications, resources and assets, safety and security, staffing, utilities, an influx of patients and labor pool procedures utilizing disaster volunteers.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes. The capabilities listed below form the foundation for the objectives and observations in this exercise.

Target Capabilities List
Communications
Resources and Assets
Security and Safety
Staffing and Volunteers
Utilities
Patient Clinical and Support Activities (Patient Care)

Evaluation

Scenario Summary

A magnitude 7.5 earthquake hits northern Washington State. The epicenter is the South Whidbey Fault, 2 miles southeast of Mukilteo, and the shaking lasts approximately 30 seconds. The South Whidbey Fault is believed to stretch 250-300 miles from Victoria BC to Yakima, crossing the Cascade Mountains. There have been numerous reports of injuries and deaths. Providence Hospital, Swedish-Edmonds Hospital, Valley General and Cascade Valley Hospital have all sustained major damage and patients will need to be evacuated to other hospitals within Region 1 or flown out. It has been quickly determined that a regional "Alternate Care Facility" will be necessary. There have been many reports of sink holes along Hwy 9 and Hwy 99 as well as two large overpass collapses at the 405/I-5 interchange and at Northgate, going south is basically impossible.

Patient movement must be facilitated to the North. The Arlington Airport has space to house the regional Alternate Care Facility but the Healthcare Coalition equipment must be relocated and set up at the location. During the earthquake the Twin Bridges that run along US-20 have been severely damaged and the Washington State Patrol has closed them. Whidbey General Hospital has been damaged and they have numerous patients that need to be transported to other hospitals. Patients will be transported via ferry over to Port Townsend and transported to Jefferson or Olympia Hospitals.

United General Hospital's main building could potentially be unstable so no new patients/visitors are allowed in the building until an all-clear is obtained from Plant Operations. Plant Operations has indicated that the Dietrich & Smith building is structurally sound and could be used as an alternative treatment area for incoming patients until the main building evaluation can be completed. Most of United's

Management Team is off campus attending a manager retreat and can not be reached by telephone or pager. Staffing at the hospital is minimal. Telephones (cellular and land lines) are not functioning.

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 (activities) are listed below, followed by corresponding activities. Each capability is followed by related observations, which include references, analysis of strengths and opportunities for improvement (OFI), and recommendations.

Capability 1: Communications

Capability Summary: Maintaining reliable communication capabilities for the purpose of communication response efforts to staff, patients and external organizations. Back up communications processes and technologies to communicate essential information if primary communications systems fail. *(Reference: The Joint Commission - CAMCAH EM.02.02.01)*

Activity 1.1: To demonstrate the hospital's successful use of alternative communications systems (not to include telephones or cellular telephones).
Observation: The use of the Everbridge Communication System to send an initial message to all contacts within 10 minutes of the incident notification. The Communications Department was able to initiate the initial message quickly.
References: Disaster Plan (page 21)
Analysis:
STRENGTH: Pre-planned messages were very helpful in this regard.
OFI: Staff response to the message was lacking with only 34% confirming receipt of the message. Disaster Plan does not include information regarding Everbridge. Lack of trained staff in sending messages via Everbridge.
Recommendations:
1. Increased staff awareness is needed regarding expectations of staff when messages are sent via this communications tool.
2. Update Disaster Plan to include Everbridge and modified use of Disaster Pyramid Call List (page 21).
3. Training more individuals on the use of Everbridge.

Observation: The use of WaTrac (exercise/demo site) to provide regional partners with United's bed capacity. Nursing Supervisors provided updates as requested.
References: Disaster Plan (page 14)
Analysis:
STRENGTH: Updates were provided as requested.
Recommendations:
1. NA

Observation: Use of the Disaster Employee Hotline to provide updated information to staff. Specific messaging delivered via Everbridge with instructions to call the Disaster Employee Hotline for more information. Message on Disaster Employee Hotline instructed staff to call a specified extension in order to receive a prize.
References: Disaster Plan (page 22)
Analysis:
STRENGTH: Communications was able to update the hotline with exercise information and to return the message to "operations as normal".
OFI: Only 4 people left their name at the specified extension which means employees did not follow through either because they didn't listen to the entire message or because they weren't interested in the prize.
Recommendations:

1. Expectations and training regarding the Everbridge system (senders and receivers of messages) must be a priority.

Observation: Use of HICS forms throughout the exercise.
References: Disaster Plan (page 17-18)
Analysis:
STRENGTH: Staff referenced HICS forms.

OFI: It is difficult, with minimal resources, to manage an event and complete all of the HICS paperwork.
Recommendations:
1. Continue education and application of HICS as an organization to foster familiarity.

Observation: The effectiveness of the "exercise now in progress" signage.
References: NA
Analysis:
STRENGTH: Signage that was available was utilized effectively.
OFI: Additional signage would be helpful if such a scenario were to occur to help direct patients, visitors, etc. from the main building to the alternative treatment area.
Recommendations:
1. Increased signage in future exercises.

Observation: Utilization of ARES/RACES volunteers to provide an alternative method of communication with regional partners.
References: NA
Analysis:
STRENGTH: ARES/RACES volunteers were onsite prior to the exercise in order to stage effectively in their mobile command post.
OFI: Although they were utilized to provide communications, they felt they were under utilized.
Recommendations:
1. Increase awareness about ARES/RACES to Administration and Nursing Supervisors. This resource is available to them as needed and as requested through 911 Dispatch or the local Department of Emergency Management (DEM).

Capability 2: Resources and Assets
Capability Summary: Determining how resources and assets will be managed internally and, when necessary, solicited and acquired from external sources. *(Reference: The Joint Commission - CAMCAH Rationale for EM.02.02.03)*
Activity 2.1: Simulated deployment and delivery of the disaster trailer, which is a regional asset, as requested by the regional ACF.

Observation: No request received from the regional ACF.
References:
Analysis: We were unable to evaluate this activity.
Recommendations:

Activity 2.2: Accurate record keeping for payroll purposes by utilizing HICS forms.
Observation: Each participating person to sign in on the Emergency Worker Daily Activity Report and/or HICS form.
References:
Analysis:
OFI: This was a hard task to accomplish since staff wanted to dive directly into response mode.

Recommendations: A separate payroll code for disaster response in each department to ensure accurate record keeping for FEMA and/or Homeland Security reimbursement.

Capability 3: Security and Safety
Capability Summary: Management of security and safety during an emergency. *(Reference: The Joint Commission – CAMCAH EM.02.02.05)*
Activity 3.1: Utilization of an alternative treatment area if the hospital is temporarily unavailable due to safety concerns.
Observation: Demonstrated command and control in a situation where an alternative treatment area was needed.
References: NA
Analysis:
STRENGTH: Incident Commander did an excellent job of providing leadership to the HICS team. The Safety Officer was instrumental in making sure safety concerns were addressed immediately.
Recommendations: NA

Activity 3.2: Traffic control into the alternative treatment area.
Observation: Staff was assigned from the Labor Pool to control traffic into and out of the alternative treatment area's parking lot.
References: NA
Analysis:
STRENGTH: Housekeeping staff was able to monitor and control motor vehicle traffic in to and out of the alternative treatment area's parking lot by utilizing signs and hand signals.
OFI: Traffic control at the hospital's main entrance was an issue.
Recommendations: Develop a traffic control and security plan for an expected surge of patients in disaster situations.

Capability 4: Staffing and Volunteer Management (Labor Pool)
Capability Summary: Staffing and volunteer management will be a focus of the Labor Pool. *(Reference: The Joint Commission – CAMCAH EM.02.02.05, EM.02.02.07, EM.02.02.11, EM02.02.13 and EM02.02.15)*
Activity 4.1: Planning for 96 hour high census, low staffing ratio.
Observation : Logistics converted staff lounge into staff kitchen, Labor Pool initiated and set up to assign and document staff and volunteers (medical and non-medical). Discussions held regarding supply needs and staffing needs with HICS positions.
References: NA
Analysis:
STRENGTH: The Labor Pool was organized and well laid out. Documentation was prepared in advance.
OFI: In an event of this magnitude, the hospital will struggle to get necessary supplies and equipment, especially since several hospitals will be vying for the same supplies/equipment.
Recommendations: Discussions with vendors and possible contract updates to ensure United is a priority.

Activity 4.2: Planning for food, sleeping arrangements and childcare for staffing not able to return home.
Observation 1.1: The Labor Pool personnel, along with the Logistics Section Chief, discussed these issues and developed a plan.
References: United's Disaster Plan (page 22)
Analysis:
OFI: Lack of planning to provide shelter, food, daycare, transportation for staff during large disaster events.
Recommendations: High census (patients) could make this difficult but the hospital must make staff a priority to ensure continued operations. A brief outline of such plan for such instances should be documented within the Disaster Plan.

Activity 4.3: Effectiveness of Labor Pool pre-planning in regards to the registration, utilization and accountability of disaster volunteers (medical and non-medical).
Observation 1.1: Human Resources has invested time and resources in Labor Pool planning and it appeared to pay off.
References: United's Disaster Plan (Pages 13-14)
Analysis:
STRENGTH: The Labor Pool was organized and well laid out. Documentation was prepared in advance.
OFI: Labor Pool management training may promote staff confidence.
Recommendations: Continued practice in an exercise or real disaster will help determine small areas for improvement. Training in Labor Pool management would be helpful and would provide more confidence.

Activity 4.5: HICS position assignments.
Observation 1.1: The Incident Commander was able to make initial assignments with ease and confidence after the tabletop exercise in the morning. The Labor Pool was organized so that additional assignments would have been easily accomplished.
References: NA
Analysis:
STRENGTH: The Labor Pool was organized and well laid out. Documentation was prepared in advance.
Recommendations: Continued practice in an exercise or real disaster will help determine small areas for improvement. Training in Labor Pool management would be helpful and would provide more confidence.

Capability 5: Patient Safety and Care
Capability Summary: United General Hospital must be prepared to handle a surge of patients during a disaster situation. In this exercise, the main hospital building was unavailable for a brief time in order to allow a building assessment to be completed after an earthquake, thus forcing the need for alternative treatment area. In addition, mass fatalities may occur in disaster situations and, although the hospital does have a plan, it had not been tested recently. *(Reference: The Joint Commission – CAMCAH EM02.02.11)*

Activity 5.1: To demonstrate the hospital's ability to handle a surge of patients utilizing an alternative treatment area while the main hospital building is being assessed for safety after an earthquake.
Observation : Utilization of an alternative treatment area.
References: United's Disaster Plan (page 14)
Analysis:
STRENGTH: Recommendation of Dietrich and Smith building well received and assigned staff reported to that building for set-up and new patient arrivals. Staff did a great job setting up the building for temporary patient triage and care, especially considering lack of resources.
Recommendations: "Go kits" for departments such as registration and nursing, including items such as triage tags, wrist bands, bandages, blood pressure cuffs, splints, registration paperwork, etc., would be beneficial and make the hospital's response more fluid.

Activity 5.2: Patient tracking, preferably utilizing the regional form provided.
Observation: Patients were tracked via normal registration processes. The regional form was not delivered with the patients from the regional ACF.
Analysis:
OFI: The regional form was not delivered with the patients received from the regional ACF. Patients were registered utilizing downtime procedures however one patient's armband did not match paper registration information.
Recommendations: "Go kits" for registration of patients would also make response more fluid. Double and triple checking patient identification against registration paperwork would be beneficial.

Activity 5.3: Management of fatalities with limited resources.
Observation: The hospital does not have a morgue facility. Area funeral homes were not available in the scenario. Logistics Chief assigned a room in the building and ordered additional resources (dry ice, etc.) so when the deceased patient arrived, plans were in place and supplies on the way.
References: United's Disaster Plan (Page 15)
Analysis:
STRENGTH: A great example of thinking outside of the box.
OFI: A predetermined supplies list, along with a list of vendors, would be beneficial and help ensure the hospital's ability to treat the deceased with dignity and respect.
Recommendations: Update Disaster Plan to include supplies list and staffing that may be needed in a mass fatality situation.

Capability 6: Evaluation
Capability Summary: United General Hospital evaluates the effectiveness of its emergency management planning activities and the effectiveness of its Emergency Operations (Disaster) Plan as required by The Joint Commission. *(Reference: The Joint Commission – CAMCAH EM.03.01.01 and EM.03.01.03.)*

Activity 6.1: The hospital evaluates the effectiveness of emergency management planning activities and the Emergency Operations (Disaster) Plan.
Observation: Personnel referenced the hospital's Disaster Plan as necessary, keeping in mind that the plan is a living document and must be enhanced as needed.
References: United's Disaster Plan (Page 5)
Analysis:
OFI: Although utilization of the plan was noted, it was also noted that response sections of the plan would be more useful in bulleted list rather than in paragraph form.
Recommendations: Assign a task force to update specific response sections in the disaster plan to ensure a faster and more useful tool in the event of a disaster situation.

SECTION 4: CONCLUSION

A tabletop exercise in the morning provided the participants the opportunity to "think outside of the box" and to generate ideas not previously considered by participants. The afternoon functional exercise allowed participants to apply ideas discussed during the tabletop in a more realistic environment.
Disaster exercises, focused on hazards identified in a hospital's hazard vulnerability analysis and encompassing regional partners, help to ensure hospital preparedness. Hospital preparedness translates into safe patient handling, quality patient care, accountability and staff confidence. By ensuring preparedness, the hospital is more likely to mitigate hazards as resources allow, respond to a disaster situation with more ease and recover from a disaster situation in less time. Disaster preparedness will save the hospital time, money, resources and staffing in the long-term.

This AAR/IP has been reviewed and approved by Administration.

Valley General Hospital

Section 1: Executive Summary

On May 18, 2011, the Region 1 Healthcare Coalition conducted a functional exercise, Shake, Rattle and Roll 2011. The purpose of the exercise was to test the region's ability to respond to an earthquake, and to set up an alternate care facility (ACF) to house patients evacuated from damaged hospitals. The exercise required agencies from all over the region to come together and work as a team. This included hospitals, public health agencies, emergency management, and various community partners. The Snohomish Health District had just completed an ACF plan which was tested for the first time during this exercise. This exercise also tested for the first time, Region 1's ability to set up an ACF away from an existing hospital. The ACF was set up at the Arlington Airport, in a field next to the old runway.

The major issues this exercise highlighted included where to find staffing to assist not only in hospital evacuations, but in staffing an ACF. Communications with the ACF, area hospitals, bed control, and Snohomish County ESF 8 was also an issue for this exercise. The Medical Reserve Corps provided an invaluable resource for staffing for the ACF. The Tulalip Tribe Medical Reserve Corps also provided needed tents for use at the ACF. One of the main points for this exercise was to set up an ACF at the Arlington Airport using surge tents from 4 hospitals within the region. ARES/RACES provided much needed communications support throughout the exercise. This enabled communications between the ACF site and some hospitals and partners within the region.

Based on the exercise planning team's deliberations, the following objectives were developed for Shake, Rattle and Roll 2011

- Objective 1: Demonstrate the ability to establish multiple points of communication.
- Objective 2: Determine ACF communications process with ESF 8 desk and hospitals
- Objective 3: Demonstrate the ability to acquire resources to set up an ACF
- Objective 4: Demonstrate the ability to activate the Medical Reserve Corps units in Region 1 for ACF staffing
- Objective 5: Test the activation of ESAR/VHP to gain additional medical staff – RN, MD, paramedics, EMTs for the ACF
- Objective 6: Identify ways to manage the disposition of multiple fatalities region wide
- Objective 7: Demonstrate the ability within Region 1 to track patients being evacuated from Snohomish County hospitals to point of definitive care
- Objective 8: Demonstrate the ability of evacuating hospitals to utilize components of their surge/evacuation plans
- Objective 9: Demonstrate the ability within Region 1 to communicate "surge" needs to the Disaster Medical Coordination Center (DMCC)
- Objective 10: Demonstrate the ability Region wide to track 50 patients or more from point of collection to point of definitive care
- Objective 11: Demonstrate the ability of Bed Control (DMCC) to communicate and coordinate patient information to county Emergency Operations Center's

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

1.1 Major Strengths

The major strengths, on a regional as well as local level, identified during this exercise are as follows:

- The ability of the Region 1 Healthcare Coalition to establish a fully operational Alternate Care Facility at the Arlington Airport. The Region was able to produce 4 surge tents, and Medical Reserve Corps volunteers for staffing of an Alternate Care Facility away from any other hospital or healthcare facility.
- The ability of Valley General Hospital to respond to a regional event by activating and running the Hospital Incident Command System for the duration of the event locally.
- The ability of Valley General Hospital to support ESF 2 Communications by providing the necessary equipment and working with our ARES volunteers to provide communications during the event.
- The ability of the hospital to rapidly admit 10 patients who were later evacuated without disrupting care for currently admitted patients.
- The ability of the staff of VGH to stage patients for transport in various locations around the hospital in accordance with the hospital's evacuation plan.
- The ability to engage many staff of the hospital during the event as evidenced by their continued discussion of the strategies required for a full building evacuation.

Section 2: Exercise Overview

2.1 Exercise Details

Exercise Name

Shake Rattle and Roll 2011

Type of Exercise

For Valley General Hospital this was a functional exercise

Exercise Start Date

May 18, 2011

Exercise End Date

May 18, 2011

Duration

8:00 am through 11:00 am

Location

14701 179th Avenue, SE, Monroe, WA 98272

Sponsor

Region 1 Healthcare Coalition

Program

ASPR 10/11

Capabilities

Medical Surge
Communication
Emergency Triage and Pre-Hospital Treatment
Medical Supplies Management and Distribution

ASPR deliverables

Interoperable Communications
ESAR/VHP
Partnership Coalition
Alternate Care Facility Planning
Fatality Management
Tracking of Bed Availability.

Scenario Type

7.5 Earthquake on the South Whidbey Fault.

2.2 Exercise Planning Team Leadership

Incident Commander Chris Badger Exercise Director City of Arlington / Cascade Hospital 6231 188th Street NE Arlington, WA 98223 (360) 403-3618 cbadger@arlingtonwa.gov	**Deputy Incident Commander** Dr. Robert Mitchell
Operations Section Chief & **Simulation Cell Co-Controller** Anthony Christoffersen	**Planning Section Chief &** **Simulation Cell Lead Controller** Katie Denter Region 1 Public Health Snohomish Health District 3020 Rucker Ave, Suite 208 Everett, WA 98201 (425) 339-8711 kdenter@snohd.org
Logistics Section Chief Mark Nunes	**Finance/Admin Section Chief** Brittany Litaker

Swedish Hospital 21601 76th Ave West Edmonds, WA 98026 (425) 640-4993 Mark.nunes@swedish.org	North Region EMS and Trauma Care Council 325 Pine Street Suite A Mt Vernon, WA 98273 (360) 428-0404 brittany@northregionems.com
Public Information Officer (1) Linda Seger Island Hospital 1211 24th Street Anacortes, WA 98221 (360) 299-4226 lseger@islandhospital.org	**Public Information Officer (2)** Suzanne Pate Snohomish Health District 3020 Rucker Ave Everett, WA 98201 (425) 339-8704 spate@snohd.org
Carolyn Jordan, RN **Exercise Controller** **Valley General Hospital** **14701 179th St., SE** **Monroe, WA 98272**	

2.3 Participating Organizations

Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, St Joseph's, Cascade Valley, Valley General, Providence Everett, Swedish-Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

Participating agencies and private sector groups supplementing the hospitals include:

- Airlift Northwest
- American Medical Response Ambulance
- Arlington Fire Department
- Bowman Manufacturing Company, Inc
- Cascade Ambulance
- Cascade Valley Smokey Point Clinic
- Cascade Valley Hospital
- City of Arlington
- Island Hospital
- Island County Public Health
- Northwest Ambulance
- Providence Regional Medical Center
- Public Health Seattle-King County
- Rural Metro Ambulance
- San Juan Health and Community Services

- Skagit County Public Health Department
- Skagit Valley Hospital
- Snohomish and Skagit County Emergency Management
- Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
- Snohomish Health District
- St Joseph Hospital
- Swedish Edmonds Hospital
- Tulalip Tribe Medical Reserve Corps
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

2.4 Number of Participants from Your Organization

- Players: 24 plus 4 ARES Radio Operators - Volunteers
- Controllers: 1
- Evaluators: 1
- Facilitators: 1
- Observers: 2
- Simulation Cell: 5
- Victim Role Players: 54

Section 3: Exercise Design Summary

The Region 1 Healthcare Coalition solicited regional partners for the design team. The design team was comprised of public health, hospital, medical reserve corps, emergency medical services, and emergency management representatives. The design team worked over a period of 9 months developing the scenario, MSEL that would allow all agencies within region 1 to actively participate in a response to an earthquake and subsequent need for an ACF. This exercise also provided the region the ability to test the new ACF plan created by the Snohomish Health Department. Along with overarching objectives, each participating agency provided objectives specific to their agency.

Exercise Purpose and Design

Working in conjunction with the Exercise Design Team of the Region 1 Healthcare Coalition, this exercise was conducted in order to test the staff at Valley General Hospital in several aspects of our Emergency Operations Plan and Draft Full Building Evacuation Plan.

Goals of this exercise were to test the efficiency of the staff in following the hospital's policy to determine the need for an External Triage Alert, to test compliance with our all-call to alert staff of the event, to test compliance of staff notifying all off-site departments of the event, to test efficiency of Plant Operations in completing a site inspection to determine damages to the building. Also tested were the staff's compliance with VGH protocols to triage patients home or

to otherwise reduce census to allow for patients being transferred from the field and/or to reduce the number of patients requiring evacuation. Additionally tested was the ability to communicate with Snohomish County Department of Emergency Management ESF 8 desk, the DMCC hospital other than Snohomish County Hospitals and locally to Merrill Gardens utilizing the radio equipment currently in place at the hospital.

Scenario Summary

This exercise is based around a 7.5 magnitude earthquake along the South Whidbey Fault line. The epicenter is on the South Whidbey Fault, 2 miles southeast of Mukilteo. This fault is believed to stretch 250-300 miles from Victoria BC to Yakima crossing the Cascade Mountains. The South Whidbey fault is shallow, running beneath Mukilteo and southeast to Woodinville. An earthquake of this size is capable of causing serious damage over a large area.

In addition to the earthquake, Cascade Valley Hospital will also have the added pressure of dealing with a biological incident. A member of a local terrorist group the “Washingtonians Against All People”, is in the process of trying to release a biological when he is injured in the earthquake. The individual is brought to Cascade Valley Hospital where the biological is found spilling out of a vial. This necessitates the evacuation of the hospital. These patients will be sent to the Alternate Care Facility set up at the Arlington Airport.

In this scenario, Valley General Hospital’s physical plant was damaged during the earthquake. Initially, several patients arrival at the hospital with injuries varying in severity. They were admitted to the hospital in the departments appropriate for their conditions. Once the decision was made to evacuate the hospital, these patients were tracked and evacuated by ambulance to the Alternate Care Facility set up at the Arlington Airport.

Section 4: 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 Shake, Rattle and Roll 2011 are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

Capability 1: Communications

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 must have sufficient wireless communications to meet their everyday internal and emergency communication requirements before they place value on being interoperable, i.e., able to work with other agencies.

Demonstrate ability to communicate with Snohomish County Department of Emergency Management ESF 8 desk, the DMCC hospital other Snohomish County Hospitals, and locally to Merrill Gardens. Communications will include the use of all radio systems and WaTrac.

Activity: Communications with Merrill Gardens was not part of this exercise. Other communications – including ARES volunteers working in our communications center functioned well. We were able to communicate between the HCC and the comm room via 2-way radio. Deployment of the radios was problematic and a resolution was discussed. We were able to communicate with St. Joseph's Hospital once they assumed the DMCC role from PRMCE.

- **Observation: OPPORTUNITY FOR IMPROVEMENT** 4 volunteer ARES Radio Operators were invaluable to use before and during the exercise. Prior to the exercise, they made several trips to the hospital working with the radio equipment as well as our overall communications center configuration. They made suggestions which we were able to comply with regarding information to be made available during the exercise as well as contact numbers, etc. It was noted that our physical configuration is problematic during to the arrangement of the radios and the difficulties that poses for operation of the radios. VGH Administration has agreed to move the radios into another room which can be dedicated to our communications needs. We are working to make this move a priority prior to our next exercise.
- **Analysis:** Although we had not yet been able to move the radios, the operators were able to communicate with the other facilities involved in the exercise and we were able to communicate with them from the HCC by use of a dedicated two-way radio.
- **Recommendations(s):** To prevent delay in deployment of the two-way radios, the decision was made to place the radios in as many departments as possible (more radios need to be purchased). The radios will be kept in an area that allows for fulltime monitoring of the radio if possible. Additionally, the use of the channels will be pre-determined and marked on the radios themselves.

External Triage Alert all-call in compliance with hospital policy.

Activity: Based on the request by the appropriate Administrative staff, the ED staff shall make the overhead call in accordance with policy. The staff will be asked to make the call in compliance with Tier I, II or III protocols.

- **Observation:** OPPORTUNITY FOR IMPROVEMENT The three tiers of the overhead all-call were designed to allow for greater or fewer numbers of staff to be involved in the response depending on the nature and details of the event.
- **Analysis:** While the overhead page was made and the appropriate level of all-call was requested, there continue to be problems in implementation of the protocol.
- **Recommendations(s):** Further training on this procedure is needed and will be provided to the appropriate Managers during the Command and Control training that has been planned. Training of the appropriate staff will be completed by the appropriate Managers.

Capability 2: Medical Surge

Capability Summary: Medical surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternative care facilities and public health departments) in order to provide triage and subsequent medical care. For the purposes of this exercise, medical surge is the capability to set up and staff an Alternate Care Facility within the Region.

Staff to HCC in response to all-call with bed and staff availability info brought to briefing.

Activity: The staff that responded to the overhead all-call did so in a timely and orderly manner and the correct documentation was brought to the initial briefing.

- **Observation:** **STRENGTH** Due to a misunderstanding among a couple of Managers, not all responded to the overhead call.
- **Analysis:** The miscommunication which occurred during this exercise was specific and not expected to occur again.
- **Recommendation(s):** Staff responded as expected with one exception as noted.

Test compliance of staff notifying off-site departments of External Triage Alert.

Activity: It is outlined in the Emergency Operations Plan that when either an Internal or External Triage alert is called, the Switchboard Operator will call all off-site departments and notify them of the alert.

- **Observation: STRENGTH** The Operator called off-site departments in compliance with the policy. One note – the Emergency Preparedness Coordinator did not tell the ED about the change in Command Center before the overhead page was completed so there was confusion at that time. The page went out a second time and the omission was corrected.
- **Analysis:** Goal reached – Performed as expected with exception as noted.
- **Recommendation(s):** No recommendations made with exception as noted above.

Demonstrate efficiency of hospital staff to implement protocols/procedures to triage home appropriate patients to reduce census to allow for patients being transferred from the field.

Activity: STRENGTH Following the announcement of an Internal or External Triage, the Emergency Operations Plan protocol states that each department with patients will determine which patients might be triaged home safety. This information is brought to the HCC when requested but not implemented until the need is determined by the Incident Commander.

- **Observation:** This protocol was followed in compliance with policy.
- **Analysis:** Goal reached – Performed as expected.
- **Recommendation(s):** No recommendations made.

Capability 3: On-Site Incident Command

Test efficiency of staff in following hospital policy to determine need for Internal/External Triage Alert.

Activity: Based on information provided to ED and Administrative staff on the event, staff need to follow policy to determine the need for Internal/External Triage. When appropriate, the staff need to determine whether or not it will be safe to shelter-in-place or evacuate the hospital and this will be determined by condition of the building upon inspection.

- **Observation: OPPORTUNITY FOR IMPROVEMENT** The needed decisions were ultimately made and an External Triage alert was called. The ED staff were asked to call a Tier III External Alert, but this was not called in accordance with hospital policy. Additionally, the decision was made to evacuate the hospital but it was not clear what criteria was used to make the decisions.
- **Analysis:** The decision making process is outlined in the Emergency Operations Plan but problems continue with implementation. Further training for management staff is needed.
- **Recommendation(s):** The decision has been made to hold an Incident Command and Control training course for all command and general staff level employees. This course will be held in the Fall of 2011.

Goal # 8 – Demonstrate ability to evacuate patients in accordance with VGH Evacuation Plan including:

Patient tracking

Staging and transportation

Removal of patients from hospital including at least one critically ill patient from CCU

Activity: Patient tracking – HICS form 260 was utilized to track patients by VGH staff ensuring that each patient to be evacuated had the appropriate form completed before transfer out. The form was utilized as designed the radio room copy

Staging and transportation – although the transportation of patients to be evacuated was artificial, the patients were staged in compliance with the Evacuation Plan in each department testing the evacuation process.

Removal of patients from hospital including at least one critically ill patient from CCU – Each department in the hospital evacuated each patient so designated and sent them to their appropriate staging area. The ED Fast Track area has been designated our Red-or critical condition-patient holding area and was used appropriately during the exercise.

- **Observation: WHILE PERFORMED WELL – THE NEED TO TEST CAPABILITY TO EVACUATE LARGE NUMBERS OF PATIENTS WILL REQUIRE THIS BE CLASSIFIED AS AN OPPORTUNITY FOR IMPROVEMENT** Patient Tracking – Goal reached – performed as expected.

  Staging and transportation – Goal reached – performed as expected.

  Removal of patients from hospital including at least one critically ill patients from CCU – Goal reached – performed as expected.

- **Analysis:** The provisions for evacuation set forth in the Draft Full Building Evacuation Plan worked well.
- **Recommendations(s):** Although the Draft Full Building Evacuation Plan worked well this was at least in part due to the small number of patients evacuated during the exercise. Future exercises will test the policy with a larger group of people to evacuate.

CAPABILITY 4: Critical Infrastructure Protection:

Test efficiency of Plant Operations in completing a site inspection to determine damages to the building.

Activity: Following an earthquake or other event which could potentially damage the building and make it unsafe for patients, families and staff, the Plant Operations staff will be complete a facility assessment and results will be given to the Incident Commander so decisions can be made regarding the issues surrounding evacuation.

- **Observation: STRENGTH** The survey was completed in accordance with policy.
- **Analysis:** Goal reached – Performed as expected utilizing the forms currently part of our Incident Command structure.
- **Recommendation(s):** The Manager of Plant Operations will work with the Emergency Preparedness Coordinator to ensure the form is appropriate for this facility.

Goal # 8 – Demonstrate ability to evacuate patients in accordance with VGH Evacuation Plan including:

Patient tracking

Staging and transportation

Removal of patients from hospital including at least one critically ill patient from CCU

Activity: Patient tracking – HICS form 260 was utilized to track patients by VGH staff ensuring that each patient to be evacuated had the appropriate form completed before transfer out. The form was utilized as designed the radio room copy

Staging and transportation – although the transportation of patients to be evacuated was artificial, the patients were staged in compliance with the Evacuation Plan in each department testing the evacuation process.

Removal of patients from hospital including at least one critically ill patient from CCU – Each department in the hospital evacuated each patient so designated and sent them to their appropriate staging area. The ED Fast Track area has been designated our Red-or critical condition-patient holding area and was used appropriately during the exercise.

- **Observation: OPPORTUNITY FOR IMPROVEMENT**
- Patient Tracking – Goal reached – performed as expected.

Staging and transportation – Goal reached – performed as expected.

Removal of patients from hospital including at least one critically ill patients from CCU – Goal reached – performed as expected.

- **Analysis:** The provisions for evacuation set forth in the Draft Full Building Evacuation Plan worked well.
- **Recommendations(s):** Although the Draft Full Building Evacuation Plan worked well this was at least in part due to the small number of patients evacuated during the exercise. Future exercises will test the policy with a larger group of people to evacuate.

Conclusion

In conclusion, this was a successful exercise as it demonstrated true capabilities of Valley General Hospital and allowed for identification of opportunities for improvement

As the hospital continues its efforts to plan for all types of events and tests those plans, we move forward along the course of preparedness. We have expanded our planning efforts to include an all-hazards approach to emergencies, evacuation planning, multiple fatality planning which will be expanded in 2011. Exercises will be developed to further test these plans and to test our abilities for working with our local and regional partners. Additionally, further planning designated for 2011-2012 is in the area of Continuity of Operations Plans.

Future exercises will be designed to continue to test these plans.

ALL EXERCISE DOCUMENTS WILL BE KEPT AS PART OF THE AFTER ACTION REPORT.

Appendix A: Improvement Plan:

Issues determined to be deficient but not related to pre-established goals are as follows:

1. HCC organization chart is needed that is large enough to be seen by all in the room which indicates current job assignments.
2. A large board for documentation of items such as current operational period, time of next scheduled briefing, specific event processes, etc. is needed.
3. Hospital specific facility system status report form is needed.
4. Pre-staging of radios with the radios on and turned up loud enough to be heard at all time and channel designations need to be on each radio.
5. Evacuation specific forms were available in the HCC but for those positions that were needed but did have event specific forms, forms were not readily available.
6. Work needs to begin on a Continuity of Operations Plan (COOP).
7. Department/Incident Command JAS Specific information not previously identified:

   MSTU –

   Overhead page not heard – further training required for staff whose responsibility it is to call overhead pages – all Codes shall be called over the enunciator panel.

   Exercise planning issue – role players were taken to the HUC on MSTU. When they indicated they were unsure what to do – they were asked what they would do under similar circumstances if their Manager was not present. Well received by the staff and created a learning experience for the staff.

   Concern voiced that "damage" to the wall next to oxygen on/off valve didn't prompt call to Plant Ops. Learning opportunity for staff.

   Concern voiced regarding the number of available O2 tanks.

Development of algorithm suggested to help staff move through processes required under certain event circumstances – will be developed in conjunction with EOC Committee.

Concern voiced should an event occur on a night shift. – will be addressed by Emergency Preparedness Coordinator in conjunction with MSTU Manager.

Communications Unit Leader –

Only 3 of the 11 individually wired telephones (red phones) were found to be working. Manager of Plant Operations notified and these phones were fixed immediately and retested successfully.

Unsure of involvement of Recovery Center staff – will be addressed by Emergency Preparedness Coordinator.

Transportation Unit Leader –

No vest available for this IC position – decision made previously to control costs by limiting number of vests purchased. Emergency Preparedness Coordinator to address this issue with EOC Committee.

Concern voiced regarding terminology in use on JAS. Emergency Preparedness Coordinator will address this concern but will keep in mind the philosophy of NIMS to use standardized terminology where possible.

Concern voiced that on documentation forms used in this exercise only had patient ID stickers on the top copy of multiple copy of forms. Is training issue which will be addressed by Emergency Preparedness Coordinator and Department Managers.

Safety/Security Officer –

Help needed to deploy signage and barricades. Would come from Labor Pool in the event of a real emergency so future exercises will address this issue by ensuring staff available to test Labor Pool issues.

VGH Safety Officer Teri Cook addressed issue about needing signage to identify which staff have been assigned to which IC Job. Organizational chart will be used in future events.

Patient Care Staff Lead –

Concerns voiced regarding function of Pyxis and medications that would need to go with evacuated patients. These issues were addressed by the Manager of the Pharmacy.

Radio "dead" spots were identified. Emergency Preparedness Coordinator will address with Manager of Plant Operations.

Incident Commander –

It would have been helpful to have prescheduled briefings throughout the incident to help the job holders plan. This will be addressed in future events by keeping the previously mentioned board updated.

PIO –

Specific updates for the PIO would be helpful in preparing the PIO for media and staff updates.

Another item which would have been helpful to many of the assigned positions is an up to date staff recall list for each department. This will be completed by each Department Manager.

Appendix A: Improvement Plan

Issue & Recommendation	Staff/Program responsible for correction	Supporting staff or programs	Target date for resolution or completion	Status
Problems continue regarding implementation of the decision making process for determining the need for an Internal or External Triage alert. Staff participation in a Command and Control training is currently underway. – June 1, 2011	Emergency Preparedness Coordinator	Administrative staff including Managers and Directors	February, 2012	**Active**
Compliance with the I/E Triage Alert overhead all call remains problematic. This training will also be covered during the Command and Control training.	Emergency Preparedness Coordinator	Administrative staff including Managers and Directors	February, 2012	**Active**
Delays again encountered in deployment of radios. Decision made to pre-deploy and to require they be monitored continually.	Emergency Preparedness Coordinator	Dept. Managers	August, 2011	**Completed 6/8/2011**
Communications with IC staff remains difficult without a board or other device which can be kept up to date with event status and staff can observe the board for updates and planning briefings, etc.	Emergency Preparedness Coordinator	EP Director	August, 2011	**Active**
The facility assessment form currently in use is long and	Emergency Preparedness	Plant Ops Manager	August, 2011	**Active**

cumbersome for a facility the size of VGH. The current form will be altered to meet the needs of our hospital.	Coordinator			
ICS forms remain problematic. Evac specific forms were utilized where available and were present at the onset of the event. However, the JAS that were not evac specific required routine forms which were not made available at the onset of the event. This caused a delay in initiation of those forms. The ICS forms will be revamped to made them easier to use and more available at the onset of an event.	Emergency Preparedness Coordinator		August, 2011	**Active**
Continuity of Operations Plan (COOP) is needed to assist VGH in returning to full service after an event. Emergency Management subcommittee of the EOC committee will work to produce.	Emergency Preparedness Coordinator	EP Subcommittee members	February, 2012	**Active**
Overhead paging not heard. Compliance with activation policy problematic. Further training needed.	Emergency Preparedness Coordinator	ED Dept. Manager	August, 2011	**Active**
Event specific algorithm needed to assist staff in moving through processes required.	Emergency Preparedness Coordinator	EP Subcommittee	August, 2011	**Active**

Involvement of all hospital departments in exercises regardless specifics of event remains problematic. EP Coordinator will address and one use of such personnel will be the formation of a Labor Pool during exercises as well as real events.	Emergency Preparedness Coordinator	EP Subcommittee	August, 2011	**Active**
Up to date employee recall lists for each department remains problematic.	Emergency Preparedness Coordinator	EP Director	August, 2011	**Active**

Island County Public Health

Drill Overview

On May 18, 2011, Island County Public Health (ICPH) participated in the Region 1 Healthcare Coalition functional exercise, *"Shake, Rattle, and Roll"*. The exercise tested the region's plans and procedures for responding to a 7.5 magnitude earthquake along the south Whidbey fault line, which would have the potential of causing serious damage over a large area. The regional exercise involved hospital evacuation, a biological release at a local hospital and the activation of an alternate care facility for patient triage.

Island County Public Health participated remotely from our Coupeville office, drilling a specific section of our Emergency Response Plan to activate a public health call center.

Objectives

1. Evaluate ability to respond to regional public health needs of staff or equipment.
2. Demonstrate the ability to set up and staff a four person call center.
3. Demonstrate the ability to create a call center script based on an earthquake scenario.
4. Evaluate activation procedures for call center.

Major Strengths

1. Call center staff confidently provided detailed responses to environmental health questions (drinking water).
2. Staff addressed environmental health (drinking water) questions to a standard that satisfied the caller.
3. Staff provided clear directions to mitigate environmental health threat (food safety).
4. Staff kept written documentation of all call inquires and responses.

Primary Areas for Improvement

1. Create pre-printed scripts/handouts for a variety of situations calling for the dispensing of uniform information to the public
2. Appropriately stocked Grab & Go box to facilitate rapid set-up for such situations
3. The need to have an efficient call-tree set-up for after-hours situations requiring staff support.
4. Better understanding of how to effectively use the amateur radio capacity available to us in the event standard communications becomes an obstacle to timely messaging.
5. Need to immediately determine and communicate clearly on whether there is need to establish either an ICS or EOC situation.

Drill Participants

Drill Planning Team:

1. Dr. Roger Case, Health Officer
2. Katie Hicks, PHEPR Program
3. Katie Denter, Region 1 Public Health
4. John Acton, DEM Contact

Drill Participants:

1. Dr. Roger Case, Health Officer
2. Keith Higman, Director
3. Barbara Cope, Vital Records
4. Susan Wagner, Liquid Waste
5. Kerry Graves, Administrative Director

Drill Timeline

O9:55	DMC phone request for available medical equipment / supplies (ICPH fax response… none available)
10:24	Cell phone call: SHD Health Officer: Status report: "Earthquake… 4 hospitals damaged …evacuation required; ACF being established at Arlington airport; calling for supplies/staffing; follow-up conf. call scheduled at 10:30 (didn't happen until 10:42)
10:34	Ham Radio report from WGH: msg to St. Joseph Hospital — "WGH has no available beds, and WGH is not receiving additional patients; WGH is undamaged and on emergency power; ER is operating; Whidbey Island egress blocked by ferry terminal and Deception Pass bridge damage
10:38	Caller: – "Robert" TMC reporter, requesting status report for Island County – status report given by Health Officer
10:40	Caller: Kurt – Subject: restaurant /food safety question
10:42	Phone conference convened by King Co. Health: no damage or injuries in King Co; King Co. standing ready for requests for equipment/supplies/MRC staffing;Snohomish County requesting physician oversight for ACF being established; Sno.Co. phone numbers: 425-388-5150 cell:425-533-6586 Fax 425-423-9152; Schedule to Reconvene at 11:30"
10:45	Caller: Sam – Well issue; safety of drinking water supply
10:55	1. ICPH request via Ham Radio to O.H., Cpvl and Langley: status of drinking water / sewage situation (O.H. response back viaHam Radio at 11:15 "no damage to report") (No response from Cpvl) (Langley report @ 11:09 "water tanks at 80%, water turned off due to many breaks in the system, Sewer lines broken in many places") 2. ICPH request via Ham Radio to Islands Red Cross: availability of shelters? Reported back @ 11:50: "personnel being called in, and will inform when shelters are operational.
11:00	–Request made via Ham Radio to Camano: Please pass along SITREP …response @ 11:10 – "real world event, no report" –Caller: Sarah — Food safety question
11:15	–Caller: MOH/DOH; Request for status of LHJ
11:19	1. Caller: Meredith Million, National News Network: Request for status update re earthquake and LJH response 2. Caller: Joe, Camano Island: Concerned about his well casing being cracked, and clean water
11:25	2nd Request to Islands Red Cross via Ham Radio: Status of available shelters on Whidbey Island
11:28	–Caller: Jimmy, Alligator Tail Restaurant – Subject: reported a sterno fire put out with a fire extinguisher and was advised not to serve food to the public without ICHD inspection and assurance of safe food

11:30 - 12:20	Exercise halted – Hot-wash/Debrief began : –What went poorly… 1. Situation not clearly stated at outset of exercise in the Exercise/Phone Bank room 2. Misperception re "ICS/EOC operation vs. Exercise" — not clearly stated up front 3. Not knowing all the forms necessary for the exercise –What went well… 1. Phone bank worked properly 2. ICPH staff all performed well; phone requests handled smoothly 3. Scripts that were prepared just before the exercise were complete enough to guide the phone bank staff. 4. Work with the ARES/RACES personnel went smoothly Lessons Learned: o Need to determine immediately and to state clearly if there is need to establish either an ICS or EOC situation. o Needed – Pre-printed scripts/handouts for a variety of situations calling for the dispensing of uniform information to the public o Appropriately stocked Grab & Go box to facilitate rapid set-up for such situations o Need to have an efficient call-tree set-up for after-hours situations requiring staff support. o Better understanding of how to effectively use the amateur radio capacity available to ICPH in the event standard communications becomes an obstacle to timely messaging.

Analysis

Summary from Health Officer Dr. Roger Case:

What this drill was to have been:

1. A 1 – 2 hour exercise to test the Island County DEM phone bank capabilities.
2. An opportunity to exercise ICPH's capacity to respond with scripted answers to a deluge of queries from the public (played by Region One Public health staff) requiring a phone bank setup to accommodate the public's need for information about home and public health situations precipitated by a 7.5 earthquake.

What this drill was not supposed to have been:

1. NOT an ICS exercise, per se… this was an exercise designed only to respond to questions about public health concerns posed by the public at large.
2. NOT an EOC exercise (emergency operations center) setup… No other activities in Island County were participating except ARES/RACES operators who were positioned by John at WGH and a few other places around the north 5-county region to respond to drill participants' need to pass information
   - No other public agency was participating: (fire/law/EMS/municipalities, ICOM, Red Cross, etc. — none of these were even invited by planners of this exercise (Region One Hospital Care Coalition)
   - A Public Health role was not included in the HCC planning scenario — only hospital centered activities.

The fact that some of our staff and participating support personnel wanted to expand this drill into an ICS/EOC operation was laudable, but poorly managed as such on my part by my not wanting to expand this beyond the planned and scripted scenario. Mea culpa.

You all exercised your roles commendably, and we came away with some good information about how better to be prepared for such a scenario:

- Pre-printed scripts/handouts for a variety of situations calling for the dispensing of uniform information to the public
- Appropriately stocked Grab & Go box to facilitate rapid set-up for such situations
- The need to have an efficient call-tree set-up for after-hours situations requiring staff support.
- Better understanding of how to effectively use the amateur radio capacity available to us in the event standard communications becomes an obstacle to timely messaging.

An after action report (AAR) will be drafted and distributed. Thank you all for your participation.

Procedure Drilled

Procedure for Activating a Public Health Call Center

Procedure Created: 05/04/2011
Procedure Updated: 05/10/2011
Date Approved by Health Officer:

<u>**DEM Call Center Phone Numbers**</u>
- From North Whidbey: (360) 678-2300
- From South Whidbey: (360) 321-5111 x2300
- From Camano Island: (360) 629-4522 x2300

1. **Reserve Department of Emergency Management (DEM) Conference Room**
   - DEM Conference Room is located in Annex Building basement, adjacent to Commissioner's Hearing Room
   - Four call center phone lines available for use
   - Public Works Department may need conference room capacity, they may have the ability to work from the Commissioner's Hearing Room in large-scale emergency

2. **Ensure adequate public health staffing**
   - Request staff assistance from Director, Health Officer and/or appropriate ICS command structure staff
   - Maintain record of staff participation

3. **Check that call center equipment is available and functional**
   - Check that all the phones are present and connected in the room
   - Check that phones roll-over between lines as required
   - Request assistance from DEM or Central Services for any necessary technical support
   - Potentially provide laptops for staff to record call center activity

4. **Prepare or acquire script and resources for call center staff**
   - Gather any resources provided by Region 1 or WA DOH
   - Provide current situational information
   - Provide accurate technical information for anticipated public questions
   - Provide relevant community resources
   - Include information about when/who to call for additional assistance

5. **Provide staff with a call log to record call center activity (electronic or hard copy)**
   - Example: Calls database blank.mdb

- Provide laptops if electronic logging is desired/required

6. **Establish situation-specific call center procedure for department**
    - Provide call center information, including phone number, to all staff; include special instructions for “front line” administrative staff
    - Add call center “hotline” number to ICPH and County websites
    - Provide call center information to regional partners through Region 1 email distribution list
    - Provide accurate technical information for anticipated public questions
    - Provide relevant community resources

7. **Support call center staff**
    - Ensure breaks and relief based on the situation
    - Provide food and water if necessary
    - Frequently check-in with staff to determine additional support and technical information needs

After Action Plan Improvement Matrix

Issue & Recommendation	Supporting staff or programs	Target date for resolution or completion
Create pre-printed scripts/handouts for a variety of situations calling for the dispensing of uniform information to the public. *Recommendation:* o Collaborate with Environmental Health Program Staff to create or access appropriate messages related to addressing public health emergencies. o Identify priority public health emergencies to focus efforts on. o Notify staff of location of documents for easy access.	PHEPR Program, in collaboration with **ICPH program staff**	July 1, 2012
Appropriately stocked Grab & Go box to facilitate rapid set-up for such situations. *Recommendation:* o Create emergency response kits and notify management team and general staff of where and how to access emergency response resources.	PHEPR Program, in collaboration with **ICPH program staff**	July 1, 2012
The need to have an efficient call-tree set-up for after-hours situations requiring staff support. *Recommendation:* o Work with Section Directors to coalesce appropriate contact information for staff. o Develop and distribute contact list. o Define process for updating and re-distributing contact list on a regular basis.	PHEPR Program, in collaboration with **Management Team**	July 1, 2012
Better understanding of how to effectively use the amateur radio capacity available to us in the event standard communications becomes an obstacle to timely messaging.	PHEPR Program	July 1, 2012

Recommendation: o PHEPR Program work with Department of Emergency Management to fully utilize radio communications.		
Need to determine immediately and to state clearly if there is need to establish either an ICS or EOC situation. *Recommendation:* o Continue PHEPR program training to establish internal protocols.	PHEPR Program, provide guidance/update to all ICPH staff	July 1, 2012
Establish volunteer resources to assist with staffing a public health call center should additional staff become necessary during an event. *Recommendation:* o Work with Department of Emergency Management to utilize MRC and CERT volunteers in the case of a public health emergency. o Continue working relationship to ensure volunteer resources can be easily accessed during a public health emergency.	PHEPR Program	July 1, 2012
Ensure local ability to provide situational updates and expert public health recommendations. *Recommendation:* o Continue regional partnerships to quickly gather additional situational updates and expert public health recommendations.	PHEPR Program	July 1, 2012
Continue to build capacity to establish and staff a public health call center o Work within Island County and Department of Emergency Management on information technologies.	PHEPR Program	July 1, 2012

San Juan Health and Community Services

Skagit County Public Health Department

Section 1: Executive Summary

On May 18, 2011, Skagit County Public Health participated in the Region 1 Healthcare Coalition functional exercise, "*Shake, Rattle, and Roll"*. This exercise is the 2nd in a series of three exercises based around an earthquake along the south Whidbey fault.

This exercise provided the Skagit County Public Health staff the ability to test internal response to an earthquake, continuity of operations, development of public information, activation of the Skagit County Medical Reserve Corps, staff communication, and identify weaknesses in those plans.

The plan was to look at the manager's ability to think on her feet and she was unaware of the exercise until the first insert was handed to her. The Skagit County Emergency Response plan is both online and in writing in a notebook on the bookshelf in the LERC office but the manager was unable to find it. The manager had to determine who was in the building and how to contact those who were not here yet. She also identified there was no assigned location to go to if our building is inaccessible.

She notified the department manager by phone of the exercise and then stated she would call the staff due to the long time lack of a working Satellite phone, no Ham radio yet and no backup system at this time for phones being inoperable. Noted she would try cell phone and text to alert staff as they come to work.

Staff in building accounted for within one hour of event. EH staff used call sheet and notification procedure to contact staff who was out in the field or on their way in. All EH staff were contacted. CD Manager went throughout offices to notify staff, check bathrooms and continued to notify staff as they arrived. This manager also wrote out guidelines for the hall sweep which included new directions that were previously in place. She clarified shelter-in-place protocol with clients that are in our offices. Reminded staff how to leave building and where to meet outside. Noted that we did not have designated building to meet in plan should ours be damaged enough to warrant evacuation.

She notified the Skagit County Department of Emergency management of the need for a damage assessment. She noted the need to not allow staff or community to enter the building.

She was to pass on to the on-duty person the question about clearing the building for evacuation but answered it herself and correctly.

The staff who were available were assigned ICS positions according to who would be the best person in the role given who was available.

The inject card that was for the EH manager was provided to her that person along with the request for staff to assist in the Snohomish response. Who stated that she would assure adequate coverage locally and since she had one staff in that county ask him to assist there. She also identified the possibility of calling in retired EH staff to assist in this kind of instance.

The inject to request nurses was provided to the MCH manager who with the lead manager's assistance identified two nurse who live in Snohomish and the possibility of SCMRC support.

The inject about a Skagit Valley reporter requesting to be passed to the person in charge of the public health response for our department was written by the original manager. The identified response is not what we would normally release to the public which was what we were after with this inject. The listed information is about assessing Skagit needs, the phones being down but receiving incoming calls (LERC forgot to d inject which said our phone lines went back up). This answer was not a public information release in information or format.

The 1035 inject was to initiate an exercise to call out the Skagit County Medical Reserve Corps. It was appropriately written but also noted the phone lines were down so was not actually sent which was the desire of the planner. Also Manager admitted to not knowing how to contact the group. Recently the MRC manager had written and distributed an activation plan for the Skagit County Medical Reserve Corps due to the fact that she was the only one who knew how to call them out. This was done so the supervisors could be her backup in such a situation when she was not able to call them up.

This objective was also to determine the number of responses and time lapse in responding due to the fact that at this time our method of activation is by e-mail and then start calling.

Unfortunately the planner failed to identify the phone/e-mail system came back on line except for the severely affected Snohomish County so the written alert was not sent out to the SCMRC. However, the alert was properly written and communicated the essential information.

Historically SCHD has done a wonderful job of public health communications to the public but the manager stepped outside her role as IC here and did not pass the inject to the assigned personnel and a proper public information message from the health department was not prepared.

Skagit County Public Health Objectives:

- Demonstrate the ability to complete a call down of Skagit County Public Health Employees
- Demonstrate the ability to complete a call down of Skagit County MRC volunteers
- Determine availability of trained personnel to staff an alternative care facility
- Assess continuity of operations plans

- Demonstrate the ability to produce risk communications messages for the public regarding the public health hazards of an earthquake
- Assess the ability to produce risk communications messages for the public regarding availability of alternative sites for health care

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

1.1 Major Strengths

Strengths were noted in that the incident was handled without the plan to follow. The manager did a strong job of responding to each inject even if they were intended for someone else. EH personnel followed the staff notification list. The building was swept early for staff and or clients and all staff notified as they came in of the exercise. The need for damage assessment and to keep others from entering the building was identified and commented on early.

In the big picture the department did demonstrate the knowledge of the internal call down list and its use. The ability to develop the message for the SCMRC was demonstrated. Staff was provided by prior arrangement (to meet the onsite objectives we needed to be sure of the MRC ACF staffing.) The SCHD did not deplete themselves to responder but maintained continuity of business appropriate for a disaster scenario and thinking out of the box (using retired personnel.)

The lack of backup communications systems was noted and documentation noted they looked at several ways to determine if they were available. The notation of attempting text even without phone lines was good as this method may work when all else fails.

1.2 Primary Areas for Improvement

As with strengths there were several areas in need of improvement. There is a need to clearly identify the plan and where it is located is necessary. Backup communications must be addressed, such as the Ham radio but this would not be useful in communicating with staff. Ham communications are being aggressively pursued at this time. Working satellite phones remain an option.

The plan needs to have a section addressing a situation where the staff is not at work when an event occurs and what to expect, where to tune in to get information and where to meet. The need to stay within the role you are assigned needs to be clear and the rationale identified to help all personnel meet this mandate.

The manager’s re-write of the evacuation plan needs addressed as the staffing location have changed and are not currently addressed in the existing plan but also all staff need to be reminded about their role in evacuation when they are on duty.

The SCMRC activation procedure needs to be clear to all managers so if the SCMRC manager is not available the call out can still be done. The artificiality of the phone system coming back on line and that message not being addressed in an inject or other means skewed the exercise

somewhat. These mistake lead to the failure to do a call out for the SCMRC. However, one week later the SCMRC manager was notified the city of Anacortes was conducting an exercise and "the SCMRC were kicking butt" by the Skagit County DEM. The MRC manager used this scenario to call down the SCMRC with a total of 40 persons responding within a 24 hour period with a 72 hour window of availability. This was only an e-mail callout and response and was very good, so we did exercise this part of the plan with good results. However, an e-mail method only is not adequate in a real emergency and a better method must be found.

Section 2: Exercise Overview

2.1 Exercise Details

Exercise Name

Shake Rattle and Roll 2011

Type of Exercise

Functional

Exercise Start Date

May 18, 2011

Exercise End Date

May 18, 2011

Duration

Skagit County Public Health participated from 7:30 am – 11:15

Location

Skagit County Public Health Department
Mt Vernon, WA

Sponsor

Region 1 Healthcare Coalition

Program

ASPR 10/11

Capabilities

ASPR deliverables met with this exercise: Interoperable Communications, ESAR/VHP, Partnership Coalition, Alternate Care Facility Planning, Fatality Management and Tracking of Bed Availability.

Scenario Type

7.5 Earthquake on the South Whidbey Fault.

2.2 Exercise Planning Team Leadership

Incident Commander	Deputy Incident Commander
Chris Badger, Exercise Director City of Arlington / Cascade Hospital	Dr. Robert Mitchell lvfrtennis@gmail.com

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Skagit County Public Health Lead Donna Smith 700 South 2nd Street Suite 301 Mt Vernon, WA 98273	

2.3 Participating Organizations

Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, St Joseph's, Cascade Valley, Valley General, Providence Everett, Swedish- Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

Participating agencies and private sector groups supplementing the hospitals include:

- Airlift Northwest
- American Medical Response Ambulance
- Arlington Fire Department
- Bowman Manufacturing Company, Inc
- Cascade Ambulance
- Cascade Valley Smokey Point Clinic
- Cascade Valley Hospital
- City of Arlington
- Island Hospital
- Island County Public Health

- Northwest Ambulance
- Providence Regional Medical Center
- Public Health Seattle-King County
- Rural Metro Ambulance
- San Juan Health and Community Services
- Skagit County Public Health Department
- Skagit Valley Hospital
- Snohomish and Skagit County Emergency Management
- Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
- Snohomish Health District
- St Joseph Hospital
- Swedish Edmonds Hospital
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

2.4 Number of Participants from Skagit County Public Health

A total of 16 employees played key roles in the exercise.

Section 3: Exercise Design Summary

The Region 1 Healthcare Coalition solicited regional partners for the design team. The design team was comprised of public health, hospital, medical reserve corps, emergency medical services, and emergency management representatives. The design team worked over a period of 9 months developing the scenario, MSEL that would allow all agencies within Region 1 to actively participate in a response to an earthquake and subsequent need for an ACF. This exercise also provided the region the ability to test the new ACF plan created by the Snohomish Health

Exercise Purpose and Design

The purpose of this exercise was to test the Skagit County Public Health staff's ability to respond to a disaster both just prior to and during work hours. Due to the lack of funding to pay for employee time the exercise was created to address several complex but basic issues around response to an earthquake. Could our managers contact our employees to keep them out of a damaged building, determine who was in the building and could the on duty person identify their responsibility to help evacuate the building? Where would the staff meet if the building was severely damaged? The push to identify a meeting place was because there is none currently identified for such an event.

Exercise Objectives, Capabilities, and Activities

The purpose of this exercise was to bring together multi-disciplines, agencies and organizations from hospitals, public health, community health centers, and emergency management that will find it necessary to develop a common operating picture when faced with a catastrophic disaster affecting the Pacific Northwest. Based upon the identified exercise objectives, the Skagit County Public Health exercise planners decided to demonstrate the following objectives with the correlating capabilities and activities during the exercise:

1. Demonstrate the ability to complete a call down of Skagit County Public Health Employees
   Target Capability: Communications
   Activity: Alert and notification

2. Demonstrate the ability to complete a call down of Skagit County MRC volunteers
   Target Capability: Communications
   Activity: Alert and dispatch

3. Determine availability of trained personnel to staff alternative care facility
   Target Capability: Medical Surge
   Activity: Activate medical surge

4. Assess continuity of operations plans
   Target Capability: Planning
   Activity: Develop/Revise Operational plans

5. Demonstrate the ability to produce risk communications message for the public regarding the public health hazards of an earthquake
   Target Capability: Communications
   Activity: Provide information

6. Assess the ability to produce risk communication messages for the public regarding availability of alternate sites for health care
   Target Capability: Communications
   Activity: Provide information

Scenario Summary

This exercise was based around a 7.5 magnitude earthquake along the South Whidbey Fault line. The epicenter was on the South Whidbey Fault, 2 miles southeast of Mukilteo. This fault is believed to stretch 250-300 miles from Victoria BC to Yakima crossing the Cascade Mountains. The South Whidbey fault is shallow, running beneath Mukilteo and southeast to Woodinville. An earthquake of this size is capable of causing serious damage over a large area.

In addition to the earthquake, Cascade Valley Hospital had the added pressure of dealing with a chemical incident. A member of a local terrorist group the "Washingtonians Against All People", was in the process of making "home-made" sarin in his garage when he was injured in the earthquake, spilling the agent on his clothes resulting in symptoms of nerve agent exposure. His garage was damaged in the quake and he was unable to locate the "antidote." Fearing for his life, he set out for Cascade Valley Hospital, was picked up by a passing ambulance, and ultimately admitted to the ED at the Cascade facility. This resulted in facility contamination, closure of the ED and ultimately evacuation of patients. Evacuated patients were sent to the Alternate Care Facility set up at the Arlington Airport.

Section 4: Analysis of Capabilities

Capability 1: Emergency Operations Management

References: Skagit County Public Health Emergency Response Plan

Activity 1.1: Determine building safety and location for response operations

Observation 1

Strength: Staff responded correctly to the earthquake. The building was searched for staff who may have been hurt, including in restrooms and client waiting rooms.

All staff were accounted for within 1 hour of the event.

Observation 2

Strength: Staff requested damage assessment from county department of emergency management

Observation 3

Improvement opportunity: staff were unable to locate emergency response plan.

Analysis:

When the exercise started staff were unable to locate the emergency response plan in its normal place within an employee's work area.

Recommendations:

An electronic copy of the emergency response plan should be placed in a location where all staff can access is.

Hard copies of the plan should be kept in more than one location and staff should be notified where they will be kept.

Observation 4

Improvement opportunity: An off-site location for staff to report to if the building is damage has not been designated

Analysis:

During the exercise Skagit County Public Health staff realized that an off-site meeting location had not been determined. If the building were evacuated staff would need to be told as they were leaving where to go. This could lead to confusion and lost staff persons

Recommendations:

An off-site meeting location should be designated and the location provided to staff

Activity 1.2: Determine availability of staff to support response operations

Observation 1
Strength: within 1 hour all staff had been accounted for and it was determined which ICS positions needed to be filled. The incident commander, PIO, and section chief positions were filled.

Observation 2
Strength: The command staff were able to determine which staff could possibly be sent to Snohomish County to fill a request for additional environmental health staff.

Capability 2: Communications

Activity 2.1: Demonstrate the ability to establish multiple points of communication

Observation
Improvement opportunity: The health department was unable to use HAM radio or satellite phone as a method of communication.

Analysis:

Prior to the exercise it was the plan to get the HAM radio were ready for use. However, that goal has not been accomplished yet.

Recommendations:

The satellite phones continue to be a problem within the region. Skagit County public health will wait to see if the activation of the new satellite from the company makes the satellite phone a viable communications option once again.

The HAM radio should be operational and have a team of operators by the end of the year.

Activity 2.2: Create risk communication messages

Observation 1
Strength: Skagit County Public Health PIO was able to create a message for the community regarding the response, and the damage assessment going on in the county.

Section 5: Conclusion

Skagit County Health Department did a good job on this drill. While it remains disappointing to not be able to involve more staff in the exercise, this exercise had more participation than several others. With monetary cuts the department struggles to complete the day to day missions of public health and funding staff participation is needed to be able to do exercises well. The first major step is to identify for everyone where the plan is.

This exercise addressed several very pertinent issues which the LERC knew needed work (staff communication, need for a meeting place other than the department and staying in your assigned role) and wanted to determine where the needs were. It also identified the need to keep the staff more involved in the planning. An idea suggested was that when each section is corrected or addressed the LERC will e-mail it to all. The reward of a very short quiz with cookies for the first one to complete it correctly may help to bring more staff participation to the plan.

The SCHD is currently addressing the need for better disaster communication by acquiring ham communication as and staff to operate it. The issue of e-mailing the SCMRC may be addressed by batch entry into SECURES. Skagit County is still actively pursuing a program to do such notification which the SCMRC will be on once it is approved and set up.

The LERC regularly attending the various staff meetings with updates to the plan will also be helpful in keeping the entire staff aware of changes. A class is being pursued to teach to the staff about the use of ICS in disasters. This will address the need to stay within assigned roles as well as the forms used at such times.

Appendix A: Improvement Plan

This IP has been developed specifically for Snohomish Health District as a result of *Shake, Rattle, and Roll* regional exercise conducted on May 18, 2011. These recommendations draw on both the After Action Report and the After Action Conference.

Issue	Recommendation	Assigned to	Start date	End date
Staff could not find the hard copy of the Emergency Response Plan	Place an electronic version of the response plan in a place where staff can find it. Place hard copies of the plan in multiple locations within the Health Department	LERC Donna Smith	6/30/2011 6/30/2011	Re-send to staff
Off-site staff meeting site has not been determined	Determine where staff could evacuate to if the building were deemed unsafe. Provide staff with information on where to evacuate to incase the building is damaged	Supervisors and LERC LERC	9/1/2011 1/3/2012	1/3/2012 1/3/2012 and annually
HAM radio and satellite phone equipment was not available	Check satellite phone once the new satellite has been placed. Purchase HAM radio equipment	SCHD Ham Club & LERC	1 week after installation is complete, no later than 8/29/2012 Ham had not been purchased yet	open To be installed by 8/29/2012

Managers were not aware of SCMRC activation procedures Improve activation method	Refine and tech managers about procedure Determine another resource for faster alerting	LERC SCMRC Manager/LERC	6/10/2011 9/3/2012	Biannual updates Ongoing until found then up date managers
Employees not familiar with evacuation procedure	Update evac plan to include new areas of staffing and educate staff on same	LERC	9/1/2012	Biannual updates

Snohomish Health District

Section 1: Executive Summary

On May 18, 2011, Snohomish Health District (SHD) participated in the Region 1 Healthcare Coalition functional exercise, "*Shake, Rattle, and Roll*". The exercise tested our plans and procedures for responding to a 7.5 magnitude earthquake along the south Whidbey Fault line, which would have the potential of causing serious damage over a large area. The exercise involved hospital evacuation, a biological release at a local hospital, and the activation of an alternate care facility for patient triage. The exercise tested SHD's ability to respond, both internally and as ESF-8 leads at the county Emergency Operations Center (EOC). The Snohomish County Health Officer was challenged to carry out his medical authority to activate an alternate care facility. SHD staff at the EOC was challenged to communicate with Peace Health/St. Joseph's Hospital as Disaster Medical Coordination Center (DMCC), and monitor bed status and equipment needs. Region 1 Public Health communication capabilities were tested, along with communications to Region 6 (Public-Health/Seattle-King County) to test the activation of the statewide Interjurisdictional Agreement. Internally, SHD administrators tested their ability to activate and complete a staff call-down to account for employees after an earthquake event. Additionally, administrators were tasked with identifying essential services and assigning roles to Incident Command, based on availability of staff and the scenario.

SHD's objectives were designed to test capabilities that had been identified but not previously exercised. *Shake, Rattle, and Roll* tested SHD's capabilities in Communications, the ESF 8 role, and authorities in Medical Surge/Alternate Care.

Based on the exercise planning team's deliberations, the following SHD objectives were developed for Shake, Rattle and Roll 2011:

- Objective 1: Demonstrate the ability to produce and coordinate risk communications messages regarding earthquake issues with the other local health jurisdictions
- Objective 2: Assess SHD's functional capacity to provide essential public health services after an earthquake
- Objective 3: Assess the ability to lead and coordinate ESF 8 functions with the Snohomish County Department of Emergency Management
- Objective 4: Demonstrate the ability of managers to contact employees during the emergency event

The following Region 1 Public Health objectives were developed for Shake, Rattle and Roll 2011:

- Objective 5: Demonstrate the ability to accumulate and communicate surge and ACF information with local health jurisdictions, Disaster Medical Coordination Center, and County Emergency Management Offices within the region

- Objective 6: Demonstrate the ability to use the Public Health Mutual Aid Agreement to request supplies from neighboring health jurisdictions.
- Objective 7: Demonstrate the ability to provide a situational report between the LHJs within Region 1, and Public Health Seattle King County
- Objective 8: Identify staff that are appropriately trained to fill ICS positions within each LHJ
- Objective 9: Demonstrate the ability to maintain Continuity of Operations within each local health jurisdiction, while facilitating local MRC responsibilities

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

1.1 Major Strengths

The major strengths of SHD identified during this exercise are as follows:

- SHD demonstrated their ability to activate and complete a staff call-down to account for employees; this task was completed within ½ hour of activation.
- SHD demonstrated their ability to assign staff to essential services and Incident Command, based on expertise, training, and availability of staff
- The Snohomish County Health Officer demonstrated his ability to authorize activation of an Alternate Care Facility in Snohomish County.

The major strengths of Region 1 Public Health identified during this exercise are as follows:

- As Region Public Health lead, SHD demonstrated their ability to activate the WA Public Health Interjurisdictional Agreement with Public Health/Seattle-King County and request supplies
- SHD demonstrated their ability to assign staff to essential services and Incident Command, based on expertise, training, and availability of staff

1.2 Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in SHD's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- SHD was unable to successfully send a SECURES alert to other local health jurisdictions in Region 1. Recommendations: work with WA State DOH and SHD SECURES representatives to develop procedure for using SECURES. Conduct bi-annual SECURES test with other LHJs in Region 1.
- Communications between ESF8 and DMCC were challenged. The WATrac demonstration website did not function properly—a malfunction during the exercise--so SHD was unable to monitor the site and make decisions based on bed monitoring information. ESF 8 was not informed of bed status, specific equipment needs,

fatalities, or the biological event occurring. Roles of ESF 8 and DMCC were unclear, since no DMCC plan was in place to provide guidance or test to. Recommendations: Support development of the Region 1 DMCC plan, and ensure that SHD has the plan available for emergency response. Test the ESF8/DMCC plans, including communication and coordination in next year's regional exercise.

- Communications was additionally challenged due to lack of comfort levels using alternate methods of communication (800 mHz radios). Assign 800mHz radio users at SHD to participate in radio checks on a quarterly basis.

Overall, this regional exercise was successful. The exercise gave our staff the opportunity to work with multiple partners and across local health jurisdictions. SHD staff successfully demonstrated the internal agency objectives. The primary areas of improvement are focused in communications, identifying the roles of ESF 8 lead and the DMCC, and alternate communications methods. Prior to the next exercise, training and practice on WATrac, SECURES, and 800 mHz radios should be conducted and practiced every 3-6 months. The SHD Emergency Response Plan will be updated, based on the after-action report of this exercise. The next regional exercise should focus on testing the ability to use alternate communications methods, and testing a formal plan for DMCC and ESF 8's roles.

Section 2: Exercise Overview

2.1 Exercise Details

Exercise Name

Shake Rattle and Roll 2011

Type of Exercise

Functional

Exercise Start Date

May 18, 2011

Exercise End Date

May 18, 2011

Duration

SHD participated in the exercise from 0900 to 1200.

Location

SHD, 3020 Rucker Avenue, Everett, WA and Snohomish County Department of Emergency Management, 3509 109th St SW, Everett, WA.

Sponsor

Region 1 Healthcare Coalition

Program

ASPR 10/11

Capabilities

ASPR deliverables met with this exercise: Interoperable Communications, ESAR/VHP, Partnership Coalition, Alternate Care Facility Planning, Fatality Management and Tracking of Bed Availability.

Scenario Type

7.5 Earthquake on the South Whidbey Fault.

2.2 Exercise Planning Team Leadership

Incident Commander Chris Badger, Exercise Director City of Arlington / Cascade Hospital 6231 188th Street NE Arlington, WA 98223 (360) 403-3618 cbadger@arlingtonwa.gov	**Deputy Incident Commander** Dr. Robert Mitchell lvfrtennis@gmail.com
Operations Section Chief Anthony Christoffersen	**Planning Section Chief** Katie Denter Region 1 Public Health Snohomish Health District 3020 Rucker Ave, Suite 208 Everett, WA 98112 (425) 339-8711 kdenter@snohd.org
Logistics Section Chief Mark Nunes Swedish Hospital 21601 76th Ave West Edmonds, WA 98026 (425) 640-4993 Mark.nunes@swedish.org	**Finance/Admin Section Chief** Brittany Litaker North Region EMS and Trauma Care Council 325 Pine Street Suite A Mt Vernon, WA 98273 (360) 428-0404 brittany@northregionems.com
Snohomish County Public Health Lead Nancy Furness, RN, MS Snohomish Health District and Region 1 Public Health Coordinator 3020 Rucker Avenue, Suite 208 Everett, WA 98201 (425) 339-8612 nfurness@shd.snohomish.wa.gov	

2.3 Participating Organizations

Healthcare Region 1 encompasses the counties of Whatcom, Skagit, San Juan, Island and Snohomish and includes all hospitals located in the region as well as all public health

jurisdictions, various clinics, pre-hospital emergency medical services, home health agencies and volunteer Medical Reserve Corps. The hospitals include Island, St Joseph's, Cascade Valley, Valley General, Providence Everett, Swedish- Edmonds, United General, Whidbey General, Skagit Valley and Inter-Island Medical Center.

Participating agencies and private sector groups supplementing the hospitals include:

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- Cascade Ambulance
- Cascade Valley Smokey Point Clinic
- Cascade Valley Hospital
- City of Arlington
- Island Hospital
- Island County Public Health
- Northwest Ambulance
- Providence Regional Medical Center
- Public Health Seattle-King County
- Rural Metro Ambulance
- San Juan Health and Community Services
- Skagit County Public Health Department
- Skagit Valley Hospital
- Snohomish and Skagit County Emergency Management
- Snohomish, Skagit, Whatcom and Island County Medical Reserve Corps Volunteers
- Snohomish Health District
- St Joseph Hospital
- Swedish Edmonds Hospital
- Valley General Hospital
- WA 10th Civil Support Team
- Washington State Department of Health
- Whatcom County Health Department
- Community Volunteers from all 5 counties

2.4 Number of Participants from SHD

A total of 10 SHD employees played key roles in the exercise.

- Katie Denter – Exercise Planning Section Chief and Simulation Cell
- Ray Malunay – Salamander coordinator at the Alternate Care Facility
- Therese Quinn – Medical Reserve Corp coordinator
- Lynn Ljungquist, clerical assistant
- Jeff Clarke, Incident Commander at SHD
- Tim McDonald, Staff call-down and Essential Services
- Nancy Furness, ESF 8
- Gary Goldbaum, Health Officer
- Aran Enger, ESF 8

- Lorie Ochmann, Exercise controller at SHD

Section 3: Exercise Design Summary

The Region 1 Healthcare Coalition solicited regional partners for the design team. The design team was comprised of public health, hospital, medical reserve corps, emergency medical services, and emergency management representatives. The design team worked over a period of 9 months developing the scenario, MSEL that would allow all agencies within Region 1 to actively participate in a response to an earthquake and subsequent need for an ACF. This exercise also provided the region the ability to test the new ACF plan created by the Snohomish Health

Exercise Purpose and Design

Shake, Rattle, and Roll enabled us to utilize the SHD Emergency Response Plan and guide the process of accounting for staff, determining essential functions, assigning Incident Command roles, and performing ESF8 functions during an earthquake scenario. The scenario reinforced partnerships between SHD, local Emergency Management, and hospitals in Region 1. The salaries of SHD participants were paid for by the Centers for Disease Control (CDC) Public Health Emergency Preparedness and Response (PHEPR) grant.

Exercise Objectives, Capabilities, and Activities

The purpose of this exercise was to bring together multi-disciplines, agencies and organizations from hospitals, public health, community health centers, and emergency management that will find it necessary to develop a common operating picture when faced with a catastrophic disaster affecting the Pacific Northwest. Based upon the identified exercise objectives, the SHD exercise planners decided to demonstrate the following objectives with the correlating capabilities and activities during the exercise:

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- Objective 1: Demonstrate the ability to produce and coordinate risk communications messages regarding earthquake issues with the other local health jurisdictions
  - Capability: Communications
  - Activity: Establish communication with DMCC, other local health jurisdictions in Region 1, and Region 6 (Public Health/Seattle-King County)

- Objective 2: Assess SHD's functional capacity to provide essential public health services after an earthquake
  - Capability: Emergency Operations Center Management/Essential Services Management
  - Activity: Establish Incident Command at SHD and identify essential services

- Objective 3: Assess the ability to lead and coordinate ESF 8 functions with the Snohomish County Department of Emergency Management
    - Capability: Emergency Operations Center Management
    - Activity: Activate the ESF8 function at the Snohomish County Emergency Management

- Objective 4: Demonstrate the ability of managers to contact employees during the emergency event
    - Capability: Communications
    - Activity: Complete a staff call-down, documenting time of contact with each employee

Scenario Summary
This exercise was based around a 7.5 magnitude earthquake along the South Whidbey Fault line. The epicenter was on the South Whidbey Fault, 2 miles southeast of Mukilteo. This fault is believed to stretch 250-300 miles from Victoria BC to Yakima crossing the Cascade Mountains. The South Whidbey fault is shallow, running beneath Mukilteo and southeast to Woodinville. An earthquake of this size is capable of causing serious damage over a large area.

In addition to the earthquake, Cascade Valley Hospital had the added pressure of dealing with a chemical incident. A member of a local terrorist group the "Washingtonians Against All People", was in the process of making "home-made" sarin in his garage when he was injured in the earthquake, spilling the agent on his clothes resulting in symptoms of nerve agent exposure. His garage was damaged in the quake and he was unable to locate the "antidote." Fearing for his life, he set out for Cascade Valley Hospital, was picked up by a passing ambulance, and ultimately admitted to the ED at the Cascade facility. This resulted in facility contamination, closure of the ED and ultimately evacuation of patients. Evacuated patients were sent to the Alternate Care Facility set up at the Arlington Airport.

Section 4: Analysis of Capabilities

Capability 1: Emergency Operations Management

Capability Summary:
Emergency Operations Center (EOC) Management is the capability to provide multi-agency coordination for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC management includes EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities.

References: SHD Emergency Response Plan, SHD Alternate Care Facility Plan, WA State Public Health Interjurisdictional Agreement

Activity 1.1:
SHD personnel were located and informed of what their assignment in Incident Command would be, based on availability, training, and expertise for the event.

Observation 1.1: Strength: Staff Alert and Dispatch

Analysis: SHD's Deputy Director took the role of Incident Commander and began the call-down process for staff. The Deputy Director notified each division director (3), who contacted their managers. The managers then took responsibility to contact each of their direct report staff. All staff was accounted for within ½ hour. When the call-down was complete, the Deputy Director and Communicable Disease Division Director made Incident Command assignments.

Recommendations: Test the staff call-down procedures quarterly.

Activity 1.2:
Coordinate ESF 8 functions with the Snohomish County Department of Emergency Management

Observation 1.2: Access to Emergency Response Plans
Improvement Opportunity:
ESF8 had access to the SHD Emergency Response Plan, but did not have access to the Region 1 Emergency Response Plan. Another plan relevant to the event, but did not exist, is a DMCC plan.

Analysis:

A lack of access to all supporting plans hindered the ability of the ESF8 desk to respond. It was unclear what the role and responsibilities of the DMCC were, compared to the role/responsibilities of ESF8.

Recommendations:

1. Circulate the Region 1 Healthcare Response Plan to all ESF8 representatives (upon completion of updates).
2. Provide input to the Region 1 Healthcare Coalition in the development of a DMCC plan and procedures.
3. SHD administrators to attend IS 300 to improve understanding of the PH emergency response role and ESF8.

Capability 2: Communications

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 2.1:

Establish and coordinate communications policy and procedures across response entities

Observation 2.1

Improvement Opportunity: Inter-operable Communications

Analysis:

Multiple forms of communications were utilized during the exercise. Only one person monitored every communications tool---HAM, 800 mHz, and phones. He did not have back-up during the exercise, making it difficult to monitor all communications. ESF8 communications with partners was conducted primarily by phone. Communications with Region 1 Bed Control did not occur. No communication between hospitals and ESF8 occurred related to the number of deceased. There was no direct communication between ESF8 and Arlington Emergency Operations Center. The Health Officer attempted to send a SECURES alert to the other health officers in Region 1, but this task was unsuccessful.

Recommendations:

6. Assign 800 mHz radio to the ESF 8 representative
7. ESF8 personnel to have a direct phone number assigned for communications

Activity 2.2:

WA SECURES alert

Observation 2.2:

Improvement Opportunity: SHD/ESF8 representatives attempted to communicate a message to the other health officers in Region 1.

Analysis:

ESF 8 representatives at Snohomish DEM were not familiar with the procedure to send out a WA SECURES alert, and were unsuccessful in their attempt to send an alert.

Recommendations:

Ensure staff is routinely trained on how to send a WA SECURES alert and test the system quarterly to maintain skills.

Activity 2.3:

Mutual Aid request from neighboring Local Health Departments

Observation 2.3:

Strength and Improvement Opportunity: The health Officer initiated a call between SHD and Public Health-Seattle & King County.

Analysis:

The communication was a lesson for all involved. The follow up call did not test the regional Mutual Aid Agreement (MAA), as the Health Officer rescinded request. This did not test the ability to activate the MAA fully. Either an Inject with a list of supplies and staff would have helped or a list developed based on hospital evacuees could have taken place. The Health Officer was the only ESF-8 Representative on the call for Snohomish Health District, which added to the lack of follow through on the request and learning experience for other ESF-8 representatives.

Recommendations:

Re-test the MAA through a conference call drill in the future, including other SHD staff to provide a learning experience beyond the Health Officer.

Section 5: Conclusion

Snohomish Health District, as an individual agency and as lead Public Health for Region 1, tested two target capabilities in this exercise—Emergency Operations Center Management and Communications. SHD had the opportunity in *Shake, Rattle, and Roll* to test our revised Emergency Response Plan and to test the Snohomish County Alternate Care Facility Plan for the first time. It was also the first time that SHD activated our ESF8 lead role and exercised coordination with the regional DMCC.

Overall the exercise was a success as it allowed SHD staff to identify gaps in local and regional plans and to identify specific training needs. As a result of the exercise, a Region 1 DMCC manual will be produced and distributed to the two hospitals with DMCC responsibilities, and the five local health jurisdictions responsible to facilitate medical response within their emergency management structure. The Alternate Care Facility planning will continue in order to develop an Operations Guide for an alternate facility. Training and on-going practice on communications equipment and web-based tools will help us be more successful in future exercises and real-life events. Several SHD administrators and managers will be trained to IS300 in Summer 2011 to better prepare us for our roles in the Emergency Operations Center and as ESF 8 leads.

The exercise design, as to be expected, received comments regarding the artificialities that had to be incorporated given the time, budget, and staffing constraints. It is understood that the Snohomish County Emergency Operations Center activation was limited to the ESF8 function with no other support from other functions. The testing of communications capabilities was limited due to technical difficulties, yet it is recognized that no technology may even be available in the aftermath of a real-event large earthquake.

SHD Public Health Emergency Preparedness and Response staff will review progress at least quarterly to follow up and track identified deficiencies and issues, locally and with the local health jurisdictions and Healthcare Coalition partners of Region 1.

Appendix A: Improvement Plan

This IP has been developed specifically for Snohomish Health District as a result of *Shake, Rattle, and Roll* regional exercise conducted on May 18, 2011. These recommendations draw on both the After Action Report and the After Action Conference.

Table A.1 *Improvement Plan Matrix*

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
Capability 1: Emergency Operations Management	Staff alert and dispatch	Test the staff call-down procedures quarterly	Conduct quarterly staff call-downs, using an in-person contact or MyState profile updates	Training	SHD	PHEPR Manager	August, 2011	Ongoing quarterly
	Access to Emergency Response Plans	Circulate the Region 1 Healthcare Response Plan to all ESF 8 representatives upon completion of updates (to be completed June 2011	Complete the Region 1 Healthcare Response Plan update and circulate to all coalition members and ESF 8 representatives at SHD	Planning	SHD and Region 1 Healthcare coalition	PHEPR Manager	In process	June 30, 2011
			Provide input to the Region 1 Healthcare Coalition in the development of a DMCC plan and procedures	Planning	SHD and Region 1 Healthcare coalition	PHEPR Manager	July 2011	June 2012

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
Capability 2: Communications	Inter-operable communications	Assign an 800 mHz radio and direct phone numbers to the ESF 8 representative	SHD staff to bring 800 mHz radios with them to exercises and responses	Response	SHD	PHEPR Manager and ESF8 representative	Next exercise or response event	Ongoing
			SHD staff to ensure a direct phone number is assigned during exercises and responses	Response	SHD and EOC	PHEPR Manager and ESF 8 representative	Next exercise or response event	Ongoing
	WA SECURES alerting	Ensure staff is routinely trained on how to send a WA SECURES alert and test the system quarterly to maintain skills	Train to procedures for sending a WA SECURES alert and document the procedures for future reference	Training	SHD	PHEPR Manager and Regional Learning Specialist	August, 2011	October 2011
			Send quarterly WA SECURES test alerts to Region 1 LHJs	Systems/ Equipment	SHD	PHEPR manager	October 2011	Ongoing
	Mutual Aid Request	Re-test the MAA through a conference call drill, including the Health Officer and other SHD staff	Develop and complete a conference call drill to test the Interjurisdictional Mutual Aid Agreement	Exercise	SHD	Regional Learning Specialist	September 2011	December 2011

Whatcom County Public Health

Medical Reserve Corps

HRSA Specific After-Action-Report Information

To the extent possible, please provide the following information as part of your summary post-exercise report describing actual hospital participation in a local or regional public health drill/exercise.

1. Date of Event: May 18, 2011

2. Location: Arlington, WA

3. Personnel Involved: MRC Volunteers, Coordinator and VISTA Assistant Coordinators

4. Participating Agencies:

5. Funding Sources (State, Local, Federal, or a combination of all three):

6. How the needs of special populations were incorporated? Two representatives from the Communities of Color Coalition were asked to observe and report those observations in regard to how cultural concerns were addressed in the exercise.

7. How will the needs of special populations be incorporated in the future? We hope to include cultural competency as an objective in future exercises. All our volunteers have access to cultural awareness and cultural competency trainings as well as trainings about interacting and assisting people who have disabilities.

8. Did all health care workforce practice? Those volunteers who were able to participate in this exercise in four MRC units (Snohomish, Tulalip, Skagit and Whatcom) participated.

9. Did each participant understand their specific role(s)? The participants were told they would be given assignments when they arrived. There were not specific roles for the volunteers. This is a concern we would like to have addressed with more detailed planning.

10. Lessons Learned:

    - Include position descriptions in planning with training to help staff/volunteers be qualified for those positions.
    - Clear definition of leadership and roles.
    - No clear understanding of where "real world" health care was available.

11. How will Lessons Learned be applied to future exercises and drills?
    - It is requested that position descriptions will be used to identify staff/volunteers to more effectively be utilized.
    - It is requested that leadership roles will be identified and communicated as soon as possible.
    - It is requested that safety briefing as soon as volunteers arrive (printed also) that includes real world health care availability for the day.

12. How will Lessons Learned be incorporated into response plan updates?
    - It is requested that position descriptions will be incorporated into plans.

- It is requested that leadership roles will be clearly identified in response plans as well as how those leadership roles are communicated to staff/volunteers.
- It is requested that safety briefings be incorporated into plans.

Other After-Action-Report Information

The following items are also _suggested_ for inclusion:

13. Exercise Name: Shake Rattle & Roll

14. Duration (days, hours): 12 hours

15. Type of exercise (seminar, workshop, games, tabletop, drill, functional, or fullscale): Functional

16. Focus *(life safety response, medical, EOC operations, recovery, damage assessment, communications, logistics, PIO, information handling, other – should be associated with exercise goals and objectives):*

    - Evacuation

17. Overview of exercise design – Who designed the exercise and how? Over what timeframe? What criteria were used? Is this part of a series? Are corrective action effectiveness being evaluated?

18. Exercise Goals and Objectives:

19. Evaluation Methodology – Who comprised the evaluation team? How were they selected? How were they trained? What plans or procedures are being evaluated? Is a sample evaluation from available as an attachment? Was a hotwash/debrief part of the evaluation process?

20. Please list any training needs identified as a result of this drill/exercise:

    - We hope to develop trainings based on the position descriptions that are developed.

21. Please include any other information you feel important to note:

Upon request of the activation of Medical Reserve Corps, the units responded according to their procedures. MRC members began arriving at the Alternate Care Facility site and began looking for direction. There was no medical lead on site, there was no Incident command set up, and the MRC members did not know what to do, except to wait for direction. All MRC volunteers showed patience and accepted waiting for assignment.

Patients began arriving on site before command was set up. Snohomish County MRC had a member that was familiar with being in command. That member took charge and began providing direction to the best of her ability. However, overall, there was no clear direction for MRC members to take.