Mark Shirley, MS, CSP, CHMM  
Environmental Risk Consultant, Sutter Health Risk Services

Tony Barker, MSHS  
Area Emergency Manager  
Veterans Health Administration Office of Emergency Management

Dennis Olson  
Emergency Management Capability Assessment Program Manager  
Veterans Health Administration Office of Emergency Management

Are We Ready?  
Measuring Preparedness and Resiliency
Sutter Health
Emergency Management System

Metrics Project Overview
Presented By: Mark Shirley, MS, CSP, CHMM
Sutter Health Environmental Risk Consultant
September 2016

Why Metrics?

- Objectively and simply communicate readiness to senior leadership
- Establish benchmarks
- Prioritize planning activities
- Justify resource requests
Model: National Health Security Preparedness Index (NHSPI)

**GOAL:** The NHSPI aims to provide an accurate portrayal of the nation’s health security using relevant, actionable information to help guide efforts to achieve a higher level of health security and preparedness.
### NHSPS – Preparedness by State (cont.)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Score</th>
<th>National Average</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Security Surveillance</td>
<td>7.3</td>
<td>7.5</td>
<td>7.3 - 7.8</td>
</tr>
<tr>
<td>Community Planning &amp; Engagement</td>
<td>6.5</td>
<td>5.4</td>
<td>5.1 - 5.8</td>
</tr>
<tr>
<td>Incident &amp; Information Management</td>
<td>9</td>
<td>8.4</td>
<td>8.2 - 8.6</td>
</tr>
<tr>
<td>Healthcare Delivery</td>
<td>3.9</td>
<td>5.1</td>
<td>4.9 - 5.4</td>
</tr>
<tr>
<td>Countermeasure Management</td>
<td>7.4</td>
<td>7</td>
<td>7.3 - 7.2</td>
</tr>
<tr>
<td>Environmental &amp; Occupational Health</td>
<td>7</td>
<td>5.4</td>
<td>5.0 - 5.7</td>
</tr>
</tbody>
</table>

### Sutter Health (SH) – Preparedness by Area

(Sutter Health Bay Area map)
SH – Preparedness by Affiliate

SLH – Sutter Lakeside Hospital
SSRRH – Sutter Santa Rosa Regional Hospital
NCH – Novato Community Hospital
ABSMC – Alta Bates Summit Medical Center
SDMC – Sutter Delta Medical Center
CPMC – California Pacific Medical Center
EMC – Eden Medical Center
MPHS – Mills Peninsula Health Services
SMSC – Sutter Maternity and Surgery Center

NHSPI – Preparedness by Domain

<table>
<thead>
<tr>
<th>Preparedness by Domain</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Security Surveillance</td>
<td>7.5</td>
</tr>
<tr>
<td>Community Planning &amp; Engagement</td>
<td>5.4</td>
</tr>
<tr>
<td>Incident &amp; Information Management</td>
<td>8.4</td>
</tr>
<tr>
<td>Healthcare Delivery</td>
<td>5.1</td>
</tr>
<tr>
<td>Countermeasure Management</td>
<td>7</td>
</tr>
<tr>
<td>Environmental &amp; Occupational Health</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Source: www.nhspi.org
NHSPI – Subdomains

Healthcare Delivery Subdomains

NHSPI – Subdomain Score

Source: www.nhspi.org
SH – Domains

• Program Components
• Facility Resiliency
• Communication Capabilities
• Supply Support
• Training

Program Components Subdomains

• Compliance: NIMS, TJC, CMS & mock surveys
• Business Continuity Program maturity
  • Departmental profiles current
  • Oversight activity
• Events tracked and critiqued, and after action plan completed
• Exercises conducted and critiqued, and after action plans completed
Facility Resiliency Subdomains

- Seismic performance (Structural Performance Category/Nonstructural Performance Category ratings)
- Natural gas shut-off valve
- Domestic water
  - Connection redundancy
  - Storage tank capacity
  - Alternate source (well/dewater)
- Emergency power
  - Generator redundancy
  - Power taps

Communication Capabilities Subdomains

- Everbridge
  - Utilization
  - Training
  - Patient 800#
- Gov't emergency telecommunication system (GETS) / Wireless priority service (WPS)
  - Implementation
  - Testing & usage
- Telecommunication service priority (TSP) implementation
  - Satellite phone capabilities
  - HAM radio capabilities
Supply Support Subdomains

- Food
- Linens
- Fuel
- Water
- Triage
- Med Surge
- Rx

Training Subdomains

- HICS for Incident Management Team
- HazMat Resource Team
- Triage/MCI/Highly infectious disease for ED
EMCAP Mission

Veterans Health Administration (VHA) evaluates comprehensive emergency management programs at VA Medical Centers and Health Care Systems to ensure resiliency and continuity of Primary Mission Essential Functions for the delivery of health care services to VA patients, military personnel, and the public, as appropriate, in the event of a disaster, emergency or other contingency.
Evaluation Program Objectives

- **Assist** facility director by providing a **gap analysis** of comprehensive emergency management program regarding current national, VA, and VHA program requirements to address through facility improvement plans
- **Inform** of potential **accreditation shortfalls** within the emergency management standards
- **Identify systemic, VHA-wide issues** that necessitate enterprise-level attention

Mission Areas

1 – **Program Level (9 Capabilities)**
   - Provides the foundation of the facility’s Comprehensive Emergency Management Program

2 – **Incident Management (4 Capabilities)**
   - Addresses how the facility manages response to and recovery from incidents or emergencies to include evacuation

3 – **Safety and Security (4 Capabilities)**
   - Focus on the facility’s ability to provide a safe and secure environment, including HazMat, patient decontamination and Shelter-in-Place procedures
Mission Areas (cont.)

4 – Resiliency (9 Capabilities)
   – Addresses personal preparedness of employees, data and voice communications, and mission-critical utility systems

5 – Medical Surge (7 Capabilities)
   – Looks at the ability to manage an increase in demand for clinical and ancillary services that exceed normal operations
   – Includes: Influx of patients (surge), laboratory and radiological services, and VA-sponsored patient care in the community due to an emergency or disaster

6 – Support to External Requirements (3 Capabilities)
   – Focuses on the ability to support and integrate with the community, and involvement in the Disaster Emergency Medical Personnel System (DEMPS)

Capability Elements

• Plans and Policies
  – Emergency Operations Plan (EOP), Standard Operating Procedures (SOP), Medical Center Memorandums (MCMs)

• Resources
  – Staff, equipment, funding

• Processes and Procedures
  – Based on facility’s plans and policies

• Training and Exercise
  – Required training and exercises

• Evaluation and Organizational Learning
  – Improvement planning and program enhancement
Evaluation Program Details

- Protocols
  - Evaluation criteria based on policy requirements and established guidance
  - Activities include document review, facility orientation, focused individual and group interviews, functional exercise
- Tailored Evaluations – Common capabilities and other applicable capabilities determined by facility profile
- Results – Met or Not met

Post-Site Visit Actions

- Report Within 60 Days
  - Describes identified program gaps and provides corrective recommendations
- Facility Actions
  - Address identified gaps through comprehensive improvement plans
Results Analysis

Fiscal Year 2015: 40 VA Medical Centers and Health Care Systems Evaluated

<table>
<thead>
<tr>
<th>Capability Element</th>
<th>% Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation and Organizational Learning</td>
<td>66*</td>
</tr>
<tr>
<td>Exercise and Training</td>
<td>74**</td>
</tr>
<tr>
<td>Policy and Plans</td>
<td>75</td>
</tr>
<tr>
<td>Process</td>
<td>89</td>
</tr>
<tr>
<td>Resources</td>
<td>88</td>
</tr>
</tbody>
</table>

- * - This result is artificially low because of findings related to annual program reviews that were not contained in policy guidance, (e.g., review of FRDP, past year's goals and objectives, EM program budget execution, etc.)
- ** - This result is skewed significantly due to the completion rates for administration-imposed ICS training (IS-100, 200, 700, 800 and ICS 300 and 400)

Capability Element Analysis

- **Evaluation/Organizational Learning:**
  - Evaluating program and activities
  - Identifying needed improvements, and developing and implementing corrective actions plans

Evaluation/Organizational learning issues are addressed locally by the emergency management committee, which approves, assigns and tracks to completion the performance improvement actions.
Capability Element Analysis

- **Exercise/Training:**
  - Staff and service level emergency management training and exercises
  
  Issues are primarily addressed at the facility level, however policy-level gaps will necessitate enterprise-level program initiatives.

- **Policy/Plans:**
  - Program documentation addressed at the medical center level by developing, updating or revising emergency management program-related documents

  Program documentation is comprised of an Emergency Operations Plan (EOP) and incident-specific plans, the Hazard Vulnerability Analysis and critical system resiliency processes. Continuity of Operations (COOP) plans, Emergency Management Committee (EMC) charter and meeting minutes, training and exercise documentation, and program improvement plans and documentation.

  The status of COOP plans, EMC charters and program improvement documentation accounted for the bulk of the Not Met results noted during evaluations.

Capability Element Analysis (cont.)

- **Process:**
  - Related to functions that demonstrate staff understanding of the program requirements and plans, and how they are implemented

  Issues noted in the Process element generally reflect underlying gaps in Policy/Plans or Exercise/Training where staff explain or demonstrate processes and procedures.

- **Resources:**
  - Related to supplies, equipment or staffing

  Depending on the nature of the issue noted during the evaluation, Resources issues may be addressed at the facility level or they may require additional support from Network and/or VHA program offices.
Summary Analysis

• The threshold for a noted issue is a 25% or higher (10 or more facilities) “Not Met”

• Three capability elements for focus:
  – Evaluation/Organizational Learning
  – Exercise/Training
  – Policy/Plans

• Further investigation identified two primary areas of concern:
  – Program documentation
  – Training issues

Summary Analysis (cont.)

• National-level program policy needs greater clarity regarding mandatory program and planning requirements, particularly in resiliency, continuity of operations, recovery, training and exercises
  – Program guides provide guidance on these topics, but guidance is not mandatory; thus, implementation is inconsistent across the enterprise
  – Program inconsistencies at the local level were often the result of varied formats, interpretation and implementation of program requirements despite regional differences and needs

• Training is a national-level and local-level need
  – Nationally: Enhancing knowledge, understanding and consistency
  – Locally: Roles, responsibilities and job-specific training
Positive Takeaways

• Strongest programs have highly engaged, multi-disciplinary Emergency Management Committee
• Community engagement is key
• Program documentation is essential – “not documented …”
• Consistency (in process and repetition) is a multiplier
• Emergency Management Team versus Emergency Manager

Questions?
Thank You!

Mark Shirley, MS, CSP, CHMM
ShirleM@sutterhealth.org

Tony Barker, MSHS
Tony.Barker@va.gov

Dennis Olson
Dennis.Olson@va.gov