driving readiness in dynamic times

Disaster Planning for California Hospitals

When Disaster Strikes: 2015 Butte and Valley Wildfires

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When Disaster Strikes: 2015 Butte & Valley Wildfires

CHA Disaster Planning for California Hospitals Conference
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Partnering in Crisis

VIDEO
Sutter Health

- 2 operating areas
- 21 affiliated acute hospitals
- 5 medical foundations
- 2 behavioral centers
- Newly added surgical centers
- 50,000+ employees & 12,000+ physicians
- Primarily in Northern & Central California, plus 1 behavioral center in Hawaii, 1 medical office in Oregon & 3 call centers in Salt Lake City, Utah

Sutter Health Emergency Management System (SHEMS) Features

- Sutter Health Incident Command System (ICS) a mirror of Hospital Incident Command System (HICS)
- Robust Incident Management Team (IMT)
  - Multidisciplinary
  - Mandated National Incident Management System (NIMS)/ICS training
  - Drills 2x a year
SHEMS Features (cont.)

- SHEMS Duty Officer 24/7
  - Event recognition
  - Contact from external source
  - Affiliate calls SHEMS hotline
  - Conducts triage
  - Contact Incident Commanders

**Activation Levels:**

<table>
<thead>
<tr>
<th>Level</th>
<th>Activation</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standby</td>
<td>Used to notify the IMT and system leaders that an event is occurring or has occurred, response may be needed, but not at this time</td>
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<tr>
<td>2</td>
<td>Analysis</td>
<td>Utilize SHEMS infrastructure (positions as needed) to analyze emerging issues</td>
</tr>
<tr>
<td>3</td>
<td>Rapid Response</td>
<td>Utilize SHEMS infrastructure (positions as needed) to provide coordinated system guidance</td>
</tr>
<tr>
<td></td>
<td>System Guidance</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>ICC &amp; IMT Activated</td>
<td>Mobilize SHEMS IMT as needed to respond to affiliate needs</td>
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Everbridge Mass Notification System
- System messaging
  - 55,000 employees and 12,000 physicians

Everbridge Mass Notification System
- Template-based messaging
  - Variables and messaging already pre-designated
  - Prompts for needed information within message
  - Messaging is less stressful and lowers time for message prep
  - Sending messages in less than few minutes
• Supply Cache
  – “Owned” by Risk Services
  – Oakland Herrick (25% of supplies)
  – Modesto (75% of supplies)
  – Powered Air Purifying Respirator (PAPR) standardization (Value Management Team)

• Event Management Tool (EMT)
  – Sutter Health created a web-based portal to automate the ICS process
  • Allows users to interact at multiple locations
EMT users can:
- Update the incident
- Create requests
- Allow messages to be sent to other sections
- Track current and ongoing incident issues
- Send out messages to ICC staff
- Allow for post-incident review and reporting

2015 Historical Wildfire Season
- 6000+ wildfires
- 308,000 acres burned
- 2 firefighter fatalities
- 7 civilian fatalities

The Butte and Valley fires significantly impacted affiliate operations:
- Sutter Amador Hospital (SAH)
- Sutter Lakeside Hospital (SLH)
- Sutter Care At Home (SCAH)
- Sutter Medical Foundation (SMF)
- Sutter Pacific Medical Foundation (SPMF)
Butte Fire

- Started Sept. 9, 2015, impacting Amador and Calaveras Counties
- 70,868 acres burned
- Mandatory evacuations
- 475 residences, 343 outbuildings, 45 structures damaged
- 2 civilian fatalities, 1 injury
- Fire 100% contained Oct. 1, 2015

Valley Fire

Note: The images are not transcribed as they contain visual data that cannot be converted into text.
Sutter Amador Hospital

- Located in Jackson, California
- Only hospital in Amador County
- 21,000 annual ED visits
- Stroke & Birthing Center
- 52 licensed beds
- 387 employees
- 48 physicians
Butte Wildfire Sutter Amador Impact

Tremendous Team Effort
- Staff & volunteers offered up their homes for staff, pets and livestock
- Valley Operating Area Emergency Preparedness Coordinators & Safety Leaders offered to assist
- Contractors assisted with high efficiency particulate air (HEPA) supplies
- CAL FIRE & EMS provided excellent communication
- On-site Employee Assistance Program (EAP) resources
- SHEMS guidance

Safety was the Priority
- Hospital Command Center (HCC) open for 9 days
- Leaders dedicated to safety and continuity of services
- Action plans were reviewed and revised every operational period
- Evacuation was a possibility
6-Hour Power Outage

- No building cooling
- Deployed: flashlights, lanterns & glow sticks
- Security escorts to cars
- PG&E placed hospital on high priority & re-routed grid

Air Quality Issues

- 40 filter units were acquired from Unger and other affiliates
- N-95s and PAPRs were made available to staff
- Indoor air quality (IAQ) specialist conducted monitoring
Butte Wildfire SHEMS Response

• Sept. 9, 2015 — Sutter Amador Hospital (SAH) notifies SHEMS Duty Officer that the hospital lost power due to Butte Fire
• Sept. 10, 2015 — SHEMS fulfills SAH requests for IAQ consult
• Mandatory evacuation impacts SAH staff
• Sept. 10, 2015 — SHEMS activates Level 4
• Environmental risk team members deployed to SAH
• SAH requested additional supplies (portable HEPA filter units & linen), staff, Infection Control consult and EAP resources

Valley Wildfire Overview

• Started Sept. 12, 2015, impacting Lake, Napa & Sonoma Counties
• 76,067 acres burned
• Mandatory evacuations
• 1,958 structures destroyed
  – 1,280 homes
  – 27 multi-family structures
  – 66 commercial properties
  – 585 other minor structures
• 4 civilian fatalities & 4 firefighters injured
• Fire 100% contained Oct. 15, 2015
Sutter Lakeside Overview

- Located in Lakeport, California
- One of 2 hospitals in Lake County
- 25-bed critical access hospital
- 18,000 annual ED visits
- Birthing Center
- 376 employees
- 89 physicians

Valley Wildfire Sutter Lakeside Impact

Initiation of Hospital Incident Command

- Notified all leaders and staff Sunday morning (one leader answered their cell phone while escaping the fire)

Air Quality

- Preserved air quality by maintaining facility lockdown, limiting entrances and exits to only two
- Adjusted air intake dampers to minimum positions or closed
- Positioned all available air scrubbers/HEPA units throughout facility
Valley Wildfire Sutter Lakeside Impact (cont.)

Patient Care Services

• Prepared for patient surge and hospital evacuation
• Maintained continuous communication with other hospitals out of the area regarding patient transfer in case evacuation became necessary
• Provided clinical support for community shelters

Staffing

• Received nursing staff from Sutter Santa Rosa Regional Hospital, Novato Community Hospital & Eden Medical Center
• Worked with local real estate agents for available housing
• Continuous communication, support and education with all staff
• EAP on-site
• Provided child care and pet care services for staff
• Provided status of employees and families welfare, and need for assistance
Coordination
• MHOAC (Medical Health Operation Area Coordinator), CAL FIRE and Emergency Operation Center (EOC)
• Briefings with staff, leaders and SHEMS

Supplies and Resources
• Maintained communication with vendors regarding supply routes or inability to deliver

Direct Impact on Hospital Staff
• 62 evacuations
• 9 homes lost

Valley Wildfire SHEMS Response
• Sept. 13, 2015 — Sutter Lakeside Hospital activated its HCC and notified SHEMS
• Sutter Lakeside Hospital requests HEPA filters, PAPRs, O2 e-tanks, staffing and Everbridge technical support through SHEMS Duty Officer
• SHEMS attended each briefing conducted
• SHEMS develops “on the fly,” a staffing resource process for intra-affiliate staffing needs
• A disaster relief fund was created to assist those impacted by the fires
• Sept. 25, 2015 — SHEMS deactivates
Sutter Care At Home Overview

- SCAH has a total of 2,250 employees
- Serves 18,000 patients per day
- Local office located in Lakeport (LP)
- 21 staff cover 400 square miles
Sutter Care At Home Impact

Activated ICS Sept. 12, 2015

Communications/Transportation

- Phone lines were down
- Multiple road closures
- Used Everbridge to notify SCAH executive staff

Patient Care Services

- A number of patients were evacuated or in process of evacuation
- Reached out to local radio station announcing that patients should call to inform SCAH if they were safe
- Categorized patients based on evacuation risk and prioritized outreach to those at greatest risk

Staffing

- Staff evacuated from homes
- 2 staff lost their homes
- Used Everbridge to ask staff from out of the area to help cover shifts — 16 staff from other sites assisted
Lessons Learned — Sutter Amador

Communication
• Improve communication with County to ensure timely alerts and ongoing updates on emergencies
• Provide additional Everbridge education to staff members
• Coordinate with Sutter Medical Foundation
• Improve utilization of HICS forms

Resources
• Develop a staffing request process
• Need HEPA filter and PAPR acquisition process
• Anticipate public requests for O2
Lessons Learned — Sutter Amador (cont.)

Safety & Security

- Implement access control measures
- Improve Security Branch functions
- Develop process to quickly assess air quality
- Enhance patient tracking process

Lessons Learned — Sutter Lakeside

- Needed additional air scrubbers/HEPA units charcoal filtered
- Ensure Everbridge database is up-to-date
- Keep list of leadership cell phone numbers current
- Train additional staff members on how to use Everbridge — SHEMS had to send Everbridge messages
Lessons Learned — Sutter Lakeside (cont.)

- Ensure EAP regularly rounds with employees
- Replace television in Command Center
- Add procedure in EOP/evacuation plan for transferring patient medical information to outside Sutter Health system hospitals if evacuation needed
  - SLH has electronic health records

Lessons Learned — Sutter Care At Home

- Utilize consistent Everbridge messaging for staff updates
- Acquire additional satellite phones to ensure communication redundancy
- Partner with local hospitals for support
- Consider staffing needs as a tactical objective
- Include the following in disaster bins:
  - A list of ham radio contacts
  - Maps of surrounding areas
SHEMS Lessons Learned

- Refine the process/protocols to utilize internal supply resources
- Ensure Everbridge messaging includes impacted medical foundation entities and SCAH (not just hospital)
- Utilize Everbridge mapping feature to locate employees impacted by event
- Review evacuation plans to ensure efficient triage process to prioritize patient evacuations

SHEMS Lessons Learned (cont.)

- Establish hardship fund that includes mechanism for employees’, physicians’ & community leaders’ contributions
- Include Mental Health Resources Unit (EAP) within SHEMS
- Develop and implement disaster staffing resource process
Questions?
Thank You!

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