





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
September 21, 2016



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

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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

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graph TD; IC[Incident Commander] --- PIO[Public Information Officer]; IC --- SO[Safety Officer]; IC --- LO[Liaison Officer]; IC --- MTC[Medical/Technical Coordinator]; IC --- OSC[Operations Section Chief]; IC --- PSC[Planning Section Chief]; IC --- LSC[Logistics Section Chief]; IC --- FASC[Finance/Administration Section Chief]; OSC --- SM[Staging Manager]; OSC --- MCCD[Medical Case Branch Director]; OSC --- ICD[Infected/Contaminated Branch Director]; OSC --- IDCD[Isolated Branch Director]; OSC --- SCD[Security Branch Director]; OSC --- ECD[Evacuation Coordinator Branch Director]; PSC --- RUL[Recreation Unit Leader]; PSC --- SUL[Situation Unit Leader]; PSC --- DUL[Documentation Unit Leader]; PSC --- UUL[Unsubstantiated Unit Leader]; LSC --- SD[Service Branch Director]; LSC --- SBD[Support Branch Director]; FASC --- TUL[Time Unit Leader]; FASC --- PUL[Procurement Unit Leader]; FASC --- OUL[Organization/Change Unit Leader]; FASC --- CUL[Cost Unit Leader];
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SHEMS Features (cont.)

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



Earthquake



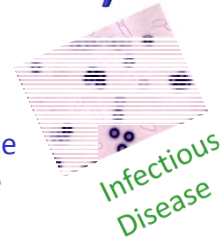
Flood



Terrorism



Fire



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SHEMS Features (cont.)

Activation Levels:

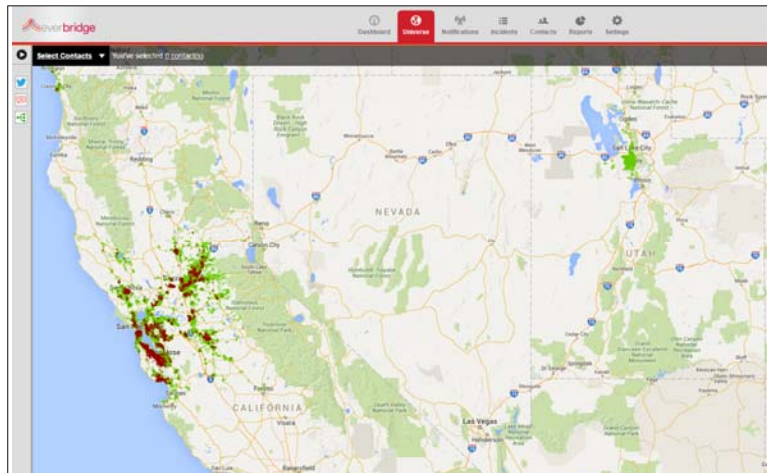
Level	Activation	Response
1	Standby	Used to notify the IMT and system leaders that an event is occurring or has occurred, response may be needed, but not at this time
2	Analysis	Utilize SHEMS infrastructure (positions as needed) to analyze emerging issues
3	Rapid Response System Guidance	Utilize SHEMS infrastructure (positions as needed) to provide coordinated system guidance
4	ICC & IMT Activated	Mobilize SHEMS IMT as needed to respond to affiliate needs



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SHEMS Features (cont.)

- Everbridge Mass Notification System
 - System messaging
 - 55,000 employees and 12,000 physicians



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SHEMS Features (cont.)

- 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

Blank Message Template

▼ Code

- Code AAA
- Code Dry
- Code Dry
- Code Lime Downtime
- Code Lime Downtime - Planned
- Code Orange
- Code Pink
- Code Purple
- Code Red**
- Code Silver
- Code Silver/Active Shooter
- Code Triage
- Code Triage Alert

Code Red

Sender E-mail Address: TestEmail@outerhealth.org
Sender Caller ID: United States 4155551234

Create Message

☒ High priority message

Title
Code Red

Body

☐ Include a separate message for email notifications. ☐ Hide list of variables

No delivery methods

Attention: Code Red. Please close all doors and clear corridors. Follow RACE and PASS protocols.

Campus: All Campuses
Department: Emergency Department
Floor: 1st

Enter closing instructions or contact information here.

Back New Incident Send

New Incident

Priority Notification ☒

Hide Incident Details ☐

Code Red

Attention: Code Red. Please close all doors and clear corridors. Follow RACE and PASS protocols.

Review Incident Details

Enter closing instructions here...

Email/Fax 2500 SMS 120

Close after sending ☒

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SHEMS Features (cont.)

- Supply Cache
 - “Owned” by Risk Services
 - Oakland Herrick (25% of supplies)
 - Modesto (75% of supplies)
 - Powered Air Purifying Respirator (PAPR) standardization (Value Management Team)



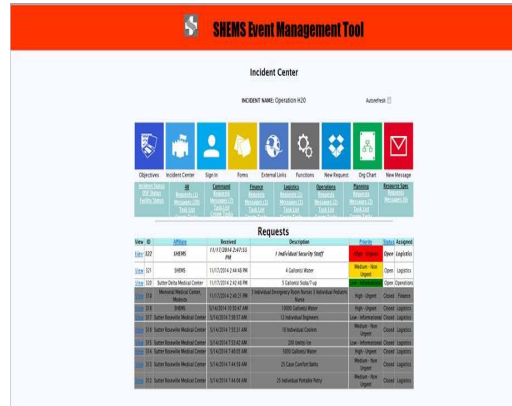
SHEMS Features (cont.)

- Event Management Tool (EMT)
 - Sutter Health created a web-based portal to automate the ICS process
 - Allows users to interact at multiple locations



SHEMS Features (cont.)

- 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



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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:

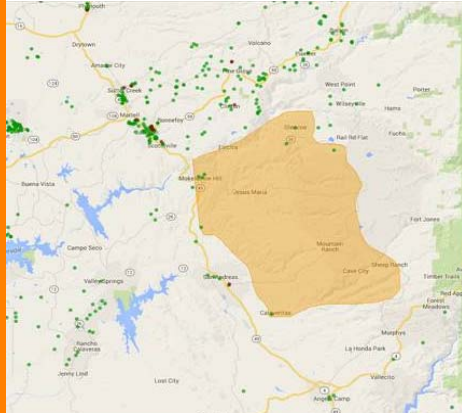
- Sutter Amador Hospital (SAH)
- Sutter Lakeside Hospital (SLH)
- Sutter Care At Home (SCAH)
- Sutter Medical Foundation (SMF)
- Sutter Pacific Medical Foundation (SPMF)



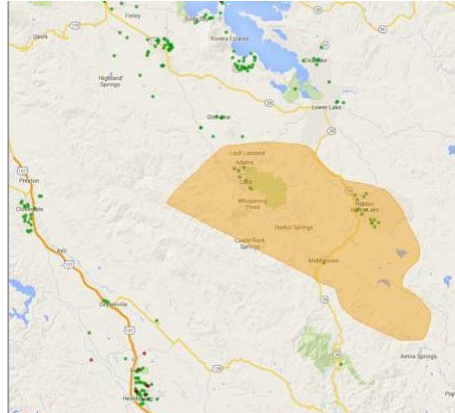
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Everbridge Mapping

Butte Fire



Valley Fire



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Butte Wildfire Overview

- 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



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Butte Wildfire Overview (cont.)

Sutter Amador Hospital



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Sutter Amador Overview

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



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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



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Butte Wildfire Sutter Amador Impact (cont.)

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



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Butte Wildfire Sutter Amador Impact (cont.)

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



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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

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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



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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



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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



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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



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Valley Wildfire Sutter Lakeside Impact (cont.)

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

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Valley Wildfire Sutter Lakeside Impact (cont.)

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



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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

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Sutter Care At Home

VIDEO



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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



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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



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Sutter Care At Home Impact (cont.)

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

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Lessons Learned

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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

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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



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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

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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

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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

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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

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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

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driving readiness in
dynamic times

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Questions?





Thank You!

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