

Santa Cruz County



Medical-Health Surge Plan

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Introduction

Attacks from a biological, chemical, or radiological agent, a natural event, an emerging disease such as severe acute respiratory syndrome (SARS) or pandemic influenza, or a mass casualty incident (e.g., active shooter, explosion) will impose challenges on the healthcare system. Hospitals and other healthcare providers must be prepared to receive and treat large numbers of patients, requiring sufficient medical staff, ventilators, oxygen, medications, vaccines, personal protective equipment, and/or other supplies to address the demand. As existing healthcare resources become exhausted, the Santa Cruz County Healthcare Coalition (HCC), Medical Health Operational Area Coordinator (MHOAC) Program, and Santa Cruz County Emergency Preparedness Unit, and Santa Cruz County Emergency Medical Services (EMS) Agency have the responsibility to step in and establish solutions to expand the medical capability.

It is critical to have the ability to provide adequate medical care during events that challenge and exceed the limits of the normal medical infrastructure. This document has been developed to provide guidance and to help build Santa Cruz County medical surge capacity through enhancing the healthcare system's ability to survive a hazardous incident and maintain or rapidly respond to operations that were impacted. Established outcomes are to save as many lives as possible, maximize resources to manage patients associated with the medical surge, and return to normal operations.

Incidents are managed by Standardized Emergency Management System (SEMS), which incorporates the use of Incident Command Structure (ICS), mutual aid agreements, the Operational Area concept, and multi-agency and inter-agency coordination. This Medical Surge Plan is compliant with National Incident Management System (NIMS).

Background

Santa Cruz County is home to nearly 300,000 residents dispersed over varying terrains and challenging geographies for prehospital response. At peak, ALS system ambulance deployment, there are nine ALS ground ambulances with potential ALS or BLS ambulance support from neighboring fire departments includes Aptos/La Selva, Boulder Creek, Zayante, and Ben Lomond. There is also a private BLS ground transport provider available, who has the potential to deploy six BLS ambulances and up to 28 EMTs to the system possibly within 60 minutes. The two neighboring counties also can send ground ALS and BLS strike teams (i.e., five ambulances with a leader) with varying response times of 30-60 minutes.

Two private air ambulance resources could collectively send four air resources within 30-45 minutes and the potential to share additional air resources with varying response times. Both air resources maintain the flexibility of providing nurse support in ground ambulances if needed. In addition to the primary air support, there is the potential for air ambulances from Mercy 21 at Moffett field, California Highway Patrol, CAL-FIRE, and the Coast Guard.

The County is supported by numerous local city and county law enforcement and fire departments, a consolidated 9-1-1 communications center, Netcom, as well as one fire resource communication and command center (i.e., CAL-FIRE) in Felton. The responding agencies throughout the County have historically integrated well together in training exercises and mutual aid scenarios. There is a communal culture where each stakeholder is actively involved and eager to assist. It is common that prehospital staff has been shared between agencies with private ambulance often employing city and county firefighters.

Santa Cruz County houses large attraction points vulnerable to surge events such as the Beach Boardwalk, Kaiser Permanente Arena, shopping attractions at the Capitola Mall, Capitola Village, and Pacific Avenue, and two college campuses - Cabrillo College and University of California, Santa Cruz (UCSC). Both colleges have student health centers that are staffed normal business hours. The student health centers do not have the capacity to care for the surge of patients; however, each have basic disaster supplies and medical caches on campus. UCSC does have student and family housing, as well as on-campus law, fire and communications center resources. Additionally, UCSC has made efforts to provide the following training opportunities:

- Stop the Bleed and BLS training to law, fire agencies, and the public for a total of 300 students thus far;
- Annual active shooter training for the staff that is open to all community partners; and
- 50 aspiring medical professional students in BLS and bleeding control to assist in large scale events.

There are two hospitals in the County that offer emergency services: Dominican Hospital and Watsonville Community Hospital. Combined they have a capacity of 329 beds; however, each would be challenged in staffing to their capacities (223 Dominican and 106 Watsonville, respectively). Sutter Maternity and Surgery Center is an additional specialty hospital that is prepared to offer additional capacity (18 medical/surgical and 12 perinatal with additional 50 alternative bed options and 23 beds for triage surge) and patient care support in surge events. All facilities have disaster supplies to sustain various hours in the event of a patient surge or disaster. There are numerous clinics that offer urgent care services throughout the County which could assist with low acuity care during normal operating hours.

The County Public Health Division oversees a medical professional resource called the Medical Reserve Corps (MRC) that currently has approximately 180 medical professionals with varying licensures that are registered and vetted through the Disaster Healthcare Volunteer (DHV) system. Volunteer response is incident dependent with wide variation on the number of volunteers that may be available to deploy. The EMS Agency coordinates support through the Medical Health Occupational Area Coordinator (MHOAC) and County Emergency Operations Center (EOC). The agency has the authority to support the County, cities, and hospitals to trigger

their surge response plans.

Definition of Medical Surge

According to the California Department of Public Health (CDPH),

A healthcare surge is proclaimed in a local jurisdiction when an authorized local official, such as a local health officer or other appropriate designee, using professional judgment determines, subsequent to a significant emergency or circumstances, that the healthcare delivery system has been impacted, resulting in an excess in demand overcapacity in hospitals, long-term care facilities, community care clinics, public health departments, other primary and secondary care providers, resources and/or emergency medical services. The local health official uses the situation assessment information provided from the healthcare delivery system partners to determine overall local jurisdiction/Operational Area medical and health status (See Appendix B).

Healthcare surge is not typical emergency department overcrowding or the result of a local multi-casualty incident that may stress nearby facilities but has little to no impact on the overall healthcare delivery system. For this plan, medical surge will be defined as an overwhelming increase in the number of patients requiring healthcare within the County at a level greater than (>) 110-125% of normal capacity (See Appendix E).

Goals and Objectives

The purpose of healthcare surge planning is to ensure the optimal care of patients, both current patients and those that result from the incident, in the most appropriate healthcare setting while reducing undue hardship on other sectors in the healthcare system.

The goals of the surge strategies are to:

- Ensure optimal patient care at the most appropriate healthcare setting
- Increase capacity/capability to meet the anticipated increased demand due to surge
- Ensure the continuity of business operations at all healthcare facilities

To meet these overarching goals, the surge strategies fall under four main categories:

1. Capacity (**Space**): Expand and/or repurpose space to care for current and/or additional patients.
2. Personnel (**Staff**): Maintain staffing levels and/or expand the workforce to assist with the response.
3. Medical Material (**Stuff**): Ensure adequate supplies and equipment.

4. Operations (**System**): Ensure operations are adapted/maintained as needed to meet the service needs of the community.

Implementation and Waivers

Local healthcare stakeholders identified the surge strategies described in this plan. In the review of these strategies, some local, state and federal policies and regulations were identified as potential barriers to full implementation of possible surge strategies particularly for certain types of facilities. While this plan identifies surge strategies that may be implemented during a disaster response, some program/policy flexibility or suspension authorization may be required before full implementation.¹

Medical Surge

The comprehensive surge response process follows these eight steps:

1. Activation of Surge Plan	→	2. Situation Reassessment	→	3. Incident Action Planning	→	4. Secure Appropriate Declarations
5. Process Mutual Aid Requests	→	6. Implement Surge Response	→	7. Monitor/Evaluate Surge Response	→	8. Stand-down and Recovery

1. Activation of Surge Plan

What Triggers the Plan

The following conditions may trigger the activation of this plan, whether they occur in Santa Cruz County, within the mutual aid region, or elsewhere in California such that mutual aid response is called for:

- Earthquake, flood, fire, or other damage (including bombing or chemical weapon attack) to an existing acute care facility such that evacuation of patients is necessary or significant space is unusable—e.g., damage to surgery suites or Emergency Department (ED) of a hospital.
- Similar damage to some other healthcare facility resulting in significant injury, need for evacuation, or unusable space—e.g., damage to major community clinic space making it unusable for delivery of ambulatory care.

¹ <https://www.cdph.ca.gov/CDPH%20Document%20Library/ControlledForms/cdph5000a.pdf>

- Sudden Mass Casualty Incident (MCI) due to primary injury (e.g., earthquake, dam breach, explosion, active shooter) generating a surge in demand on the healthcare system >110 – 125% of normal capacity.
- Damage to the transportation system such that patients cannot be transported to or from one of the major hospitals.
- Local earthquake magnitude great enough to produce widespread injury.
- Any Chemical, Biological, Radiological/Nuclear, Explosive (CBRNE) incident or extreme weather incident (e.g., sustained hot weather, sustained freezing weather) generating a surge in demand on the healthcare system > 110 – 125% of normal capacity.
- Any increase in patients due to a pandemic, a communicable disease emergency, or comorbidities of such an incident, such that the demand for healthcare services exceeds routine ability to provide care.
- Declaration by the Centers for Disease Control (CDC) or the California Department of Public Health (CDPH) of pandemic stage five (alert phase).

Incident Outside of Santa Cruz County

An incident may trigger a surge response outside of Santa Cruz County. Examples of triggers include terrorist incidents (e.g., CBRNE), floods, and earthquakes. Santa Cruz County may be asked to provide mutual aid and support to its neighboring counties, its mutual aid region, and population centers such as the San Francisco Bay Area and Los Angeles. Surge responses to incidents occurring outside the County will be coordinated regionally or at the State level. Santa Cruz County's role would be the identification of resources that could be made available to meet the needs of the affected county or counties and to facilitate the reception and distribution of the patients into Santa Cruz County.

Who Activates the Plan?

Santa Cruz County MHOAC, Public Health Officer, Director of Health Services Agency, and Director of the Office of Emergency Services or his/her designee can activate the surge plan. It may be activated with or without a local, state, or federal declared emergency.

Information Gathering

Information gathering and situational assessment is critical to initiating the appropriate surge response. Assess the nature and scope of the incident, which includes event type, scope and magnitude, estimated influx of patients, real or potential impact on the healthcare system, and special response needs (e.g., infectious disease, hazardous materials, medical countermeasures, Personal Protective Equipment [PPE]).

Determine “[quick look](#)” elements such as the following:

1. What is the nature of the incident—e.g., earthquake, explosion, flood?
2. Are there any known or anticipated sequelae of the incident that may pose a continued risk—e.g., aftershock, further explosion?
3. Are there known incidents happening elsewhere in the state or nation that could impact locally?
4. What is known of the immediate impact?
5. Are any structures known to be down?
6. Are there any known injuries?
7. Are there any known power outages?
8. What is the known impact on transportation routes?
9. Are the access routes to/from major medical facilities intact?
10. Are there any known issues or problems with the routes in/out of the County?
11. Are there any known issues or problems with major routes (including bridges) in neighboring counties?
12. Has the County activated its EOC?
13. What is the quick look assessment of major medical facilities?
14. Are hospitals known to be damaged?
15. Is there an immediate need for evacuation of all or some of the medical facilities?
16. What are the initial resources needs and availability?

Determine if Other Plans Require Implementation

Incidents that may require the activation of the Surge Plan may also trigger the activation of other plans, such as the Mass Casualty Incident (MCI) Plan, Mass Care/Sheltering Plan, or Plan.

Alert Process

- MHOAC, Health Officer, or HSA Director may activate the Santa Cruz County Health Services' Department Operations Center (DOC) if the Surge Plan is activated. The DOC may subsequently request the activation of the EOC to assist in the effort.
- Alert major healthcare facilities and skilled nursing facilities of the incident and the intention to activate the Surge Plan. Conduct ReddiNet bed-tracking and upload to HAvBED to share situational awareness with the region and state.
- The MHOAC or DOC will alert Coroner's Office if mass fatalities are anticipated. In Santa Cruz County, the primary responsibility for the investigation, recovery, and management of the deceased resides with the Sheriff-Coroner's Office.
- MHOAC to alert RDMHC, CDPH and EMSA Duty Officer with information on the nature and magnitude of the incident, morbidity and mortality counts, and status of hospitals, EMS, public health, and transportation. Within two hours of the incident, submit the initial Medical and Health Situation Report (i.e., SitRep) containing the minimum data elements. See Appendix B.

2. Comprehensive Situation Re-Assessment

For incidents that occur within Santa Cruz County, the comprehensive situation assessment should cover the “quick look” elements above in addition to the following elements:

1. Estimated number of casualties if available (i.e., immediate/red, delayed/yellow, minor/green, deceased/black).
2. General infrastructure involvement (i.e., roads, buildings, utilities, etc.).
3. Medical infrastructure status (i.e., hospitals, long-term care facilities, EMS services, dispatch, etc.).
4. Incident trend predictions (i.e., worsening, stabilizing, improving), and any initial insights into the long-term situation.
5. Contact information (e.g., telephone, pager, cellular, radio, satellite phone) for key positions (i.e., field incident command, etc.).
6. Special circumstances (i.e., fires, hazardous materials, violence, presence of dignitaries, etc.).
7. Document resources needs and availability. Resources available within the operational area including personnel, equipment, transportation, and beds at receiving facilities. Utilize ReddiNet bed-tracking to get the most current information regarding bed availability across the jurisdiction.

Inform responders by providing health-related information to healthcare organizations that are involved in surge response. Incident-specific information may help healthcare organizations determine what pre-existing plans need to be activated and whether shifts into and out of conventional, contingency and crisis standards of care are expected.

3. Incident Action Plan (IAP) Development

- Based on the information collected on the incident, the DOC will develop an Incident Action Plan (IAP) for surge response utilizing Incident Command System (ICS) and the Standardized Emergency Management System (SEMS).
- Conduct Incident Action Planning with healthcare partners.
 - Establish and document incident goals and SMART objectives
 - Establish and document the strategy and general tactics to meet incident objectives
 - Develop and document support plans (e.g., safety plans, contingency plans, ICS 214-Activity Log).
 - Coordinate with other entities, if appropriate, to define an operational period for response.
 - Evaluate, revise, and update IAP at the start of each operational period.

- Planning is not only for the immediate surge response period but also for sustained efforts through multiple operational periods. If the incident involves an infectious disease, e.g., pandemic influenza, the IAP should address issues relating to quarantine, isolation, and other social distancing measures.
- Determine the following:
 - Patient distribution
 - Capacity by receiving facility
 - Sending facilities (if any)
 - Specific level of evacuation, if any, needed for any healthcare facility
 - Location for receiving of evacuees
 - Patient transportation
 - Resources available and required (Resource Requests – [materials](#) or [personnel](#))
 - Routes and methods
 - Staging areas (if needed)
 - Site and concept of operations for any Field Treatment Site (FTS) or Alternate Care Site (ACS)
 - Determine security requirements
 - Safety Officer or Liaison Officer to communicate with local authorities and/or any contracted security resources
 - Type and number of additional staffing required, beyond healthcare facilities (Planning Section – Resource Unit Leader)
 - Plan(s) for obtaining staffing resources
 - Determine if mutual aid agreements (both within County and outside) can be utilized for staffing through agency-specific Human Resources departments
 - MHOAC to determine specific requests to be made of Disaster Healthcare Volunteer (DHV) program
 - MHOAC to determine what requests should be of other outside resources (e.g., California Medical Assistance Teams, Cal-MAT)
 - Likely materials and supplies in short supply (i.e., current and projected) (Logistics)
 - Additional medical supplies that will be needed and source of those supplies (Logistics)
 - Additional transportation resources will be required and source of those resources
 - MHOAC and OES to determine transportation of patients, staffing resources, and supplies.
 - Resource Requests are routed to the MHOAC and the EOC (if activated)

4. Secure Appropriate Declarations/Proclamations

- During a surge response, specific regulatory frameworks may need to be temporarily lifted. The following actions should be evaluated and requested via appropriate SEMS channels:
 - Consider declaring a public health state of emergency
 - Consider requesting a declaration or proclamation of a state of emergency (non-public health, either at the County level or by the Governor)
 - Request the Governor to use executive power to suspend nurse-staffing ratios at acute care and long-term care facilities and CDPH L&C restrictions on licensed bed counts at local facilities
 - Request the Governor to make appropriate requests of the Secretary of Health and Human Services to temporarily lift federal regulations, such as the Emergency Medical Treatment and Active Labor Act (EMTALA) and Medicare Conditions of Participation

5. Process Mutual Aid Requests

During emergencies, requests for any medical and health resources that cannot be obtained locally or through existing agreements should follow standardized resource ordering procedures following SEMS. A Medical and Health SitRep should precede or accompany resource requests unless extraordinary circumstances prevail. The SitRep, in addition to the resource request, should be entered into the Response Information Management System (RIMS) at the Operational Area level through WebEOC.

Before requesting resources, the MHOAC Program should confirm the following with the requesting entity:

1. Is the resource need immediate and significant (or anticipated to be so)?
2. Has the supply of the requested resource been exhausted, or is exhaustion imminent?
3. Is the resource or an acceptable alternative available from:
 - a. The internal, County supply chain?
 - b. Other commercial vendors?
 - c. Through existing agreements?
4. Have any relevant payment/reimbursement issues been addressed?
5. Document all actions and requests.

All resource requests should include the following table:

Table 2: Minimum Data Element – Resource Request: Medical and Health

Minimum Data Elements Resource Request: Medical and Health
Describe current situation. Submit Medical and Health Situation Report as soon as possible.
Describe the requested mission (e.g., ability to transport 20 critically injured pediatric patients).
Describe needed equipment, supplies, personnel, etc. and acceptable alternatives.
Provide contact information and specific delivery location with a common map reference.
Indicate if logistical support is required (e.g., food and shelter for personnel, fuel for equipment).
Indicate urgency of need via Resource Request form - materials or personnel .

See Appendix O: Resources to Meet Surge for more information

6. Implement Surge Response

- Implementing the surge response will follow the processes outlined in the IAP mentioned above. Actions may include:
 - Mobilization of personnel
 - Provide just-in-time training to expand roles and services available as need.
 - Expansion of healthcare system
 - Mutual aid agreements executed to provide resources, as appropriate.
 - Activation of alternate care facilities

7. Monitor and Evaluate Surge Response

- Gain situational awareness by utilizing ongoing exchange of information (Planning, Situation Unit Leader)
- Daily situation analysis to monitor the incident which prompted the surge response (Logistics)
- Coordinate and maintain communications
- Assess resource requirements
 - Identify additional medical equipment, supplies, and other resources needed to meet surge capacity requirements for current and future anticipated operational periods
 - Implement restocking procedures, contact vendors (Logistics)
 - MHOAC to request local, regional, State caches, and the strategic national stockpile (SNS) through the SEMS as needed
- Facilitate patient tracking

- SitRep
- Monitor for indications that the incident is over or that the surge response should be discontinued
- Conduct IAP and Situation update briefings as needed
- Manage Public Information – monitor media; conduct press conference as needed

8. Demobilize from Surge Response

When the surge response is no longer needed, demobilize healthcare resources, volunteers, and other personnel as appropriate. Return healthcare system to pre-incident operations by incrementally decreasing surge staffing, equipment needs, alternate care facilities, and transition patients back into their pre-incident medical setting. Assure volunteer or other personnel return all equipment. Document all resources, staff as well as equipment.

Institute plan for staff counseling, stress debriefing, or other follow-on activities to address response workers mental or behavioral health needs (acute and long-term). Mental/behavioral health needs due to participation in the response. When requested or indicated, refer volunteers to medical and mental/behavioral health services. Document services offered and utilized.

Transition to normal operations and return to normal staff scheduling. Conduct and document a “Hot-Wash” debrief with personnel.

Reconstitute medical supply, equipment inventory. Complete inventories of medical and non-medical supplies, pharmaceutical, and equipment. Request replacement or servicing of equipment, supplies, and pharmaceuticals used during the response through Logistics and Planning Section Chiefs.

Stakeholder Strategy Guides

For this guide, each sector will be broken down into four categories: space, staff, stuff, and system

Note: The following strategies are a work in progress and will be updated as needed. This is not a policy or procedure, but more of a peer-reviewed document to help guide EMS provider decision-making during a disaster. Strategies may not be appropriate for all providers or all incidents.

Strategies: Prehospital Providers

Definition: Prehospital providers are any ambulance company or fire departments that provide prehospital medical care.

Surge Indicators:

- Inability to support treatment and/or transport of all patients
- Regular communication channels are not working

Staff: Treatment Strategies for Prehospital Providers		
Indicator/Trigger: Staffing inadequate and undetermined ETA of incoming staff, System overwhelmed; public assistance needs exceed available resources		
Strategy	Regulatory	Other Considerations
Enact Alternate Staffing Plan	Defer to MHOAC for assistance	Consider writing plan if none exists
Establish process for accepting MRC volunteers	Defer to MHOAC for assistance	
Establish plan for utilization of volunteers from neighboring county prehospital agencies	Establish MOU with neighboring agencies or waiver of sponsorship requirement in Prehospital Care Policy	Request assistance from MHOAC for strike team support
Encourage medical-health staff to register with the MRC		Ongoing process
Utilize private BLS ambulance providers and staff to transport ALS patients	Defer to MHOAC for assistance and coordination	Send staff to site immediately for care assistance despite inadequate ambulance levels.
Create casualty collection points		Patients go to one assessment site instead of providers responding to each patient directly.

Hand over patient care to receiving facility immediately to get back into service. Allow EMS staff unassigned to ambulances to work at triage sites at the receiving facility to assist with offloading and patient triage and care.	EMS agency issue directives to receiving facilities to release prehospital provider/no wall times	
Utilize air resources to transport patients	MHOAC	
Transport more than one patient per ambulance		Group appropriate patients that are going to the same facility
Enact START triage	MCI declaration	
Request mutual aid	Utilize SEMS and MHOAC	Road and response times could vary

Stuff: Treatment Strategies for Prehospital Providers		
Indicator/Trigger: Low equipment and supplies due to surge, not enough ambulances		
Strategy	Regulatory	Other Considerations
Designate surplus EMS or admin staff to deliver supplies and incoming staff to triage sites and event	Pre-agreement with ParaCruz/Metro for utilization in surge events needed	Utilize vans from ParaCruz, Metro, or wheelchair vans to bring supplies and transport people as needed after
Ensure all out of service ambulances are stocked to par levels at all times.		
Identify and utilize available medical caches at fire stations and hospitals		
Utilize public transport system to transport greens with EMS supervising	Pre-agreement with ParaCruz/Metro	
Designate ambulances to transport moderate and red only		
Request resources through EMS agency	MHOAC utilization	
Have a fuel plan in surge events		Utilize resources to make fuel available for all response vehicles (i.e. ambulances fill at fire stations)

Have contracts with other providers for assistance with supplies		
System Operations: Treatment Strategies for Prehospital Providers		
Indicator/Trigger: Regular communications hindered, large influx of calls to dispatch center from event and family of victims		
Strategy	Regulatory	Other Considerations
All private ambulance companies are on ReddiNet		ReddiNet training
Send liaison to PSAP/IC		
Establish communication failure protocols		
Use notification tools e.g., Everbridge		
Dedicate dispatcher to incoming calls/information to outside and to PIO and train both parties in how to use family reunification center feature of ReddiNet	Defer to EMS/MHOAC for assistance	
Establish a “hotline” number to broadcast through media outlets for family to contact regarding their loved ones and designate dispatcher or PIO to staff the line	Defer to EMS/MHOAC for assistance	
Ensure communications between three location incident command (IC) posts: event, Dominican Hospital, and Watsonville hospital; dedicate channel to IC intercommunications between locations, Netcom dispatch, and EOC/MHOAC; others as needed	Defer to EMS/MHOAC for assistance	
Familiarize stakeholders with job action sheets and other resource forms utilized in MCI and surge scenarios		
Familiarize stakeholders with hard-copy forms in event Internet and ReddiNet is unavailable		

Develop surge plan with dispatch center and dedicate dispatchers to record and track transport resources, allocation, and destinations.		
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Strategies: Hospitals

Definition: General acute hospitals that provide 24/7 inpatient care. Can provide specialty centers such as emergency care and STEMI.

Surge Indicators:

- EMS Agency notification of system-wide surge
- Inpatient beds at capacity
- Mass influx of patients

Space: Surge Strategies for Hospitals		
Indicator/Trigger: Inadequate space for surge of patients, need to secure space, mass influx of patients by several modes of transport		
Strategy	Regulatory	Other Considerations
Utilize licensed bed space for other types of patients	Use outpatient beds for inpatient care	CDPH Temporary Permission for Program Flexibility for Increased Patient Accommodations Forms, EMTALA Waivers
Convert space for other uses e.g., Cath Lab to OR	Declaration of Public Health Emergency (local and/or State)	
Increase capacity in patient care areas		Expedite discharges and downgrade patients, cancel elective surgeries, increase capacities of patient rooms, if possible create additional negative pressure rooms as needed
Use non-traditional areas of hospital for patient care	Utilize SEMS and MHOAC	Cafeterias, hallways, conference and break rooms, tents/shelters
Partner with local Metro bus and EMS to transport and medically supervise mild or walking wounded patients to alternative sites to offload hospitals		

<p>Create plan to shift minor surgeries to local surgery centers</p>		
<p>Partner with admin departments to create perimeter security outside of hospital and reevaluate incoming/outgoing patient flow to establish:</p> <ul style="list-style-type: none"> • One-way traffic only • Entry validation points confirming staff by badges and ambulances contain patients. • Support staff and provider meeting points. • Secure triage area with stretchers concentration point and escorts. Ensure voice amplification devices are available at triage and stretcher concentration points to control area. Stretchers concentration point should be managed by escort supervisor who will have radio communication on a medical frequency with all treatment areas. • Secure landing zone locations • Minimize threat of secondary injuries from chaotic traffic patterns 		<p>Request CERT assistance as needed</p>

<p>Staff: Surge Strategies for Hospitals</p>		
<p>Indicator/Trigger: Staffing and provider inadequate and undetermined ETA of incoming staff</p>		
<p>Strategy</p>	<p>Regulatory</p>	<p>Other Considerations</p>
<p>Create a reporting scheme for providers based on geographic home location and their proximity to the hospitals</p>	<p>Utilize MHOAC for assistance</p>	<p>Consider writing plan if none exists</p>

Encourage local hospitals to have standing MOU's that accept neighboring hospitals' credentialing process in surge situations for a reasonable time period. Identify local nurse agencies and locum tenens registries to call upon if additional need.	Utilize MHOAC for assistance	
Develop quick credentialing process for hospital staff at designated check-in center	Establish MOU with neighboring agencies or waiver of sponsorship requirement in Prehospital Care Policy	Request assistance from MHOAC for strike team support
Create surge ratio expectations	CDPH Declaration of Emergency	
Encourage staff to be prepared at home and develop/implement disaster training for staff and family		Just-in-time training, family of staff center, disaster training, first aid training for staff's family
Enact plan to send prehospital staff to hospitals for support after initial/primary incident is resolved or if there is a surplus of EMS staff response. Prepare to send crews of 3-5 per ambulance depending on EMS personnel response.		Send staff to site immediately for care assistance despite inadequate ambulance levels.

Stuff: Surge Strategies for Hospitals		
Indicator/Trigger: Large influx of patients depreciating supplies and equipment, limited equipment for patient volumes, staff needs to stay on site past regular shift to sustain care		
Strategy	Regulatory	Other Considerations
Ensure emergency supply for staff, patient and visitors for 96 hours		Food, water, pharmaceuticals, Personal Protective Equipment (PPE), generator fuel, waste management products, personal hygiene supplies, and generator testing/maintenance

<p>Contract traditional and non-traditional vendors for resupply</p>		<p>Agreements with non-medical vendors (Costco, Home Depot, grocery stores, sporting stores, local animal hospitals)</p>
<p>Contact DOC for medical resources</p>		
<p>Map out critical equipment/supplies to pre-designate staff meeting points and personnel dedication for ED intake and management per severity patient to decided Maximal Number of Patients per hospital.</p>		<p>Rad techs should congregate where all portable X-ray machines are, etc.</p>
<p>Disaster carts should be stocked to care for 20 patients each and utilized in triage sites</p>		

System Operations: Surge Strategies for Hospitals		
Indicator/Trigger: Staff staying past normal shift hours, large influx of patients arriving at hospital by different modes of transport, more patients than capacity causing bottleneck to patient flow, communications impacted due to surge		
Strategy	Regulatory	Other Considerations
<p>Utilize California Unified Patient Tracking System (CUPTS) (See Below). Consider assigning triage color to patient chart and have Transporter follow pre-established pathways for patient identified by direction arrows on hallway flooring and walls according to that assigned color. The arrows should match the color of the chart of the patient to simplify patient transport from triage to hospital treatment sites. Charts and armbands should have pre-determined registration number, and total number of charts and armbands will have to be determined according to total number of patients expected.</p> <ul style="list-style-type: none"> Initial private transports of mild or walking wounded should not be brought into ED and should be treated at triage site by prehospital or hospital staff or transported to triage hospital. 		
<p>Have registration take digital photos of incoming comatose patients (including by private vehicle transports) during registration and link photo to tag number to assist tracking patients for Family Reunification Center. Pictures should be linked to health information system of hospital to help those at Family Reunification Center identify patients or via ReddiNet Family Identification Tool.</p>		

<p>Encourage hospitals to have a minimum of two working channels with one dedicated to medical and one to security that are tested and drilled regularly</p>		
<p>Triage officer at initial triage site should be surgeon physician or advanced practitioner familiar with traumatic outcomes points and personnel dedication for ED intake and management per severity patient to decided Maximal Number of Patients per hospital.</p>		<p>Rad techs should congregate where all portable X-ray machines are, etc.</p>
<p>Develop plans to provider dependent care for staff</p>		<p>Identify space and protocols to provide dependent care</p>
<p>Create an Ethical Committee comprised of a medical team of Lead MD, ED RN, and house supervisor to determine hospital resource allocation to patients and treat/transport</p>		

Appendices

A: Sudden MCI Task List (ORMAC)

Phase I: Chaos Phase		
<p>Defined as the initial minutes following a Sudden MCI (SMCI) Characteristics: lack of leadership, organization, and control Time Frame: 0-15 minutes after event start</p>		
Action	Prehospital	Hospital
1.	Notify dispatch of MCI event. Begin START triage (See Below).	Notify leadership & prepare triage zones/areas for incoming minor/low priority (i.e., “green”). Do not load ER with non-critical patients. (See Appendix J). Initiate patient chart system where chart is the same color as triage band. Transporters will follow pre-established pathways identified by direction arrows on hallway walls.
2.	Clear scene of critically injured, severe bleeding, and suspected internal bleeding (red) by rapid evacuation	Establish initial IC at ED and secure campus. Establish one-way traffic flow and entry validation checkpoints. (See Appendix E)
3.	Utilize volunteers to help transport/escort minor (green) patients. Recommend clinic or urgent care center destinations. (Figure 4 of Appendix F)	Establish maximal number of patients and percentage of immediate (i.e., red), delayed (i.e., yellow), and minor cases capable of. Update ReddiNet. (See Appendix E & I)
4.	Call back off-duty EMS staff to pre-designated meeting points	Send notification to staff and providers and request staff to come into designated meeting points (See Appendix J)
5.	Request necessary additional EMS resources	Request CDPH and MHOAC support
Phase II: Reorganization Phase		
<p>Defined as when the Scene Incident Command is activated Characteristics: presence of IC who has overall management responsibility for event Time Frame: 15-60 minutes after event start</p>		
Actions	Prehospital	Hospital
1.	Establish on-scene IC.	Pre-designated, central location to communicate with IC
2.	Organize on-scene triage and treatment sites	Convert non-traditional areas to patient care areas, if needed; e.g., convert PACU to treatment area, Cath Lab to OR
3.	Establish ambulance access and evacuation routes	Enact lead triage/ethical team. Implement SALT triage. Shift to surge standard of patient care (see Appendix K)

4.	Transport more than one patient per ambulance	Create equipment collection points and staffing pool; recall off-duty staff
5.	Identify helicopter landing zones, if feasible	Cancel elective surgeries, delay minor surgeries or transfer outpatient surgery centers
6.	Evenly distribute triaged patients based on the severity level. Send as many patients to hospitals as realistic	Have registrars take digital photos of incoming unconscious patients (including by private vehicles) during registration. Link photo with triage tag number and hospital electronic health record for patient tracking and family reunification efforts (via ReddiNet).
Phase III: Evacuation of Non-Urgent Casualties		
Defined as evacuation of walking wounded/minors (i.e., greens)		
Characteristics: Prehospital EMS phase declines, focus changes to hospital care		
Time Frame: 60+ minutes after event start		
Actions	Prehospital	Hospital
1.	Designate available EMS or admin staff to deliver supplies and incoming staff to triage sites and event	Activate Hospital ICS staff
2.	Treat and release Greens as much as possible	Consider transferring Greens to alternate destinations for definitive care via public or private transportation
3.	Evacuate remaining Greens to alternate destinations such as clinics via private and public transportation as needed	Utilize ground and air resources to assist in transporting patients out of area as necessary
4.	Send available EMS staff to hospitals to assist with triage and care	Determine patient disposition plans
5.	Complete patient treatment and tracking documentation	Establish a “hotline” number to broadcast through media outlets for the family to contact regarding their loved ones and designate staff to answer the line

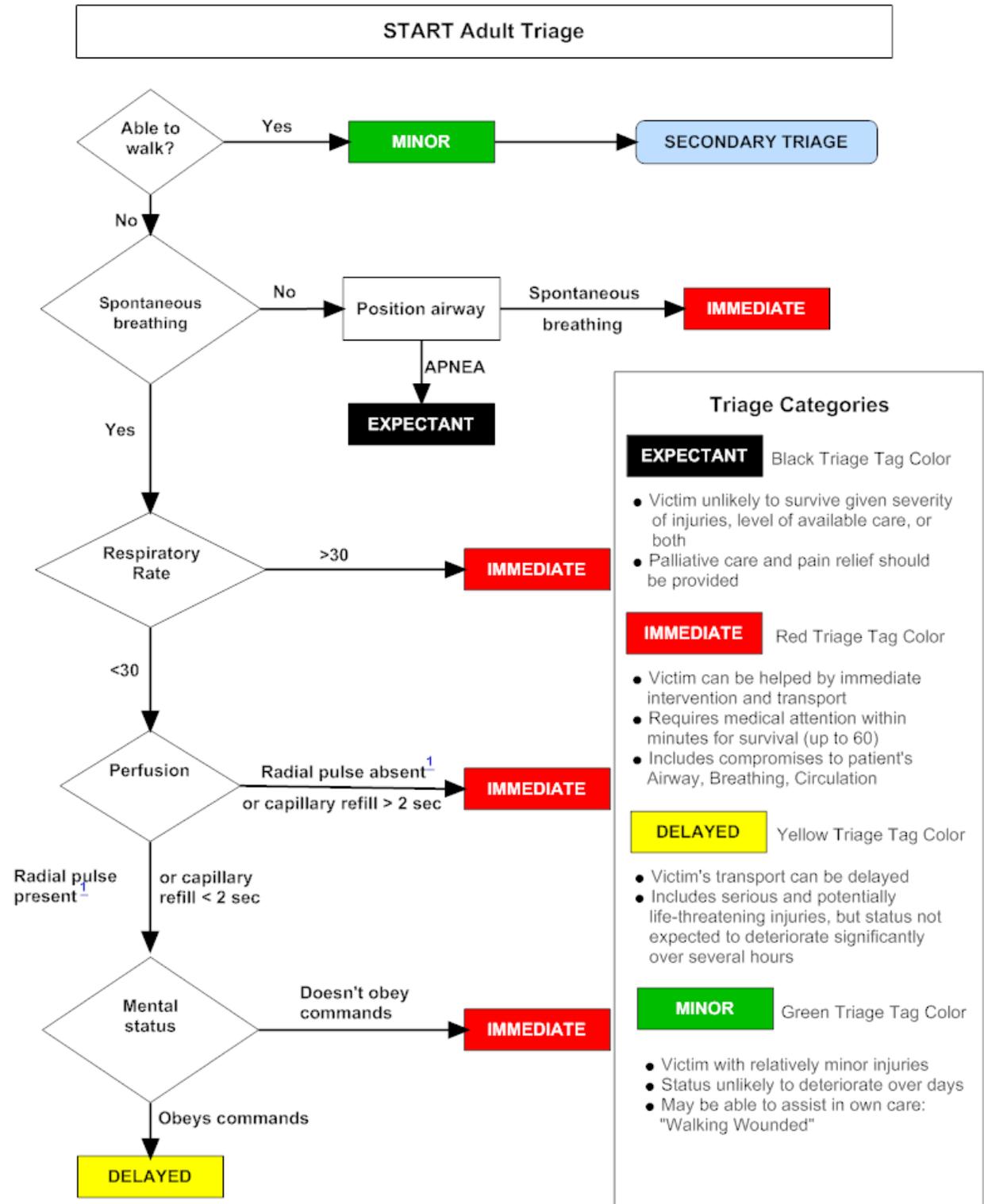


Image courtesy of U.S. Department of Health and Human Services

The California Unified Patient Tracking System (CUPTS)

To use CUPTS, each patient who requires movement is assigned a simple code that consists of 3 components:

County of Origin Use 3 letter FIREScope code for the operational area XSZ = Santa Cruz County
Sex M, F or U
Last 4 digits of Triage Tag Number (or last 4 digits of SSN if no Triage Tag)

Unless it is known that the patient will remain within the originating EMS system’s boundaries, all patients should be identified with a California Unified Patient Tracking (CUPTS) number written with felt pen on visible skin (e.g., back of hand, forearm, etc.). The 8-character number consists of 3 alpha characters that designate the originating operational area (using the FIREScope system of geographic identifiers): M/F/U for sex; and the last 4 numbers of Triage Tag number, or as a secondary option, the last 4 digits of the social security number.

Example CUPTS Numbers: XSZ-M-1234, XSZ-F-4321, XSZ-U-1122

XSZ-M-1234 = Santa Cruz County, Male, last 4 numbers of Triage Tag

The CUPTS number is tracked along with the patient’s first and last name, unless the name is unobtainable due to the patient’s age, non-communicative status or some other reason. If practical, it may be helpful to take a photo to accompany the CUPTS number to facilitate identification at a later point.

It is the responsibility of the transporting entity to assign and report CUPTS information to the Patient Movement Function at the DOC/EOC. Ideally, CUPTS information should be provided in an Excel format, although any format will be accepted.

When the DOC/EOC receive CUPTS information, it should be shared with the Regional Patient Movement Coordination Function and/or Patient Movement Function at the MHCC.²

² Information courtesy of the California Patient Movement Plan

B: Minimum Data Elements - Medical and Health Situation Report

MINIMUM DATA ELEMENTS MEDICAL AND HEALTH SITUATION REPORT													
Report Type	Initial Update Final												
Report Status	Advisory: No Action Required Alert: Action Required												
Report Creation Date/Time	Date Time												
Incident Information	Operational Area Mutual Aid Region Incident Name Incident Date Incident Time Incident Location Estimated Population Affected Public Health and Medical Incident Level												
Report Creator Information	Name Agency Position Telephone, Cell, Pager, Email, etc.												
Current Condition of the Public Health and Medical System	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #008000; color: white; text-align: center;">Green</td> <td>The Public Health and Medical System is in usual day-to-day status. Situation resolved; no assistance is required.</td> </tr> <tr> <td style="background-color: #ffff00; text-align: center;">Yellow</td> <td>The Public Health and Medical System is managing the incident using local resources or existing agreements. No assistance is required.</td> </tr> <tr> <td style="background-color: #ffa500; text-align: center;">Orange</td> <td>The Public Health and Medical System requires assistance from within the local jurisdiction/Operational Area.</td> </tr> <tr> <td style="background-color: #ff0000; color: white; text-align: center;">Red</td> <td>The Public Health and Medical System requires assistance from outside the local jurisdiction/Operational Area.</td> </tr> <tr> <td style="background-color: #000000; color: white; text-align: center;">Black</td> <td>The Public Health and Medical System requires significant assistance from outside the local jurisdiction/Operational Area.</td> </tr> <tr> <td style="background-color: #808080; text-align: center;">Grey</td> <td>Unknown.</td> </tr> </table>	Green	The Public Health and Medical System is in usual day-to-day status. Situation resolved; no assistance is required.	Yellow	The Public Health and Medical System is managing the incident using local resources or existing agreements. No assistance is required.	Orange	The Public Health and Medical System requires assistance from within the local jurisdiction/Operational Area.	Red	The Public Health and Medical System requires assistance from outside the local jurisdiction/Operational Area.	Black	The Public Health and Medical System requires significant assistance from outside the local jurisdiction/Operational Area.	Grey	Unknown.
Green	The Public Health and Medical System is in usual day-to-day status. Situation resolved; no assistance is required.												
Yellow	The Public Health and Medical System is managing the incident using local resources or existing agreements. No assistance is required.												
Orange	The Public Health and Medical System requires assistance from within the local jurisdiction/Operational Area.												
Red	The Public Health and Medical System requires assistance from outside the local jurisdiction/Operational Area.												
Black	The Public Health and Medical System requires significant assistance from outside the local jurisdiction/Operational Area.												
Grey	Unknown.												
Prognosis	No Change Improving Worsening												

Current Situation	Describe
Current Priorities	Describe
Critical Issues/Actions Taken	Describe
Activities	Describe
Emergency Proclamations/Declarations	Describe
Health Advisories/Orders	Describe
Primary Public Health and Medical Contact within Operational Area	Name Agency Title Cell, Pager, Email, etc.

An electronic version of the Medical and Health Situation Report is available for download from the California Health Alert Network (CAHAN) document library. In CAHAN, go to Document Library → Documents → 2 State and Local Health → # CDPH → EPO → EOM → Electronic SIT REP. Alternatively, Appendix C of this manual contains the Medical and Health Situation Report form which may be copied and used for emergency purposes. Please be aware that the Medical and Health Situation Report will be updated and revised over time and the most current version will be available on CAHAN.

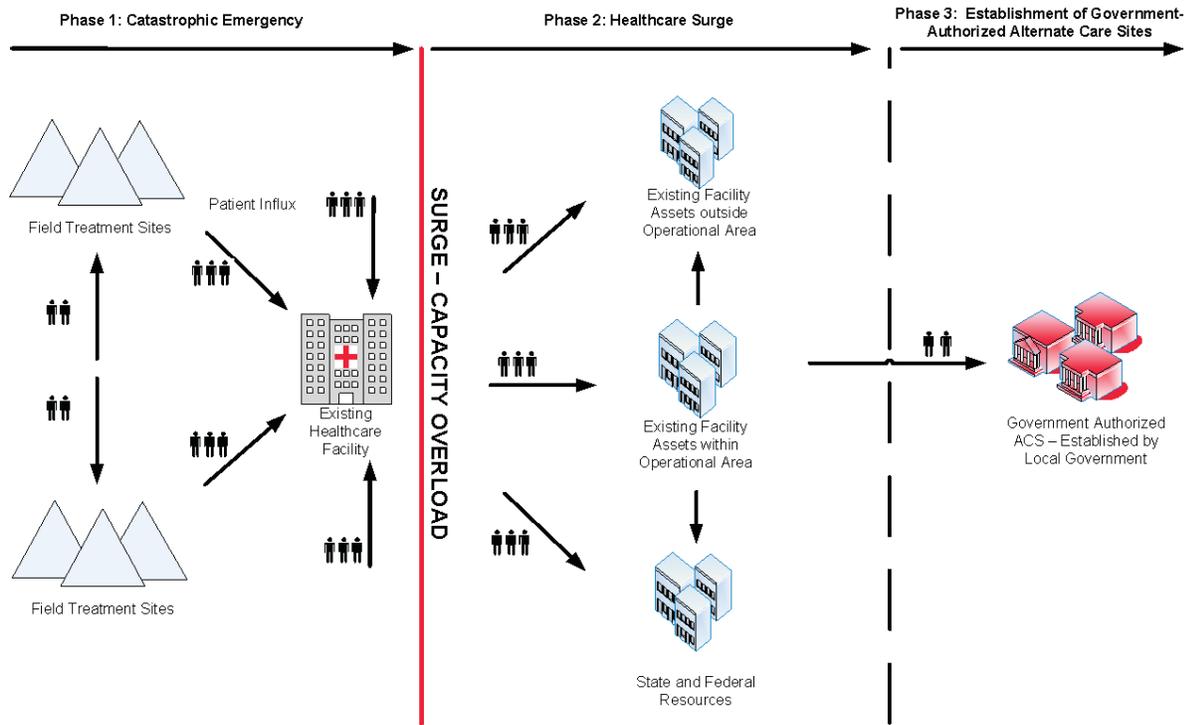
C: Emergency Contact Information

<p>Regional RDMHS Contact: Aram Bronston, EMT-P Agency: Alameda County Healthcare Services Agency Address: 100 San Leandro Blvd. Ste #200 San Leandro, CA 94577</p>	<p>Telephone: (510) 618-2033 (office) (510) 421-9340 (cell) Email: Aram.Bronston@acgov.org After Hours:</p>
<p>Regional RDMHC Contact: Travis Kusman Agency: San Mateo</p>	<p>Telephone: 650/304-4837. Fax Email: tkusman@smcgov.org After hours</p>
<p>CDPH Duty Officer</p>	<p>24/7 Voice: 916-328-3605 cdphdutyofficer@cdph.ca.gov</p>
<p>EMSA Duty Officer</p>	<p>24/7 Voice: 916-553-3470 emsadutyofficer@emsa.ca.gov</p>

Refer to “Santa Cruz County Health Services Agency – Healthcare Coalition (HCC) Emergency Operating Guide (EOG),” which includes but not limited to emergency contacts for Santa Cruz County Public Health employees, Healthcare Providers, and Media.

D: Concept of Operations – Healthcare System Expansion

During a healthcare surge, expansion of the Santa Cruz County healthcare delivery system may occur as follows:



PHASE 1	CATASTROPHIC EMERGENCY OCCURS, HEALTHCARE SURGE IS DECLARED
	When a catastrophic emergency occurs, affected individuals will move or relocated to the most appropriate available facility.
	Field treatment sites may be set up at or near the event location to provide triage and emergency medical treatment of injuries
	When influx of patients exceeds capacity, existing healthcare facilities may call upon Santa Cruz County EMS to determine whether to declare a medical surge
PHASE 2	PATIENTS TRANSFERRED TO ADDITIONAL HEALTHCARE FACILITIES UPON SURGE CAPACITY OVERLOAD
	Upon capacity overload, individuals may be transferred to additional healthcare facilities. Neighboring regional, state and/or federal system resources may be requested to help alleviate the patient demand on the local healthcare system.
PHASE 3	ESTABLISHMENT OF GOVERNMENT-AUTHORIZED ALTERNATE CARE SITE
	After the decision is made that ACS sites are needed, it may take 72 hours or more to set up a site. Less critical patients may be directed to an ACS rather than to hospitals.

During a healthcare surge, healthcare partners may be involved in a surge response as follows:

Health Services Agency

- Provide logistic support to surges sites, such as DOC activation and stand-up of ACS sites
- Facilitate volunteer management
- Monitor Responder Health and Safety (PHEP Capability 14)

EMS

- Conduct field operations to save lives, triage, and transport patients

Hospitals

- Likely to care for most severely injured or ill
- May take actions to increase bed capacity to treat those in greatest need, such as cancel elective surgeries, discharge patients early, expand bed capacity, etc.
- May work closely with other hospitals within their corporate structure to determine the status of hospital services within the region

Clinics

- Expected to remain open in an emergency, as declared by the appropriate Public Health or EMS official.
- Provide triage, referral, and treatment of patients and/or acute care hospital transfers
- May expand capacity by utilizing non-traditional patient care areas within the facility (e.g., office space, conference rooms), recalling clinic staff and/or canceling appointments and non-essential procedures.
- Should be a part of the County's emergency communication systems to serve in standby mode, as necessary, should hospitals or long-term care facilities need to evacuate to ACS location or move patients to clinics.
- May be asked to assist other clinics, healthcare providers, or ACS locations in the operational area with personnel, medical supplies, and equipment resources.

Long-Term Care (LTC) Facilities

- Unlike general acute care hospitals and other healthcare providers, LTC facilities are not "first responders" and do not have the same legal obligations to provide care to the general public. The licensing regulations of skilled nursing facilities and intermediate care facilities place limits on the types of patients that can be treated at these facilities.
- LTC facilities that are damaged or threatened by natural disasters (e.g., floods) may need to transfer residents to nearby "like" facilities.

- LTC facilities may be asked to accept additional lower-acuity patients, either from other long-term care health facilities or from general acute care hospitals.
- Increase or maintain capacity to the extent possible to reduce pressure on acute care facilities and ACS sites for staffing, beds, equipment, and medications.

Sheriff's Department/Coroner's Office

- Activate Mass Fatality Plan (in process) to respond to a surge in fatalities from an emergency event.
- Designate EOC liaison.
- Monitor and track fatalities.
- Report – deceased patients as required.

E: Surge Bed Capacity

The Agency for Healthcare Research and Quality defines the term Surge Capacity as “a healthcare system’s ability to expand quickly beyond normal services to meet an increased demand for medical care in the event of bioterrorism or other large-scale public health emergencies.” Quantifying surge capacity focuses on items that can be acquired and measured, which includes beds, staffing, and supplies and equipment.

LTC facilities and other non-acute care, in-patient facilities can be a secondary source of surge capacity. An assumption can be made that these facilities could provide beds equal to ten percent of their licensed capacity (current licensed bed capacity: 725). This increases the surge bed capacity for Santa Cruz County.

For planning, numbers are based on the average daily census. At the time of an incident, the number will be calculated based on the actual census.

- Licensed Beds: the total licensed bed capacity of a facility.
- Existing available beds: unoccupied licensed beds normally used for patient care. This number will increase with efforts to discharge or transfer current patients.
- Immediately available additional beds: additional bed includes those in procedure rooms, recovery rooms, and even clinics attached to the hospital where patients are not routinely kept overnight.
- Surge beds: consist of immediately available additional beds and all other beds, cots, gurneys, and/or mattresses which can be used to hold patients.
- Max number of surge beds at a facility: surge beds and approximately 20% of a facility’s average daily census (based on the assumption that facilities can rapidly discharge 20% of their census within 24 hours, at any given time).

	Licensed Beds	Existing Available Bed	Immediately Available Additional Beds	Surge Beds	Average Daily Occupancy	Max # of Surge Beds
Dominican						
Adult						
➤ Critical Care/ Monitored Beds						
➤ General Medical-Surgical/ Unmonitored Beds						
Pediatric						

➤ Critical Care/ Monitored Beds						
➤ General Medical- Surgical/ Unmonitored Beds						
Watsonville						
Adult						
➤ Critical Care/ Monitored Beds						
➤ General Medical- Surgical/ Unmonitored Beds						
Pediatric						
➤ Critical Care/ Monitored Beds						
➤ General Medical- Surgical/ Unmonitored Beds						

Critical Equipment/Supplies Planning

Equipment	% of MNP
Stretchers	(% of Reds + 1/2 of Yellows)
Wheelchairs	(% of Greens + 1/2 of Yellows)
Ventilators	(% of Reds)
Cardiac Monitors	(% of Reds + 1/2 Yellows)
Pulse Oximeters	(% of Reds)
Trauma Carts (each cart for 20 patients)	# of carts = MNP –ED capacity/20
ICU Carts (each cart for 20 patients)	# of carts = # of reds/20
Source: Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrison, T. (2019) <i>Disasters and Mass Casualty Incidents</i> . Switzerland: Springer Nature Switzerland AG.	

Hospitals in Santa Cruz County

Hospital Name	Address	City	Zip code	Licensed Beds	Phone Number
Dominican	1555 Soquel Avenue	Santa Cruz	95065	223	(831) 471-4793
Watsonville	75 Nielson Street	Watsonville	95076	106	(831) 724-4741
Sutter Maternity & Surgery Center	2900 Chanticleer Avenue	Santa Cruz	95065	30	(831) 477-2200

Primary Care Clinics: *Red Denotes Urgent Care

Primary Care Clinic Name	Address	City	Zip code	Phone Number
Beach Flats Health Center	302 Riverside Avenue	Santa Cruz	95060	(831) 464-5411
Clinica Del Valle Del Pajaro	45 Nielson Street	Watsonville	95076	(831) 728-0222
Emeline Health Center	1080 Emeline Bldg. D	Santa Cruz	95060	(831) 454-4100
The Homeless Persons' Health Project	115-A Coral Street	Santa Cruz	95060	(831) 454-2080
Kaiser Santa Cruz	115 Locust Street	Santa Cruz	95060	(831) 425-4100
Kaiser Scotts Valley	5615 Scotts Valley Drive	Scotts Valley	95066	(831) 430-2700
Kaiser Watsonville	1931 Main Street	Watsonville	95076	(831) 768-6600
PAMF Main Clinic	2025 Soquel Avenue	Santa Cruz	95062	(831) 458-5524
PAMF Westside	1301 Mission Street	Santa Cruz	95060	(831) 458-6300
PAMF Scotts Valley	4663 Scotts Valley Drive	Scotts Valley	95066	(831) 458-6330
PAMF Watsonville	550 S Green Valley Road	Watsonville	95076	(831) 458-5865
PAMF El Rancho	2980 El Rancho Drive	Scotts Valley	95060	(831) 438-1430
Planned Parenthood Westside	1119 Pacific Avenue	Santa Cruz	95060	(831) 426-5550

Planned Parenthood Watsonville	398 S Green Valley Road	Watsonville	95076	(831) 724-7525
Salud Para La Gente	204 E Beach Street	Watsonville	95076	(831) 728-0222
Watsonville Health Center	1430 Freedom Blvd., Suite C & D	Watsonville	95076	(831)763-8400

F: Communication and Information Management

Implementation of the Surge Plan requires consistent and reliable communications. Communications will follow ICS structure and will be acronym free. Communication between emergency responders, DOC, EOC, healthcare facilities, and other providers is critical to an effective surge response to emergencies.

Sharing appropriate situational information as soon as possible and throughout an incident will assist with all aspects of emergency management. Achieving a common operating picture allows on-scene response personnel and entities involved in support and coordination, including those at DOCs and EOCs, to share common information about the incident. It also supports decision-making and reduces the frequency of information-seeking inquiries from outside the affected area.

The MHOAC Program is the principal point-of-contact within the Operational Area for information related to the public health and medical impact of an unusual event or emergency. It is expected that the MHOAC Program will prepare the Medical and Health Situation Report for the Operational Area and share this information with relevant partners representing the Public Health and Medical System, including the RDMHC Program, CDPH and EMSA Duty Officer Programs (or JEOC if activated), and local, regional and State emergency management agencies at all SEMS levels so that relevant medical and health information can be incorporated into more comprehensive situation reports.

Within two hours of incident recognition, the MHOAC Program will submit the initial Medical and Health Situation Report (i.e., SitRep) to the RDMHC Program, CDPH and EMSA Duty Officer Program (or JEOC if activated) and Santa Cruz County OES (or the Operational Area EOC if activated). The initial Medical and Health SitRep may be provided to the RDMHC Program under pressing circumstances. Situation status reports are completed and submitted at least once during each operational period at agreed upon times; when there are changes in status, prognosis or actions taken; and in response to State/Regional agency request as communicated by the RDMHC Program. CDPH, EMSA or the JEOC may request a Medical and Health SitRep from the RDMHC Program if the MHOAC Program does not initiate one. A minimum set of data elements should be included in all Medical and Health SitReps, as defined in Table 1.

When State-level policy decisions, key information, and guidance for response activities are obtained from RDMHC Program, CDPH and/or EMSA Duty Officer Programs (or JEOC, if activated), Operational Area partners and affected field level entities will be updated following local policies and procedures through the PIO.

Emergency public information to both the general public and the media will only be provided through the Public Information Branch of the Operational Area EOC unless the EOC is not yet activated, in which case the Incident Commander will release information based on the facts of the incident. The Incident Commander may elect to delegate this authority to a field level PIO. All other individuals working at either the field response level or the EOC will refer inquiries from the media or the general public to the Public Information Branch or the Incident Commander.

Information Flow Frameworks

The frameworks for information flow between local, regional, and State partners from CDPH EOM are below:

Figure 1. Information Flow during Day-to-Day Activities

← - - - → Information flow in compliance with regulatory, statutory and program requirements.

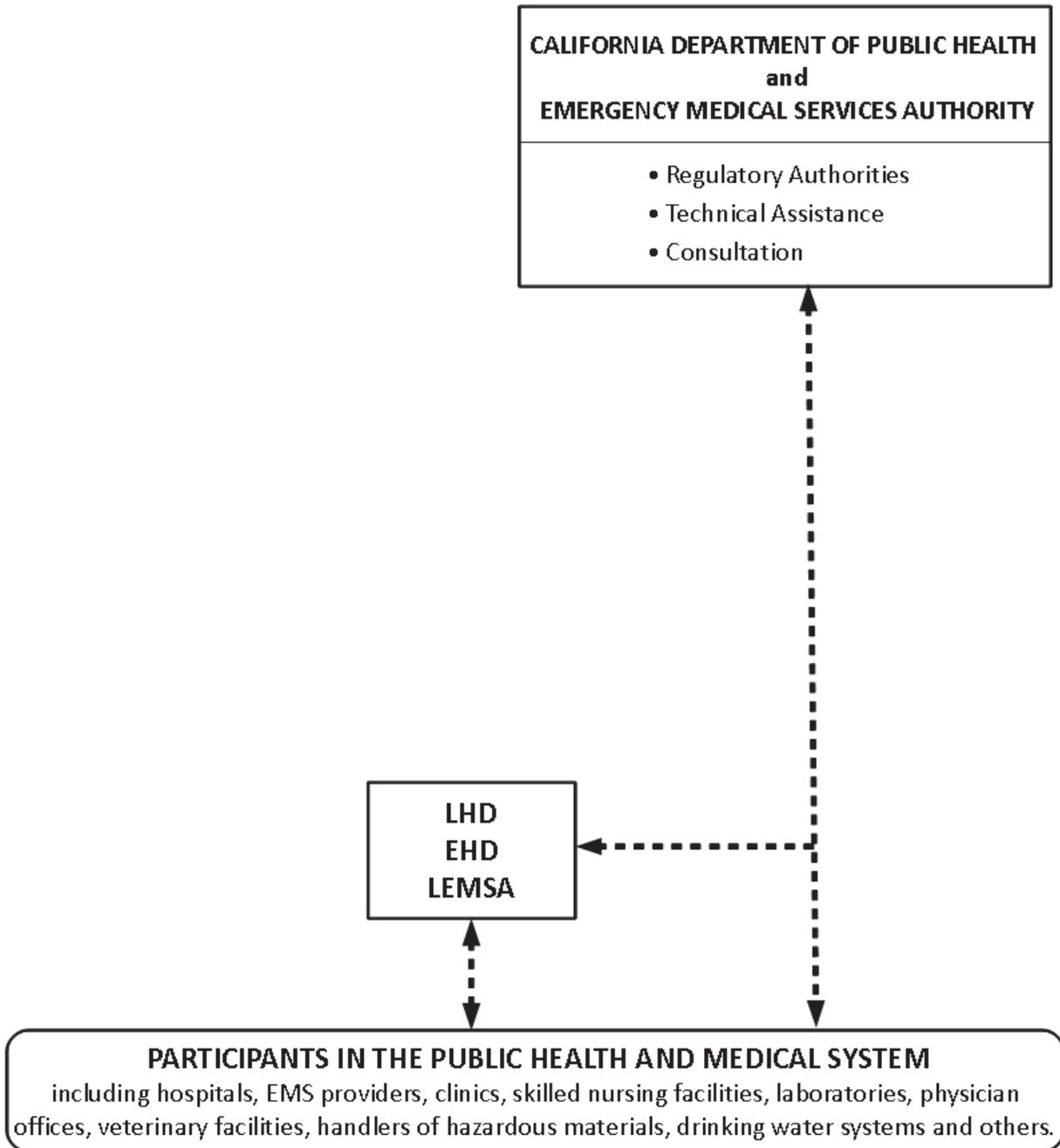


Figure 3. Information Flow during Emergency System Activation

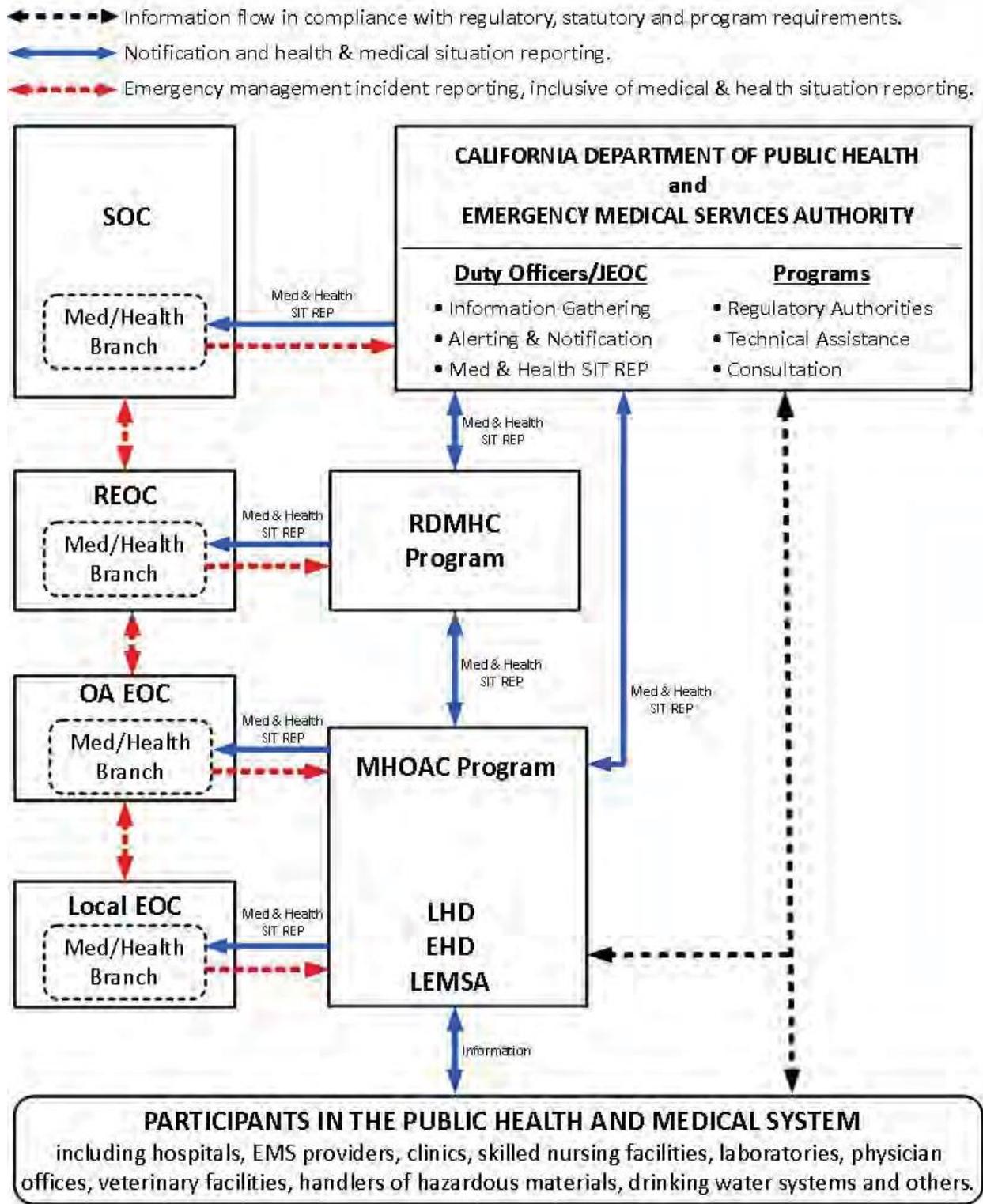


Figure 4. Notifications – Awareness Originates at Field Level

NOTIFICATION PROCESS FOR UNUSUAL EVENTS AND EMERGENCY SYSTEM ACTIVATION FIELD TO STATE		
SEMS LEVEL	ENTITY	INITIAL NOTIFICATION
Field	Field-Level Participants in the Public Health and Medical System, e.g., Hospitals EMS Providers Community Clinics Skilled Nursing Facilities Public Water Systems Public Health Laboratories	<ul style="list-style-type: none"> Notify local and State agencies in accordance with statutory and regulatory requirements and local policies and procedures.
Local Gov't	Public Health and Medical Agencies: LHD EHD LEMSA	<ul style="list-style-type: none"> Notify local and State agencies in accordance with statutory and regulatory requirements and local policies and procedures. Notify the MHOAC Program. LHD/EHD: Notify the CDPH Duty Officer Program (either directly or via the MHOAC Program) or JEOC if activated.
OA	MHOAC Program	<ul style="list-style-type: none"> Notify the RDMHC Program in affected region. Notify the local emergency management agency in accordance with local policies and procedures. Notify the CDPH and/or EMSA Duty Officer Programs (either directly or via the RDMHC Program).
Region	RDMHC Program	<ul style="list-style-type: none"> Notify the CDPH and/or EMSA Duty Officer Programs. Notify the local emergency management agency in accordance with local policies and procedures. Notify the MHOAC Program(s) in unaffected Operational Areas within the Mutual Aid Region to inform and provide advance warning if requests for assistance are anticipated.
State	CDPH and EMSA Duty Officer Programs	<ul style="list-style-type: none"> Notify State agencies in accordance with policies and procedures. Notify the RDMHC Programs in other Mutual Aid Regions if assistance is required or anticipated.
	Cal EMA State Warning Center	<ul style="list-style-type: none"> Notify State agencies, including Cal EMA, in accordance with policies and procedures.

Figure 5. Notifications – Awareness Originates at State Level

NOTIFICATION PROCESS FOR UNUSUAL EVENTS AND EMERGENCY SYSTEM ACTIVATION STATE TO FIELD		
SEMS LEVEL	ENTITY	INITIAL NOTIFICATION
State	Cal EMA State Warning Center	<ul style="list-style-type: none"> Notify the CDPH and EMSA Duty Officer Programs.
	CDPH and EMSA Duty Officer Programs	<ul style="list-style-type: none"> Notify State agencies in accordance with policies and procedures. Notify the RDMHC Program in accordance with policies and procedures: request acknowledgement of notification if a Medical and Health Situation Report is expected; escalate to the MHOAC Program if acknowledgement of notification is not received from the RDMHC Program within 15 minutes. Notify the RDMHC Program by email if no Medical and Health Situation Report is expected by CDPH and/or EMSA. Notify LHD/EHDs in accordance with policies and procedures and field-level entities in accordance with statutory and regulatory requirements for specific functions.
Region	RDMHC Program	<ul style="list-style-type: none"> Notify the MHOAC Program immediately if the State has requested a Medical and Health Situation Report. Otherwise, notify the MHOAC Program in accordance with policies and procedures. Notify emergency management agencies in accordance with policies and procedures, including the Cal EMA Regional Duty Officer (or REOC if activated).
OA	MHOAC Program	<ul style="list-style-type: none"> Notify local agencies (LHD, EHD, LEMSA, emergency management) in accordance with local policies and procedures.
Local Gov't	Public Health and Medical Agencies: LHD EHD LEMSA	<ul style="list-style-type: none"> Notify appropriate field-level entities in accordance with local policies and procedures.

Figure 6. Medical and Health Situation Reporting

MEDICAL AND HEALTH SITUATION REPORT UNUSUAL EVENTS AND EMERGENCY SYSTEM ACTIVATION		
SEMS LEVEL	ENTITY	ACTIVITY
Field	Field-Level Participants in the Public Health and Medical System, e.g., Hospitals EMS Providers Community Clinics Skilled Nursing Facilities Public Water Systems Public Health Laboratories	<ul style="list-style-type: none"> Provide situational information to the appropriate local agency (e.g., LHD, EHD, LEMSA or MHOAC Program) in accordance with local policies and procedures.
Local Gov't	Public Health and Medical Agencies: LHD, EHD, LEMSA	<ul style="list-style-type: none"> Provide situational information to the MHOAC Program in accordance with local policies and procedures.
OA	MHOAC Program	<ul style="list-style-type: none"> Within 2 hours of incident recognition, prepare and submit initial Medical and Health Situation Report to: (1) RDMHC Program; (2) CDPH and/or EMSA Duty Officer Programs (or JEOC if activated); and (3) emergency management agency for the OA (or OA EOC if activated) in accordance with local policies and procedures. Under pressing circumstances, the initial Situation Report may be verbally delivered. Update as agreed or pursuant to change in status but no less than once per operational period.
Region	RDMHC Program	<ul style="list-style-type: none"> Confirm that the MHOAC Program submitted the Medical and Health Situation Report to CDPH and/or EMSA Duty Officer Programs and the emergency management agency for the OA (or OA EOC if activated) in accordance with policies and procedures. Confirm that the Cal EMA Regional Duty Officer (or REOC if activated) received the information contained in the Medical and Health Situation Report in accordance with policies and procedures.
State	CDPH and EMSA Duty Officer Programs (or JEOC if activated)	<ul style="list-style-type: none"> Share information with State agencies in accordance with policies and procedures. Incorporate relevant information from Medical and Health Situation Reports into the statewide Public Health and Medical Daily Situation Report and share with Cal EMA, CHHS, RDMHC Programs, MHOAC Programs and other stakeholders at least once per operational period.

G: Color-Coded Healthcare Surge Status

Healthcare surge status represents the condition of the healthcare delivery system on a continuum from normal daily operations to a significant healthcare surge. There are five levels of local surge and corresponding color codes to describe the status of the healthcare system.

The five levels of surge are:

1. **GREEN:** Local system is operational and in usual day-to-day status. No assistance required.
2. **YELLOW:** Most healthcare assets within the local jurisdiction are experiencing a surge and can manage the situation within their organizational frameworks. No assistance required.
3. **ORANGE:** The healthcare assets in the local jurisdiction require the participation of additional healthcare assets within the jurisdiction to contain the situation.
4. **RED:** Local jurisdiction is not capable of meeting the demand for care, and assistance from outside the local jurisdiction/Operational Area is required.
5. **BLACK:** Local jurisdiction is not capable of meeting the demand for care, and significant assistance from outside the local jurisdiction/ Operational Area is required

	Local Surge Emergency					Regional Level Surge	Statewide Surge Level
Surge Level	Green	Yellow	Orange	Red	Black		
Enabling Authorities	Regulatory/ Accrediting Agency Waiver	Regulatory/ Accrediting Agency Waiver	Regulatory/ Accrediting Agency Waiver/ Local Emergency Declaration	Local Emergency Declaration	Local Emergency Declaration	State of Emergency Declaration	Federal Emergency Declaration

H: Medical and Health Situational Report

Affected entities should provide situational information to the appropriate agencies, which may include the MHOAC, following local policies and procedures.

Sharing appropriate situational information as soon as possible and throughout an incident will assist with all aspects of emergency management. Achieving a common operating picture allows on-scene response personnel and entities involved in support and coordination, including those at DOCs and EOCs, to share common information about the incident. It also supports decision-making and reduces the frequency of information-seeking inquiries from outside the affected area.

The MHOAC Program is the principal point-of-contact within the Operational Area for information related to the public health and medical impact of an unusual event or emergency. It is expected that the MHOAC Program will prepare the Medical and Health SitRep for the Operational Area and share this information with relevant partners representing the Public Health and Medical System, including the RDMHC Program, CDPH and EMSA Duty Officer Programs (or JEOC if activated), and local, regional and State emergency management agencies at all SEMS levels so that relevant medical and health information can be incorporated into more comprehensive situation reports.

Within two hours of incident recognition, the MHOAC Program will submit the initial Medical and Health SitRep to the RDMHC Program, CDPH and EMSA Duty Officer Program (or JEOC if activated) and Santa Cruz County OES (or the Operational Area EOC if activated). The initial Medical and Health SitRep may be provided to the RDMHC Program under pressing circumstances. Situation status reports are completed and submitted once during each operational period at agreed upon times; when there are changes in status, prognosis or actions taken; and in response to State/Regional agency request as communicated by the RDMHC Program. CDPH, EMSA or the JEOC may request a Medical and Health Situation Report from the RDMHC Program if the MHOAC Program does not initiate one.

The electronic Medical and Health SitRep may be downloaded from the California Health Alert Network (CAHAN) website at the following location: <https://cahan.ca.gov>. In CAHAN, go to the Document Library → Documents → 2 State and Local Health → # CDPH → EPO → EOM → Electronic SITREP.

A pen-and-paper version of the Medical and Health SitRep is also posted to the CAHAN Document Library as follows: Document Library → Documents → 2 State and Local Health → # CDPH → EPO → EOM → SIT REP Pen-and-Paper Form. The current pen-and-paper version at the time of plan publication is included below for emergency use.

The Medical and Health SitRep will be updated regularly and the most current version will be available on CAHAN.

DRAFT ver. 2.7 24JULY2010

SITUATION REPORT (SITREP) EF-8
 MEDICAL and PUBLIC HEALTH OA BRANCH REPORT

PEN & PAPER VERSION SECTION 1
ITEMS IN SECTION 1, A - J ARE MINIMUMLY REQUIRED ON ALL REPORTS.

A. Report Type <input type="checkbox"/> INITIAL <input type="checkbox"/> UPDATE # <input type="checkbox"/> FINAL	B. Report Status <input type="checkbox"/> 1. Advisory: No Action Required <input type="checkbox"/> 2. Alert: Action Required see "Critical Issues"	C. Report Creation Date/Time 1. Report Date: 2. Report Time:	
D. Incident / Event Information 1. Mutual Aid Region: REGION V 2. Jurisdiction (OA): 3. Abrv: 4. Incident / Event Name: 5. Incident Date: 6. Incident Time: 7. Incident Location / Address: 8. Incident City: 9. Incident Type: OTHER 10. Estimated Population Affected: 11. Incident Level: <input type="checkbox"/> Level I - Op Area <input type="checkbox"/> Level II - Region <input type="checkbox"/> Level III - State <input type="checkbox"/> Unknown			E. User Information 1. Report Creator: 2. Position: Other 3. Phone: 4. Cell, Pager, Alt Phone: 5. Email:
F. Current Operational Area Medical and Health System Condition: <input type="checkbox"/> GREEN – Normal Operations: Situation Resolved <input type="checkbox"/> ORANGE – Modified Services: Assistance from within OA <input type="checkbox"/> BLACK – Impaired Services: MAJOR Assistance Required <input type="checkbox"/> YELLOW – Under Control: NO Assistance Required <input type="checkbox"/> RED – Limited Services: SOME Assistance Required <input type="checkbox"/> GREY - Unknown			

PEN & PAPER VERSION SECTION 1 (Continued)

G. Prognosis: <input type="checkbox"/> NO CHANGE <input type="checkbox"/> IMPROVING <input type="checkbox"/> WORSENING
H. Current Situation: (Provide detailed Situational Awareness Information)
I. Current Priorities: ("NONE" or "Nothing to Report" is acceptable.)
J. Critical Issues or Actions Taken: ("NONE" or "Nothing to Report" is acceptable.)

PEN & PAPER VERSION SECTION 2 (Continued)

R. Summary of Impact:		
1. Est. Population Affected (Reported OA OEM):	#	<input type="checkbox"/> No Report/Assessment
2. Fatalities (County Coroner Source):	#	<input type="checkbox"/> No Report/Assessment
3. Injured – Immediate:	#	<input type="checkbox"/> No Report/Assessment
4. Injured – Delay:	#	<input type="checkbox"/> No Report/Assessment
5. Injured – Minor:	#	<input type="checkbox"/> No Report/Assessment

S. Evacuations:	
<input type="checkbox"/> 1. Voluntary	#
<input type="checkbox"/> 2. Mandatory	#
<input type="checkbox"/> 3. Total:	#0

T. Medical and Health Coordination System Function Specific Status (If other than green, provide brief comment)						
<i>Check box only if necessary</i>						
1. Animal Care	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
2. Health HazMat	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
3. Out-Patient Clinics	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
4. In-Patient Healthcare Facilities	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
5. Drinking Water	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
6. Home Health Care	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
7. EPI / Disease Control	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
8. Homebound With Medical Needs	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
9. Locally based State/Federal Functions	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
10. LEMSA Program Services	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
11. Food Safety	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
12. Liquid Waste / Sewer Systems	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
13. Medical Waste	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
14. Radiation Health	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
15. Mental Health	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
16. Solid Waste Disposal	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
17. Public Health Lab	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
18. Vector Control	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
19. Medical Transport System	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
20. Shellfish	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	

PEN & PAPER VERSION SECTION 2 (Continued)

Additional Notes:

PEN & PAPER VERSION SECTION 3

U. Overall Healthcare FACILITIES System Status		<input type="checkbox"/> Green – Normal operations: Situation Resolved	<input type="checkbox"/> Yellow – Under control: NO Assistance Required	<input type="checkbox"/> Orange – Modified services: Assistance from within OA	<input type="checkbox"/> Red – Limited services: Assistance Required	<input type="checkbox"/> Black - Impaired service: MAJOR Assistance Required
1. Total General Acute Care Hospitals:		#		5. Acute Care Hospital Comments:		
1. GACH – Fully Functional	#					
2. GACH – Not Functional	#					
3. GACH – Partially Functional	#					
4. GACH – Not Reporting	#		<input type="checkbox"/> No Report/Assessment			
2. Total SNFs / LTCFs:		#				
1. SNF – Fully Functional	#					
2. SNF – Not Functional	#					
3. SNF – Partially Functional	#					
4. SNF – Not Reporting	#		<input type="checkbox"/> No Report/Assessment			
3. Total ICF – DD Intermed Care Facil:		#				
1. IFC – Fully Functional	#					
2. IFC – Not Functional	#					
3. IFC – Partially Functional	#					
4. IFC – Not Reporting	#		<input type="checkbox"/> No Report/Assessment			
4. Total Acute Psych Hospitals:		#				
1. APH – Fully Functional	#					
2. APH – Not Functional	#					
3. APH – Partially Functional	#					
4. APH – Not Reporting	#		<input type="checkbox"/> No Report/Assessment			
5. Total State Hospitals (Corr, DD, MH):		#				
1. StH – Fully Functional	#					
2. StH – Not Functional	#					
3. StH – Partially Functional	#					
4. StH – Not Reporting	#		<input type="checkbox"/> No Report/Assessment			

PEN & PAPER VERSION SECTION 3 (Continued)

6. Total CLF Cong Care Health Fac:		#	<input type="checkbox"/> No Report/Assessment
1. CLF – Fully Functional	#		
2. CLF – Not Functional	#		
3. CLF – Partially Functional	#		
4. CLF – Not Reporting	#		
7. Total Dialysis Centers:		#	<input type="checkbox"/> No Report/Assessment
1. Dial – Fully Functional	#		
2. Dial – Not Functional	#		
3. Dial – Partially Functional	#		
4. Dial – Not Reporting	#		

PEN & PAPER VERSION SECTION 4

V. General Infrastructure Damage as it relates to the Medical Health System					(If other than green, provide brief comment)	
1. Roads	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
2. Medical Health Communications	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
3. Communications	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
4. Power	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Black	
W. Care and Shelter						
1. Medical Mission at Shelter						
2. Number Opened:		#	3. Population Served:		#	
4. Medical Support of Shelter <input type="checkbox"/> Open <input type="checkbox"/> None <input type="checkbox"/> Planned <input type="checkbox"/> Assessing – no report						
Comments:						
5. Mobile Field Hospital <input type="checkbox"/> Open <input type="checkbox"/> None <input type="checkbox"/> Planned <input type="checkbox"/> Assessing – no report						
Comments:						
6. Gov Auth. Alternate Care Sites <input type="checkbox"/> Open <input type="checkbox"/> None <input type="checkbox"/> Planned <input type="checkbox"/> Assessing – no report						
Comments:						
7. Specialty Center <input type="checkbox"/> Open <input type="checkbox"/> None <input type="checkbox"/> Planned <input type="checkbox"/> Assessing – no report						
Comments:						
8. Field Treatment Sites <input type="checkbox"/> Open <input type="checkbox"/> None <input type="checkbox"/> Planned <input type="checkbox"/> Assessing – no report						
Comments:						

PEN & PAPER VERSION SECTION 4 (Continued)

9. Cooling Centers	<input type="checkbox"/> Open	<input type="checkbox"/> None	<input type="checkbox"/> Planned	<input type="checkbox"/> Assessing – no report
Comments:				
10. Local Disaster Warehouse	<input type="checkbox"/> Open	<input type="checkbox"/> None	<input type="checkbox"/> Planned	<input type="checkbox"/> Assessing – no report
Comments:				
11. PODS	<input type="checkbox"/> Open	<input type="checkbox"/> None	<input type="checkbox"/> Planned	<input type="checkbox"/> Assessing – no report
Comments:				
12. PH Response Team	<input type="checkbox"/> Open	<input type="checkbox"/> None	<input type="checkbox"/> Planned	<input type="checkbox"/> Assessing – no report
Comments:				
13. Warming Centers	<input type="checkbox"/> Open	<input type="checkbox"/> None	<input type="checkbox"/> Planned	<input type="checkbox"/> Assessing – no report
Comments:				
14. Other (List)	<input type="checkbox"/> Open	<input type="checkbox"/> None	<input type="checkbox"/> Planned	<input type="checkbox"/> Assessing – no report
Comments:				
X. Medical Transportation				
1. Ambulance Units Available	#	2. Ambulances Committed	#	
3. AST's Available (5:1)	#	4. AST's Committed	#	
5. DMSU's Available	#	6. DMSU's Committed	#	
7. Additional Medical Transportation Issues				

PEN & PAPER VERSION SECTION 5

Y. General and/or Additional Information (add anything here that does not appear elsewhere in this report)

END OF REPORT

I: Strategies to Increase Surge Capacity

- Activate plans, procedures, and protocols to maximize bed surge capacity (e.g., utilize non-traditional patient care spaces such as hallways, waiting areas)
- Increase per-room occupancies (e.g., singles become doubles, doubles become triples)
- Maximize utilization of available beds, coordinate patient distribution with other healthcare facilities, EMS, and private patient transport partners
- Discharge or forward transport less acutely ill patients
- Cancel elective surgeries/procedure and reutilize space for surge capacity
- Transfer patients to other facilities, activate MOU with other healthcare organizations for transport and care of patients that are not stable enough to discharge home or to an ACS
- Reduce the use of imaging, laboratory testing, and other ancillary services that may be needed to meet surge capacity needs

Distribution of Severity:

Severity	% of Maximal Number of Patients (MNP)
Reds-Severe (life-threatening)	
Yellow-Moderate (Limb/eye threatening)	
Green-Mild, walking wounded	
Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrison, T. (2019) <i>Disasters and Mass Casualty Incidents</i> . Switzerland: Springer Nature Switzerland AG.	

Approximate Number of Urgent Operations of MNP:

Operation	% of MNP
Open fractures	
Penetrating eye injuries	
Neurological (urgent)	
Chest	
Oral/maxillary/facial	
Burns	
Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrison, T. (2019) <i>Disasters and Mass Casualty Incidents</i> . Switzerland: Springer Nature Switzerland AG.	

J: Strategies for Expanding Staff

The County can pursue these strategies for expanding staff involved in providing care:

- Ask qualified staff to work extra shifts through Human Resources, Department or Division e-blast.
- Reallocation of personnel among healthcare facilities. Consider making specific requests of other facilities within the County, such as licensed personnel from outpatient clinics could be called on to perform patient care in acute care facilities or alternate care sites.
- If healthcare facility evacuation is the cause of the surge incident, consider utilizing the staff from the evacuating facility to provide care at receiving facilities.
- Request mutual aid staff from less impacted facilities to supplement inpatient care at an acute care facility.
- Request mutual aid staff from less impacted facilities to staff satellite clinics or other ACS to support ambulatory care efforts at those sites.
- Strategic use of staff with particular skills or resources (e.g., allocation of staff with particular language skills to sites requiring them).
- Increased/altered use of home care resources. To decrease the demand on ambulatory care facilities and acute care facilities, existing home care resources may be utilized beyond current capacity. This may require a sharing of home care resources among facilities and an altered approach to some visits. The following may be considered:
 - Adding unscheduled visits to chronically ill patients to prevent unnecessary exacerbations.
- Access/activate volunteers through use of Santa Cruz County Medical Reserve Corps (MRC) or Disaster Healthcare Volunteers (DHV)
- Maximize staffing levels through recall of off-duty personnel, on-call personnel, part-time staff, and retired clinical and non-clinical associates
- Registries can be used to call on registered nurses, physicians, and other healthcare volunteers to supplement staffing at existing facilities, ambulatory care clinics, field treatment sites, and alternate care sites.

Recommended Personnel planning for ED intake, initial evaluation, and management

Personnel/Staff Ratio	Triage	Severe	Moderate	Mild	Pediatric
MD : patient		1:1	1:10	1:10	1:10
RN : patient	2 RN	1:1	1:5	1:5	1:5
RT: patient	N/A	1:4	N/A	N/A	N/A
Escort : patient	1:10	1:3	1:10	1:10	1:10
Clerk : patient	1-2	1:2	1:5	1:5	1:5
Rad Tech : patient	N/A	1:5	1:10	1:10	1:10
Blood bank runners	N/A	1:10	1:20	N/A	N/A
Security Guards	5-10	1	1	1	1
Administrator	1	1	1	1	1

Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrison, T. (2019) *Disasters and Mass Casualty Incidents*. Switzerland: Springer Nature Switzerland AG.

Above recommendations are subject to change during a Declared Local Public Health emergency.

K: Standard of care

- Traditional standards of care will need to be altered to maximize healthcare resources and benefits. “Sufficiency of care,” or medical care that may not be of the same quality as that delivered under non-emergency conditions may be the standard of care during a medical surge.
- Focus on population-based outcomes, providing care and allocating scarce resources in a way that saves the largest number of lives in contrast to the traditional focus on saving individuals.
- Nursing and related staffing ratios need to be lifted by the Governor. The Governor may suspend statutory and regulatory requirements appropriate to the emergency through an Executive Order.
- May consult with CDPH Licensing and Certification (L&C) to determine if specific requirements can be flexed to maximize response capabilities.
- Alter staffing ratios as soon as the appropriate regulatory rules are lifted
- Consider alternate forms of monitoring (e.g., pulse oximetry vs. cardiac monitors)

Emergency Surgery priorities:

1. Life Threatening:
 - A. Hemodynamic instability
 - B. Intracranial hematoma
2. Limb/organ Threatening:
 - A. Vascular injury
 - B. Penetrating eye injury
3. Other Priorities:
 - A. Peritonitis
 - B. Open fractures
 - C. Debridement of infected wounds/amputations
 - D. Excision of burns
4. Victims with absent vital signs should be tagged as expectant and not be transported to the hospital

Principles of Medical Care Inside Treatment Areas:

1. Salvageable critical/reds are treated first
2. Traumatic injuries managed following ATLS guidelines
3. Medical care of nonemergency should be delayed until more personnel available
4. T + C and arterial blood gas tests for emergency trauma patients
5. CXR and pelvic X-rays performed at treatment site with portable X-ray units.
6. Ultrasound or diagnostic peritoneal lavage for suspicion of intra-abdominal bleeding
7. CT for suspected TBI only
8. Limb X-rays for open fractures or limb-threatening injuries only.
9. Immobilization of limbs for clinically suspected fractures with X-rays for closed fractures delayed³

³ Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrisson, T. (2019) *Disasters and Mass Casualty Incidents*. Switzerland: Springer Nature Switzerland AG.

L: Clinical Staff Credentialing and Verification

- Confirm name using government-issued photo ID (e.g., driver's license, passport); or
- Picture ID card from current healthcare agency; or
- Current license and/or certification to work (only one required); or
- ID/paperwork showing member of MRC
- Verification by a known employee of a healthcare agency of a person's capabilities.
- Pre-designate check points for staff based on job roles, and designate location near necessary equipment. i.e., Rad techs meet where all the portable X-Ray machines are located

M: Staff Support Considerations

- Staff may not report to work due to personal/family health issues or concerns
- In the event there are closures to school or daycare agencies, consider childcare or elderly care programs for staff
 - Identify on or off-site locations and sign MOU, if necessary
 - Use teachers and faith-based organizations for staffing
 - Develop procedures for signing in/out dependents and tracking care provided
- Anticipate staff pets being brought to sites
- Plan on feeding, housing, even clothing staff
- Ensure staff access to critical incident stress management

N: Surge Triage

Patients are triaged the same way that they are triaged on a day-to-day basis. Patients arriving at clinic or urgent care settings will be evaluated and referred to a higher level of care as required. Patients presenting to the hospitals will be triaged in the emergency department until that is no longer a practical model, and an ACS with external triage will then be established.

S.A.L.T.

S	Sort patients into three groups, those who can move or walk, those who can perform purposeful movements or wave, those who do not respond to verbal commands or motionless
A	Assess through limited rapid assessment for life-threatening injuries or conditions. Assessment should not take more than 1 minute to perform.
L	Life-saving interventions are simple and limited to opening airway with basic maneuvers, hemorrhage control with direct pressure or tourniquet, needle thoracotomy to relieve tension pneumothorax.
T	Transport quickly after the patient receives a tag to an ambulance for transport to receiving facility. Massive bleeding/suspected internal hemorrhage patients are always transported first
Source: Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrisson, T. (2019) <i>Disasters and Mass Casualty Incidents</i> . Switzerland: Springer Nature Switzerland AG.	

O: Resources to Meet Surge

Resources should be requested by SEMS. If the medical and health resources cannot be filled with the local government jurisdiction or through existing agreements, resources are requested through the MHOAC Program by local policies and procedures. Local policies and procedures will determine the appropriate contact within the MHOAC Program since the MHOAC Program functions are typically shared between the LHD and LEMSA. Include required logistical support (“wrap-around services”) such as food, lodging, and fuel as part of the resource request. If non-medical and health resources are needed, request resources through the appropriate local agency by local policies and procedures and inform the MHOAC Program.

County Resources

- Mobile Medical Shelter Modular Unit (30 Beds)
- ACS Cache

CDPH and EMSA maintain and/or support specialized resources to assist local emergency response when requested. During emergency system activations, all resources, including State and federal assets, should be requested by SEMS.

Resource	Description
California Medical Assistance Teams	California Medical Assistance Teams (CAL-MATs) are deployable teams that support specialized health response needs such as disaster triage sites, clinics, medical shelters and hospitals including EMSA’s three 200-bed Mobile Field Hospitals. EMSA maintains oversight of warehouse operations and cache management including vehicles, equipment and supplies, and coordinates team formation and response. The medical mission determines the size of the team.
Mobile Field Hospitals	EMSA maintains 3 Mobile Field Hospitals (MFHs) to assist with medical care during a disaster that impacts the operational status of the healthcare system. Each 200-bed Mobile Field Hospital is a vendor managed turnkey acute care hospital that provides basic emergency, surgical, intensive care unit, radiography, and laboratory services and can be ready to receive patients within 72 hours of deployment.
Ambulance Strike Teams	Ambulance Strike Teams (AST) are positioned throughout the State to support local emergency medical service response, including medical transportation. There are both pre-designated and undesignated ASTs in California. Pre-designated ASTs are under contract with EMSA and consist of 5 ambulances and 1 Disaster Medical Support Unit (DMSU) that provides enhanced communication ability and supplies to support field deployment, including medical supplies and provisions for AST personnel. Use of the DMSUs and a requirement to provide ASTs is by

	contract with EMSA. Undesignated ASTs are organized at the local level and are not under contract with EMSA, although they may respond to requests from EMSA in times of need.
Mission Support Teams	Mission Support Teams (MSTs) provide logistical support to deployed mobile medical assets maintained by EMSA, (e.g., CAL-MAT, MFH, AST, etc.), and also provide coordination between the requesting local jurisdiction and the deployed asset(s). Coordinated by EMSA, MSTs may consist of State, local government, and/or private sector personnel. The medical mission determines the size of the MST
Disaster Healthcare Volunteers	Disaster Healthcare Volunteers (DHV) is a secure, web-based system that registers and credentials health professionals who may wish to volunteer during a disaster, including doctors, nurses, paramedics, pharmacists, dentists, mental health practitioners, etc. DHV may be locally accessed by all 58 counties and 43 Medical Reserve Corps Units to support a variety of local needs, including augmenting medical staff at HCFs or supporting mass vaccination clinics. EMSA supports the system, coordinates statewide recruitment efforts and ongoing training opportunities
Alternate Care Site Medical Supply Caches	CDPH maintains a stockpile of Alternate Care Site caches to augment local healthcare response during an emergency. Each cache includes basic medical equipment and supplies to support 50 patients for approximately seven days. Alternate Care Site caches are intended to support government-authorized Alternate Care Sites and other medical needs during a disaster.
N95 Respirators	CDPH maintains a cache of N95 respirators, including different brands and models, to support resource needs during a disaster.
Antiviral Pharmaceuticals	CDPH maintains a cache of antiviral pharmaceuticals to support resource needs during an influenza pandemic.
Ventilators	CDPH oversees a cache of vendor-managed ventilators to support resource needs during a disaster.

P: Pre-designate Potential ACS

Medical Surge Capacity is best managed in a traditional healthcare setting, if available. The primary medical surge capacity facility in Santa Cruz County is Dominican Hospital. Both hospitals, Dominican and Watsonville, may prefer to expand internally to the degree possible, and then surge to tents on their campus. Pre-designated ACS are next to the hospitals. Acute care services need to be provided in acute care settings. If the acute care needs exceed that which can be provided in a traditional acute care facility, then expansion of that care should occur within as close proximity as possible to those acute care facilities, as that will facilitate the exchange of personnel, equipment and supplies, and other logistical considerations. It will also facilitate the ease of movement of patients between the ACS site and hospital, as appropriate, both for a higher level of care as well as to free up those acute care hospital beds when patients no longer require that level of care.

Once the existing hospitals have surged all possible on-campus locations, the Sutter Maternity & Surgery Center could be designated a secondary ACS with 40 beds. The Santa Cruz County Fairgrounds may also serve as another secondary ACS location.

Q: ACS Staffing Ratio

Medical Surge Capacity is best managed in a traditional healthcare setting, if available. The primary medical surge capacity facility in Santa Cruz County is Dominican Hospital. Both hospitals, Dominican and Watsonville, may prefer to expand internally to the degree possible, and then surge to tents on their campus. Pre-designated ACS are next to the hospitals. Acute care services need to be provided in acute care settings. In the event that the acute care needs exceed that which can be provided in a traditional acute care facility, then expansion of that care should occur within as close proximity as possible to those acute care facilities, as that will facilitate the exchange of personnel, equipment and supplies, and other logistical considerations. It will also facilitate the ease of movement of patients between the ACS site and hospital, as appropriate, both for a higher level of care as well as to free up those acute care hospital beds when patients no longer require that level of care.

Once the existing hospitals have surged all possible on-campus locations, the Sutter Maternity & Surgery Center could be designated the primary off-site ACS with 30 beds. The Santa Cruz County Fairgrounds may also serve as a potential ACS location.

R: Security for ACS

- 1) Ensure the security of existing inventory and caches
- 2) Control access into and within the ACS
- 3) Identify and track patients, staff, and visitors
- 4) Work with law enforcement if traffic control is needed
- 5) Have lockdown and evacuation procedures for ACS
- 6) Work with local police and sheriff to identify ACS security needs, develop MOU with private security service
- 7) Train admin staff to secure areas before law arrival

S: Transportation for Patients Requiring Assistance

Medical Transport: during a mass casualty incident or another disaster, Advanced Life Support (ALS) and Basic Life Support (BLS) ambulance providers are expected to surge their EMS response capability by recalling staff and placing additional ambulances in service.

Santa Cruz County public transit may be utilized to transit stable patients.

Designated Treatment Areas to Transport to:

Severe/Reds	Urgent/Yellow	Mild/Green	Pediatric	Mental Health
ED	ED	Alternate site (e.g., hospital lobby, tent, ACC)	Pediatric ED	ACC
Trauma Center	Alternate site		Alternate site	Alternate
Source: Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrison, T. (2019) <i>Disasters and Mass Casualty Incidents</i> . Switzerland: Springer Nature Switzerland AG.				

T: Acronyms

AAAHC	Accreditation Association for Ambulatory Health Care
ASC	Ambulatory Surgery Center
ASPR	Assistant Secretary for Preparedness and Response
CAHAN	California Health Alert Network
CAHF	California Association of Healthcare Facilities
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDPH	California Department of Public Health
CERT	Community Emergency Response Team
CMS	Centers for Medicare and Medicaid Services
DCAC	Disaster Coalition Advisory Commission
DHQP	Division of Healthcare Quality Promotion
DHS	Department of Health Services
DHV	Disaster Healthcare Volunteers
DOC	Department Operations Center
DPH	Department of Public Health
DRC	Disaster Resource Center
DSF	Disaster Staging Facility
EDAP	Emergency Department Approved for Pediatrics
EMS	Emergency Medical Services
EMSA	Emergency Medical Services Authority
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPO	Emergency Preparedness Office
ESRD	End Stage Renal Disease
FEMA	Federal Emergency Management Agency
FOAC	Fire Operational Area Coordinator
HFID	Health Facilities Inspection Division
HHH	Home Health and Hospice
HPP	Hospital Preparedness Program

ICS	Incident Command System
ILI	Influenza-Like Illness
JIC	Joint Information Center
JIT	Just in Time
L&C	Licensing and Certification
MAC	Medical Alert Center
MAC	Multi Agency Coordination
MHOAC	Medical and Health Operational Area Coordinator
MMC	Mass Medical Care
MOU	Memorandum of Understanding
MRC	Medical Reserve Corps
OA	Operational Area
OEM	Office of Emergency Management
OTC	Over the Counter
PCR	Patient Care Record
PIO	Public Information Officer
POD	Points of Dispensing
PPE	Personal Protective Equipment
RDMHC	Regional Disaster Medical and Health Coordinator
RDMHS	Regional Disaster Medical and Health Specialist
ReddiNet	Rapid Emergency Digital Data Information Network
SEMS	Standardized Emergency Management System
SMCI	Sudden Mass Casualty Incident
SNF	Skilled Nursing Facility
START	Simple Triage and Rapid Treatment
STEMI	ST Elevation Myocardial Infarction

U. Surge Plan Maintenance, Education, & Training

This plan should be reviewed annually and updated as needed. Responsibility for review and updating belongs to the Santa Cruz County Health Services Agency, Emergency Preparedness Unit.

The following education and training are recommended:

1. Practice tabletop exercise with all stakeholders regularly
2. Provide interagency exercises that utilize all stakeholders on a biannual basis
3. Provide START triage refresher training to MRC members, hospital staff, school health center and volunteers, and prehospital providers
4. Provide stop the bleed training to County staff, college and high school students, and the community at public events and stock trauma “go bags” for public use in AMR supervisor and fire BC trucks.
5. Identify “super users” from each stakeholder group and train ReddiNet at a master level to train their staff. Offer additional ReddiNet training sessions routinely.
6. Provide MHOAC and EOC education training that expresses how support is offered and how to request within ICS and HICS. Identify what threshold (e.g., exceeded capacity and requiring alternate care beds from emergency declaration or CDPH suggested) for hospitals to use MHOAC. Provide tabletop exercises in training to demonstrate flow and collaboration, and use of job action sheets.
7. Incorporate MHOAC utilization training in annual prehospital training that identifies what threshold is appropriate for enacting MHOAC and how MHOAC integrates within the IC system.
8. Predesignate and train hospital teams and prehospital field leadership in regularly updating and using the assessment module of ReddiNet.
9. Provide health and safety training for all staff and potential support responders.

V. References

Alameda County Disaster Medical Surge Plan

California Department of Public Health (CDPH)

http://www.bepreparedcalifornia.ca.gov/CDPHPrograms/PublicHealthPrograms/EmergencyPreparednessOffice/EPOProgramsandServices/Surge/SurgeStandardsandGuidelines/Documents/volume2_ACS_FINAL.pdf

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Lieberman, H., Lynn, L., Daniel Pust, G., Stahl, K., Danete Yeh, D., & Zakrison, T. (2019) *Disasters and Mass Casualty Incidents*. Switzerland: Springer Nature Switzerland AG.

Los Angeles County Medical and Health Operational Area Coordination Program: Healthcare Surge Planning Guide

Merced County Medical-Health Surge Plan

Stanislaus County Medical-Health Surge Plan