

	SURGE CAPACITY PLANNING LARGE SCALE EMERGENCIES		Page 1 of 14
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I. SCOPE

Hospital Wide

II. PURPOSE

A. Los Robles Hospital and Medical Center has adopted and integrated the Hospital Preparedness Program from the US Department of Health and Human Services. The Bioterrorism Hospital Preparedness Program of the Health Resources and Services Administration (HRSA) within the US Department of Health and Human Services created a response plan based on a concept of a six-level tiered response system:

1. Facility,
2. Community (public health district),
3. Regional (State Emergency Management Area),
4. Multi-regional (two or more state emergency management areas),
5. Statewide, and
6. Interstate

B. The purpose of this document is to describe the concepts of our plan to expand the capacity of our hospital's health care system in a bioterrorism, natural disaster, or other health emergency, such as Avian Influenza.

III. BASIC ASSUMPTIONS:

One of the most important factors in a successful response to a public health emergency is the relationships, beginning at a local level, between and among the various responder groups. Written plans provide important guidance, but in an actual emergency, the relationships are more important.

The entire Hospital Community, EMS and community health centers need to be engaged in local level assessment, planning, and preparedness activities. The broader response community (fire, police, and local industry) must also be engaged in the hospital preparedness planning process because the hospital community will interact with them in an emergency event. Working together to

plan the community's emergency response helps to build essential relationships, and a more effective response.

The state's role in emergency response planning is to provide guidance to ensure consistency, coordination, and interoperability. In a large-scale event requiring mobilization of resources from one area of the state to another, systems and procedures should function seamlessly. The concept of a six-tiered response system, together with the assumptions listed above, led to a process for improving the state's preparedness in which the emphasis has been on hospital community organizations (HCOs) and public health staff working together, within a framework provided by the state Division of Public Health. We began with a Bioterrorism Preparedness Self-Assessment by the hospital community organizations. Data from this assessment was used to identify the preparedness areas most in need of improvement. These areas were addressed in the first two planning and procurement phases.

SURGE CAPACITY PLANNING AREAS:

Based upon the effect of a large scale emergency, alternative triage and care sites may be established. Potential alternative triage sites include, but are not limited to the parking structure, the remote parking lot, the Los Robles Surgicenter, or other locations at the direction of the County. Alternate care sites include those under the direction of the Los Robles TOSH and Rehab campuses, and designated Acute Care Centers, as defined on pages 3 & 4.

We define four planning areas, based on the resources that will need to be deployed to respond to an event. The first three of these planning areas are internal to Los Robles. The fourth planning area comprises temporary facilities that will be jointly run by our hospital and public health using the Modular Emergency Medical System (MEMS). Transportation surge capacity planning becomes increasingly important with larger numbers of casualties. Baseline hospital bed capacity is inpatient beds, routinely equipped and staffed. These beds are considered part of baseline capacity, or Current Daily Staffed Bed Capacity in HRSA terminology. For purposes of developing a Surge Capacity Plan, we will assume these beds are full. (For descriptions of potential Surge Events, such as Bioterrorism attack, contagious biological outbreak, trauma event, chemical release or dirty bomb, refer to Table 1)

Internal Surge Capacity Planning Area 1 (ISC1)

These are inpatient beds that are equipped, but ARE NOT routinely staffed. These beds should be the quickest and easiest to activate in an emergency, requiring only that personnel be called in to staff them. In most cases, we should be able to staff these beds within 24 hours in an emergency. Our disaster triage procedures will activate these beds. Supply and pharmaceutical caches may need to be accessed. Depending on the type of event, community outreach and home care may also be implemented.

Internal Surge Capacity Planning Area 2 (ISC2)

These are day treatment beds in special units located at the Main and TOSH campuses such as Post Anesthesia Care Units (PACU), Outpatient Surgical Unit (OPSU), Special Procedures, Cardiac Cath Lab, Cardiovascular Observation Unit (CVOU), etc. These beds are relatively easy to activate in an emergency. They are already equipped, and staffing ratios on these units generally exceed that of med/surg units. Use the disaster triage procedure to activate this surge capacity. Pharmaceutical caches may need to be accessed. Depending on the type of event, community outreach and home care may also be implemented. Implementing this level of surge capacity may require waiver of some regulations by Department of Health Services (DHS), or other government agencies

Internal Surge Capacity Planning Area 3 (ISC3)

This involves placing beds, stretchers, or cots in hallways, classrooms, or other non-patient care areas. Implementing this surge capacity may require caches of equipment, supplies, and pharmaceuticals, depending on the size of the facility. Staffing for these beds will depend on their location. Care of the patients in beds in hallways will likely be absorbed by the staff on those units. Staffing beds placed in classrooms, auditoriums, or other non-patient care areas may require the use of alert systems and other emergency staffing procedures, depending on the number of beds being activated. Mass casualty triage procedures may be required when this level of surge capacity is needed. Community outreach and home care will be implemented. Implementing this level of surge capacity may require waiver of some regulations by Department of Health Services (DHS), Office of Regulatory Services (ORS) or other government agencies.

Mass Care Planning - Modular Emergency Medical System (MEMS)

For surge capacity beyond what can be provided within our hospital facility using the above resources, two types of temporary facilities will be activated, following the Modular Emergency Medical System (MEMS).

The Acute Care Center (ACC)

This is designed to treat patients who need inpatient treatment but do not require mechanical ventilation, and those who are likely to die from an illness. Patients who require advanced life support (ACLS) such as provided by intensive or critical care units will receive priority for hospital admission rather than admission to the ACC. For some types of biological agents, community outreach and home care will be extremely important at this level. This facility would be under the direction of Ventura County Public Health and/or volunteers from the community

SURGE CAPACITY PERSONNEL PLANNING:

Finding adequate numbers of trained personnel will be a challenge of increasingly complex dimensions as the size of the event and the amount of surge capacity required increases. As noted above, we can manage a minor increase in staffing in an emergency. But no community will be able to deploy the numbers of additional

personnel required in an event of significant size. We have systems in place to process and assign additional personnel from other areas of the state or country that will be deployed by systems now under development by the state and federal governments. Planning areas address these needs. (For descriptions of Surge Capacity Staffing See Page 9)

Personnel Surge Capacity Planning Area PSC1: Staff Recall includes systems to alert your off-duty staff that there is an emergency and they are being asked to report back to work. The tool for this planning area identifies who can activate staff recall systems, what transportation will be provided for returning employees if normal modes of transportation are affected by the event, and what areas of the hospital are designated as rest areas for off-duty staff.

Personnel Surge Capacity Planning Area PSC2- Reassignment of Staff, you will identify, by title, the number of personnel normally working in administrative or elective care areas who can be reassigned to patient care in an emergency

Personnel Surge Capacity Planning Area PSC3- Mutual Assistance This tool documents the emergency contacts for Ventura County Public Health office, and all organizations with whom we have individual arrangements for emergency staffing assistance.

Personnel Surge Capacity Planning Area PSC4- Care of Family Members In this planning area you will document where you will house family members of staff when the nature of the emergency makes it prudent to provide such facilities. This worksheet also indicates who can activate your protocols for care of family members, and who is responsible for their set-up and operation.

Personnel Surge Capacity Planning Area PSC5- Prophylaxis of Staff and Families In a contagious event, prophylaxis should be offered to staff and their families. This planning area documents who has authority to activate prophylaxis, who will be responsible for its distribution, where the cache of pharmaceuticals is stored, and where the policy and procedure covering Prophylaxis of Staff and Families can be found. Equipment, Supplies, and Pharmaceutical Caches Detailed cache requirements are being developed for each of the Surge Capacity Planning Areas, based on the following table:

- Surge Level
- Equipment cache
- Supply cache
- Pharmaceutical Cache

Surge Level	Equipment Cache	Supply Cache	Pharmaceutical Cache
ISC1 – Beds not routinely staffed	No	Yes	NO
ISC2- Day treatment beds	No	No	Yes
ISC3- Hallways, classrooms, etc	Yes	Yes	Yes
MEMS - and ACC	Yes	Yes	Yes

The Equipment, Supplies, and Pharmaceutical Cache planning worksheets identify the content and location of caches for the following:

- .. Personal Protective Equipment (PPE) - Planning Area Cache1
- .. Patient Care Equipment - Planning Area Cache2
- .. Supplies - Planning Area Cache3
- .. Pharmaceuticals (Patients and community) - Planning Area Cache4

They also identify who can access the caches.

Other Patient Care Resources

When the number of beds in a facility is increased, the capacity of ancillary departments supporting those beds must be surged also. Certain departments have special roles in health emergencies, especially if they involve bioterrorism. Planning worksheets document critical information on Laboratory (Planning Area PCR1).

Development of External Surge Capacity –Modular Emergency Medical System (MEMS)

The Surge Category assignment determines the level of involvement each hospital will have in the planning and activation of MEMS facilities. These surge category assignments will be mapped against population (by the County) to determine whether the geographic distribution of these assignments is reasonable. Hospitals in all surge categories will be responsible for their Internal Surge Capacity Planning Areas.

EMERGENCY STAFFING POOL

The Emergency Staffing Pool was developed to serve the following purposes:

- To formalize/document mutual assistance expectations (numbers of personnel)
- To staff temporary facilities with in–state personnel until outside assistance arrives.

The general concept is that each hospital will be assigned a specific number of personnel as their contribution to the pool, based on the number of licensed beds. As proposed, this emergency pool of personnel will be coordinated by Ventura County.

The Emergency Staffing Pool will include the following types of personnel:

- | | |
|---------------------|------------------|
| ➤ RNs | ➤ Transporters |
| ➤ RTs | ➤ Doctors |
| ➤ CNAs | ➤ Case Manager |
| ➤ Unit Coordinators | ➤ Social Workers |
| ➤ Housekeepers | |

Process:

1. When a facility requires mutual assistance in staffing their internal surge beds, they will notify Ventura County. The County will determine which facility in its area will activate their personnel contribution based on other factors deemed relevant.
2. If the County cannot fill the staffing need from the pool within its area, it will request assistance in reaching out to the other Counties. DHS will determine

which counties will activate their emergency personnel pool based on the nature of the event, the area of impact, and any other factors deemed relevant.

3. When a MEMS facility is being activated, the supporting hospital will notify the County to activate the pool to provide staff for the facility. The County will notify DHS if resources are needed from out of its area.

Notes:

- For most events, only a small portion of the staffing pool will be needed.
- In general, the pool will NOT be activated immediately because local facilities in the community will need all their staff.
- The County Medical Director may request that the State Medical Director activate emergency staffing ratios so affected hospitals may stretch the number of personnel that they have to care for event patients.
- Ventura County may request that California Department of Health Services activate emergency staffing ratios for facilities who contribute staff to the emergency staffing pool so that they may stretch personnel assets to assist with staffing for the MEMS facilities until outside assistance arrives.

IV. SUBMITTED BY/RESOURCE PERSON

Director Infection Prevention
Nursing Administrative Supervisor
Director Emergency Services
Administrator on Call

Table 1

Contagious biological outbreak (naturally developing, e.g., Pandemic Flu, EBOLA, ZIKA, SARS)

- There may be a heads up from overseas that flu cases are more severe, or that SARS cases are increasing;
- Patients will present at doctors' offices and Emergency Department(s) in higher numbers than usual; the volume of patients will build up over days or weeks;
- Initially hospitals will use ISC1 (Beds equipped, but not routinely staffed), and will call in additional staff from the hospitals' own rosters (PSC1); as the duration and scope of the event increase, hospitals will likely activate ISC3 surge capacity (Hallways and classrooms) to avoid an extended cancellation of elective procedures; mutual aid agreements will be used to staff these beds (PSC3).
- Because of the gradually developing volume of patients, it will become apparent that hospitals are being overwhelmed; Acute Care Centers (ACCs) will be activated when this recognition occurs;
- Most patients will be hospitalized for a relatively short period of time (7 to 12 days)
- The only difference between a naturally occurring outbreak and terrorist event is the pace with which it presents; in a bioterrorism event a large number of patients would present in a narrower time window than in a naturally occurring outbreak.

Trauma Event – (Explosion, Gunshots)

- Traditional Disaster Plan scenario; a limited geographic area is affected, and a limited number of hospitals; the health care system returns to normal within 4 to 5 days
- (Possibly) Large numbers of victims per hour requiring immediate treatment;
- Most will present within 2-6 hours. All will present within 24 hours unless victims must be extricated from debris;
- Most will not be admitted; those that are admitted will be in areas documented by the ISC1 (Beds equipped but not routinely staffed), and ISC2 (Day treat and possibly ISC3 if there are very large numbers of patients)
- Additional staff from the hospitals' own rosters will be called in (PSC1); staff normally involved in elective procedures will be re-assigned to care for victims (PSC2); activation mutual aid agreements (PSC3) may be necessary if there are large numbers of victims;
- ACCs would probably be activated only for an event that left a lot of victims who will take more than 24 hours to recover (e.g., burns caused by a small nuclear device). IS

Chemical Release (Terrorist attack, e.g., Sarin gas, Industrial Accident)

- Traditional Disaster Plan scenario; a limited geographic area is affected, and a limited number of hospitals; the health care system returns to normal within 4 to 5 days
- (Possibly) Large numbers of victims present at Emergency Department(s) within minutes to hours requiring decontamination and immediate treatment;
- Most will present within 2 – 6 hours. All will present within 24 hours unless victims must be extricated from debris;
- Most victims will not be admitted; those that are admitted will be in ISC1 (Beds equipped but not routinely staffed), and ISC2 (Day treatment areas) planning tools, and possibly ISC3 if there are very large numbers of patients
- Additional staff from the hospitals' own rosters will be called in (PSC1); staff normally involved in elective procedures will be re-assigned to care for victims (PSC2); activation of mutual aid agreements (PSC3) may be necessary if there are large numbers of victims;
- ACCs would probably be activated only for an event that left a lot of victims who will take more than 24 hours to recover (e.g., burns caused by an agent such as mustard gas). ISC3 areas (e.g., hallways, and classrooms) would be activated until ACC could be set up.

Dirty Bomb, Conventional Bomb with Radioactive Materials

- Starts as a traditional disaster plan scenario; a limited geographic area is affected, and a limited number of hospitals; the healthcare system returns to normal in 4-5 days
- (Possibly large numbers of victims present at Emergency Department(s) within minutes to hours requiring decontamination and immediate treatment; most will present within 2 – 6 hours.
- Most victims will not be admitted; those that are admitted will be in ISC1 (Beds equipped but not routinely staffed), and ISC2 (Day treatment areas) planning tools, and possibly ISC3 if there are very large numbers of victims
- Additional staff from the hospitals' own rosters will be called in (PSC1); staff normally involved in elective procedures will be re-assigned to care for victims (PSC2); activation of mutual aid agreements (PSC3) may be necessary if there a large number of victims
- Two to three weeks later (perhaps as long as 30 days) people who have inhaled radioactive material, will start to present in doctor's offices and EDs.
- By this time, MEMS facilities would probably be activated. Monitoring of the blast site would have determined that radiological materials were involved. There would be time to set up NEHCs in an area downwind of the blast to monitor those exposed. ACCs would be set up to manage those develop Radiation Sickness. If necessary, ISC3 areas (e.g., hallways and classrooms) would be activated until the ACC could be set up.

Table 2 Emergency Staffing Plan

Surge Capacity Planning Area	Staffing
<p>Internal Surge Capacity Planning Area 1 (ISC1)</p> <p>Inpatient beds that are equipped, but ARE NOT routinely staffed.</p>	<p>Each individual facility should be able to staff these beds within 24-hours in an emergency using internal emergency staffing procedures, assisted by the following Hospital Tools:</p> <ul style="list-style-type: none"> ➤ Personnel Surge Capacity Planning Area 1 (PSC1): Staff Recall ➤ Personnel Surge Capacity Planning Area 2 (PSC2): Staff reassignment
<p>Internal Surge Capacity Planning Area 2 (ISC2)</p> <p>Day treatment beds and beds in special service units such as Post Anesthesia Care Units (PACU), Admit/Recovery Units (ARUs), etc.</p>	<p>Each individual facility should be able to staff these beds within 24-hours in an emergency, using internal emergency staffing procedures, assisted by the following Hospital Tools:</p> <ul style="list-style-type: none"> ➤ Personnel Surge Capacity Planning Area 2 (PSC2): Staff Reassignment ➤ Personnel Surge Capacity Planning Area 1 (PSC1): Staff recall
<p>Surge Capacity Planning Area 3 (ISC 3)</p> <p>Beds, stretchers, or cots in hallways, Classrooms, or other non-patient care areas.</p>	<p>Staffing for these beds will likely require outside assistance:</p> <ul style="list-style-type: none"> ➤ Personnel Surge Capacity Planning Area 3 (PSC 3) Mutual Assistance (See Hospital tools) ➤ Regional Coordinating Hospital/Emergency Staffing pool (See RCH tools) <p>Depending on the size of the facility and its ISC1 and ISC2 staffing needs, some facilities may be able to provide some staff for ISC 3beds using internal emergency staffing procedures. (PSC1 and PSC2)</p>
<p>Mass Care Planning - Mod Medical System (MEMS)</p> <ul style="list-style-type: none"> ➤ Acute Care Center (ACC) ➤ Neighborhood Emergency Help Center ➤ Mini NEHC PSC2). 	<p>Staffing for these beds will require extensive outside assistance:</p> <ul style="list-style-type: none"> ➤ Personnel Surge Capacity Planning Area 3 (PSC3) Assistance. ➤ Regional Coordinating Hospital <ul style="list-style-type: none"> • Emergency Staffing Pool ➤ District EOC <ul style="list-style-type: none"> • Local Medical Reserve Corps (MRC) ➤ DHS EOC <ul style="list-style-type: none"> • Alert Systems • Other Medical Reserve Corps (MRC) • Disaster Medical Assistance Teams (DMAT) • Metropolitan Medical Response Systems (MMRS) • Civilian Emergency Response Teams (CERT) • Other States

ISC 2 tool

LOS ROBLES HOSPITAL	Total licensed bed capacity: 403	Zip Code: 91360
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ISC2 (OPSU, PACU, CVOU, Sp Proc.) When you activate this level, notify Coordinating Hospital and Public Health

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 10
Location	Total number of beds you can put in this space	Can the ventilation for this space be isolated from the rest of the hospital?	Can exhaust from this space be HEPA filtered before release into the air?	Number of Additional Personnel Required to Staff the Beds in column 2 for each 24 hour period (Assume 2 12-hour shifts per day)				Last Updated
				RNs	LVNs	CNAs	RTs	
OPSU		Yes No	Yes No					
PACU		Yes No	Yes No					
CVOU		Yes No	Yes No					
Special Procedures		Yes No	Yes No					
TOSH		Yes No	Yes No					
EAST CAMPUS		Yes No	Yes No					
Total ISC2 Surge Capacity								
Total ISC2 Internal Surge Isolation Bed Capacity:								
Please indicate how many beds, gurneys, stretchers, or cots you have that are not normally in use that could be used to equip other areas as inpatient surge capacity in an emergency.								

ISC 3 Tool

LOS ROBLES HOSPITAL	Total licensed bed capacity: 403
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ISC3 (Hallways, classrooms, etc.) If you activate this procedure, notify your Coordinating Hospital and Public Health.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14	Column 15
Location (classroom, hallways, single pt. room when capacity can be increased)	Approx. sq footage	Lighting	Electricity	Emergency Power	Air Conditioning	Heat	Water	Toilets	Showers	Kitchen/ Cafeteria	Telephone Lines	Outside Access	Capacity per Fire Marshal	Parking
Classroom 1		Yes No	Yes No	Yes No	Yes No	Yes No	Yes No							
Classroom 2		Yes No	Yes No	Yes No	Yes No	Yes No	Yes No							
Classroom 3		Yes No	Yes No	Yes No	Yes No	Yes No	Yes No							
		Yes No	Yes No	Yes No	Yes No	Yes No	Yes No							
OP Lab Registration		Yes No	Yes No	Yes No	Yes No	Yes No	Yes No							
		Yes No	Yes No	Yes No	Yes No	Yes No	Yes No							

		Yes No												
		Yes No												
		Yes No												

Column 1 - List each area within in your hospital where you could put beds, stretchers, or cots in an emergency. Then fill out the remaining information about each one of those areas as indicated in the column 2 – 8 headings.

Column 9 – 13: Enter one of the following indicators: W = Within the space; A = Adjacent to the space; C = Close to the space

Column 14 – Enter the number of individuals this space can hold, as determined by the Fire Marshal

Column 15 - Indicate the approximate distance to the parking that would be designated for those using this space.

Column 16 – For any additional information you feel is necessary or useful.

LOS ROBLES HOSPITAL	Total licensed bed capacity:				265
Internal Surge Capacity plus Staffing Overall Summary					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Total Current Staffed Bed Capacity	Planning Area ISC1	Planning Area ISC2	Planning Area ISC3	Total
Total number of beds					
Total number of isolation beds					
Number of personnel required					
RNs					
LVNs					
CNAs					
RTs					
Totals					