

EMERGENCY MEDICAL RESPONSE TO DISASTER

Will Our Vulnerable Populations Be Cared for?

Are We Ready for an epidemic?

SUMMARY

As part of its report on disaster preparedness, the Grand Jury examined how well the Santa Barbara County Public Health Department is prepared to respond to the medical needs of the community in a disaster. The Emergency Medical Services Agency (EMS) is the part of the Public Health Department that plans for and manages emergency response, both on a day-to-day basis and in the event of a disaster. The Grand Jury found that the EMS Agency's leadership has well-organized and documented plans and are conscientious in its efforts to be prepared and to continuously improve the Disaster Plan. However, components of the Plan relating to vulnerable populations, training, coordination with Federal, State and other local agencies, and outreach to nonprofits and caregivers require continued focus, attention, priority and additional resources.

INTRODUCTION

The County serves a population in excess of 400,000, as well as commuters and tourists. The Emergency Medical Services Agency (EMS), which operates under the auspices of the Public Health Department, is responsible for overseeing the emergency medical system from a call being placed to 911, including first responders (police, fire, paramedics), transport providers, hospital receiving facilities and the hospital trauma centers.

The Public Health Department contracts for ambulance services with American Medical Response (AMR) for the majority of transports in the County. AMR's contract requires it to have a specific level of training for all response personnel, to adhere to California's Standardized Emergency Management System (SEMS), and to participate in disaster committees, training and exercises as requested by the Agency.

The County has five hospitals:

- Santa Barbara Cottage Hospital in the City of Santa Barbara serves as a regional trauma center for the Tri-Counties.
- Goleta Valley Cottage Hospital is a trauma receiving center located in the City of Goleta.

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- Marian Medical Center in Santa Maria is working toward being designated as a trauma center and will serve as the regional resource for the northern portions of Santa Barbara County and southern portions of San Luis Obispo County.
- Lompoc District Hospital and Santa Ynez Valley Cottage Hospital are located in the central part of the County.

Santa Barbara County has signed agreements with its counterparts in San Luis Obispo, Ventura, Los Angeles, and Orange Counties as part of a mutual aid plan. There are 133 hospitals which can be accessed as part of this program.

State statutes call for guidelines to be developed for the planning and implementation of emergency medical services systems that address the following components:

- manpower and training
- communications
- transportation
- assessment of hospitals and critical care centers
- system organization and management
- data collection and evaluation
- public information and education
- disaster response

These elements are the responsibility of the Emergency Medical Services Agency and are coordinated under one manager to improve accountability and reduce redundancy.

The Grand Jury reviewed the Public Health Department's role in disaster response, and particularly that of the EMS Agency. Members of the Grand Jury interviewed staff from the Public Health Department, Department of Social Services, and other County departments. The Grand Jury also spoke with representatives of local nonprofit healthcare agencies, attended workshops and briefings related to medical/health system disaster preparedness, and did extensive reviews of materials, including statutes, policies and procedures, and documentation of disaster training exercises.

The UCLA Center for Public Health and Disasters conducted a comprehensive "Institutional Capacity Review Assessment" of the Public Health Department's disaster preparedness in October 2005. This assessment consisted of a series of questions using 46 criteria based on performance goals developed by the Centers for Disease Control and Prevention (CDC). Interviews were conducted with the County

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bioterrorism coordinator and laboratory director. In addition, the UCLA study team reviewed the Santa Barbara County Public Health Department's Disaster Plan and the Santa Barbara Operational Area Multi-Hazard Functional Plan. The review, which included dealing with vulnerable populations, focused on four areas:

- mutually understood roles and responsibilities
- detecting the outbreak of mass illness
- determining cost and risk factors
- implementing measures to control the outbreak

These topics define the public health threat and containment goals that the CDC Office of Terrorism Preparedness and Emergency Response will use for determining grant allocations.

OBSERVATIONS AND ANALYSIS

Disaster Response for Vulnerable Populations

It is estimated that 10% of the population (40,000 people) in the County can be defined as "vulnerable populations". These include the medically fragile, examples of which are:

- bedridden, totally dependent, difficulty swallowing
- requires electrical equipment to sustain life
- critical medications requiring daily monitoring
- insulin-dependent diabetic unable to monitor blood sugar
- requires continuous IV therapy
- terminally ill

A more expansive term identifies other at-risk groups, which include:

- frail seniors
- people with short-term acute or chronic illnesses or with disabilities
- people who are technology dependent
- people with disabling acute or chronic mental illnesses
- the homeless
- children

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The 2005 experience with Hurricane Katrina demonstrates that populations with special needs require special consideration in disaster preparedness planning.

In December 2002 the Emergency Disaster Planning for Vulnerable Populations Task Force of the EMS created an emergency disaster plan. The Plan took two years to complete. A significant number of organizations and agencies were involved in the preparation and planning for the vulnerable populations and those that help them to be self-sufficient in an emergency situation. Response organizations need information about where these populations reside, particularly individual residences. When the Plan was published in 2002, it was noted that it was a working document and would require modification over the coming years.

The Task Force concluded that it is of utmost importance that “all residents of Santa Barbara County become educated about the need to plan and prepare for disasters, that they be self-sufficient in a disaster, and that they prepare to help those residents that are unable to act independently.” In addition, “there should be systems available to provide assistance with evacuation, transportation, and the care and shelter of the residents of the County who are unable to use traditional means of support in an emergency or disaster.”

The idea to develop a disaster plan for vulnerable populations came from the EMS Agency in 1998. The Agency was fortunate to receive grant funding in 2001 – 2003 from the State EMS Authority to develop a plan to address the needs of the vulnerable populations. The resulting Disaster Plan for Vulnerable Populations was a model that has been shared throughout California. The Plan included an agreement with the American Red Cross that identifies roles and responsibilities of the agencies and County departments involved in responding to meet the special needs of these populations. There are agreements with alternative transportation, assisted-living, skilled nursing, and board and care services designed to lessen the impact on hospitals, inpatient facilities, and other agencies when they are unable to function adequately in a disaster situation.

The general shelters will be set up by the Red Cross and are intended for individuals and families that have been forced to leave their homes either due to an impending disaster or for short-term emergency shelter after a disaster. The shelters accept people with minor injuries and illnesses and those with physical or emotional limitations who do not require close monitoring, assistance, or equipment. Those evacuees requiring skilled health or personal care are referred to an appropriate health care facility, medical treatment unit or temporary infirmary. General shelters may not be able to provide adequate medical and personal care staff and the necessary supplies for people who require this additional support.

There has been very limited activity and planning for vulnerable populations at the County level since 2002 when the Task Force first issued its Plan. When the grant funding ended, Direct Relief International assumed the outreach, ongoing education,

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and planning activities necessary for agencies that provide services to the vulnerable populations for an additional two years. Since further funding was not provided to support the ongoing cost of the project within the County government agencies, there has been little, if any, recent activity.

The County is not currently coordinating any ongoing outreach or education programs for licensed facilities, community-based organizations, or care providers and families of vulnerable populations. There is no organized method to ensure that the Plan is updated or reviewed annually or that the support documentation is current.

The Plan identifies multiple governmental agencies and their roles and responsibilities in responding to the vulnerable populations. The EMS Agency contacts transportation providers every two years and verbally reviews agreements for alternative transportation including paratransit services. Each year the Public Health Department opens the Department Operations Center (DOC), and part of the exercise is focused on vulnerable populations' issues as they relate to the scenario focus of the drill, for example an earthquake, fire, or flood. During these simulated incidents, the planner inserts questions that require a response to assist vulnerable populations.

There are no specific steps in place to provide coordination for individual disaster plans with licensed programs and facilities, such as skilled nursing facilities, assisted-living, home care and hospice programs. The Public Health Department no longer has a staff person to assist with the maintenance and updating of the Geographic Information System (GIS) maps. Location maps for the vulnerable populations have not been updated and are only available in their current state for use by the Emergency Operations Center (EOC).

Integrated Response to Mass Casualties and Epidemic

During a local health disaster, such as an avian flu epidemic, public health personnel become a part of an integrated response system that requires different resources, people and activities than in routine emergencies. The Standardized Emergency Management System (SEMS) Multi-Hazard Functional Plan (MHFP) designates the County Administrator as the Emergency Services Director. He is empowered to direct and control the emergency organization. The Emergency Services Director appoints members to a Santa Barbara County Disaster Council, which includes persons having official emergency responsibility. Disasters often cross jurisdictional and geographic boundaries, requiring many different organizations to coordinate an effective response to protect the general population. Based on interviews and document reviews, the Grand Jury found that the EMS Agency is working to foster productive relationships with other response partners and that the drills and follow-up reporting are done well.

The overall assessment from the UCLA study was that the Santa Barbara Public Health Department has addressed or is addressing all of the CDC criteria and that the

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EMS Agency has worked diligently to foster productive relationships with other response partners. Exercises and drills are conducted as required and the follow-through regarding After-Action reports is excellent. There were suggestions for improvements in most of the “measures” that were evaluated. Those that the Grand Jury found worthy of note included the following:

- Although Public Health Department personnel have attended training on the Incident Command System (ICS), additional training for those persons identified as holding a position within the ICS would be beneficial.
- Include EMS providers, veterinarians, and firefighters in the Department’s future quarterly training. When updating the training plan, consider mapping the training to core competencies.
- The Department should continue to participate in exercises focused on public health disasters with various community and response partners, which would include the Department of Homeland Security, the military at Vandenberg Air Force Base, and the Chumash Tribe.
- The Public Health Department should identify additional people who could be trained in the basics to assist in disease investigation by conducting interviews and performing contact tracings. The Department of Public Health should demonstrate that epidemiological and law enforcement investigators are trained jointly and coordinate investigative activities.
- The Public Health Department should work with the State to ensure that volunteers are handled properly and that this resource is available in an emergency.

A major disaster has the potential to cause mass casualties and/or mass illness that may overwhelm the healthcare system and exhaust medical supplies. The Public Health Department must have plans for “surge capacity” to determine what resources are available and how to best utilize them. The Disaster Plan needs to allow for access to additional medical supplies and to determine if there are enough medical professionals and others to respond when needed. Also, in a major disaster, public-health authorities may have to isolate (separate persons who have specific infectious illnesses from those that are healthy) or quarantine (separate and restrict movement of persons) to stop the spread of illness. Authorities must be familiar with the statutory and regulatory process necessary to enact and enforce applicable directives.

There are a number of steps public health agencies must take to control and manage a disease outbreak situation. During a public health disaster communication is essential. Because some communication systems may not be functioning, public health agencies have to create redundant emergency communication systems that will

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enable public health personnel to communicate with each other and with other agencies. Also, there has to be a way to allow a larger volume of calls to come in from the public. There are two specific communication systems that are utilized by the Department. One is the MEDNEX Disaster System which links EMS, the hospitals and field locations. It works through cellular phones. The other system is the ReddiNet Information Network which serves the hospitals, first responders, and the EMS Agency. It is a dedicated system and is used to manage transport, treatment locations, resource allocation, and victim identification.

The EMS Agency, as part of the Public Health Department, is responsible to oversee the Department's emergency preparedness and response and coordinate a statewide hospital exercise within the local jurisdiction each year. The exercise scenario is different each year in order to test various aspects of the system, for example, bioterrorism and natural disasters. The Agency is currently assessing the level of training that has been provided to Department staff and is developing a training matrix for all staff with specific timelines to achieve competency based on the level of emergency response responsibilities.

FINDINGS

Finding 1

There has been very limited activity and planning for vulnerable populations at the County level since 2002 when the Task Force first issued its Vulnerable Populations Plan. This resulted from the Public Health Department no longer having a staff person to assist with the maintenance of the Plan in general and the Geographic Information System (GIS) maps. The vulnerable populations' location maps have not been updated and are only available in their current state for use by the Emergency Operations Center.

Finding 2

The Public Health Department is not currently coordinating any ongoing outreach or education programs for licensed facilities, community-based organizations, or care providers and families of vulnerable populations. There is no organized method to ensure that the Plan is reviewed and updated annually or that any of the support documentation is current.

Finding 3

There are no specific steps that are targeted to provide coordination for individual disaster plans with licensed programs and facilities, such as skilled nursing facilities, assisted-living, home care and hospice programs.

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Finding 4

The Public Health Department does not have mutual aid agreements with the military, for example, Vandenberg Air Force Base.

Finding 5

The Chumash Tribe is not actively involved in the County's disaster planning activities.

Finding 6

The County does not have a current registry of potential volunteers (licensed physicians, nurses, pharmacists, veterinarians) who could be called on to assist in a disaster.

RECOMMENDATIONS

Recommendation 1

The Public Health Department should take the lead in revitalizing the Emergency and Disaster Plan for Vulnerable Populations. This plan should be further developed, implemented and kept current. Additional human and financial resources should be allocated to accomplish this.

Recommendation 2

The Public Health Department should update the Disaster Plan to reflect new threats, for example, bioterrorism and epidemics such as avian flu.

Recommendation 3

The Director of the EMS Agency should participate in meetings of the County Disaster Council.

Recommendation 4

The Public Health Department should work collaboratively with skilled nursing homes, board and care, and other licensed facilities needing assistance in developing coordinated plans to ensure that their populations' needs are met in a disaster and that inpatient facilities have current evacuation plans and memorandums of understanding with like facilities.

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Recommendation 5

The Public Health Department should coordinate with the local Department of Homeland Security Office to ensure that each is aware of the other's activities. The Public Health Department should continue to conduct exercises and drills with its community and regional partners, including emergency management and other agencies.

Recommendation 6

The Public Health Department should develop mutual agreements with the military, and ensure that the Department has current contact information for base leaders and healthcare providers.

Recommendation 7

The Public Health Department should engage the Chumash Tribe so it can be involved in the planning and disaster preparedness process.

Recommendation 8

The Public Health Department should continue to work with the State to ensure that volunteer activities of healthcare workers are coordinated and that this resource is available in the event of an emergency. It should make certain that the list of retired nurses and physicians and other local private healthcare professionals contains current information. Medical registries need to be developed in conjunction with the State EMS to pre-identify medical personnel who are willing and able to participate in a disaster response system.

REQUEST FOR RESPONSE

In accordance with Section 933(c) of the California Penal Code, each agency and government body affected by or named in this report is requested to respond in writing to the findings and recommendations in a timely manner. The following are the affected agencies for this report, with the mandated response period for each:

Santa Barbara County Board of Supervisors – 60 days

Finding	1
Recommendation	3

Santa Barbara County Public Health Department – 90 days

Findings	1, 2, 3, 4, 5, 6
Recommendations	1, 2, 3, 4, 5, 6, 7, 8