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Statewide Health Planning and Development

State of California
HEALTH AND HUMAN SERVICES AGENCY

To: Selected Members of the California State Legislature

From: Ann Boynton
Undersecretary

Date: February 2, 2007

Subject: Legislative Report - Healthcare Delivery Response in California

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On behalf of the California Health and Human Services Agency, attached please find the report titled “Healthcare Delivery Response in California.” It was required pursuant to Section 82 of Assembly Bill 1807 of 2006. Emergency preparedness and response is one of the Governor’s highest priorities. Departments across the Executive Branch are working to ensure that the state can respond in the event of a natural or intentional disaster.

If you have any questions or comments, please do not hesitate to contact me at 654-3454.

HEALTHCARE DELIVERY RESPONSE IN CALIFORNIA

CALIFORNIA HEALTH AND HUMAN SERVICES AGENCY
FEBRUARY 2, 2007

REPORT TO LEGISLATURE

HEALTHCARE DELIVERY RESPONSE IN CALIFORNIA

EXECUTIVE SUMMARY

California's healthcare delivery system must have the capacity to respond to the medical needs associated with emergency events. Attacks from a biological, chemical, or radiological agent, a natural event, or emerging diseases such as pandemic influenza could impose significant demands on California's healthcare system. During emergencies, healthcare systems will have to transition quickly from their current patient capacity to a potentially large surge of patients needing healthcare services.

Transitioning from normal day-to-day patient load to emergency related surge capacity can be an overwhelming task. Healthcare facilities and other medical care providers must be prepared to receive and treat large numbers of patients requiring additional staff, ventilators, oxygen, medications, vaccines, personal protective equipment, and other supplies. Essential services such as food, water, and electricity must be continuously available to healthcare facilities, and healthcare providers must be able to effectively communicate with public health, emergency medical services and other regional support services. In addition, the healthcare system must address the special needs of groups such as children, the elderly, and persons with disabilities.

California's Health and Safety Code assigns front line responsibility to local public health and emergency medical services (EMS) agencies for management of the emergency healthcare systems within their jurisdictions. The State, in turn, has an overarching responsibility to assure that local government agencies are capable of providing the level of services required to control any health or medical emergency. In addition, state government assumes a state-wide role in providing policy direction, support, and coordination in all phases of the healthcare delivery system.

Recent natural and intentionally-caused disasters have tested the emergency response capabilities of government agencies and healthcare providers across the nation. After-action analysis following these disasters has shown the importance of strengthening local and state capacity to manage response to catastrophic events for extended periods of time. Federal resources can support state and local efforts but are not immediately available at the onset of a disaster.

Hurricane Katrina underscored the importance of government readiness for such catastrophic eventualities and reemphasized the importance of planning and pre-positioning for disasters so that response and recovery are coordinated across agencies in a timely manner. The Schwarzenegger Administration takes very seriously the responsibilities associated with disaster preparation and response and continually undertakes new efforts that will strengthen California's ability to respond to disasters.

The Administration has made it a top priority to prepare for disasters and assure that California's medical and healthcare system is capable of responding to the needs of

Californians in a disaster. To that end, Governor Schwarzenegger and the Legislature addressed significant medical and health resource needs in the 2006-07 State Budget to better prepare California healthcare providers, local health departments and state response systems for such catastrophic events. While California continues to be better prepared today than ever before to respond to emergencies, it is imperative that preparedness activities continue.

Section 82 of Assembly Bill 1807 (Chapter 74, Statutes of 2006) requires the California Health and Human Services Agency (CHHS) to provide to the Legislature a report on the State's ability to respond to both natural and intentional disasters. Specifically, AB 1807 requires, *in pertinent part*:

> *(b) By no later than November 15, 2006, the California Health and Human Services Agency shall provide to the appropriate fiscal and policy committees of the Legislature the state's plan for the new health care delivery system in the event of a disaster.*

This Report is provided to meet the provisions of these requirements.

INTRODUCTION

California's healthcare delivery system carries out emergency preparedness and response under the authorities of the Emergency Services Act (ESA) and the California State Emergency Plan (SEP). State departments develop plans for emergency preparedness and response as annexes to the SEP that are approved by the Governor's Office of Emergency Services (OES), the lead state agency for coordination of emergency response.

The goal of the state emergency response system is to ensure a rapid, effective and coordinated response to and recovery from major disasters. Emergencies are first and foremost local events. As additional resources are needed, the escalation of requirements for resources and subsequent deployment is governed by California's Standardized Emergency Management System (SEMS). California's medical and healthcare delivery systems are components of the state emergency response system and comply both with SEMS and the National Incident Management System (NIMS), the federal version of SEMS.

The healthcare delivery system has undergone extensive review and upgrading during the last several years to address an increased potential for threats as well as an increased complexity of threats. These changes include an all-hazards approach to medical/health-disaster planning that gives high priority to new threats such as pandemic disease outbreak, weapons of mass destruction and terrorism, and loss of utilities that support medical operations. California continuously updates the overall response approach based on California's previous disaster medical and health response experience and the response to 9/11, Hurricane Katrina and other nationwide disasters that demonstrated the importance of local response, mutual aid, and assuring state capability to rapidly support local response for disaster medical and health operations.

ROLES AND RESPONSIBILITIES IN EMERGENCY HEALTHCARE DELIVERY

Healthcare Providers

California's medical and healthcare resources are primarily in the private sector. The California Department of Health Services (CDHS), the Emergency Medical Services Authority (EMSA), local health departments and local EMS agencies work closely with providers to promote emergency preparedness and a coordinated response to emergencies.

California licensing regulations and the Joint Commission for the Accreditation of Health Organization standards require hospitals to develop emergency plans that address four goals:

- Protection of employees;
- Protection of patients, other clients and visitors on their premises;
- Provision of medical care to the community; and,
- Restoration of hospital service capability by recovering disaster related costs and restoring revenue generation.

Hospitals perform the following tasks in responding to disasters:

- Assess damage and loss of function to the facility.
- Communicate hospital capabilities and needs to Operational Area officials.
- Restore utilities and obtain food and water.
- Augment and relieve staff.
- Acquire medical supplies and replace damaged equipment.
- Discharge, evacuate, transfer, and or divert patients to other facilities, if the hospital needs to increase surge capacity or is required to close.
- Provide care to casualties that converge (self transport) on the medical and healthcare facility.
- Maintain standards for medical care and record keeping.

In addition, the State encourages local government agencies to develop pre-event agreements and relationships with all private medical and healthcare providers within their jurisdictions so that mechanisms are always in place to augment staffing and other resources.

Local Medical and Health Jurisdictions

Most emergencies begin locally and the SEMS/NIMS response structure begins at the local level. The initial medical response to disasters in California is conducted by local fire, EMS and other medical care resources under the direction of local jurisdictions or their agents. This initial response depends primarily on two factors:

- The effectiveness of day-to-day emergency and other medical and healthcare services.

- The ability of local government agencies and healthcare providers to quickly transition from normal activities to a disaster organization that supports rapid and effective priority setting, decision making and resource mobilization and allocation.

Emergency medical services and healthcare delivery systems are provided by a combination of private and public agencies. Multiple and mass casualty incidents are managed under the Incident Command System and bring together the responsible entities organized under a Unified Command structure at the scene of the emergency. Distribution of patients among local hospitals is often managed from a centralized coordination center that may cover the local area, an entire county, or a multi-county area. Depending on the scale and nature of disaster, a local health department and/or local EMS Agency may participate in a unified command structure of an incident along with other jurisdictional agencies and the appropriate public safety agency that have primary investigative authority.

If a medical or health disaster is of the scale or complexity that local agencies are unable to provide sufficient response resources from within its jurisdiction, the local Office of Emergency Services (OES), local EMS agency, or local health department may activate the Operational Area disaster medical and health plan and provide the necessary emergency operations centers and support staff to coordinate mutual aid within the affected area.

State Agencies

CHHS is the state entity under which CDHS and EMSA assume overarching responsibility for California's emergency health and medical care delivery system. CHHS's role in medical and health disaster response is to:

- Provide direction and approval of CDHS and EMSA response policy decisions;
- Assist the Governor's Office and other Cabinet level executives in gathering medical and health related information and status, and conveying the information to the Legislature and public; and
- Coordinate response activities with other supporting state agencies.

During catastrophic emergency events, EMSA and CDHS share lead responsibility to provide medical and health expertise and oversight at the OES State Operation Center (SOC). They are also responsible for statewide support and coordination of medical and health emergency response through the CDHS/EMSA Joint Emergency Operations Center (JEOC). The Department of Social Services is tasked with ensuring that health concerns are addressed among mass care and shelter populations during disasters and the Department of Mental Health ensures that mental health services are provided to residents and emergency workers. The Office of Statewide Health Planning and Development, jointly with other entities, inspects hospitals and other licensed care facilities for structural integrity, quality of care, operational procedures and fire/life safety issues.

The SEP also identifies other state agencies as having medical and health response support roles, including:

- California Department of Corrections and Rehabilitation

- California Department of Forestry and Fire Protection
- California National Guard
- California Department of Food and Agriculture
- California Department of Toxic Substances Control
- California Department of Veterans Affairs

Federal Level

A variety of federal government agencies are involved in medical and health emergency response including:

- Department of Health and Human Services
  - Centers for Disease Control and Prevention (CDC)
  - Health Resources and Services Administration (HRSA)
- Department of Homeland Security
- Federal Emergency Management Agency (FEMA)
- Department of Defense
- Department of Veterans Affairs

When disaster medical and health response capacity is exhausted at the local or state level, OES may request assistance from federal agencies. The Governor may also request a Presidential Declaration for an Emergency or Major Disaster, which allows access to federal disaster healthcare assets and the ability to recover specified disaster response and recovery costs. For example, during large-scale patient evacuations, federal agencies can assist in moving patients to unaffected communities. Federal agencies can also establish reception areas that will provide acute care for these patients until they can return home.

MEETING THE CHALLENGES OF CATASTROPHIC EMERGENCIES

In order to meet the challenges of responding to threats and disasters, local, state and federal agencies have been focused on enhancing California's capacity to meet the medical and health needs of the state during disasters. The goals of these enhancements include:

- Establish and maintain an operational capability at all levels to respond to medical and health resource requests in a timely and coordinated manner;
- Ensure field, hospital, and other disaster responders remain safe from injury and are protected from communicable diseases and hazardous substances;
- Incorporate provisions for national and state mutual aid according to established programs and procedures;
- Maintain coordination with local, state, and federal government agencies, ensuring that all resources of response agencies are available to support mutual aid;
- Incorporate private and non-governmental medical and health assets into the local and state response through mutual assistance or emergency purchasing processes;
- Support local transportation, reception, and care of injured and ill persons during an evacuation;

- Ensure health and medical emergency management programs conform with SEMS and NIMS; and
- Restore essential medical and healthcare delivery systems following an emergency.

The improvements are guided by these operational principles:

- Protect and preserve human life;
- Meet the immediate emergency needs of disaster victims, including medical rescue, transport, and patient care in hospitals, shelters, and other facilities;
- Restore medical and healthcare facilities and capabilities, whether publicly or privately owned, that are essential to the health, safety, and welfare of the public;
- Protect property and the environment; and,
- Mitigate hazards that pose a threat to disaster medical and health operations.

Specifically, California's improved healthcare delivery system includes:

- Improved preparedness and response of the medical and healthcare delivery system through integration of the National Incident Management System (NIMS) with California's SEMS by local, regional, and state government;
- Expanded medical and health emergency planning with federal agencies;
- Adoption of new communications and information technology systems resulting in improved ability to communicate across all levels of government and greater "failover" capacity; and,
- Expanded operational response capabilities such as:
    - EMSA
        - Development of the Emergency System for Advanced Registration of Volunteer Health Personnel (ESAR-VHP); 25 Ambulance Strike Teams (AST) and Disaster Ambulance Support Units (DASU);
        - Implementing three California Medical Assistance Teams (CalMAT);
        - Purchasing three mobile field hospitals;
        - Developed Mission Support Team concept to support state deployed equipment and personnel; and,
        - Developed the Hospital Incident Command System (HICS), the nationwide standard for hospital disaster management.
    - CDHS
        - Maintaining programs to assure safe drinking water and food; assure health and safety of people being cared for in licensed facilities; manage outbreaks of communicable diseases; and manage environmental health risks;
        - Undertaking a nation-leading effort to develop standards and guidelines related to Alternate Care Sites for use during a catastrophe
        - Obtaining funding for Alternate Care Sites to support local surge capacity needs;
        - Strengthen the ability to detect and respond to diseases and natural and man-made catastrophes, including:
            - Developing pharmaceutical and antiviral supply caches throughout the state;

- Establishing statewide caches of N-95 respirators for emergency responders and healthcare providers;
- Establishing ventilator caches available for immediate delivery; and,
- Deploying federally supplied caches of nerve agent antidotes to local government.

o CDHS and EMSA
  - Developed and operate a state-of-the-art Joint Emergency Operations Center (JEOC) to support and coordinate the emergency response activities for which both EMSA and CDHS are responsible;
  - Established a backup JEOC to provide for continuity of operations; and,
  - Conducted joint emergency exercises to test the emergency health care delivery system.

MEDICAL AND HEALTHCARE RESOURCES IN AN EMERGENCY

Adequate response to an emergency requires that a variety of resources, including medical supplies, equipment, personnel, mobile facilities, patient transportation assets, and information management systems be available to those who need health and medical care. CDHS, DSS, EMSA, local health departments, local EMS Agencies, private healthcare providers and other disaster response partners throughout California have developed plans and guidance used in regular training and exercise programs to strengthen their statewide response capabilities.

Three essential categories of resources are required in order to surge the capacity of the healthcare system to provide needed medical care in an emergency: staffing, beds, and supplies and equipment.

Medical Personnel

Additional licensed healthcare professionals including physicians, pharmacists, registered nurses, paramedics, and medical emergency managers may be needed to provide services or support emergency medical operations within the affected area. California has multiple strategies for augmenting disaster medical personnel resources. These include:

- Activation of trained teams of volunteers (e.g., CalMATs);
- Medical volunteers registered pre-disaster through the ESAR-VHP Program;
- Federal Disaster Medical Assistance Teams based both in California and in other states;
- Medical Reserve Corps formed at the local level consisting of medical and other health and human services volunteers;
- Citizens Corps personnel;
- Ad hoc volunteers identified post-disaster; and,

- Medical personnel and teams from governmental agencies outside the affected areas.

ESAR-VHP, a federally required system, is an emergency personnel management system developed to enroll California medical care personnel with active unrestricted licenses as volunteers for disaster service. The system validates enrollee licenses and credentials prior to an emergency and provides a mechanism for contacting and mobilizing needed personnel.

EMSA is forming three 120-person CalMATs that will operate under state direction for response to catastrophic disasters to augment medical care and re-establish medical care in disaster areas where hospitals and medical care systems have been damaged or overwhelmed.

Medical Reserve Corps are community-based networks of volunteers that assist public health and medical care efforts in times of special need or disaster, e.g. during a major communicable disease outbreak, earthquake, flood, or act of terrorism. MRC members may also volunteer throughout the year in activities that promote community public health and education.

In areas unaffected by the disaster, pre-hospital emergency care providers may support disaster operations by providing:

- Personnel and vehicle mutual aid;
- Regional Ambulance Coordinators and personnel; and,
- Medical transportation and treatment for casualties evacuated from the impacted areas.

Healthcare Facility Beds

Effective healthcare and hospital response requires a high level of integration with disaster preparedness and response efforts. Hospitals play a critical role in the response to any disaster. In addition to general acute care facilities, California's hospitals include trauma centers, poison control centers, and burn centers that provide specialized care.

In an event that exceeds available hospital capacity within the affected area, hospitals in unaffected areas may assist in the recruitment of volunteer medical personnel from their facilities or to receive casualties evacuated from disaster areas. Community clinics, urgent care centers, dialysis clinics, and long term care facilities and other non-acute care facilities provide essential services during an emergency.

Pursuant to the resources provided in the 2006-07 State Budget, EMSA is acquiring three mobile field hospitals (MFH) for use in major disasters in which local medical care capabilities are overwhelmed and/or substantially reduced by the event. MFHs can be staffed and equipped to provide basic emergency, surgical and recovery services. MFHs are deployed when there is a need to replace acute hospital care capacity for a period of several weeks. The MFH capacity in California will reach 600 beds which may be

deployed as three 200-bed hospitals or configured in a modular fashion from 50 to 600 beds.

Local health departments are charged with identifying facilities such as schools, closed hospitals, and county fairgrounds that could be temporarily converted to alternate care sites to provide acute care. CDHS has initiated the development of alternate care site caches that will provide sufficient supplies for 21,000 patient care beds to operate for a 10-14 day period. These alternate care site caches will be deployed to regional locations for access by local and state agencies during disasters. In addition, the State is undertaking a nation-leading effort to develop standards and guidelines for use during a catastrophe. The outcome of this project will be essential for planning and operating alternate care sites.

Supplies and Equipment

The immediate availability of healthcare pharmaceuticals and medical supply resources from within and outside the affected area is an integral part of the medical and healthcare delivery system. To meet this need, local, state and federal agencies have stockpiled emergency medical supplies, pharmaceuticals, and materiel necessary to address the emergency impact. Through the Strategic National Stockpile, California can obtain medical supplies within twelve hours of request to the federal government. This augments the capabilities of local and state agencies to mobilize needed resources within a short time period.

- Local
  Many local entities have purchased large quantities of antibiotics for use by the emergency first responders and healthcare personnel to ensure that staff are available to continue providing services during an emergency.

  Several large cities have been funded under the federal Metropolitan Medical Response System (MMRS) to stockpile pharmaceutical and personal protective equipment to support their capabilities during the first hours crucial to lifesaving and population protection. Many of these resources are available to non-MMRS jurisdictions through mutual aid.

  Local entities have used HRSA funds to expand local surge capacity through purchase of items equipment such as decontamination systems, backup generators, hospital communication equipment, and personal protective equipment such as Personal Air Purifying Respirators.

- State
  CDHS and EMSA have initiated actions to augment and support the local response during a medical or health related emergency. CDHS has purchased over 3.7 million courses of antivirals for use in treatment of a pandemic influenza. This cache, coupled with over 5 million courses maintained by the federal government for California, will provide treatment courses for 25 percent of California residents, as recommended by the federal government.

CDHS has purchased more than 50 million N-95 respirators for use by healthcare personnel when caring for patients with pandemic influenza. Deployment of these respirators to regional locations will be accomplished within the next 12 months and immediate access procedures by local and state agencies are being developed. CDHS has purchased 2,400 ventilators and contracted with a vendor to maintain them in operating order so that they are available for deployment during an emergency.

CDHS has begun deployment of the CDC's Chempack caches to local jurisdictions for immediate deployment of nerve agent and organophosphate antidotes for exposures that require immediate treatment. Protocols and procedures have been developed for emergency first responders and hospital personnel to have immediate access to Chempack materiel.

- Federal
  The resources and materiel available from federal agencies are readily available through coordination with OES. DHHS, CDC and FEMA have streamlined the processes for requesting and receiving necessary assets to support a local or state medical and health related emergency.

CONCLUSION

The actions and activities outlined above have strengthened California's capabilities to respond to a medical or healthcare emergency. Utilizing the State's established emergency response system will ensure that all levels of government will be able to respond to medical and health resource requests and other support activities in a timely and coordinated manner.

CDHS, EMSA, and OES, in cooperation with representatives from local EMS Agencies, local health departments, healthcare providers and other local government agencies, are working continuously to ensure that the necessary protocols, processes, and procedures have been reviewed and updated, the necessary infrastructures are in place, and that the emergency response managers at all levels of government know and understand the established healthcare delivery response system.