



Health Services
LOS ANGELES COUNTY

September 20, 2016

Los Angeles County
Board of Supervisors

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TO: Supervisor Hilda L. Solis, Chair
Supervisor Mark Ridley-Thomas
Supervisor Sheila Kuehl
Supervisor Don Knabe
Supervisor Michael D. Antonovich

FROM: Mitchell H. Katz, M.D. *Mitchell Katz*
Director

SUBJECT: **REPORT ON THE EVALUATION OF COUNTYWIDE
EMERGENCY MEDICAL SERVICES CAPACITY**

Mitchell H. Katz, M.D.
Director

Hal F. Yee, Jr., M.D., Ph.D.
Chief Medical Officer

Christina R. Ghaly, M.D.
Chief Operations Officer

On September 6, 2016, the Board of Supervisors directed the Department of Health Services, Emergency Medical Services (EMS) Agency, in partnership with the County and City of Los Angeles (LA) Fire Departments and the Hospital Association of Southern California, to evaluate the capacity of emergency medical services responders and emergency room capacity throughout the County and report back with a plan to address massive threats to public health and safety, in addition to routine health care delivery.

Background

The State of California Health and Safety Code Division 2.5, requires that any County that develops an EMS program designate an EMS Agency. The primary responsibility of the local EMS Agency is to coordinate the EMS system on a day-to-day basis and during medical disasters. As part of the Department of Health Services, the EMS Agency works closely with the seventy-four (74) 9-1-1 receiving hospitals, thirty-two (32) fire departments and thirty-six (36) licensed ambulance companies to ensure coordinated, quality care on a daily basis, during Multiple Casualty Incidents (MCI) and major disasters.

Below is a brief overview of the capacity of the EMS system and highlights of the preparedness planning activities that ensure the ability to increase capacity (surge) in the event of MCI or disaster event.

Hospital Capacity

The EMS Agency maintains data on the number of hospitals with Emergency Departments (EDs) and the number of treatment bays per hospital. In 2015, the treatment bay capacity at the 74 EDs was 2,002 compared to 1,351 treatment bays in 2000 and these EDs treated over 3.5 million patients. The increase in capacity is due to the expansion of individual hospital EDs and the approval of newly licensed emergency departments, such as St. Vincent Medical Center and Martin Luther King, Jr. Community Hospital.

Individual hospitals are required to have internal policies for responding to an unexpected influx of patients during MCIs or disaster. This preplanned response adds capacity to care for additional sick and injured above their normal daily census.

313 N. Figueroa Street, Suite 912
Los Angeles, CA 90012

Tel: (213) 240-8101
Fax: (213) 481-0503

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Additionally, to facilitate coordination of the EMS system, each 9-1-1 receiving hospital is required to have a ReddiNet® system, which provides a 24/7 communication link with the Departments' Medical Alert Center (MAC), EMS providers and other hospitals. This system allows the MAC to poll the hospitals for their bed capacity and availability of services during routine day-to-day operations and during an MCI or disaster.

EMS (Fire Department/Ambulance) Capacity

LA County EMS providers respond to over 700,000 EMS related calls per year and transport over 513,000 patients to hospitals. The County is divided into jurisdictional areas for the provision of 9-1-1 medical services, all operated by fire departments as the first response. LA County Fire District and 31 independent cities, such as LA City, Glendale, Long Beach, and Downey provide EMS. Each department has mutual aid agreements with surrounding departments to assist when EMS resources are encumbered. Along with additional paramedic resources, departments can call for additional ambulances through the LA County Fire District dispatch, in their capacity as the Fire Operational Area Coordinator (FOAC). The County's normal daily activities would be treated as large scale MCIs in other systems that do not have the extensive resources.

EMS, as part of the Los Angeles Regional Interoperable Communications System (LA-RICS) will soon be able to improve mobile coverage, deploy in-vehicle routers and Automatic Vehicle Locator software and mobile applications that aggregate data in a meaningful way for rapid response and appropriate resource deployment.

The City of Los Angeles Fire Department (LAFD) is the jurisdictional provider for the Skid Row area where the Spice incident occurred on August 19 and 22. Their administration reports that they are the second busiest EMS provider agency, responding to over 350,000 EMS incidents annually. LAFD staffs 93 Advanced Life Support (ALS/paramedic) ambulances and 41 Basic Life Support (BLS) ambulances, which transport over 600 patients to area hospitals each day. The LAFD is tasked with responding to largescale incidents or increased demands for EMS service on a very frequent basis. They have the ability to increase the number of dispatchers on duty to handle and process a surge in 9-1-1 calls. They can also increase capacity for additional call volume by moving firefighters from truck companies to ready reserve ambulances as the need arises.

During an MCI, LAFD may dispatch EMS Captains to area hospitals to facilitate the movement of ambulances to be ready for the next call. LAFD would access the FOAC to request additional ambulances if necessary. The LAFD works seamlessly with the surrounding fire departments and the EMS Agency to handle any surge in EMS calls or large scale incidents. This ability has been demonstrated many times over the past twenty years.

Healthcare Disaster Preparedness and Planning

Over the past 14 years, the EMS Agency has engaged the healthcare community in emergency preparedness and response activities to enhance LA County's medical surge capacity and capabilities. This planning is supported through Measure B funds for EMS Agency disaster preparedness staff and federal grant funds from the United States (U.S.) Department of Health and Human Services under the Hospital Preparedness Program (HPP) and the U.S. Department of Homeland Security under the Homeland Security Grant Program.

The complexity of LA County's healthcare community makes medical surge planning extremely challenging. There are 100 acute care hospitals, 74 of which have EDs that are designated by the EMS Agency as 9-1-1 receiving facilities, two Department of Veterans Affairs medical centers, 400 skilled nursing facilities, 800 home health care and hospice agencies, 166 dialysis centers, 444

ambulatory surgery centers, 250 community health centers, 35 private ambulance companies and 32 public paramedic provider agencies.

Medical surge planning is an all hazards approach that identifies key operational steps and coordinated strategies for various healthcare sectors across the healthcare system. The purpose of medical surge planning is to ensure that the healthcare system can maintain operations and surge to provide the healthcare needs to current patients and the victims from the incident. In line with this planning is the LA-RICS program which will allow for the use of technology, voice and data connectivity and mobile applications that will reliably put real-time information in the hands of first responders to allow for rapid and quality decisions during high pressured activities.

Various programs and plans have been developed over the years to address hazard-specific scenarios to enhance the County's medical surge capabilities and capacity: LA County Disaster Healthcare Coalition, Disaster Resource Center Program, Trauma Surge Plan, Burn Surge Plan, Pediatric Surge Plan, 50 in 15 minutes MCI Response Plan, Long Term Care Disaster Resource Guide, and Healthcare Recovery and Continuity planning to name a few.

Other preparedness activities that have been implemented by the EMS Agency and ensure a level of readiness include the following:

- providing hospitals and other healthcare facilities with the ability to perform mass notification and staff recall during emergencies
- emergency preparedness training such as healthcare incident command system programs and Hospital Disaster Management Training courses
- planning and coordinating the County's participation in the annual Statewide Medical and Health exercise to test emergency response plans
- procuring and maintaining a mobile field medical system that is able to support a hospital that has suffered damage and unable to function at full capacity
- procuring and maintaining additional caches of medical supplies to be deployed to augment hospitals and EMS operations.

Beyond the healthcare community, the EMS Agency and LA County Fire District work closely with the Chief Executive Office's Office of Emergency Management (OEM) in planning and exercising for emergency events. All planning includes our County partners such as the Departments of Public Health (DPH), Mental Health (DMH), and the Coroner's Office.

In the event that additional resources are need beyond the County's resources, following statewide plans, there are established mechanisms to procure resources from local counties, referred to as Region I. If the Region I resources are inadequate additional resources from throughout the State could be accessed and this process is clearly delineated in the California Public Health and Medical Emergency Operations Manual.

Plans and Programs

The above initiatives and the leadership of the County have led to many of the emergency response plans and programs being recognized as best practices on both the State and Federal levels, these include the following:

- Multiple Casualty Incident Policy - Since 1992, the EMS Agency has had a MCI policy that provides guidance on the efficient management of a MCI through the coordination of EMS provider agencies, 9-1-1 receiving facilities and the MAC, which allows for maximum

resource allocation and coordinated patient destination. This policy is frequently tested, reviewed and revised with the last revision completed in April 2015.

- Mass Gathering Policy – Prepares hospitals and first responders for planned mass gathering and implement programs that prevent illness and injury and protect hospitals from being overwhelmed by an excessive number of patients.
- Disaster Resource Center Program – Contracted hospitals that coordinate emergency preparedness planning and training within their geographic region. They also store caches of disaster supplies and equipment to support other healthcare facilities during an MCI or disaster.
- Healthcare Surge Planning Guide – Planning guide to assist healthcare entities in developing their emergency operations response plan. The guide is divided into healthcare sectors (acute care hospitals, long term care facilities, community health centers, dialysis centers, ambulatory surgery centers, home health and hospice agencies, and EMS providers) as each sector has their specific surge strategies tailored to their role and expectations.
- Burn Surge Plan – Expands the County’s inpatient burn capacity by designating Trauma Centers as Burn Resource Centers during incidents that generate multiple patients with burn injuries. Trauma Centers are provided additional burn supplies and equipment, as well as, management of burn patient training. The plan includes a directory of clinical burn experts to provide consultation to Burn Resource Centers.
- Pediatric Surge Plan – Expands the County’s inpatient pediatric bed capacity to address incidents that disproportionately affect the pediatric population. Every acute care hospital in the county was assigned a tier based on their current pediatric bed capacity and capability, 9-1-1 receiving facility designation and Emergency Department Approved for Pediatrics (EDAP) designation. Hospitals that do not normally see patients in their ED (non-EDAP) or those that do not have inpatient pediatric capabilities were provided pediatric equipment and training so they can manage the less acute pediatric patients in a pediatric surge incident.
- Healthcare Recovery and Continuity Planning – Ensures that hospitals and other healthcare entities are able to continue operations during a disaster and develop recovery strategies to effectively and efficiently return to normalcy for the provision of healthcare delivery to the community after a MCI or disaster.
- 50 in 15 minutes MCI Program - A surge response strategy developed to assist hospitals to be ready to accept 50 victims from an MCI or disaster within 15 minutes of the event.
- Communications Connectivity Planning –LA-RICS long term planning for improved mobile coverage and timely dissemination of information such as emergency room capacity, vehicle location, safe and efficient ambulance routes and staging during an MCI or disaster situation.

We are excited to continue to work with our partners in DPH and law enforcement in prevention activities to minimize the number of preventable illness and injuries throughout the County. With a population of greater the 10 million, prevention, preparedness and planning activities are critical. The EMS Agency looks forward to the continued support of your Board as we continue to enhance and refine our preparedness activities.