

History of Alameda County EMS

A lot has changed in the last 20 years in EMS in Alameda County. Gone are the days of local ambulance companies run by an individual (the proverbial "Mom and Pop") with multiple companies competing to provide services. Fire departments provided, at most, EMT level service and many times didn't hang around once the medics arrived on scene. These were the times when paramedics had to call everything into the base hospital to get permission from the MICN to treat the patient.

Today ambulance companies are multimillion dollar corporations, fire departments provide first response for paramedic service and most patient care is by standing orders.

EMS at the Beginning: 1973-1986

The history of a coordinated EMS system in Alameda County began in 1973. Ben Mathews was appointed to the new position of Coordinator of EMS and Disaster Planning in the county's fledgling Health Care Services Agency.

National attention began to focus on developing EMS systems by physicians and surgeons, based on the successful trauma care delivered in Vietnam and Korea; cardiologists wanted to test the new miniaturized portable electrocardiographs and two-way radios that were now available; and the public, inspired by the TV show *Emergency*, wanted paramedics. "That TV show actually had a very significant affect on EMS development," Ben recalls. "The first paramedic programs were started in 1969 in Los Angeles and Florida under special legislation, but after *Emergency* became popular, everyone in the country wanted paramedics."

Planning and implementation grants to establish EMS systems around the country had just been made available through the Department of Health Education and Welfare. Alameda County submitted a request for a grant for \$660,500 and was one of three counties in the Bay Area that received funding - the task: develop a countywide EMS system."

The county had no role in overseeing EMS at that time, and the system was very fragmented. The cities of Berkeley, Albany and San Leandro had ambulance vehicles in their police departments. These ambulances were driven by the station officer on duty that day. Oakland had contracts with six different competing ambulance companies, and three or four competing companies provided service in the South County. Each city oversaw the ambulance companies for the safety of their vehicles, but no agency was responsible for overseeing the quality of medical care delivered.

There were no paramedics or EMTs, and the law only required that one person on the ambulance have a first aid certificate. Most ambulance companies were small operations, and crews stayed in apartments or took the vehicles home for the night. The public had to dial a 7-digit phone number for an ambulance. If there was no ambulance available, they were told to hang up and call another company. When hospitals needed an ambulance, they would rotate among the companies.

Many hospitals did not have a department dedicated to emergency care. The Emergency Room (ER) was originally set up for physicians to meet their own patients or to handle any emergency that might arise. Some ER's were staffed by local physicians working a second job. There was no requirement that these physicians have any special training in emergency care. Some ER's were not staffed round the clock, and staffing patterns varied widely. As late as 1973 ambulance drivers still had to knock on doors at some hospitals to have someone come and open the ER.

1975 The State of California passed regulations requiring that one person on the ambulance received EMT training. This made it impractical for cities that operated ambulances out of their police departments to continue the service, and the responsibility shifted to those city's fire departments. The fire departments had not had a role in EMS prior to this time.

1978 The 9-1-1 system was implemented. The county had received a grant that allowed each local jurisdiction to receive its own emergency calls. Sixteen 9-1-1 Public Safety Answering Points were established.

Paramedic Service Begins

The county's original timetable called for an upgrade from EMT-I to paramedic in 1978. However, Proposition 13 passed that year, and the funding to implement the program was no longer available. Supervisor Fred Cooper put forth the idea to form a special assessment district to pay for the upgrade and training.

1982 Paramedic level service was started in 1982 as a small pilot program. Later that year, the county went to the voters to ask if they would be willing to support a property tax assessment of not more than \$10 to establish paramedic

service countywide. The measure was passed by more than 80% of the voters.

In **1984** the Alameda County EMS District was created to oversee and coordinate the EMS system. By 1986 paramedic level service was available countywide, and four Base Hospitals were designated to provide online medical control of paramedics in the field. The first base hospitals were Eden, Highland, Kaiser-Hayward and Providence.

We continue our story in **1986** with the countywide implementation of paramedic level service. One event that went relatively unnoticed was the start of the first responder paramedic program in the City of Fremont on April 7th. Little did we know that this was to become the model for the future.

On January 15, 1987, Highland Hospital, Eden Hospital, and Children's Hospital began accepting major trauma victims from all areas of the county. (For more information on the history of the trauma system, see the story on page 3). In late 1987 an event occurred in which the solution that was created changed prehospital medicine forever. One of the four base hospitals (Providence) notified EMS that they were terminating their agreement to provide base hospital services in Zone A (north county.) In an effort to restore service, EMS embarked on a pilot program to allow paramedics to administer specific medications prior to making base contact. Prior to this even an IV required an order from a MICN. The results of the pilot showed a decrease in scene time of five minutes with no negative impact on patient outcome, and base contact calls decreased by more than half. The State EMS Authority used the study results to begin the process of changing state regulations to allow standing orders statewide. Later, Providence resumed service as a base hospital.

1988 The Board of Supervisors decided to evaluate the EMS system. Many changes had been implemented over the previous six years, and an RFP for ambulance transportation was about to be released. The firm of Fitch and Associates was hired to look at all aspects of the system. A report was submitted to the board in August and EMS was directed to develop a 90-day implementation plan. Recommendations included:

- ✓ a single ambulance transport provider
- ✓ reconfiguration of ambulance staffing from one EMT & two paramedics to two paramedics
- ✓ an eight-minute response time
- ✓ medically trained personnel at the dispatch centers

1989 Helicopter transport to Highland began by way of Coast Guard Island. An informational video "Every Second Counts" was released starring Alameda County field personnel. The award winning video, dubbed in seven languages, was developed to educate the public about EMS, 9-1-1 and dispatch. The RFP for a single ambulance transport provider was released; three companies submitted bids. October 17, 1989 the Loma Prieta Earthquake rocked the bay area. Although many areas of the bay area were impacted, including the collapse of the Cypress structure in Oakland, EMS providers transported 106 earthquake related injuries to area hospitals. Highland Hospital took over base hospital service in Zones A & B after Providence closed its base permanently. Limited standing orders were implemented countywide.

On June 29, 1990, Regional Medical Systems began service as the single private ambulance transport provider. That same day, Allied Ambulance rolled out for the final time after four decades of service to the City of Oakland.

1990 In June ALCO-CMED began providing computer aided dispatch. The first responder defibrillation program, piloted by Alameda City Fire, was implemented countywide with the purchase of 80 AEDs by the EMS District and training provided by the fire departments.

1991 Emergency Medical Dispatch (EMD) and call prioritization was initiated by ALCO-CMED on January 15, 1991. A new *Do Not Resuscitate* policy was approved in July and ValleyCare was designated a new base hospital. The Oakland Hills Firestorm began on October 20th, injuring 150, killing 25, and destroying 2,500 homes.

1992 John George Pavilion opened in April 1992. Oakland Fire began EMD in June followed by Fremont Fire in November; 70% of the county now received EMD. A new discontinuation of CPR policy implemented, and at the requests of the hospitals, grief support training was provided to field supervisors.

1993 The 800 MHz radio system was installed; now all Alameda County provider agencies and hospitals could communicate with one another. Injury prevention activities began showing up in EMS programs. The shift from a system of quality assurance to quality improvement emerged with Alameda County on the leading edge. Helicopter transport to Eden Trauma Center began in March.

1994 brought a change to the leadership of the EMS Agency. After 21 years as the first and only EMS Director, Ben Mathews retired, and Assistant Director Diane Akers was promoted to the Director's position.

Another change that impacted EMS was the increasing number of patients covered by HMO's. This shift in how and where medical care was delivered decreased the number of insured patients, leaving the EMS system with the increasing responsibility of providing service to primarily the self-pay and uninsured. With the potential for a lower call volume and a higher rate of uncollectibles, the concern was that the system would no longer be able support the level of quality the residents had come to expect. This scenario became reality when in January AMR notified the County that they had experienced a 2.5 million dollar short-fall in the previous year. As a temporary solution, the Board of Supervisors approved changes to the contract to assist AMR in recovering financially and appointed a task force of high level policy makers to plan for the rapidly changing future of EMS.

In October, the Task Force sent their recommendations to the Board and the planning phase of the project got underway.

1995 saw the creation of the EMS Council by the Board of Supervisors. This committee had representatives from a broad cross-section of EMS constituents. Forty-four recommendations were eventually recommended for implementation by the Council.

Other changes that occurred this year were revisions at the state level to continuing education requirements for medics. Prior to 1995, each paramedic had to obtain a minimum number of hours in both didactic and field care audits credits. Alameda County EMS was the front-runner in advocating for combining the CE hours into a single requirement and setting standards for providers of CE. 1995 saw more of the County's fire departments interested in implementing paramedic first responder programs. In an effort to assist them, the EMS Agency hired two fire liaison nurses. This innovative program paved the way for what is now a countywide First Responder ALS system where each responding engine provides a paramedic.

On the political front, California voters passed Proposition 218 which redefined the services qualified for an assessment district. EMS services no longer qualified, and the district had until July 1997 to comply.

1996 saw the introduction a standardized emergency management system (SEMS) that changed the way personnel and agencies at all levels responded to disasters. Another new concept gaining ground was the addition of illness and injury prevention programs to EMS. Four staff members were added whose sole responsibility was injury prevention.

1997 The EMS Agency implemented the State approved EMS for Children program to provide a continuum of care that integrated a wide range of services for pediatric patients.

On June 3rd the EMS agency again went to the voters to ask that they continue to financially support EMS services, this time as a special tax. Measure C passed by 81%.

In October, the EMS Agency again saw changes at the administrative level. Dr. Jim Pointer returned to Alameda County to serve as the EMS Medical Director. (Dr. Pointer was the first EMS Medical Director, serving from 1981-1988.) In October Diane Akers decided the time was right for her to leave the County to pursue an EMS consulting business. Dr. Pointer stepped in as acting Director in addition to his other duties. The Agency was also relocated to the main public health building in downtown Oakland.

1998 started off with the introduction of a new EMS Director, Michael Harris. His first major project was the upcoming bid process for the ambulance service contract. AMR held the contract since 1990. A Request for Interest was issued, but only one qualified bidder responded. The process was then changed to a sole-source contract and negotiations began. The new contract included many new provisions, including fire department first responder ALS (FRALS) within 8 minutes and 30 seconds. This allowed AMR to staff transport ambulances with one EMT and one paramedic and to cut the response time standard to 10 minutes and 30 seconds. The money saved through this program was paid to the EMS Agency who then disbursed the money to the fire department for each FRALS unit. This change marked a huge difference in EMS operations and improved the care provided to our patients.

1999 was highlighted by an effort to expand the role of the paramedic. Alameda County Fire and the EMS Agency joined forces to implement a paramedic immunization project that would allow paramedics to administer immunizations to children in fire stations. The program was approved by the state, and after an extensive training program, several immunization clinics were held. The bill to expand the program statewide was sent to the governor who declined to sign it due to last minute lobbying by professional nursing organizations.

The year **2000** came and went without any computer glitches or crashes (remember the Y2K scare?) This year also brought the start of new services to the County. A plan to have three standardized dispatch centers to provide

Emergency Medical Dispatch (EMD) and prearrival instructions county-wide was begun. The plan included dispatch centers at Oakland Fire, Fremont Fire and a move of ALCO-CMED to the Lawrence Livermore Lab Fire department. The cities of Alameda and Oakland began offering paramedic level service. The first terrorism conference was held in September.

The year 2000 also saw an increase in the injury prevention activities performed by EMS staff. The Oakland Pedestrian Safety Project, Safe Kids Car Seat Checks, and the beginning of the Senior Injury Prevention Program, a fall preventions initiative, all began that year.

2001 saw another change of leadership at EMS, with Cindy Abbissinio promoting to the EMS Director position. A comprehensive Trauma Report was published that took a detailed look at the Alameda County EMS Trauma System from 1994-1998. Also, the Reddinet System that allows hospitals in Alameda and Contra Costa Counties to communicate with each other and the EMS system was launched. And of course... September 11th happened. This began a new path for our disaster planning that included weapons of mass destruction, and bioterrorism preparedness.

2002 saw the introduction of the critical care transport paramedic program that allowed for an expanded scope of practice for specially trained paramedics who run interfacility transfers. 12-lead EKGs began as a pilot program. Background checks were implemented in September that required a DOJ criminal history for certifying and recertifying EMTs. The EMS office relocated to temporary office space on Fairway Drive in San Leandro.

2003 brought the start of continuous positive airway pressure (CPAP) as a pilot study by the Hayward Fire Department. This was also the year that the Bag-Valve-Mask ventilation system became the primary method of airway management in pediatric patients.

2004 - on the road again. The EMS office relocated again, this time to our permanent location at 1000 San Leandro Blvd.. After years of planning, Highland Hospital was named as the single base for the entire county. Prior to this, Kaiser Hayward and ValleyCare also served as base hospitals. This change came about as a result of the planning from the EMS Council during the late 1990's. Intranasal medication administration was also added to the paramedic scope of practice. Alameda County adopted the NREMT exam as the certifying exam for EMTs.

2005 - The Chempack program, that places nerve antidote medication in strategic locations throughout the county began. After a long illness, EMS Director Cindy Abbissinio died. The new director, Michael King, had already begun transitioning into the director position.

2006 saw the EMS agency staff develop a strategic plan to help guide our planning through the next five years. Cardiac Receiving Centers (CRC) and Prehospital 12-Lead EKG became fully operational with four CRCs designated countywide. EMS began the process of developing an ambulance ordinance that will enable the county to provide oversight for non-911 system ambulance providers. As a part of contract negotiations with some of the provider agencies, EMS will embark on an ECHO call trial study, initially with Alameda Fire and Oakland Fire, to provide emergency response to the most critical of patients within 6 minutes and 30 seconds. A request for proposal process was held to select a consultant to evaluate the EMS system and make recommendations prior to the next bid process for 9-1-1 emergency ambulance service (The contract with AMR is scheduled to expire in 2009). Fitch and Associates was selected and should begin the assessment during 2007.

Well, we are done. A lot of changes have happened over the past 20 years. We have gone from a fledgling paramedic ambulance response service to a mature, fully functioning EMS and injury prevention system with wide-ranging influence, cutting edge medical care, and participation from all level of service providers. What hasn't changed is the dedication of EMS personnel to our patients and their families.