

911: WHAT IS YOUR EMERGENCY?

A Look at Emergency Medical Response Services in Nevada County

REASON FOR INVESTIGATION

The Nevada County Grand Jury identified a gap in its own understanding of what one might expect when calling 911 and believed that a service might be rendered to the public by investigating and reporting our findings.

BACKGROUND

Contrary to popular belief, Emergency Response is a relatively new capability. Emergency Response began in earnest in the 1960's. The first Emergency Response vehicles were hearses.

In Nevada County, emergency response is provided via three ambulance services:

1. **Sierra Nevada Memorial Hospital (SNMH)**, a privately owned hospital, serves the Grass Valley-Nevada City area.
2. **The Penn Valley Fire Protection District (PVFPD)**, a public fire protection district, provides service to Penn Valley.
3. **Truckee Fire Protection District (TFPD)**, also public, provides service in the Truckee area and Donner Summit.

All ambulance service is monitored and governed by the Sierra-Sacramento Valley Emergency Medical Services Agency (S-SV EMS), and operates under the State Health and Safety Code §1797.200 *et seq.*

PROCEDURE FOLLOWED

The Grand Jury interviewed representatives from Grass Valley Fire District, Penn Valley Fire Protection District, Sierra Nevada Memorial Hospital Ambulance Service, Truckee Fire Protection District, CAL FIRE Command Center, S-SV EMS and the County Board of Supervisors.

The Grand Jury reviewed the S-SV EMS "Prehospital Care Policy Manual" and documents provided by the various interviewees - including current S-SV EMS contracts. Grand Jury members toured the CAL FIRE Command Center where 911 calls are received and forwarded to responders.

FINDINGS

The routing of your call is determined by which phone you use
(See Exhibit 1)

- Calls received from **cell phones** go to the California Highway Patrol (CHP) first and can be subject to delay while the location of the caller is identified.
- Calls received from **land lines** are routed quickly and the caller location is automatically identified.

The dispatcher is the first responder

- **“911 – What is your emergency?”** is the first question you will hear. Your call is answered by your local law enforcement agency who determines the nature of the emergency – law enforcement, fire or medical emergency.
- Medical emergencies are forwarded to the CAL FIRE Command Center in Grass Valley, which dispatches all emergency vehicles within Nevada County.
- The process from receiving to dispatching the call to the appropriate ambulance service usually is completed in less than 2 minutes.
- Dispatch personnel are trained to ask the right questions to identify the nature of your emergency, expedite a response and provide lifesaving advice.

Multiple responders may arrive

- The local fire department monitors all calls and may initiate a response prior to an official dispatch order.
- The fire department and an ambulance may respond to the same call.
- Due to proximity, the fire department often arrives first on the scene and begins delivering aid to the fullest extent of their capabilities.
- Upon arrival of the ambulance, the staff person able to administer the highest level of care assumes command.
- When an ambulance is dispatched, it will be capable of delivering Advanced Life Support (ALS).
- Within each service area, ambulances are strategically located to shorten response times.
- Ambulance services maintain mutual aid agreements with adjacent providers to provide emergency back-up.
- An air ambulance may be summoned, but only by the incident commander on the scene.

Response Time Expectations

Ambulance service performance is frequently defined by response time. Response time is measured from the time the ambulance receives the dispatch call and ends when the ambulance arrives at the location.

While response times are a measurable standard for quality control, they may not be critical to patient survival in a specific incident. For response times to specific areas:

NEVADA COUNTY RESPONSE TIME STANDARDS (From S-SV EMS Agency Program Policy, Reference No. 415-D) Effective Date: 01/01/06	
SIERRA NEVADA MEMORIAL HOSPITAL AMBULANCE	
Grass Valley and Nevada City	9 minutes 90% of the time
Sierra Nevada Rural 15 Nevada County Consolidated Fire District, Ophir Hill FPD, Highway 49 through Higgins FPD to include the corridor ½ mile east and west of Hwy 49, and Lake of the Pines	15 minutes 90% of the time
Sierra Nevada Rural 20 Those portions of Higgins FPD not contained in the 15 minute response zone Peardale-Chicago Park FPD	20 minutes 90% of the time
Sierra Nevada – Wilderness	As soon as possible
PENN VALLEY FIRE PROTECTION DISTRICT	
Penn Valley proper & Lake Wildwood	10 minutes 90% of the time
Penn Valley Rural	20 minutes 90% of the time
Penn Valley - Wilderness	As soon as possible
TRUCKEE FIRE PROTECTION DISTRICT	
Truckee	8 minutes 90% of the time
Truckee Rural 20	20 minutes 90% of the time
Truckee - Wilderness	As soon as possible
DONNER SUMMIT FIRE PROTECTION DISTRICT	
Donner Summit Fire	20 minutes 90% of the time
Donner Summit Fire – Wilderness	As soon as possible

Oversight and Governance

Emergency medical response services are governed via an established, uniform standard of best practices and quality review.

- Ambulance service in Nevada County is monitored and governed by the Sierra-Sacramento Valley Emergency Medical Services Agency (S-SV EMS), and operates under the State Health and Safety Code §1797.200 *et seq.*
- The State of California authorizes regional emergency medical services agencies to negotiate and implement exclusive contracts to provide ambulance service.

- SNMH, PVFPD and Donner Summit Region have signed, or are in the process of negotiating, contracts granting exclusive rights to provide service to defined areas.
- Most witnesses agreed that exclusivity contributed positively to the quality of care, efficiency, and the establishment and control of standards in personnel training.
- The Medical Control Committee composed of medical directors of hospitals, ambulance and fire personnel, and representatives from the S-SV EMS Agency, meet monthly to review response time policies and quality of care improvement.
- Each ambulance service has a Continuous Quality Improvement Committee that reviews each ambulance response to ensure conformance to existing policy. In addition, S-SV EMS has a Continuous Quality Improvement Committee that reviews policy quarterly.
- Qualification and accreditation of EMS personnel follow a multiple-tiered system of checks and balances. See table below:

EMT & PARAMEDIC STANDARDS		
Minimum eligibility, training and skill requirements for emergency medical technician and paramedic categories in California:		
	EMT-I (EMT-Basic) (basic life support)	PARAMEDIC (advanced life support)
Student eligibility	18 years old.	18 years old, high school diploma or equivalent, EMT-I Certificate.
Minimum training requirements	114 hours total (104 hours of instruction, 10 hours clinical).	1,032 hours total (including 320 hours instruction and skills lab, 160 hour hospital clinical training, 480 hours field internship).
Minimum scope of practice	Patient assessment, advanced first aid, administration of oxygen, automated external defibrillator, CPR, transport of sick and injured.	All EMT-I and EMT-IIs skills and medications, laryngoscope, endotracheal intubations (adults, oral), glucose measuring, 21 medications; insert medical tubes through patient's nose, down throat, into the stomach.
Optional skills(added at the local level)	Manual defibrillation, endotracheal intubations, esophageal-tracheal airway device.	Local EMS agencies may add additional skills and medications if approved by the EMS Authority.
Written and skills exams	Administered by training program or local EMS agency.	Administered by the National Registry of EMTs.
Length of certification of licensure	Two-year certification with retesting every four years.	Two-year licensure without retesting.
Refresher course/continuing education	24-hour refresher course, or 24 hours of continuing education every two years.	48 hours of continuing education every two years.
Certification provisions	Certified locally, valid statewide.	Licensed by state, valid statewide; local accreditation.
Source: Emergency Medical Services Authority		

CONCLUSIONS

- A 911 call from a cell phone may subject you to a delayed response.
- Emergency medical service vehicles are staffed, equipped, and located to respond with the appropriate life-saving capability in the shortest time.
- The time an emergency medical service vehicle takes to reach you may differ greatly depending on where you choose to live, work, play, or travel.
- There is systematic and standardized oversight of emergency medical response best practices, quality assurance, and improvement.

RECOMMENDATIONS TO THE PUBLIC

EMS can't help if they can't find you

- Know your cellular number. If using a cellular phone, the dispatcher will confirm your calling number in case you are disconnected.
- Know where you are. Post your phone number, address, community and county near your phone so baby sitters and visitors can inform the dispatcher.
- Display a reflective address sign prominently at the entrance to your property. (Call your local fire department administrative office for details.)

Let the dispatcher ask the questions

- Listen to the dispatcher. Dispatch personnel are trained to ask the right questions to efficiently identify the nature of your emergency and provide lifesaving advice.

Help yourself And others

- Learn first aid and cardio pulmonary resuscitation (CPR).
- Learn the location and the use of the nearest defibrillator wherever you spend considerable time.

Emergency Medical Response Dispatch Flow Chart

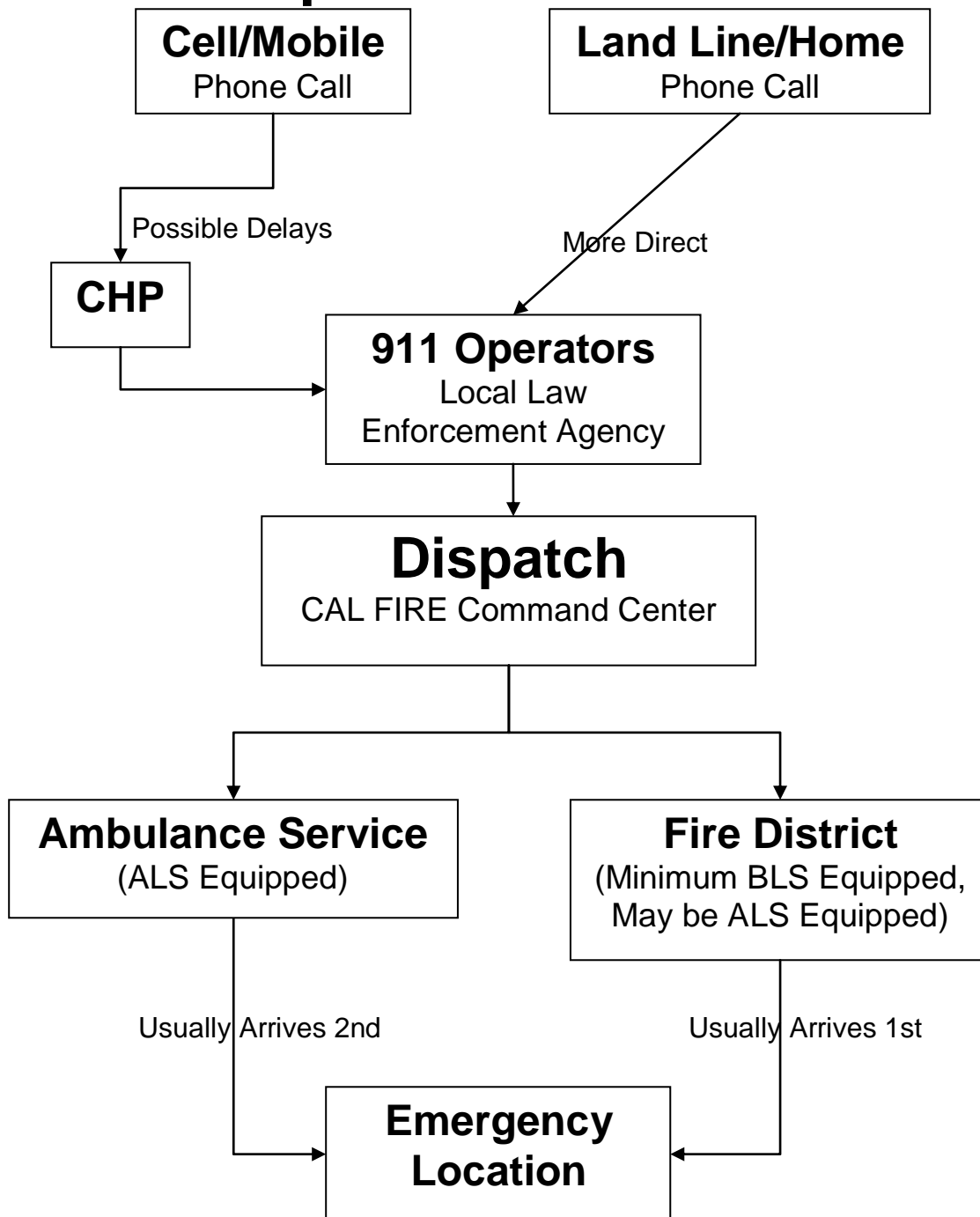


Exhibit 1

Glossary

a. EMT and Paramedic Grades & Levels

- i. **Emergency Medical Technician-I (EMT-I):** An individual trained in all facets of basic life support according to standards prescribed by this part and who has a valid certificate issued pursuant to this part. This definition shall include, but not be limited to, EMT-I (FS) and EMT-I-A.
- ii. **Emergency Medical Technician-II (EMT-II):** An EMT-I with additional training in limited advanced life support according to standards prescribed by this division and who has a valid certificate issued pursuant to this part.
- iii. **Emergency Medical Technician-Paramedic (EMT-P) “paramedic” or “mobile intensive care paramedic”:** An individual whose scope of practice to provide Advanced Life Support according to standards prescribed by this division and who has a valid certificate issued pursuant to this division.

b. Life Support Definitions

- i. **Advanced Life Support (ALS):** Special services designed to provide definitive pre-hospital emergency medical care, including, but not limited to, cardiopulmonary resuscitation, cardiac monitoring, cardiac defibrillation, advanced airway management, intravenous therapy, administration of specified drugs and other medicinal preparations, and other specified techniques and procedures administered by authorized personnel under the direct supervision of a base hospital as part of a local EMS system at the scene of an emergency, during transport to an acute care hospital, during inter-facility transfer, and while in the emergency department of an acute care hospital until responsibility is assumed by the emergency or other medical staff of that hospital.
- ii. **Basic life support (BLS):** Emergency first aid and cardiopulmonary resuscitation procedures that, as a minimum include recognizing respiratory and cardiac arrest and starting the proper application of cardiopulmonary resuscitation to maintain life without invasive techniques until the victim may be transported or until advanced life support is available.

