

# **Coastal Valleys EMS Agency (CVEMSA)**

**A Brief Overview of  
Mendocino County EMS:  
Challenges to A Rural EMS System**

**EMS Agency**

# Mendocino County Rural EMS System Challenges



- **Geographic Challenges**
  - 3,509 square miles (larger than the state of Delaware)
  - Geographically distinct coast & interior regions
  - Rugged, mountainous, “frontier” terrain
  - Isolated population centers
  - Extreme weather conditions
  - Water shortages

# Mendocino County Rural EMS System Challenges



- **Demographic Challenges**
  - Total county population <90,000
  - 25 persons per square mile
  - Medically under-insured population
  - Aging population

# Mendocino County Rural EMS System Challenges



- **Economic & Human Resource Challenges**
  - Inadequate EMS provider funding
  - Historical economies of timber & fishing gone or in rapid decline
  - Stagnant economic growth
  - Significant, untaxed, underground economy (marijuana, meth)
  - Dwindling paramedic & volunteer resources



# Challenges to the Mendocino County EMS System Have Resulted in:

A rural EMS system close to the breaking point. Providers struggling to maintain EMS service due to:

- Inadequate tax revenue
- Low reimbursement
- Increasing overhead
- Large, isolated response zones
- Long travel times
- Diminishing human resources

# Mendocino County EMS Payor Mix & %Reimbursement



- *Q: How do does an ambulance company make \$1 million in Mendocino County?*
- *A: Start with \$2 million.*
- Stating the obvious, not every call results in revenue to provider.
- Of the 6,300 requests for emergency service, approximately 25% (1,600) result in no patient transport (Dry Run) and are not billed.
- A significant percentage of billed calls are not paid in full or not paid at all.



# Mendocino County EMS Payor Mix & Reimbursement

- Average ambulance bill in Mendocino County is \$1,400.
- Medicare reimburses \$256.
- Medi-Cal reimburses \$118.
- \$374 or 27% compensated.
- \$1,026 or 73% uncompensated.



# Mendocino County EMS Reimbursement Ratio & Payor Mix

- **Reimbursement Ratio:** Of 100 bills sent, providers receive some amount of payment on only:
  - Northern County 27%, i.e. 27 bills will be paid varying amounts.
  - Willits 33%
  - Ukiah Valley 45%
  - Coast 50%

Estimated error rate +/- 5%
- **Payor mix is:**
  - 35% insured or self-pay
  - 35% Medicare/MediCal
  - 30% uninsured



## The Federal Office of Rural Health Policy states:

“Sparse populations in large geographic areas increase the cost of maintaining emergency medical services, making it impossible for many rural local governments to fund EMS programs through taxes.”

National Conference of State Legislatures Rural Health Brief: EMS in Rural Areas, How Can States Ensure Their Effectiveness?,

*Federal Office of Rural Health Policy, August 2000*

# Rural Health Brief: Options for States to Improve Rural EMS



Some clear opportunities exist for state policy-makers to improve rural emergency medical services, including:

- Providing adequate funding for rural EMS initiatives.
- Compensating EMS providers for preparedness rather than the total number of responses or transports they perform.
- Supporting effective strategies to recruit and retain EMS personnel in rural areas.
- Developing incentives for local EMS programs to become more integrated into the larger health care system.
- Have EMS programs expand their mission and scope of services to address local health care needs.

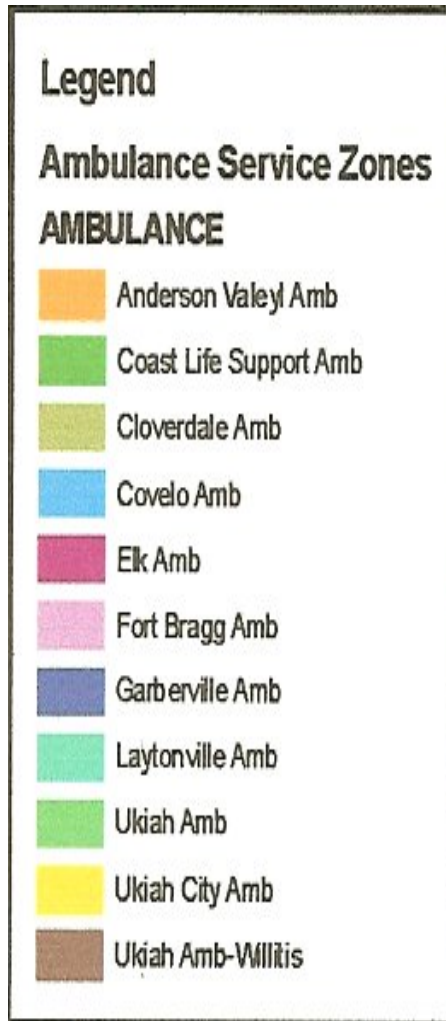
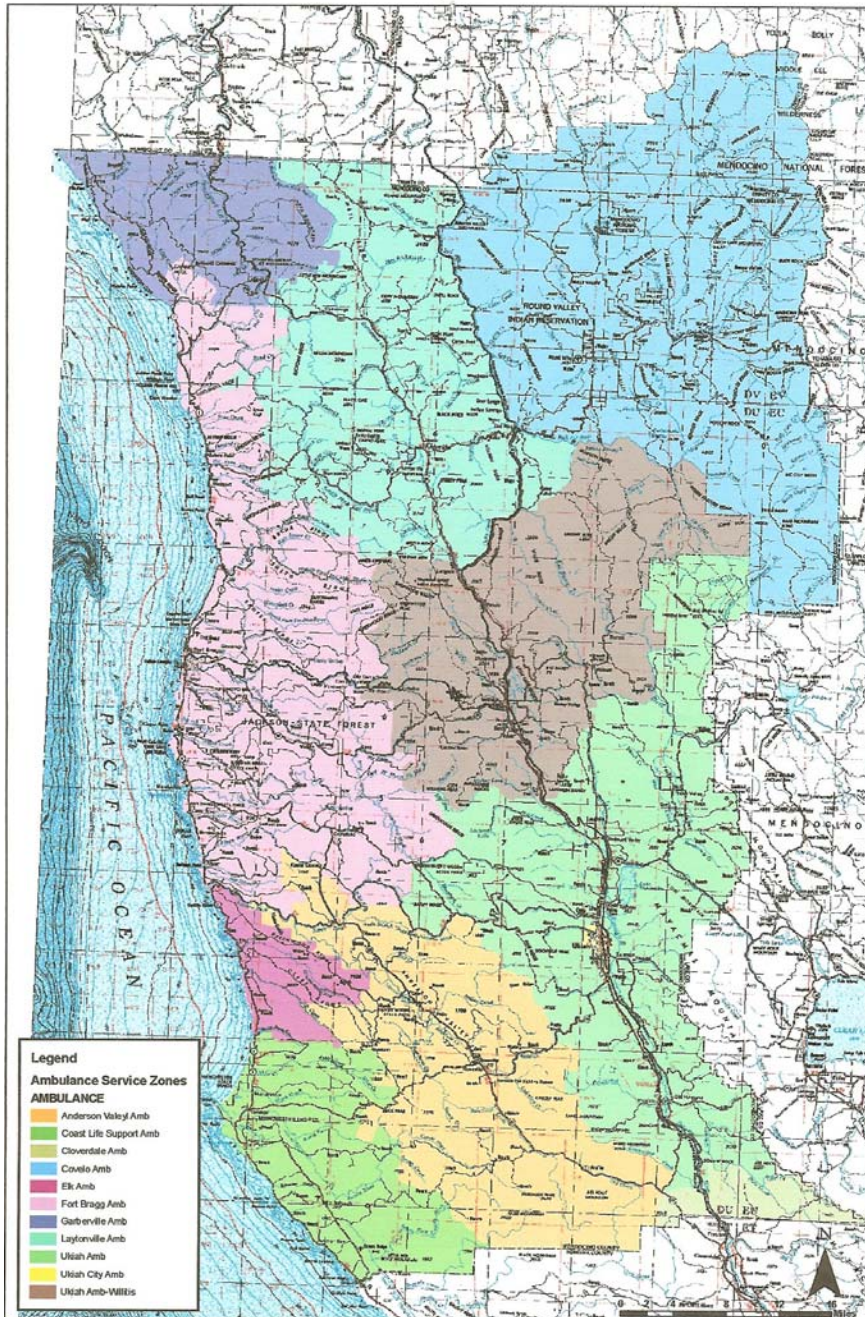


# The Challenge State & Local Officials:

- We can't change the geography and we can't change the demographics but we can try to change funding.



**FYI: Mendocino County  
EMS System Facts &  
CVEMS Regional Comparisons**



# CVEMS Regional Comparisons with Napa & Sonoma Counties



	<b>Mendocino County</b>	Sonoma County	Napa County	CVEMS Region
Square Miles & Percent of Region	<b>3,509 60%</b>	1,576 27%	754 13%	5,839 Total
Population & Percent of Region	<b>90,000 13%</b>	466,000 68%	133,000 19%	689,000 Total
Population per Square Mile	<b>25 Total</b>	291 Total	165 Total	160 Average
Requests for Ambulance & Percent of Region	<b>7,300 9%</b>	65,000 80%	8,900 11%	81,200 Total
Ambulance Calls per 1,000 Population	<b>81 Total</b>	135 Total	67 Total	118 Average

# CVEMS Regional Comparison



	Mendocino County	Sonoma County	Napa County	CVEMS Region
Number of ALS Providers	6	10	2	18
Staffed ALS Units	7	20	6	33
Number of BLS Providers	2	0	1	3
Volunteer BLS Units	2	0	1	3
Receiving Hospitals	3	7	2	12

# CVEMS Regional Comparison



	<b>Mendocino County</b>	Sonoma County	Napa County	CVEMS Region
Type of Dispatch	<b>Designated EMD</b>	Designated EMD	Designated EMD	
Ambulance Service Zones	<b>11</b>	7	3	21
Fire Departments Providing First Response	<b>21</b>	45	8	74
Response Time Range	<b>&lt;5 to &gt;60 minutes</b>	<5 to >30 minutes	<5 to >30 minutes	

# Mendocino EMS ALS Ground Transport Providers



- Four ALS Ambulance Providers, One LALS
  - Anderson Valley Volunteer Ambulance Service  
(Limited ALS)
  - Ukiah Ambulance Service  
Paid Staff, Private, Commercial
  - City of Ukiah Fire Department  
Paid Staff, Municipal Government
  - Laytonville Ambulance  
Paid & Volunteer Staff, Fire District
  - Mendocino Coast District Hospital Ambulance  
Paid Staff, Hospital District

# Mendocino County EMS BLS Ground Transport Providers



- Two BLS (EMT Basic) Ambulance Providers
  - Covelo Ambulance  
Volunteer Staff
  - Elk Fire Department  
Volunteer Staff

# Mendocino County EMS Air Transport Provider



- ALS Air Ambulance Services
  - CalStar 4
    - Paid Staff
    - Based at Ukiah Airport
  - Reach 6
    - Paid Staff
    - Based in Lake County

# Mendocino County EMS Ambulance Receiving Hospitals 2007



- Three Receiving Hospitals
  - Ukiah Valley Medical Center
    - 24,600 patients seen in Emergency Department (ED)
    - 2,400 Patients by ambulance (10%)
  - Howard Memorial Hospital
    - 10,300 patients seen in ED
    - 800 patients by ambulance (8%)
  - Mendocino Coast District Hospital
    - 9,500 patients seen in ED
    - 1,000 patients by ambulance (11%)

# Mendocino County EMS Ambulance Response Activity 2007



- 7,300 total requests for ambulance response
- 1,000 requests for routine transfers (14%)
- 6,300 requests for emergency service (86%)
- 75% of emergency responses resulted in transport (4,700)
- 25% of emergency responses were non-transport (cancellation en route, no patient contact or patient refusal) a.k.a Dry Run (1,600)