

Coastal Valleys EMS Agency Board Report

September 10, 2024

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Under Section 1797.200 of the Health and Safety Code; a county which chooses to develop an emergency medical services (EMS) program, must designate a local EMS agency (LEMSA) to plan, implement and monitor the local EMS system. LEMSAs form the local level of California's two-tier regulatory structure that also includes the California EMS Authority as the statewide regulator of prehospital care. EMSA is charged with promulgating regulations to ensure consistent statewide rules and standards are in place to guide LEMSAs and their stakeholder partners in the provision of emergency medical care. At the local level, LEMSAs function as the providers of physician medical control and oversight to the paramedics and Emergency Medical Technicians who are providing direct care in the community. A unique relationship exists between the EMS Agency Medical Director and the prehospital providers of care; EMS field personnel, particularly at the paramedic level, are directly accountable to the LEMSAs Medical Director for the care provided under that physician's medical control. This relationship exists across the EMS system; regardless of the employing agency all patient care is provided under standing orders from the EMS Agency Medical Director. In addition to the orders for the care of individual patients, LEMSAs EMS System oversight includes approval and monitoring of the training programs that educate EMTs and Paramedics, development of policies that address dispatch of EMS resources to medical 911 calls and the provision of pre-arrival instructions by 911 dispatchers, certification and accreditation of the prehospital care providers and oversight of the Trauma and other specialty care systems. The Health and Safety Code along with California Code of Regulations sections promulgated in accordance with statute and Local EMS Agency policy are intended to work together to facilitate a county-wide coordinated system of care that serves all communities within the system.

Designated in 1993 through a contract with Sonoma County Department of Health Services, Coastal Valleys Emergency Medical Services Agency (CVEMSA) serves as the Mendocino County LEMSAs. As such, CVEMSA is responsible for the oversight and management of an effective emergency medical care delivery system focusing on rapid access, assessment, patient stabilization, and transportation. It is vital to understand that local system and coordination is only a portion of a LEMSAs role and responsibility. CVEMSA is very engaged with the state, EMS Authority to ensure the needs of our local EMS system are met. In a state as large as California and with so many densely populated counties (Los Angeles, San Diego and the more Northern Bay Area), it can be easy for the needs of the rural communities to be overlooked. Our goal is to ensure our County needs are highlighted and discussed prior to any changes in state regulation.

This report provides an overview of our higher-level EMS programs and highlights our key achievements in 2023/2024. The EMS Administrator serves as a representative of Mendocino County's interests at the state level. This includes engaging in the legislative process by actively informing the county of positions on Bills, ensuring Mendocino has input in regulatory development and revision and serve on statewide committees that ultimately shape the future of EMS. CVEMSA was a participant in the EMS Authority's Trauma, Cardiac, and Stroke regulations revision committees and successfully lobbied to have EMSA agree to opening the EMT regulations to increase the scope of practice which may significantly improve care in rural counties.

CVEMSA successfully navigated a process which ultimately led to Mendocino County achieving an approved EMS plan. CVEMSA has also made significant strides in advancing electronic data collection capabilities and has established high level system performance standard goals as a result. We are committed to continuing this positive trajectory to ensure our patients receive the best possible care in a safe and timely manner. Key activities and successful program initiatives are highlighted within each

program update below. CVEMSA is happy to provide additional information pertaining to a specific program update upon request.

Our local EMS System:

Overall EMS call volume in Mendocino County continues to increase. CALFIRE – Howard Forest ECC is the authorized designated Fire and EMS consolidated Emergency Medical Dispatch Center. REDCOM, Sonoma County continues to serve as our identified disaster support dispatch center for Mendocino County. The chart below provides our 911 and inter-facility call volume for 2022/2023 and 2023/2024 noting a 4.03 percent call volume increase from the previous year.

Image Trend Data	Mendocino County EMS Calls July 1, 2022 – June 30, 2023
911	11485
Inter-facility	2671
Standby/PVT	24
Total	14180

Image Trend Data	Mendocino County EMS Calls July 1, 2023 – June 30, 2024
911	11914
Inter-facility	2824
Standby/PVT	38
Total	14776

Current Advanced Life Support ground transport providers:

Adventist Health Mendocino Coast
Coast Life Support District
Long Valley Fire Protection District
MEDSTAR Ambulance of Mendocino County
Ukiah Valley Fire Authority

Current Basic Life Support ground transport providers:

Anderson Valley Community Services District
Covelo Fire Protection District
Elk Fire Community Services District

Current EMS Aircraft providers:

CALSTAR and REACH

Base Receiving Hospitals:

Adventist Health Howard Memorial
Adventist Health Mendocino Coast
Adventist Health Ukiah Valley

Level II Trauma Center:

Providence, Santa Rosa Memorial Hospital

Level IV Trauma Centers:

Adventist Health Ukiah Valley
Adventist Health Howard Memorial

Data Program Updates:

In 2023, the Coastal Valley Emergency Medical Services Agency (CVEMSA) adeptly managed the Image Trend patient care reporting (PCR) system, which is used extensively by Fire and EMS providers within Mendocino County. Over the course of the year, more than 14,500 incidents were documented within this system, reflecting a significant volume of activity and the agency's commitment to maintaining detailed and accurate patient care records. This robust data collection effort lays a crucial foundation for various EMS and fire service operations and analysis.

A highlight of CVEMSA's achievements in 2023, the successful transition from the NEMSIS version 3.4 to 3.5, as mandated by state requirements. This complex and essential upgrade ensures that the data systems used by CVEMSA comply with the latest national EMS information standards, enhancing the quality, consistency, and interoperability of EMS data. The transition marks a critical enhancement in the data management framework, positioning the agency to better support patient care and reporting needs.

Beyond managing routine data entry and compliance, CVEMSA has been actively working on several strategic data projects, notably the integration and utilization of FirstWatch. FirstWatch provides a powerful tool for real-time system performance monitoring, health surveillance, and other key initiatives, enabling CVEMSA to enhance operational efficiency and ensure the health and safety of the community. This platform allows for sophisticated data analysis and helps in identifying trends, improving response times, and optimizing resource allocation.

To further enhance data management capabilities, CVEMSA has also focused on integrating the Howard Forest CAD with the Image Trend system. This integration aims to streamline operations and data flow between dispatch and patient care reporting, ensuring more cohesive and accurate information management. Additionally, to improve response times and support for data program issues, CVEMSA implemented the Zendesk helpdesk solution. This system ensures that data-related inquiries and problems are addressed promptly and effectively, reinforcing the agency's commitment to operational excellence and reliable support for its stakeholders.

Credentialing Program Updates:

CVEMSA issues California Emergency Medical Technician (EMT) certificates in accordance with the California Code of Regulations Title 22 as authorized by Health and Safety Code. As part of that authority CVEMSA performs initial background investigations, ongoing monitoring of arrest records and convictions as well as managing the investigatory process for any complaints made against certified personnel. EMT certificates are issued and renewed in accordance with state standards for education and backgrounding requirements which allow CVEMSA-certified EMTs to practice anywhere in California.

There are currently 191 Mendocino County residents certified as EMTs by CVEMSA. 121 of those EMTs are registered as affiliated with one or more Mendocino County EMS providers. There are 189 EMTs total serving Mendocino County EMS providers.

CVEMSA accredits State-licensed paramedics to practice under the medical control of the EMS Agency medical director as required by CCR Title 22. Accreditation includes an initial local orientation and field evaluation process to ensure the provider is competent with local treatment guidelines and operational policies enabling safe practice. Practicing paramedics maintain accredited status through a regular cycle of updated training every two years as well as meeting current state licensure requirements.

There are currently 58 CVEMSA-accredited paramedics affiliated with one or more Mendocino County paramedic service provider agencies. 35 of those paramedics list Mendocino as their county of residence.

EMS Training and Education Program Updates:

Required under CCR Title 22, CVEMSA provides local authorization for training institutions to provide EMT, Paramedic and Title 22 Public Safety-First Aid (PSFA) courses. The process and consideration involved in a program review promotes quality education resulting in high quality patient care. Additionally, it allows the EMS Agency to evaluate the key components of our institutions, compliance with regulatory standards, facility readiness and the overall impact on educational quality. Currently within Mendocino County, CVEMSA authorizes 1 Paramedic Training Program, 2 EMT Programs and 3 PSFA programs. We also authorize additional programs in Sonoma County that contribute to supporting local PSFA, EMT and Paramedic educational opportunities.

CVEMSA is an approving authority for EMS continuing education programs located within the LEMSA jurisdiction. EMS CE Providers approved by the LEMSA may provide continuing education hours required for EMT certificate and Paramedic licensure renewals. CE issued by Mendocino County EMS CE Providers is valid statewide.

There are currently 18 agencies approved as EMS CE Providers located within Mendocino County.

Continuous Quality Improvement (CQI) Program:

Our agency's Continuous Quality Improvement (CQI) oversight program is a comprehensive, data-driven approach to enhancing patient care and EMS system performance. We integrate ePCR and CAD data to

identify trends and outliers, conduct individual PCR audits for treatment guideline adherence, and investigate unusual occurrences. This systematic analysis allows us to define areas for improvement and suggest targeted training opportunities to our provider agencies. Our process involves regular collaborative meetings with county stakeholders, including CQI Mendocino, Regional Medical Advisory Committee (MAC), STEMI Advisory Committee (STAC), Stroke Advisory Committee (SAC), and Trauma Advisory Committee (TAC), ensuring a holistic approach to quality improvement. By continuously refining our methodologies, incorporating feedback from field personnel, and benchmarking against similar EMS systems, we strive to maintain a culture of excellence and adaptability in EMS service delivery.

In 2023, Sonoma County committed to hiring an additional EMS Coordinator to manage our CQI Program. CQI oversight projects completed in the last year are noted below:

1. Pediatrics: Assessed pediatric care regionally and developed opportunities for improvement.
2. Medication Administration: Audited errors and near-misses, resulting in targeted educational recommendations.
3. Supraglottic Airway Use: Analyzed success rates and complications, refining insertion techniques, resulting in the removal of trail Local Optional Scope for EMT use.
4. Image Trend Enhancement: Created an "All CVEMSA" CQI bucket to streamline provider CQI processes.
5. FirstWatch/FirstPass Implementation: Initiated setup of real-time data collection and auditing system.
6. Expanded Scope of Practice: Received state approval to monitor blood product infusions during interfacility transports.

Cardiac Arrest to Enhance Survival (CARES) Program:

CARES, is a national registry that collects out of hospital cardiac arrests (OHCA) and matches each case with patient outcomes from hospitals. The CARES program seeks to save more lives from OHCA, strengthen collaboration between 911 centers, first responders, EMS and hospitals. CARES allows communities to measure the effectiveness of their response systems as well as assess the impact of interventions designed to improve OHCA survival. Participants can also compare patient populations, interventions, and outcomes with the goal of identifying opportunities to improve quality of care and ascertain whether resuscitation is provided according to evidence based guidelines. Communities can also compare their EMS system performance to aggregate statistics at the local, state or national level and discover promising practices that could improve emergency cardiac care. 84% of the State of California's population participates in the CARES program. CVEMSA is responsible for the ongoing management of this program for all state participants. CVEMSA conducts 100 percent audit of Cardiac Arrest calls and provides all local providers with the following annual outcome reports:

2023 CARES Summary Report with LEMSA, California, and National columns for comparison

2023 CARES Survival Report

2023 CARES Utstein Survival Report

Disaster Preparedness and Response/Medical Health Operational Area (MHOAC) Program Updates:

The Medical Health Operational Area Coordinator (MHOAC) Program is designed to coordinate medical and health resources during emergencies and disasters. Coordination includes scarce resource allocation and triage, infectious disease surveillance, mutual aid support and deployment, and EMS and Healthcare system monitoring. To function efficiently during an emergency or disaster, the MHOAC program relies heavily on preparedness activities prescribed by both local disaster and emergency needs identified by the healthcare community and the Hospital Preparedness (HPP) grant deliverables. During normal operations the MHOAC program engages with the Mendocino Healthcare partners through the Mendocino Healthcare Coalition, Clinic Coalition, and Office of Emergency Management.

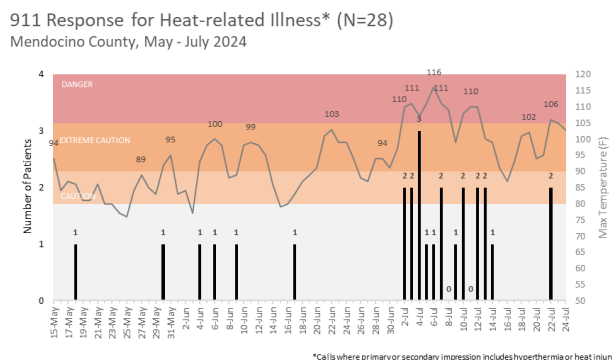
In 2023 the MHOAC program engaged in several Mendocino County Public Health preparedness activities while providing ongoing support and surveillance for real events.

Mendocino County - Public Health Preparedness Activities:

- Facilitate monthly redundant communication drills with our healthcare partners tested through Image Trend Resource Bridge.
- Provide updates to the Mendocino Communications Plan.
- Participate in all Healthcare Coalition as a core member meeting (six times a year).
- Participate in all Healthcare Coalition steering committee meetings as a core member.
- Train healthcare partners on the use of Image Trend Resource Bridge
- Provide just in time training to any healthcare partner on the use of Image Trend Resource Bridge upon request.
- Provide annual training to the healthcare coalition on the use of Image Trend Resource Bridge.
- Enroll new users to Image Trend Resource Bridge.
- Monitor resource requests from healthcare partners and coordinate with the Mendocino Preparedness team.

Mendocino County – Public Health Response Activities:

- Surveillance and monitoring of extreme weather events



- Provide situational updates to the Region II Regional Disaster Medical Health Coordinator (RDMHC) during extreme weather events, COVID-19, and MPX response.
- Requested, obtained, and coordinated distribution of therapeutics for COVID-19 (Paxlovid), MPX (Tecovirimat), and 2024 Avian Flu (Tamiflu).

Policy Programs Updates:

CVEMSA is actively reviewing and revising policies. A workgroup has been established to ensure provider feedback is received early during the revision process. Once the internal staff/workgroup phase is complete, we release for public comment to capture additional suggestions and feedback.

In 2018 Coastal Valleys EMS Agency identified the need to conduct a full review of all EMS treatment guidelines. The initial process took over two years with extensive engagement with our Regional EMS and Hospital partners. In 2020, CVEMSA released a fully revised treatment guideline manual. Since the release in 2020, CVEMSA continues to host quarterly meetings to address any necessary changes and improvements to the current EMS treatment guidelines. These meetings are hosted by the CVEMSA Medical Director.

In 2023, as part of the ongoing policy revision group meetings the CVEMSA Policy Advisory Committee made the below updates which were released in early 2024.

MEDICATION CHANGES
<ul style="list-style-type: none">Removal of Ketamine:<ul style="list-style-type: none">7305 Pain Management (Medical Emergencies)7907 Administration of Ketamine (Procedures)Addition of Acetaminophen<ul style="list-style-type: none">7305 Pain Management (Medical Emergencies)7921 Administration of Acetaminophen (Procedures)
NEW POLICIES
<ul style="list-style-type: none">8105 Monitoring Transfusion of Blood Products7921 Administration of Acetaminophen
UPDATED POLICIES/LANGUAGE CHANGES
<ul style="list-style-type: none">7802 Major Trauma<ul style="list-style-type: none">Removal of 750 ml of NS from Special Considerations.7305 Pain Management<ul style="list-style-type: none">Removal of Ketamine.Addition of Acetaminophen.Fentanyl & Midazolam Administration in the presence of liver failure/compromise.4014 STAT Emergency Ambulance Transfer<ul style="list-style-type: none">"Emergency" added to the policy title.Region defined as the "CVEMSA Region".Added immediate obstetrics (OB) interventions as eligible requests for STAT Emergency Transfers to an OB capable facility.Patient location is not limited to the ED, updated REDCOM interrogation to confirm patient location within facility and if the patient is ready for transport.Paramedic Scope of practice and limitations clarified in the presence of the sending facility adding RN, MD, RT to upgrade transport unit to support Critical Care Level of transport.

As we reflect on the past few years, I am proud to report that CVEMSA has made improvements in our oversight, management, and overall delivery of the local EMS system. Our collective efforts have led to implementation of a more robust electronic data program. Hiring new staff has strengthened our workforce and ability to better serve our EMS and Fire agencies. Despite facing significant challenges during multiple large scale fire disasters and the COVID 19 pandemic we have shown resilience and adaptability; working harder and turning challenges into opportunities for growth and improvement. Our strategic initiatives have positioned us well for the future and we are confident that we will continue to meet mandates as required by the State while focusing on rural patient care initiatives and improvements.

CVEMSA extends our sincere gratitude to the Mendocino County CEO and Board of Supervisors. Your leadership has been instrumental in our achievements, and we look forward to continued collaboration and support in advancing our goals.

CVEMSA Goals for the Coming Year:

Below is the start of our strategic goals list for the upcoming year.

1. Full Implementation of FirstWatch/FirstPass: Complete system rollout and train personnel.
2. Trauma Care CQI: Develop a comprehensive trauma care review process.
3. Cardiac Care CQI: Establish baseline regional performance in cardiac care implement targeted interventions, including revision of CAM guideline.
4. Ongoing Refinement: Continue to enhance existing CQI processes based on data analysis and stakeholder feedback.
5. Review, revise, and execute public comment and implementation process for all Administrative Policies.
6. Accreditation workgroup revision project.
7. Improve Image Trend Resource Bridge Enrollment and redundant communication drill participation.
8. Continue preparedness efforts through plan revision and updates.
9. Identify local emergency hazards and potential gaps.
10. Identify disaster response strengths and weakness to plan for future real events.
11. Continue to engage with healthcare partners through the healthcare coalition.
12. Continue assessments of the local EMS system.
13. Continue exploration of JPA formation for EMS services.
14. Complete fee study and evaluate service costs.
15. Submit EMS Plan to EMSA.
16. Support Adventist Health Ukiah Valley in achieving Level III Trauma Designation.
17. Continue to support Unified Scope efforts for EMS Aircraft providers.