



# MONTEREY COUNTY EMERGENCY MEDICAL SERVICES AGENCY

2023 ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF MONTEREY | HEALTH DEPARTMENT

# EMS AGENCY MISSION STATEMENT

The mission of the Monterey County Emergency Medical Services (EMS) Agency is to lead the Monterey County EMS System through establishing highest standards of emergency medical care, system operations, and medical disaster preparedness for the benefit of the people of Monterey County.

## OUR VISION

To maintain a model EMS system that uses research, best practices, and quality improvement processes to equip providers of pre-hospital emergency medical care to provide compassionate and clinically appropriate care for the residents and visitors of the County of Monterey.

## VALUE STATEMENTS

The Monterey County EMS Agency is committed to:

- Advocating for the patient in all that we do.
- Personal, professional, and organizational integrity.
- Treating people with dignity, respect, honesty, and fairness.
- Working collaboratively in an environment of trust, transparency, safety, and teamwork.
- Leadership that brings accountability, responsibility, and success to our organization.
- Maintaining a working environment that fosters passion, creativity, and enjoyment.
- Striving to achieve excellence through expertise, innovation, and continued learning.

# EMS AGENCY DIRECTOR'S MESSAGE

Honorable Chair and Members of the Board of Supervisors,

I am pleased to present the 2023 Monterey County EMS Agency Annual Report. This report provides a glimpse into the work we do on a day-to-day basis to successfully accomplish our responsibilities related to planning, implementing, and evaluating the Monterey County EMS System. This report also provides an opportunity for reflection and an examination of how closely our work in 2023 aligned with the goals we established for ourselves and the EMS System.

The EMS Agency made significant progress towards meeting the goals we established for 2023. Some of our goals cannot be resolved in a years' time and will take ongoing efforts and commitment to realize progress.

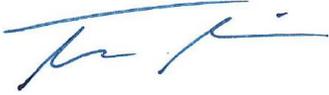
In our most recent report, we highlighted the funding challenges faced by the EMS Agency as revenue from sources such as the CSA-74 special tax and the MADDY Fund have failed to keep pace with the rising costs of providing services. Last year we secured a grant for expenses related to the implementation of Buprenorphine to treat the symptoms of opioid withdrawal syndrome in the prehospital environment. While this was a one-year grant, it did afford us the opportunity to offset implementation and administration costs associated with the program. In 2023 we also accomplished our goal of assembling a fee schedule for various services provided by the EMS Agency. In early 2024 we brought fees for providers of air ambulance services to the Board of Supervisors for approval and have since implemented this fee bringing a new source of revenue to offset costs to the EMS Agency. We will work to initiate additional fees in 2024.

In 2023 we established the goal of increasing our connectivity by establishing new partnerships and strengthening our existing relationships. The Buprenorphine program, a collaboration with Santa Cruz and San Benito counties, further solidified relationships with our neighboring EMS agencies. The EMS Agency's work to implement a health data exchange (HDE) program has strengthened not only our relationships with stakeholders, but also relationships between stakeholders as everyone must work together to accomplish this system improvement for the benefit of all involved. Our role in the response to the 2023 Winter Storms allowed us to work more closely with other Health Department bureaus, other County of Monterey departments, Regional and State disaster response partners, and build new relationships with community-based organizations. These projects are all described in greater detail in the "2023 Accomplishment Highlights" section of this report.

Our efforts to gather feedback and input regarding the current status and potential future improvements of the EMS System opened up new dialogues with our existing partners and brought new stakeholders into the discussion. These discussions further our work in the area of EMS System design and improvements for the future. The insights garnered from these conversations will prove vital as we work in 2024 to finalize the process that will lead to the identification of an ambulance services provider who will be a key partner in the future of the EMS System in the County of Monterey. The proposal process and agreement that eventually results will provide opportunities for addressing challenges identified in last year's report such as the transport of behavioral health and critical care patients in clinically appropriate and financially responsible ways. We must seek solutions that minimize the impact of providing these services on both the prehospital emergency care and transport for which the EMS Agency is responsible as well as on the rates charged to patients utilizing the EMS System.

2023 saw the accomplishment of some goals and progress towards others. Our stakeholders and EMS System partners have proven invaluable in advancing our work and the care prehospital care provided to patients throughout the county. We look forward to continuing our work and collaboration with system stakeholders to develop and improve the EMS System in the County of Monterey.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Teresa Rios', with a horizontal line extending to the right.

Teresa Rios  
EMS Bureau Chief

# EMS AGENCY MEDICAL DIRECTOR'S MESSAGE

Teamwork and collaboration were central to the challenges and accomplishments of this past year. The EMS Agency worked with hospital administrators, nurses, physicians, EMS transport agencies, fire department leadership, and information technology specialists to successfully implement a bidirectional Health Data Exchange (HDE) program. Many years in the making, the HDE program provides hospital personnel with timely access to important clinical information from prehospital providers while also providing feedback to EMS and fire department crews regarding their medical decisions and the effectiveness of treatments performed in the field. In early 2023, the EMS Agency sought feedback itself through a written analysis from stakeholders that gave us detailed and candid responses on what we were doing well and opportunities where we could do better. The conversations and lessons learned guided changes in our approach to several areas as well as development of a Request for Proposals (RFP) for ambulance services for the County of Monterey Exclusive Operating Area (EOA).

The EMS Agency partnered with Santa Cruz and San Benito Counties to implement an EMS Buprenorphine Program designed to provide patients who suffer from opioid use disorder with access to life-saving medication to alleviate narcotic withdrawal and reduce the chance of a future fatal overdose. Winter storms required activation of the Emergency Operations Center (EOC), and EMS Agency personnel provided in-person staffing for several weeks to assist with EMS Operations, equipment needs, and planning for temporary evacuation points and emergency shelters throughout the county. The EMS Agency also worked to transition the location records of all Public Access Automated External Defibrillators (AEDs) into the PulsePoint Registry. PulsePoint's free website and smartphone app provide the public, first responders, and 9-1-1 dispatchers with the exact location of the closest AEDs to the scene of a cardiac arrest, improving the likelihood of patient survival through early cardiac defibrillation.

As always, we continue to focus on our core responsibilities: coordinating EMS operations and quality improvement; procuring and distributing resources and supplies; approving EMT certifications and Paramedic accreditations; working closely with our EMS, Fire, and hospital partners on annual revisions to EMS policies and protocols; and ensuring adequate and effective ambulance service throughout Monterey County.

The input and collaboration of our stakeholder partners remains central to the success of all these endeavors. It is their efforts as much as ours that make this system work. I am grateful for the opportunity to be part of that.

Sincerely,



John Beuerle, M.D.  
EMS Medical Director

# INTRODUCTION

Over the past several years, the Monterey County Emergency Medical Services Agency has worked to develop and improve and our Annual Report to the Board of Supervisors. In 2022 the EMS Agency transitioned our report to a format that we believe will help readers more easily navigate the content and identify the topics of interest to them. This year's report utilizes this format and is divided into three sections based upon the following structure:

1. **Monterey County EMS System Overview** – This section provides background information regarding the EMS Agency and the EMS System. It describes the structure of the EMS Agency and the variety of roles that we play in managing and leading the EMS System. The section also explains the various components of the EMS System from dispatch to prehospital personnel through to the emergency department and specialty care centers located within the County of Monterey.
2. **2023 EMS System Data** – This section provides data for 2023 related to several key components of the EMS System including EMS student training programs, processing of applications for certification and accreditation, emergency medical dispatch operations, ambulance call volume, disaster response efforts, finances, and quality improvement. The section also explains the EMS Agency's role in each of these areas.
3. **2023 Accomplishments and Highlights** – This section provides the reader with an overview of some of the EMS Agency's key accomplishments throughout the course of 2023. While the items discussed are but a small fraction of the improvements made to the EMS System, we feel that they represent significant strides towards our overall vision of creating and continuously improving a model EMS System for the people of Monterey County.

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# MONTEREY COUNTY EMS SYSTEM OVERVIEW

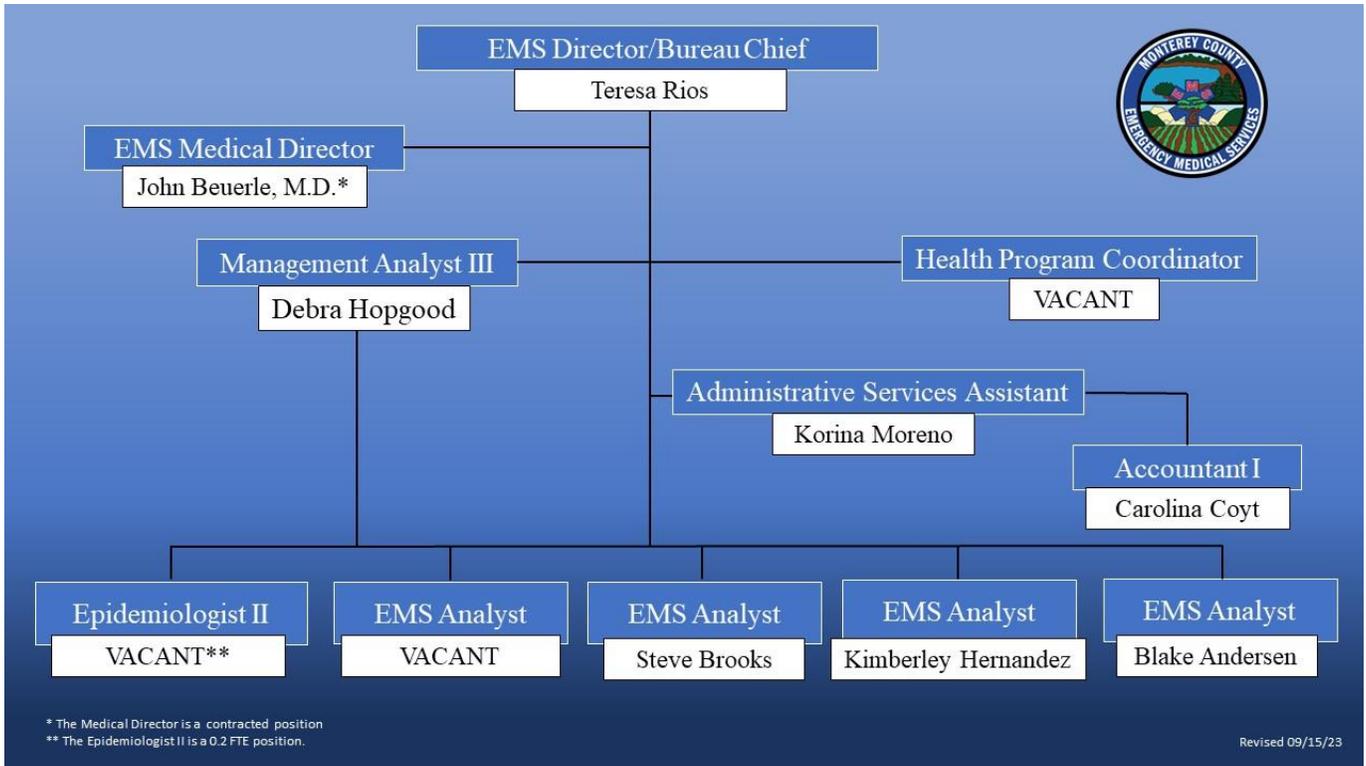
The Monterey County Emergency Medical Services (EMS) System is comprised of ground and air ambulance providers, dispatch/communications centers, fire and rescue service providers, hospital emergency departments, specialty care centers for trauma, stroke, and heart attack patients, and the Monterey County EMS Agency. The purpose of the EMS System is to provide high quality, patient-centered Emergency Medical Services with integrity, equity, dedication, expertise, effectiveness, efficiency, and collaboration at the forefront. The collaborative efforts of these EMS System partners strengthen our ability to provide emergency medical services to residents of and visitors to the County of Monterey.



## **THE MONTEREY COUNTY EMS AGENCY**

The Emergency Medical Services Agency is a Bureau within the Monterey County Health Department and is designated by the Board of Supervisors as the local Emergency Medical Services Agency (LEMSA) that oversees the delivery of emergency medical services (pre-hospital care) within the County of Monterey. The LEMSA ensures that regulations pertaining to the EMS system are carried out as intended by the California Emergency Medical Services Authority (EMSA). The role of the Monterey County EMS Agency is defined by California statute to plan, implement, and evaluate the EMS System. Additionally, the statute requires the EMS Agency to have a licensed physician who serves as a medical director to provide medical control and to ensure medical accountability.

# THE MONTEREY COUNTY EMS AGENCY ORGANIZATIONAL CHART



## THE EMS AGENCY’S ROLE IN THE MONTEREY COUNTY EMS SYSTEM

A high performing EMS System consists of multiple organizations with a variety of functions working together to provide care to those suffering from a medical emergency. The EMS Agency is responsible for managing and coordinating these organizations to ensure that patients in our community receive a coordinated and appropriate EMS response when calling 9-1-1 and, ultimately, the best possible care from highly trained EMS professionals. However, the EMS Agency’s responsibilities do not stop when a patient reaches the doors of the hospital. The EMS Agency is also responsible for ensuring that our local hospitals are prepared to appropriately receive patients from EMS and, when needed, provide online medical direction to EMS providers in the field. Additionally, the EMS Agency has the responsibility for designation and oversight of specialty care centers for the treatment of trauma, stroke, and ST elevation myocardial infarction (STEMI) patients in the County of Monterey.

We approach our role emphasizing the Triple Aim.

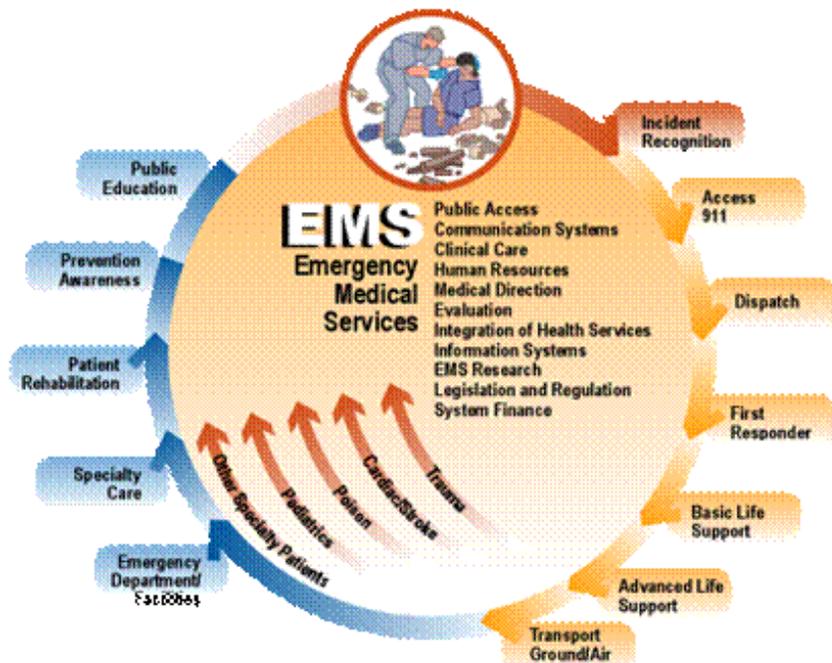


- *Implement efficient and effective structures, processes, and outputs.*
- *Measure clinical, operational, and financial performance indicators.*
- *Engage in continuous Quality Improvement.*
- *Embrace Just Culture concepts.*
- *Maintain transparency.*
- *Ensure equity.*

## **EMS SYSTEM MANAGEMENT**

Essential functions performed by the Monterey County EMS Agency include:

- Serving as an advocate for patients.
- Collaborating with other health officials to ensure a unified, coordinated approach in the delivery of health care.
- Ensuring equity in the provision of emergency medical services.
- Carrying out regulations relative to the EMS system.
- Certifying, accrediting, and authorizing EMS field personnel.
- Authorizing and approving local EMS training programs.
- Developing/approving medical treatment protocols and policies for local EMS service providers (EMTs, Paramedics, and dispatchers) to assure medical control of the EMS system.
- Organizing EMS dispatch and communication standards, including medical dispatch protocols.
- In collaboration with the Health Department's Public Health Bureau, developing local medical and health disaster plans and coordinating medical and health response to disasters (natural and man-made).
- Designating trauma centers and other specialty care centers.
- Coordinating activities and communications between various agencies that provide EMS System services so that care appears seamless to the patient.
- Coordinating community education programs regarding injury prevention, CPR, public access defibrillation, etc.
- Collecting, analyzing, and reporting on EMS data.
- Establishing the Exclusive Operating Area (EOA) and contracting for the provision of emergency ambulance service.
- Providing oversight for EMS quality improvement and quality assurance activities.
- Resolving consumer complaints.
- Providing information to public officials.
- Advocating for sufficient and stable funding for emergency medical services.



## MONTEREY COUNTY EMS SYSTEM PROVIDER AGENCIES

Our dispatchers, first responders, Emergency Medical Technicians (EMTs), Paramedics, and hospital staff provide thorough, timely, compassionate care at all times for all people in need. They are trained, caring professionals who have chosen to help others, often at their most dire time of need, and at any hour of the day or night. This dedicated service has been exemplary especially throughout the additional challenges of the COVID-19 pandemic, storms, wild fires, and other disasters. The Monterey County EMS Agency thanks our EMS Providers and everyone at their agencies who work hard to support them and make it possible for them to perform their work.

### Communications Centers

- ❖ County of Monterey Emergency Communications
- ❖ American Medical Response



### Ground Ambulance Service Providers

- ❖ American Medical Response
- ❖ City of Carmel Fire Ambulance
- ❖ Fort Hunter Liggett Fire Department
- ❖ Monterey County Regional Fire District



### Air Ambulance Service Providers

- ❖ CALSTAR Air Medical Services
- ❖ Mercy Air Services



### Fire Departments

- ❖ Big Sur Fire
- ❖ Cachagua Fire Protection District
- ❖ CAL Fire
- ❖ CTF Fire Department
- ❖ Fort Hunter Liggett Fire Department
- ❖ Gonzales Fire Department
- ❖ Greenfield Fire District
- ❖ King City Volunteer Fire Department
- ❖ Marina Fire Department
- ❖ Mid Coast Fire Brigade
- ❖ Monterey County Regional Fire District
- ❖ Monterey Fire Department
- ❖ North Monterey County Fire District
- ❖ Presidio of Monterey Fire Department
- ❖ Salinas Fire Department
- ❖ Seaside Fire Department
- ❖ U.S. Forest Service



### Hospitals and Medical Centers

- ❖ Community Hospital of the Monterey Peninsula
- ❖ Mee Memorial Hospital
- ❖ Natividad
- ❖ Salinas Valley Health



### Law Enforcement Agencies

- ❖ California Highway Patrol – Monterey
- ❖ Carmel Police Department
- ❖ Del Rey Oaks Police Department
- ❖ Gonzales Police Department
- ❖ Greenfield Police Department
- ❖ King City Police Department
- ❖ Marina Police Department
- ❖ Monterey County Sheriff's Office
- ❖ Monterey Police Department
- ❖ Pacific Grove Police Department
- ❖ Salinas Police Department
- ❖ Sand City Police Department
- ❖ Seaside Police Department
- ❖ Soledad Police Department



## **EMS OPERATIONS**

EMS operations include many of the logistical and practical considerations involved in ensuring that appropriately trained EMS personnel reach patients in need of medical assistance in a timely and safe manner. Providing highly trained EMS responders begins with the initial training received, continues with certification and accreditation processes, and is maintained through continuing education and training. The other two key components are dispatch operations and field operations. Dispatch operations ensures that the needed resources arrive expeditiously while field operations involve the actual response to an incident by EMS System field personnel.

## **EMS System Personnel**

It is the people working within the EMS system that determine its success or failure. The County of Monterey is fortunate to have many dedicated people functioning within the EMS system. Each person plays an important role whether they are paid or volunteer, administration or at the patient's side, providing leadership or following direction, providing first contact and care by phone or providing direct care and transport of the patient. Each part of the system, and each person in the plays a critical role in achieving the best possible outcome for the patient.

Prehospital care personnel typically have one of three levels of EMS training – Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), and Paramedic. Additionally, Registered Nurses (RNs) may work on EMS aircraft or on ground Critical Care Transport (CCT) ambulances. These EMS providers have a wide range of responsibilities and a defined scope of practice under which they function. The Monterey County EMS Agency has enabled Paramedics, EMTs, and EMRs to provide a high level of care for the patient through a very wide scope of practice.

## **Certification and Accreditation**

The EMS Agency fulfills one of its core functions by providing for the initial certification and renewal of certification for EMTs. EMT certification is an important function of the EMS Agency as we seek to ensure the public health and safety by ensuring that each EMT applicant meets the qualifications for initial or continued certification. Public safety is our highest priority. To that end, the EMS Agency receives reports through the Live Scan fingerprint process on the criminal background of EMTs who are certified or applying for certification through the Agency. The EMS Agency follows guidance established by the EMSA related to criminal background actions to ensure consistency across the State. The EMS Agency also receives reports from the National Practitioner Data Bank on the healthcare background of each EMT and EMT applicant to ensure that they do not have a history of problems related to the provision of medical care or licensure. The EMS Agency performs a thorough review of each application to ensure that the applicant meets all the requirements and standards. When EMS Agency staff has verified these items, the EMS Agency provides EMT certification to the applicant.

Paramedics are licensed through the State EMS Authority. The Paramedic's ability to practice in Monterey County is provided through accreditation. The EMS Agency only provides accreditation to Paramedics affiliated by employment with a Paramedic service provider organization. The accreditation process ensures that California licensed Paramedics have met the qualifications to work in the County of Monterey EMS system, understand, and are able to function under Monterey County EMS policies and treatment protocols. The EMS Agency also requires Paramedics to have additional training in trauma, cardiac, and pediatric care not required for licensure but required for accreditation to practice in the Monterey County EMS System.

The EMS Agency reviews each active Paramedic every two years to ensure that they continue to meet EMS policy requirements to continue to function within the Monterey County EMS system. One of these requirements is that they are trained and tested every year on several critical, but infrequently used skills. The training and testing are delegated to the Paramedic employer who documents that the Paramedic has completed the training and testing and continues to meet all other requirements for continued accreditation.

## **Emergency Medical Responder (EMR)**

Most EMS personnel who function at the EMR level are volunteers in the rural areas of the county. EMR training continues in these areas as a way to utilize people in a first responder role who would otherwise not volunteer with the local fire agency due to the time and other requirements to become an EMT.

Due to the time it may take for an ambulance to arrive in a rural area, EMRs have significant responsibility for patient care so they are provided the greatest amount of tools permitted under State regulation that exceeds the usual training for those at the EMR level. In the County of Monterey EMRs are allowed to provide an auto-injector based antidote for organophosphate poisoning to other responders who may have been contaminated. Training in, and the use of, traction splints is also permitted under the EMR scope of practice for EMRs functioning within the Monterey County EMS system.

Currently, there is no certification in California for EMR. EMR is a training course that provides a course completion certificate to document the training. The EMS Agency is responsible for approving the training program, course content, and testing materials. It is through this approval process that the EMS Agency ensures that the EMR-trained responder is capable of providing the level of care in which they have been trained.

## **Emergency Medical Technician (EMT)**

The EMT has traditionally provided assessment and treatment of the patient at the basic life support (BLS) level. The EMS Agency and EMS Medical Director have approved a scope of practice for EMTs working within the Monterey County EMS system that is anything but basic. EMTs are authorized to provide care for severe allergic reactions through the administration of epinephrine by auto-injector, manage narcotic overdose by administering naloxone, use a glucometer to determine if a patient's blood sugar is low, and provide aspirin when they suspect a heart attack. The EMS Agency has also allowed an expanded scope of practice for those EMS service provider agencies that are willing to provide additional training for their EMTs. The expanded scope of practice includes the placement of an advanced airway that makes it easier for the EMT to assist a patient who is not breathing, and the use of CPAP for patients with severe difficulty breathing. AMR and some of our fire districts have their EMTs functioning under this expanded scope and thus bringing a higher level of emergency medical care to the residents and visitors of the County of Monterey.

## **Paramedic**

Paramedics have the greatest scope of practice and responsibilities. They provide care at the advanced life support (ALS) level. The Paramedic is entrusted with assessment of the patient at an advanced level using their training and experience to come to a correct understanding of the patient's condition and to properly use the tools provided to them such as a 12-Lead EKG, End-Tidal CO2 monitor, and glucometer. After performing an assessment of the patient, the Paramedic is able to treat the patient with multiple medications, provide advanced airway placement to ensure a clear path

to assist the patient's breathing, and even provide external cardiac pacing when the patient's heart beat is too slow.



## **Emergency Medical Technician (EMT) Training Programs**

The EMS Agency is responsible for approving and monitoring EMT training programs held within the County of Monterey. Training program approval is granted for up to four (4) years for programs that meet State and local requirements. Monterey Peninsula College (MPC) and Hartnell College offer EMT training programs. The EMS Agency conducted reviews of the two training programs in 2023. Both programs passed the review with no deficiencies found.

Both programs have highly motivated staffs of lead instructors and instructors who provide guidance in skills training sessions. All of the instructors are well qualified by both training and experience. Informal review of the training programs occurs when EMT applicants are asked about the training they received. All applicants have stated that the EMT training programs in the County of Monterey prepared them for taking the certifying exam and for becoming a new EMT.

Both training programs are taking advantage of technological advances in the use of simulation manikins. These advanced simulation manikins are so realistic that they are often mistaken for an actual person. The manikins can simulate a variety of breathing sounds, pulse rates and strengths, and can be utilized for a variety of treatments. Hartnell College has gone a step further and has established a simulation lab with multiple stations and has even created an immersive simulation room where the student is brought into the "scene" with projections of the surroundings on the walls. It even adds additional realism through the introduction of various odors and sounds into the room.

## **Paramedic Training Program**

The Paramedic training program successfully completed its first cohort of students in 2023. All students who attempted the licensing exam through the NREMT successfully passed the exam on the first attempt. The students from the first cohort are now working as Paramedics. The program started both cohort 2 and cohort 3 in 2023. Cohort 2 ended 2023 in their field training and cohort 3 was starting their classroom training.

The Paramedic program was able to overcome some challenges faced by other training programs due to the insistence from the EMS Agency that the Paramedic training program have written agreements with hospitals and Paramedic service providers to guarantee a minimum number of spaces so the Paramedic students can complete the hospital and field training portion of the program. The EMS Agency ensured that there were, at least, an equal number of available hospital and field training positions for all students. While other Paramedic training programs struggled to find available hospital and field training opportunities, the Paramedic students through the local program were able to seamlessly move from classroom training to the hospital and field training.

## Emergency Medical Call Dispatch

### 9-1-1 Call Receipt

Calling 9-1-1 is the first connection between the person needing emergency medical services and the EMS System. Monterey County Emergency Communications Department (MCECD) receives the majority of 9-1-1 calls placed in the County of Monterey. The California Highway Patrol (CHP) also maintains a dispatch center in the County of Monterey and receives a portion of 9-1-1 calls made by cell phone within the County of Monterey. Most of the 9-1-1 callers reporting a medical emergency are transferred to the EMS Dispatch Center, operated by AMR, for further processing. However, 9-1-1 calls such as those involving an active shooter or other dangerous situations may be retained by MCECD personnel as they gather information necessary for the safety of all emergency responders.

### EMS Dispatch

The EMS Dispatch Center (EMS Dispatch) is operated by AMR, the County's ambulance services exclusive service provider. EMS Dispatch Center is staffed with dispatchers who are certified Emergency Medical Dispatchers (EMDs) that have been trained in the Medical Priority Dispatch System (MPDS). MPDS is a well-researched and unified system used to prioritize medical calls and dispatch appropriate aid to medical emergencies. The goal of MPDS is to prioritize the highest acuity medical emergencies so they receive the fastest response from the closest available resources. EMDs use MPDS for caller interrogation to ensure that the proper pre-arrival instructions are given to assist the patient or reporting party until responders arrive. This may be through guidance in performing cardiopulmonary resuscitation (CPR), control of serious bleeding, childbirth, choking, or assistance with other types of medical emergencies.

**THE NATIONAL ACADEMY™**  
**EMD PROTOCOL**  
 Medical Priority Dispatch System™

**ENTRY QUESTIONS**

- What's the address of the emergency?  
House/Apartment/Business/Intersection/Landmark/Jurisdiction/GPS
- What's the phone number you're calling from?
- Okay, tell me exactly what happened.
  - Hanging (now) **9-E-3**
  - Underwater **9-E-6**
  - Person on fire **7-E-1**
  - (Not obvious) Are you with the patient now?
  - (Not obvious) How many (other) people are hurt (sick)? **29**
  - Traffic/Transportation incident **CC**
  - Multiple victims **CC**
  - (Choking) Is s/he breathing or coughing at all? (You go check and tell me what you find.) **11-E-1**
    - No
    - Do not slap her/him on the back.
- How old is s/he?
  - (Unsure) Tell me approximately, then.
- Is s/he awake (conscious)?
  - Yes
  - No
  - Unknown
- Is s/he breathing?
  - (Hasn't checked - 2<sup>nd</sup> party caller) You go check and tell me what you find.
    - Yes
    - No/NOT BREATHING **?-E-?**
    - Uncertain/INEFFECTIVE/AGONAL BREATHING (1<sup>st</sup> or 2<sup>nd</sup> party caller) **?-E-?**
    - Unknown (3<sup>rd</sup> or 4<sup>th</sup> party caller)

**POST-DISPATCH INSTRUCTIONS**

- (ECMO) I'm sending the paramedics (ambulance) to help you now. Stay on the line.
- (Hanging and not OBVIOUS DEATH) Cut her/him down immediately, loosen the noose, then tell me if s/he's breathing.
- (Underwater) Do not go in the water unless it's safe to do so.
- (Strangulation and not OBVIOUS DEATH) Loosen anything around the neck, then tell me if s/he's breathing.
- (Suffocation) Remove anything covering the face or in the mouth, then tell me if s/he's breathing.
- (Person on fire) Tell her/him to stop running, drop to the ground, cover her/his face, and roll around. If water is available, douse her/him with it immediately until the fire is completely out. (Water not available) Get a blanket, rug, or large jacket and use it to wrap her/his body and smother the flames.
- (Critical Caller Danger) (If it's too dangerous to stay where you are, and you think you can leave safely) get away and call us from somewhere safe.

**DISPATCH LINK TO CC UNLESS:**

- Suspected MEDICAL Arrest **ABC-1**
- Hanging/Strangulation/Suffocation (INEFFECTIVE BREATHING and Not OBVIOUS DEATH) **ABC-1**

**36: Pandemic / Epidemic / Outbreak (Surveillance or Triage)**

3:26

Entry **KQ** PDI/CEI DLS Summary

3. **Select the most prominent complaint:**

Caller Statement: Sick and can't get out of bed

**KQ Answers** Additional Info Problem Suffixes Deter

- This is a coronavirus (COVID-19) outbreak.
- The locally designated Triage Level is 2 (mod)

Difficulty breathing  
 Flu-like illness  
 Cough (recent onset)  
 Fever  
 Chills  
 Sweats  
 Chest pain (including discomfort)  
 Sore throat (no difficulty breathing or swallowing)  
 Nasal congestion/Stuffy nose  
 Runny nose  
 Fatigue/Weakness  
 Muscle or body aches  
 General illness/Sick (other symptoms):

## **Ambulance Services**

### Ambulance Provider Contract – Exclusive Operating Area (EOA)

A primary function of the EMS Agency is to ensure there are adequate and effective ambulance services throughout County of Monterey. The current agreement with the designated ambulance service provider for the Exclusive Operating Area (EOA) is effective until the end of June 2025. The ambulance provider contract covers response to 9-1-1 calls, interfacility transports for patients who need continued medical monitoring during transport from one medical facility to another, and medical standby services at special events within the county's EOA.

### Contract Compliance

The current agreement for ambulance services requires a high level of performance by American Medical Response (AMR). The EMS Agency meets with AMR to monitor performance and to address issues that could hinder performance. A Contract Compliance Working Group (CCWG) comprised of citizen representatives, EMS Agency staff, a local emergency room physician, and AMR leadership, monitors AMR's performance by reviewing a wide range of metrics to maintain a system that delivers vital pre-hospital emergency medical services to the community.

## **QUALITY ASSURANCE AND IMPROVEMENT**

EMS is a constantly evolving and dynamic industry that requires the LEMSA and its allied agencies to work in tandem with one another. This ensures that the communities they serve do not just receive the best possible care currently but are positioned to embrace the changes the future holds. To accomplish this, it is imperative that the EMS Agency has robust Quality Assurance (QA) and Quality Improvement (QI) programs in place. The EMS Agency's goal is to ensure that we base the decisions we make on data-supported evidence and reflect the best interests of our patients. These are essential to everything the EMS Agency does, from our annual reviews of EMS policies and protocols to the development of local optional scope of practice (LOSOP) programs to expand the care options available for residents of the County of Monterey. Our EMS QA and QI programs are crucial to making sure that the residents and visitors of the County of Monterey are receiving the optimum patient care and that our EMS providers are properly supported.

The EMS QA program validates that EMS professionals in the system are appropriately following policies, procedures, and protocols and meeting established regulatory standards. One of the many ways that the EMS Agency accomplishes this is through case reviews during meetings of our QA/QI committees (described below) and our unusual occurrence report monitoring. QA ensures that individuals within the system are doing the right things in the right way. With any QI program, it is imperative that a reliable QA system is in place to establish confidence that performance is at the expected levels in advance of making improvements to a system.

Our QI program focuses more on the impact of established systems rather than the actions of individuals. QI requires the EMS Agency to ask itself two important questions, "What are we doing currently?" and "Is there a need for improvement?". There is a continuous reassessment that looks to ensure the service we and our allied agencies are providing meets not only the needs and expectations of the public, but also clinical standards and best practices. This can be demonstrated in our recent revamping of the Health Data Exchange (HDE) program, where hospitals and EMS providers work together to exchange data on patient care. The exchange of this information allows hospitals, EMS providers, and the EMS Agency to see the results of our work and the overall quality of patient care in the County of Monterey. As we move forward with projects such as HDE, the EMS Agency also looks to lead by example and provide guidance to all of our allied agencies on building robust and effective QI programs.

## **Unusual Occurrence Reports**

An important component of the EMS Agency's quality assurance and improvement programs involves identifying improvement opportunities, whether individual or system-wide. The EMS Agency has a process in place by which anyone can submit a report regarding an incident, situation, or concern relating to the EMS System. These submissions are known as Unusual Occurrence (UO) reports. EMS Agency personnel review all available information pertinent to the UO report, compile a summary of the UO, and draft recommendations for any needed actions based on their review.

Depending on the findings, actions may include identification of individual educational opportunities, performance improvement plans, disciplinary action, system-wide changes or training, or some combination of these items. Some reviews do not result in a need for action or may result in a recognition of clinical excellence.

Case reviews take place within a "Just Culture" framework and examine the system around individual behavior and action to look for opportunities for system/process design improvements. The term "Just Culture" refers to a system of shared accountability wherein the EMS Agency is accountable for the systems we have designed and for responding to the behaviors of EMS providers fairly and justly. EMS providers, in turn, are accountable for the quality of their choices and for reporting both their errors and system vulnerabilities. The goal is to foster an environment focused on learning from errors to support quality improvement.

## **POLICY AND PROTOCOL DEVELOPMENT**

It is the policies and treatment protocols that provide structure within the EMS System. These documents set standards for the medical care of the patient, direction for transport destination decisions, coordination and interactions between the various providers and organizations, and the management and coordination of the EMS System itself.

To ensure policies and protocols remain current, the EMS Agency, in collaboration with agency partners, reviews all existing policies and protocols regularly. The EMS Agency also develops new policies and protocols to ensure compliance with new, or changes in existing regulation, and to reflect best practices.

2023 saw several significant policy and protocol updates. One of the potentially most impactful is the EMS Agency's authorization of Paramedics to administer buprenorphine to begin treatment for opioid use disorder before the patient reaches the hospital. The administration of buprenorphine helps the patient by minimizing and hopefully eliminating the effects of withdrawal from opioids.

Direction for care specific to several causes of respiratory distress is now included in the Respiratory Distress protocol for both children and adults.

The EMS Agency has also continued updating the treatment protocols into a flow-chart format wherever possible to make it easier for EMS providers to follow the directions included.

## **SPECIALTY CARE SYSTEMS**

Within every EMS System, there are systems of specialty care designed to get patients with specific conditions to a hospital capable of treating their condition. In the County of Monterey, the specific conditions addressed with specialty care systems are: ST Segment Elevation Myocardial Infarction (STEMI), Stroke, and Trauma.

EMSA, through its regulations, tasks the EMS Agency with:

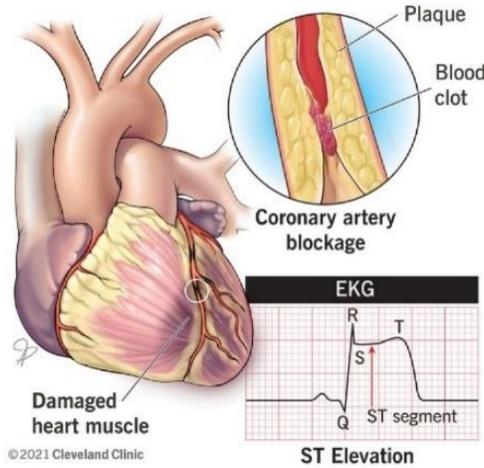
- Developing plans addressing the provision of specialty care services within the County of Monterey.
- Designating facilities to provide specialty care services. This designation process consists of the creation and adoption of standards for facilities related to topics such as staffing, personnel qualifications, facility and equipment availability, internal hospital written policy and procedure requirements, and quality improvement processes. Additionally, the EMS Agency conducts a review of written documentation as well as a site survey of the hospital. Once the EMS Agency has verified that a facility meets the established standards for a given specialty care service, the Agency works with the facility to implement a designation agreement. Specialty Care Centers must apply for redesignation on an established timeline.
- Ensuring that EMS providers are trained in the specialty care patient identification criteria, patient care methodologies, and treatment protocols.
- Developing a process for early notification of the facility of the impending arrival of a specialty care patient.
- Developing policies that provide a clear understanding of the structure of the specialty care system and the manner in which it utilizes the available resources.
- Collecting and analyzing data related to each specialty care service.
- Developing a process for periodic performance evaluation of each specialty care system.
- Developing and overseeing quality assurance/improvement (QA/QI) processes and committees for each specialty care system.
- Ensuring that specialty care service providers and other hospitals that treat specialty care patients participate in quality improvement processes.

The EMS Agency oversees quality assurance/quality improvement (QA/QI) for the County of Monterey specialty care systems. Each specialty care system has its own QA/QI committee. Representatives from the STEMI, Stroke, and Trauma systems collaborate together in their respective committees to identify systemic issues and develop solutions to enhance system performance. The committees bring together representatives from the EMS system such as the MCECD/EMS Dispatch Center, first responder agencies, ground and air ambulance providers, law enforcement, the Coroner's Office, specialty care and non-specialty care hospitals in the County of Monterey, and representatives from the various specialty care teams to help improve the system and streamline communication between organizations. Each group reviews data specific to its specialty care area, provides input regarding policy, assists in the development of effective treatment protocols, serves as a forum for education, and functions as a peer review group by conducting regular case reviews. Information and improvements gleaned from the QA/QI meetings are communicated back to stakeholders throughout the EMS System.

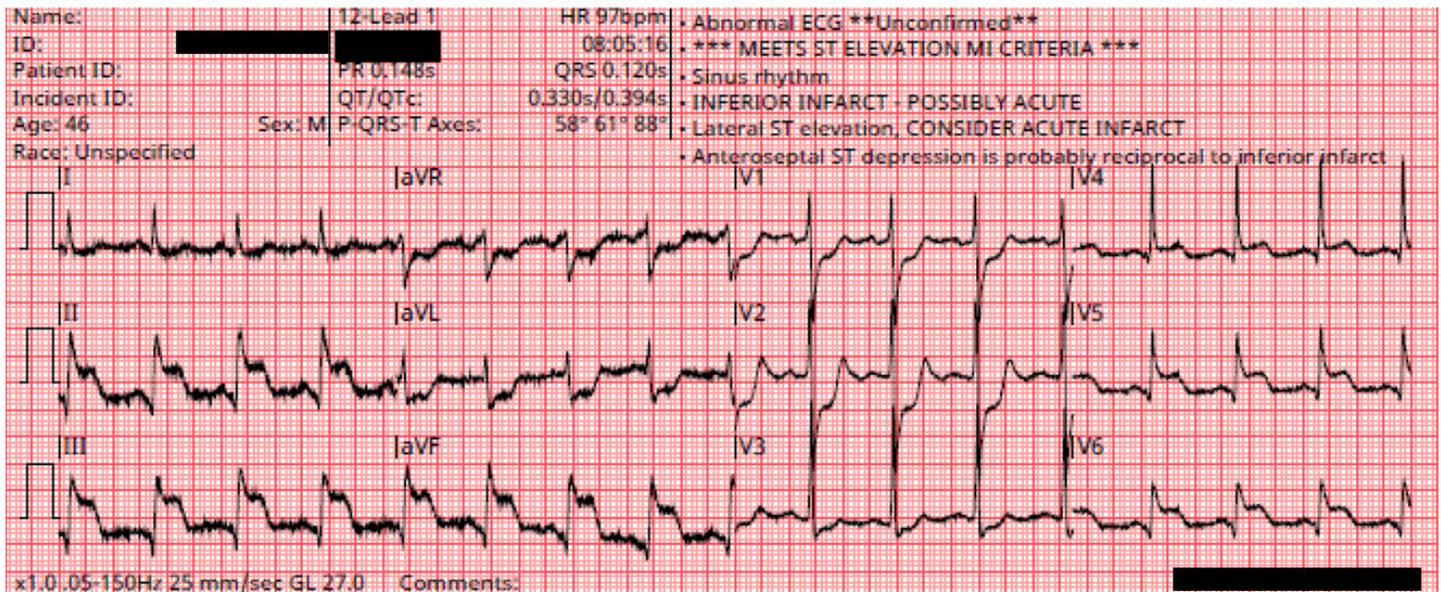
The specialty care systems in the County of Monterey are described below.

## STEMI System of Care

STEMI is an acronym for S-T Elevation Myocardial Infarction (STEMI). A “STEMI” is a particular type of heart attack (The technical term is Myocardial Infarction) where the blockage of one or more arteries in the heart needs to be opened quickly. The heartbeat of the STEMI system is in quick recognition of the STEMI by the Paramedic, rapid transport of the patient, early notification to the hospital by the Paramedic, and prompt treatment in the Catheterization (Cath) Lab at the hospital.

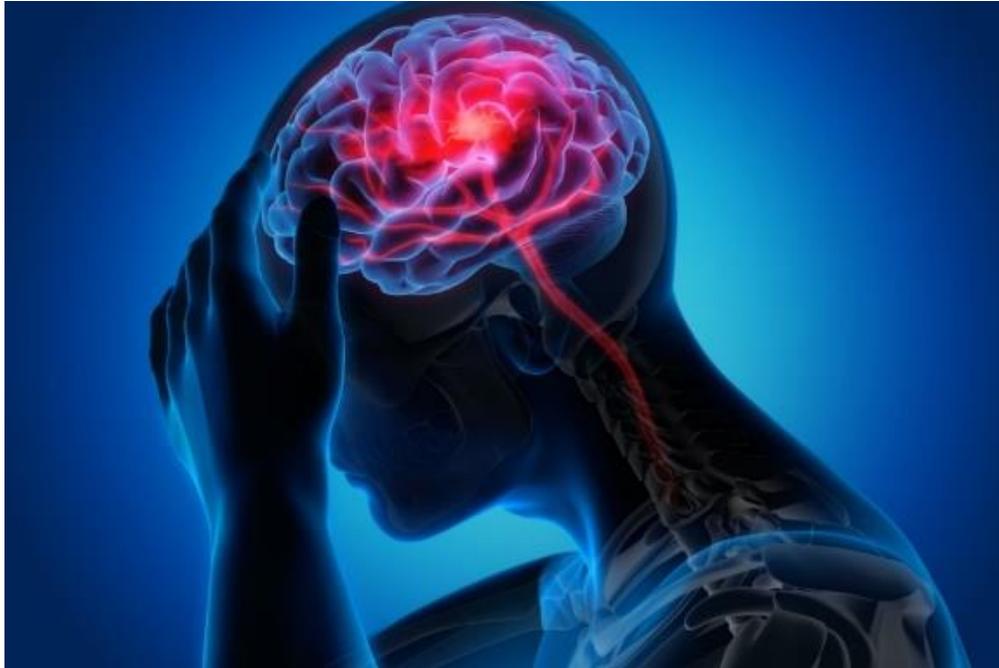


Each of these components of the STEMI system are critical to obtaining the best outcome for the patient. Each component of the system must be performed quickly and acted upon promptly. Early recognition of a potential heart attack by the Paramedic will lead to the early application of the 12-Lead EKG. A 12-Lead EKG that shows STEMI must lead to early transport of the patient. The patient must be transported to a designated STEMI Center that has the staff and facilities to care for this patient. The Paramedic will transmit the EKG to the hospital and also contact the hospital to provide a “STEMI Alert”. At the designated STEMI Center, the ED physician needs to activate the Cath Lab team and interventional cardiologist so that the patient may be brought to the Cath Lab as soon after arrival as possible to have the blockage cleared.



## Stroke System of Care

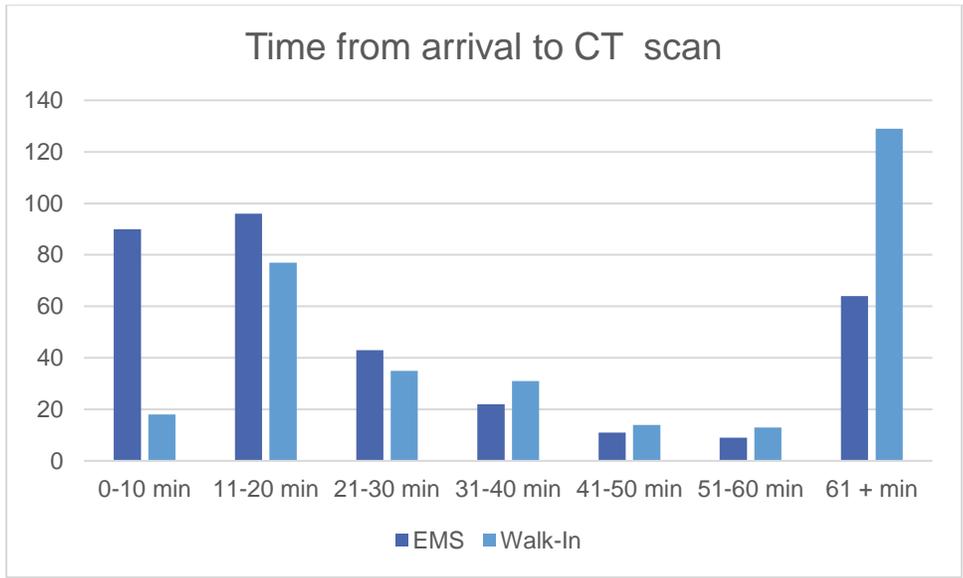
Stroke is a time-critical illness that occurs because the blood supply to part of the brain is interrupted resulting in the loss of brain cells that cannot be replaced. Stroke is a condition that directly affects the most critical area of a person. Therefore, time is critical to restore blood flow to prevent death of brain cells and to give the patient the best chance for recovery and ability to function as they did before the stroke. Most strokes are caused by the blockage of a blood vessel, or multiple blood vessels, by a blood clot. Some strokes are caused by a blood vessel breaking which both prevents blood flow beyond the break and causes bleeding into the brain. There are other causes of stroke such as a brain tumor, but they are less common.



In order to save brain cells after a stroke, the patient must be identified as having a stroke and receive the necessary care. This sounds easy, but many people wait to see if the symptoms go away before seeking assistance. Others will recognize that something is wrong and either contact their own physician or go to the hospital by private car. By going to the hospital by car, the patient risks going to a hospital where the patient may not receive the optimum care that a designated stroke center can provide.

EMS personnel are trained to recognize stroke using the acronym BEFAST to assess the patient for signs and symptoms of stroke. Balance disturbances, facial droop, and slurred speech are a couple of things EMS looks for to assess for a potential stroke. When a stroke is identified, the patient is usually transported emergently with lights and siren activated to get the patient to the hospital quickly. EMS will also ensure that the patient is transported to a designated Stroke Receiving Center that is prepared to rapidly move the patient to the CT scan for brain imaging. This is to help determine the cause of stroke. If the patient is determined to have a blockage as the cause of stroke, and the patient doesn't have another condition that precludes treatment, a medication that dissolves the clot is administered. A patient transported to a designated stroke center also receives the advantage of a continuum of care that includes multiple types of rehabilitation services to assist the patient in regaining as much functionality as possible.

Another benefit that EMS brings to the patient with stroke is the early notification provided to the Stroke Receiving Center so that the hospital is ready for the patient. The chart below highlights the benefit to the patient in getting into the CT scan by using EMS transport over self-transport.



### Trauma System of Care

The County of Monterey’s trauma system of care was initiated in January 2015. Since that time, the County has provided specialty trauma care to thousands of patients with traumatic injuries. The County’s system of EMS Dispatch and pre-arrival instructions, EMS field triage, rapid transport to a Trauma Center, and care by a dedicated and specially trained trauma team has resulted in lives saved and a reduction in disabilities associated with traumatic injuries.

Natividad is the Trauma Center designated by the EMS Agency to serve the County of Monterey. Natividad is accredited by the American College of Surgeons (ACS) as a Level II Trauma Center for adult patients. The EMS Agency is tasked with ensuring that Natividad provides care in a manner consistent with EMSA and American College of Surgeons requirements.



Pediatric patients with critical or serious injuries are usually transported by air ambulance to a Pediatric Trauma Center in Santa Clara County.

The EMS Agency bases our trauma triage criteria on the Center for Disease Control (CDC) Field Trauma Triage Criteria. This system categorizes the severity of the patient's injuries and helps ensure that patients with life-or-limb threatening injuries are rapidly identified and triaged to the closest, most appropriate Trauma Center. A similar triage system helps emergency department physicians at non-trauma center hospitals rapidly triage patients who arrive by means other than an ambulance and immediately transfer patients meeting trauma triage criteria to an appropriate Trauma Center.

## **DISASTER MANAGEMENT**

California's disasters often have an impact on public health and the medical system. EMS is a key part of the countywide disaster management system. EMS providers are usually the first medical care teams to arrive at the scene of a disaster. Thus, EMS must be prepared to successfully respond to the public health and medical consequences of disasters.

### **The EMS Agency's Role in Disaster Management**

The EMS Agency takes the lead in ensuring that EMS service provider agencies are prepared to respond to disasters and mass casualty incidents (MCIs) involving multiple patients. Advance preparations include building a robust system of mutual aid partners, regulating medical supply inventories, participation in training and exercise opportunities, and drafting and editing various disaster-related plans.

The EMS Agency provides staff to serve as an EMS Duty Officer. This position is on-call 24 hours per day every day of the year. EMS Communications notifies the EMS Duty Officer of significant incidents providing the EMS Agency with situational awareness. The EMS Duty Officer can confer with responding agencies and provide guidance as needed.

Depending on the scope and scale of the incident, the EMS Duty Officer may also decide to activate the Medical Health Operational Area Coordinator or MHOAC.

### **Medical Health Operational Area Coordinator (MHOAC)**

The Medical Health Operational Area Coordinator (MHOAC) is a role with a set of duties defined by the California Health and Safety Code Section 1797.153. These regulations task the MHOAC with responsibility for seventeen essential functions related to health and medical needs. During normal operations, the MHOAC is responsible for collaborating with local and regional emergency planners to develop and maintain medical and health disaster plans. In the County of Monterey, the EMS Agency staffs the MHOAC position and maintains a 24-hour-per-day, 365-days-per-year single point of contact for the program.

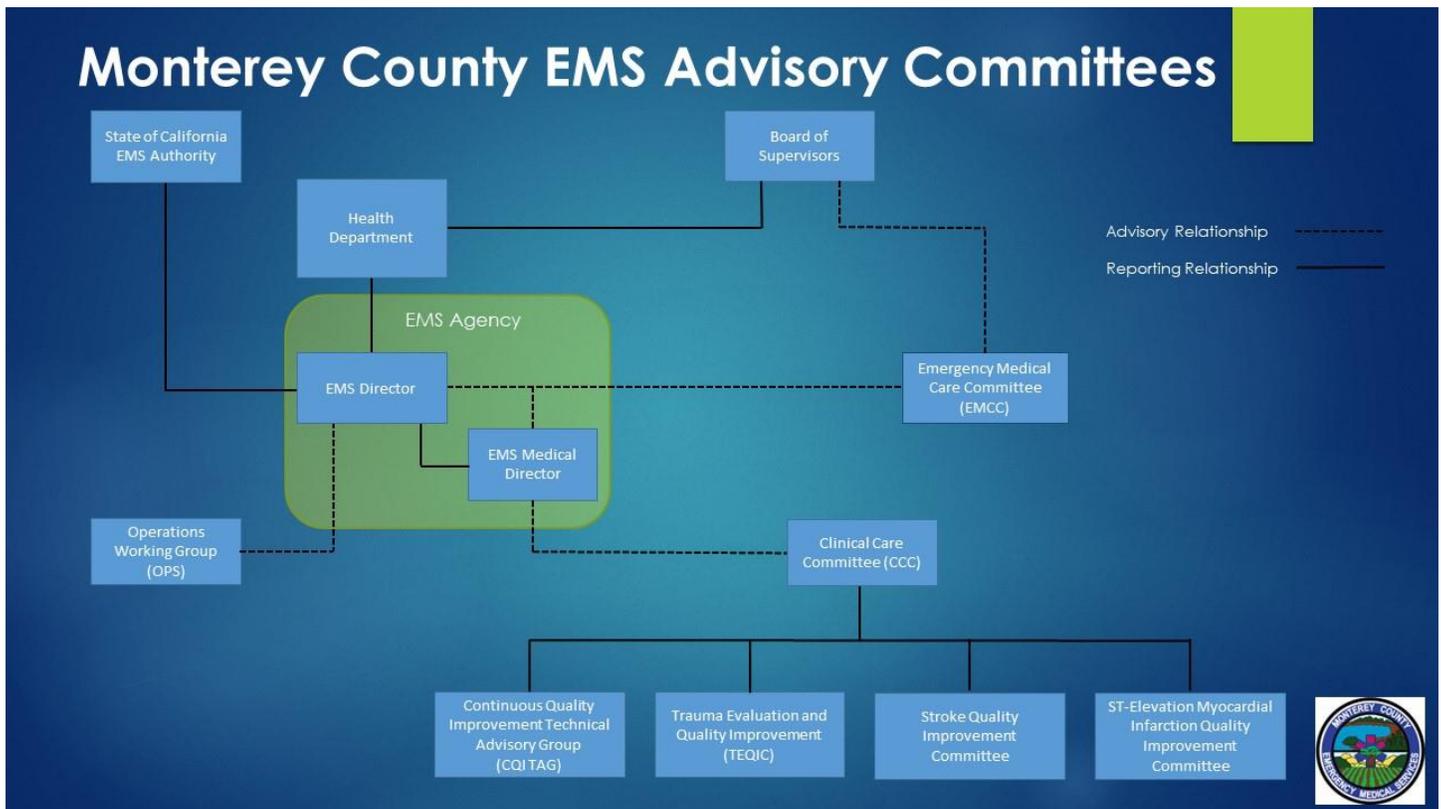
When the local Department of Emergency Management (DEM) activates the Emergency Operations Center (EOC) due to a declared emergency, the MHOAC role becomes one of heightened significance. In the event of a local, state, or federal declaration of emergency, the MHOAC performs essential functions within the Operations Branch of the EOC and becomes a primary point of contact for the coordination of medical and health resources between local, regional, and state authorities. Largely concerned with the procurement and distribution of necessary resources during emergencies and disasters, the MHOAC becomes increasingly vital to an effective emergency response the longer an emergency persists.

## EMS ADVISORY COMMITTEES



There is one primary advisory committee to the EMS Agency, the Emergency Medical Care Committee (EMCC). Additionally, there is a clinical advisory committee, the Clinical Care Committee (CCC) and an operational advisory group, the Operations Working Group (OPS). These committees and working group are made up of members from various components of the EMS System, and in the case of the EMCC, members of the public. The EMS Agency seeks out the wisdom, knowledge, and experience from those individuals who provide the care, directly manage the response and care provided by their organization, and those who live within the County of Monterey. Each member provides a unique perspective on EMS issues as a representative of his/her constituency. The varied viewpoints from our committee members help ensure that the EMS Agency makes effective decisions with regards to policies, treatment protocols, and system function. Our committee and working group members play an additional vital role in communicating system changes to other members of their constituencies.

The graphic below illustrates the relationships between EMSA, the Board of Supervisors, the EMS Agency, and the EMS Advisory Committees.



### Emergency Medical Care Committee (EMCC)

The EMCC is a Board of Supervisors appointed committee which receives reports and advises the EMS Agency on high-level EMS system issues such as ambulance contract compliance, fire-based ambulance response times, ambulance patient off-load times, MHOAC activities, the EMS Plan, EMS training program review, and Health Data Exchange.

The EMCC is comprised of individuals representing a broad constituency including hospitals, ED physicians, ALS and BLS fire agencies, the ambulance contractor, Paramedics and EMTs, law enforcement, city managers, and the public. It is desired to have the three public representatives be from different areas of the County to represent the Monterey Peninsula, Northern Salinas Valley, and the South County area.

The EMCC also provides an annual report of their activities to the EMS Agency and to the County of Monterey Board of Supervisors.

### **Clinical Care Committee (CCC)**

The CCC has a clinical focus and provides input to the EMS Medical Director on medical control and other medical issues. This committee includes representatives from all four hospitals, first-responder agencies, both ground and air ambulance providers, and law enforcement, in the County of Monterey. The CCC is where treatment protocols and policies are reviewed and our EMS stakeholders from the field and hospitals are able to provide their viewpoints and advice so that policies and protocols comply with regulations and reflect best practice.

### **Operations Working Group (OPS)**

The OPS Working Group focuses on operational issues, along with system strategy and coordination, and serves as an advisory group to the EMS Agency Director. OPS is comprised of first-responder agencies, both ground and air ambulance providers, law enforcement, a County 9-1-1 Communications representative, and hospital representative from the Monterey County EMS System.

# 2023 EMS SYSTEM DATA

## EMS SYSTEM PERSONNEL TRAINING

2023 EMT Students Training		
Training Program Name	Initial Training	Refresher Training
Hartnell College	78	0
Monterey Peninsula College	63	15
<b>TOTAL</b>	<b>141</b>	<b>15</b>

2023 Paramedic Students Training		
Paramedic Cohort	Students Starting the Course	Student Status at End of 2023
#1	15	15 completed the full course
#2	15	14 completed didactic training
#3	21	21 in the didactic portion

## CERTIFICATION AND ACCREDITATION APPLICATIONS PROCESSED

In 2023, the EMS Agency processed a total of 462 applications for EMT certification or Paramedic accreditation. Overall, there was a 22% increase in the number of applications processed by the EMS Agency. EMT applications increased 16% since 2021 while Paramedic applications increased 39%.



Applications Processed by the EMS Agency in 2023			
EMT		Paramedic	
Initial EMT Certification	66	Initial Paramedic Accreditation	18
EMT Certification Renewal	227	Continued Paramedic Accreditation	86
Transfer of EMT Certification	84	Reinstatement of Paramedic Accreditation	0
Reinstatement of EMT Certification	24		
<b>Total EMT Applications</b>	<b>325</b>	<b>Total Paramedic Applications</b>	<b>104</b>

## **EMERGENCY MEDICAL CALL DISPATCH**

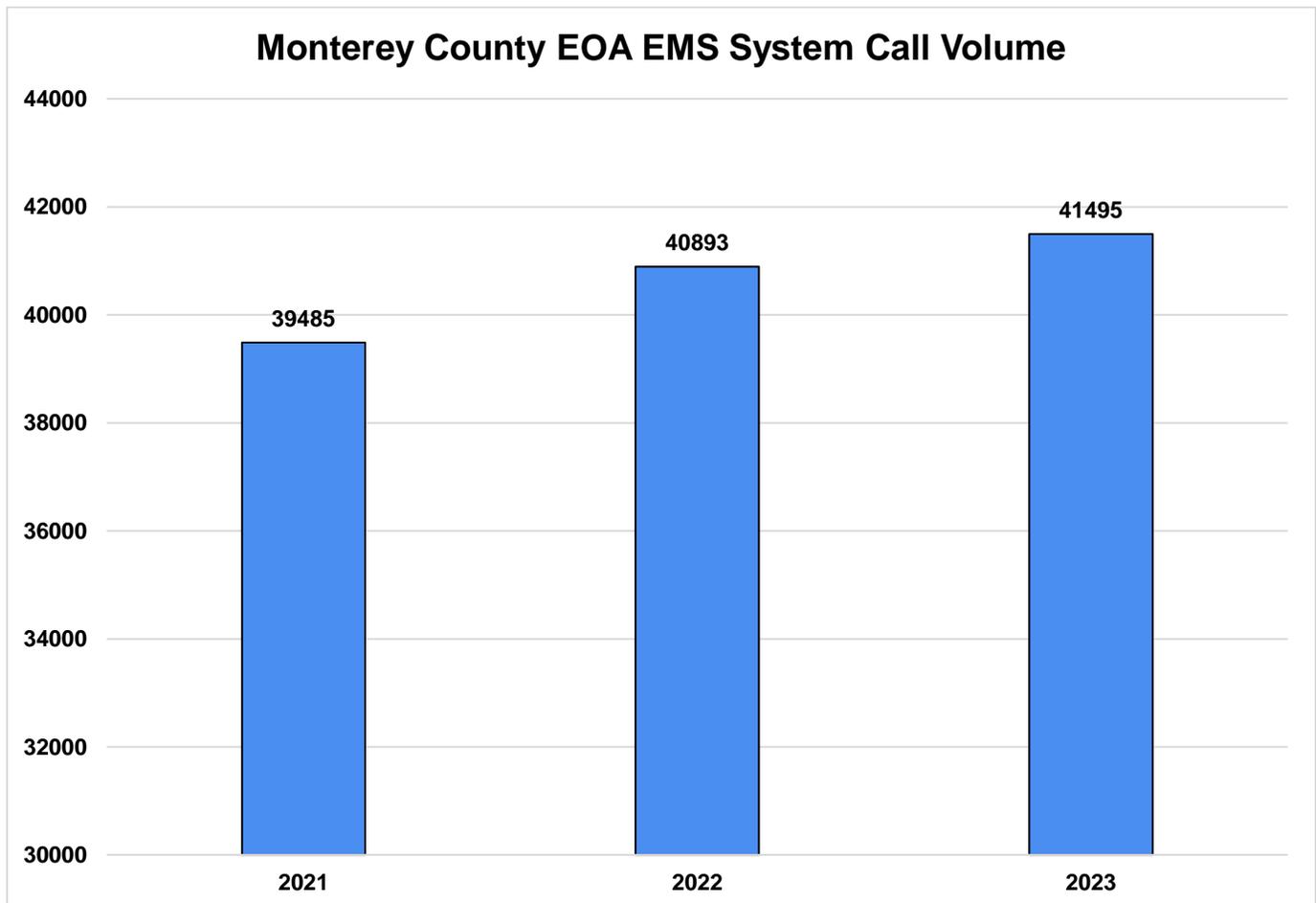
In 2023, Emergency Medical Dispatchers EMD'd 72% of emergency medical calls for service. In order for a call to be considered "EMD'd," it must have a determinant code. Determinant codes are assigned to calls after the dispatcher finishes questioning the caller. The determinant code is then used to categorize the level of urgency and type of medical emergency reported by callers to help dispatchers determine the appropriate response and resources needed.

<b>Year</b>	<b>Total Calls</b>	<b>Number of Calls EMD'd</b>	<b>Percentage of Calls EMD'd</b>
2021	31,740	21,690	68%
2022	33,377	23,904	72%
2023	35,293	25,436	72%

## **AMBULANCE SERVICES**

### **Ambulance Call Volume**

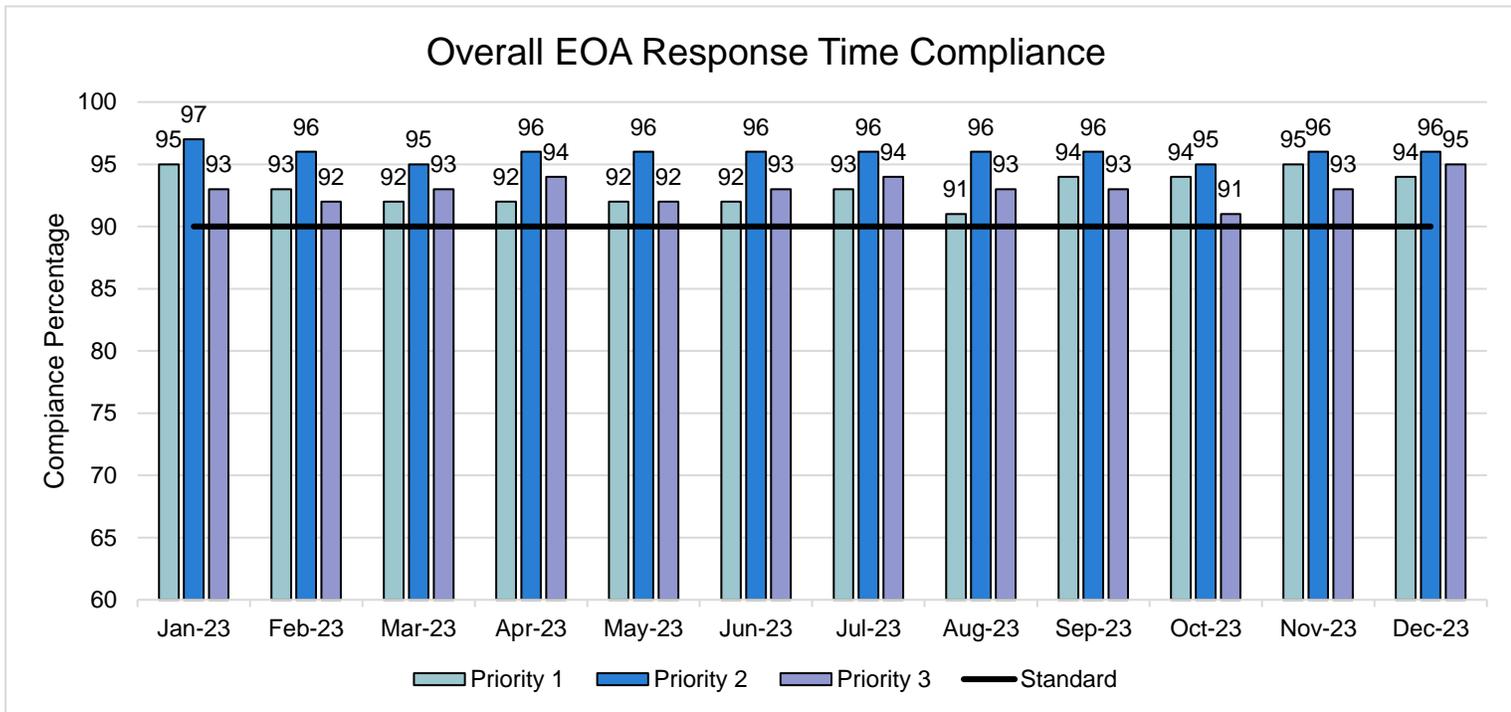
The chart below compares the total number of calls for emergency medical assistance that originated within the EOA during 2021, 2022, and 2023. The chart reflects a 602 (1%) increase in call volume between 2022 and 2023.



## Ambulance Response Times

The chart below illustrates AMR’s overall response time compliance by month for all Priority 1, 2, and 3 calls (definitions below) within the EOA in 2023. The Emergency Medical Dispatch caller interrogation process through the Medical Priority Dispatch System determines most response priorities. To be compliant, AMR must be on time for 90% or more of their responses within the EOA per month.

Priority	Definition
<b>1</b>	Life-threatening emergencies, e.g., cardiac arrests, choking, major hemorrhage, etc. Require the closest ambulance with a red lights and siren response. The ambulance is <b><i>not</i></b> divertible.
<b>2</b>	Non-life-threatening emergencies. Require an urgent red lights and siren response. The ambulance is divertible to a Priority 1.
<b>3</b>	Non-life-threatening emergencies. Require an immediate response with <b><i>no</i></b> red lights or siren. Ambulances assigned to a Priority 3 call may be diverted to a higher priority call.

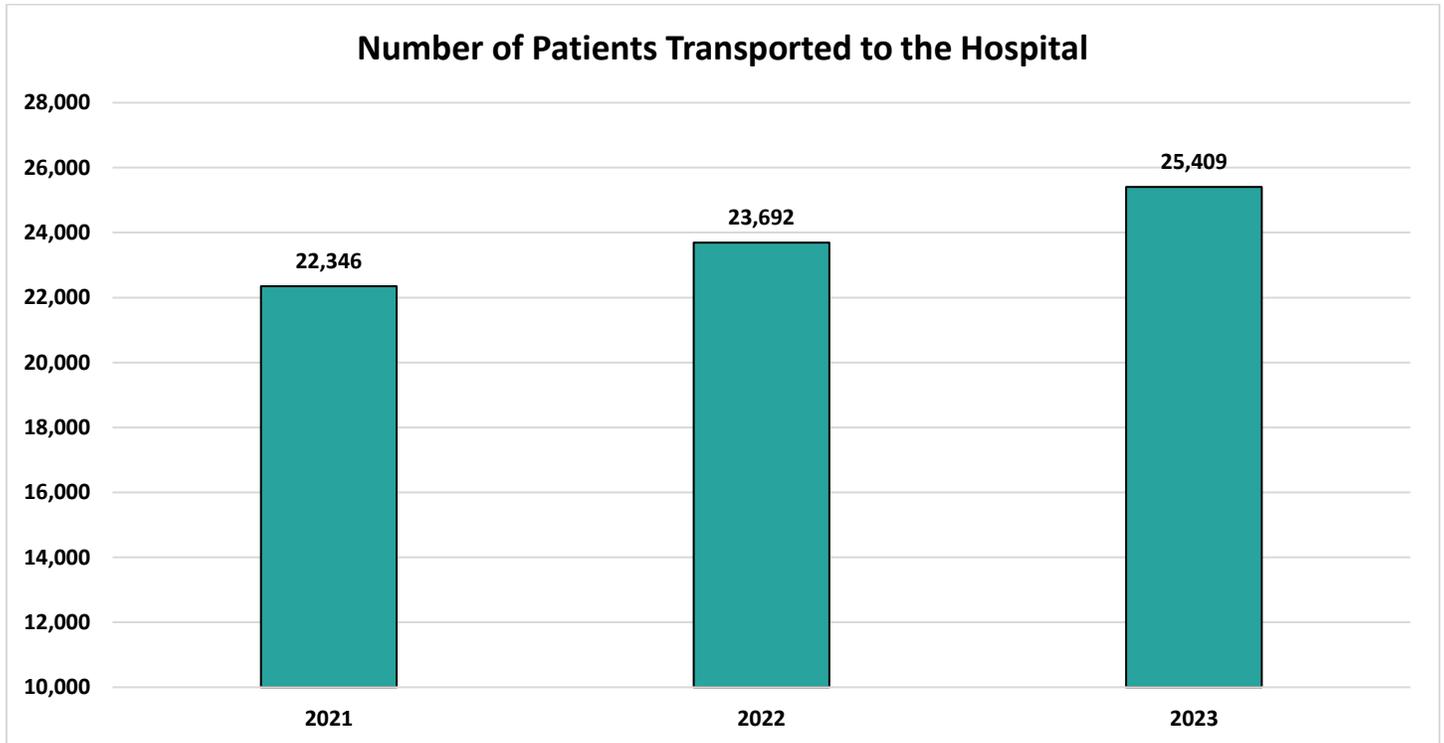


## Ambulance Transport Volume

The chart below depicts the number of calls for emergency medical assistance within the EOA that originated through the 9-1-1 system and resulted in patient transport during 2021, 2022, and 2023.

In 2023, approximately 65.4% of all calls placed to 9-1-1 for medical assistance resulted in transport to the hospital via ambulance.

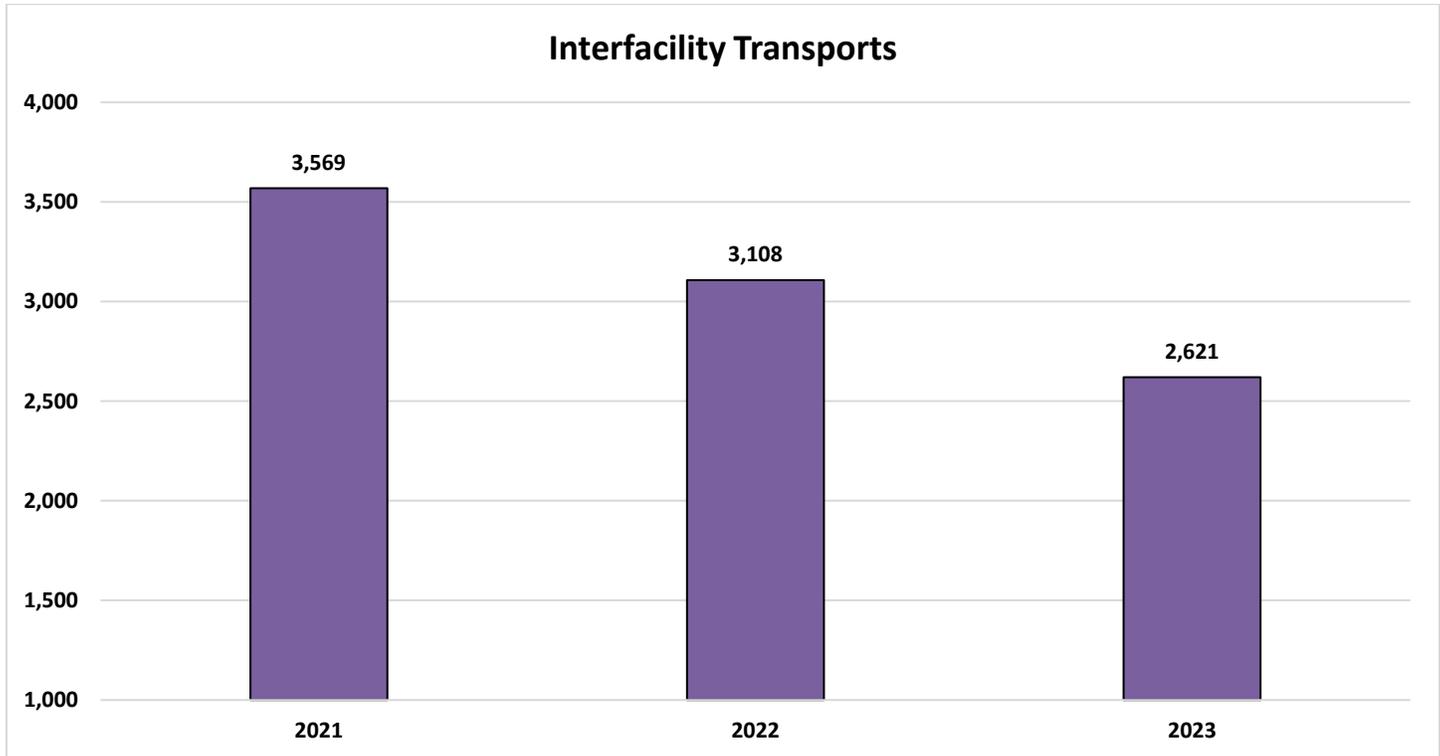
The chart below also reflects a 1,717 (7.2%) increase in the number of patients transported between 2022 and 2023.



In addition to transporting patients encountered through 911 calls to hospitals, the ambulance provider transports patients who need continued medical monitoring from one medical facility to another. These types of transports are referred to as Interfacility Transports (IFTs).

The chart below includes the number of IFTs in 2021, 2022, and 2023.

The data show that there was a 15.7% decrease in the number of IFTs between 2022 and 2023.



## **QUALITY ASSURANCE AND IMPROVEMENT**

In order to achieve robust and viable quality improvement, it is imperative that the EMS Agency engages in data-driven decision-making. That is why on a regular basis the EMS Agency reviews data and information gathered during its specialty care QI committees, unusual occurrence reviews, and annual Policy and Protocol Development Cycle. During each of these programs, stakeholders can voice their perspectives and realities within the Monterey County EMS system, and the EMS Agency has the ability to compare this information with strategic data reviews with the overall aim of making the county's EMS system high-performing and patient-focused.

## **Policy and Protocol Development**

In July 2023, the EMS Agency introduced or revised 31 policies and associated documents and checklists. Among other things, these policies clarified the EMS requirements when a private physician orders treatment of the patient during an inter-facility transfer, changed the reporting structure of the Medical Advisory and EMS Operations committees, moves toward EMT and EMR accreditation to function within the Monterey County EMS system, and updated the criteria for patients with significant trauma to be transported to a trauma center. The EMS Agency also created or revised 12 treatment protocols to include adding specific treatments for several causes of respiratory distress, update criteria for transport to a stroke center, and revised several to a flow-chart format.

In May 2023 the EMS Agency launched the policies and protocols that established the ability of AMR's Paramedics to provide buprenorphine in the field for patients with narcotic addictions as a way to manage withdrawal symptoms and begin treatment for their drug addiction.

## Unusual Occurrence (UO) Case Reviews

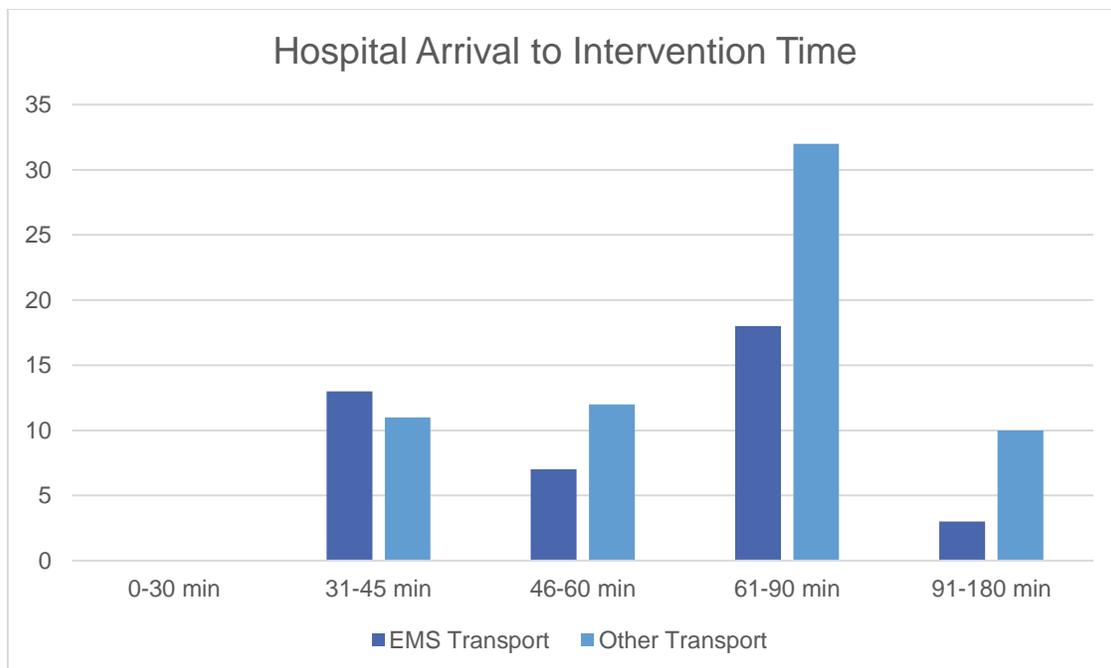
In 2023, the EMS Agency received 75 UO reports. These reports have led to system-wide changes including how EMS personnel treat and handle combative behavioral health patients through protocol and policy revisions and provided additional guidance on re-triaging trauma patients to Natividad, the local designated trauma center. Along with these system changes, our Unusual Occurrence Reporting system has provided important insight to challenges that our allied agencies experience when working together on complex and multifaceted situations. The EMS Agency plans on working with our partners to ensure an EMS system that is sustainable and effective in providing the best patient care.

## Specialty Care Systems

As part of the EMS Agency's QA/QI program, we complete reviews of STEMI, stroke, and trauma care and data to ensure that these highly critical patients receive the most appropriate care and treatment. Each one of these systems has its own QI committee which consists of EMS service providers, local hospital coordinators, and other relevant patient care providers. Each of these groups meets at least three times a year to discuss current data trends, case reviews, areas of success, and opportunities to enhance the system. Below are some of the most important updates and data trends the Agency has identified in each of these specialty care systems.

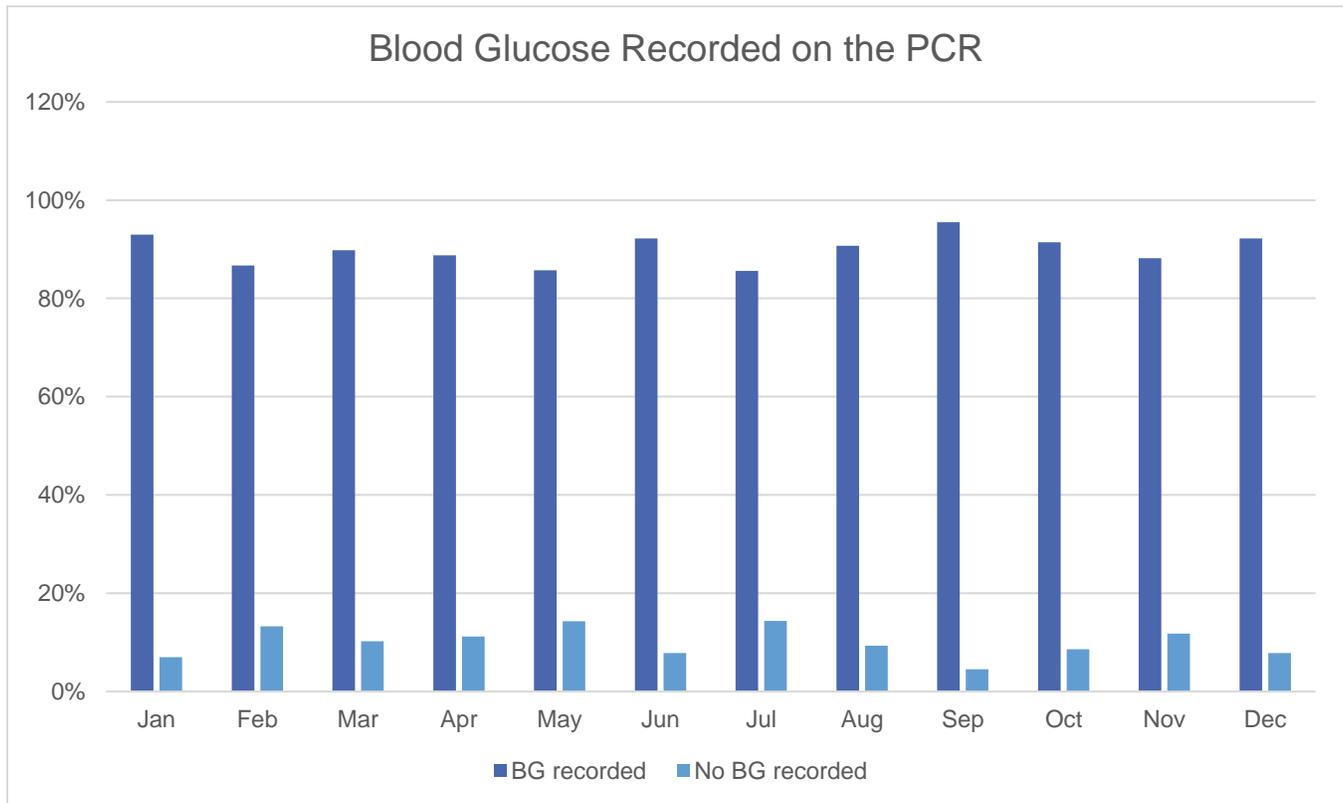
### STEMI System of Care

One measure of the effectiveness of a STEMI system is to measure the time from patient entry to the hospital to the time treatment starts. The benchmark time for STEMI is 90 minutes. To measure the effectiveness of the EMS system, a comparison of patients transported by EMS to those who arrive by other means can show the benefit. In the chart below, we see that, as a system, we are very good at getting patients treated within 90 minutes of arrival at the hospital. We also can see that EMS transport is effective at getting treatment started well before the 90-minute benchmark.



### Stroke System of Care

The signs and symptoms of stroke may be similar to other conditions such as low blood sugar. Therefore, it is important for EMS providers to check the blood sugar of all patients suspected of having a stroke. For 2023, the EMS system performance on this measure was 90%. A review of the patient care reports (PCRs) for the patients without a blood glucose measurement showed that there were several appropriate causes for the PCR to not record a blood glucose level. Having the ambulance on scene before the arrival of the other responders or arrival of the ambulance prior to taking a blood glucose reading are the primary and reasonable causes for not recording a blood glucose level on the PCR.

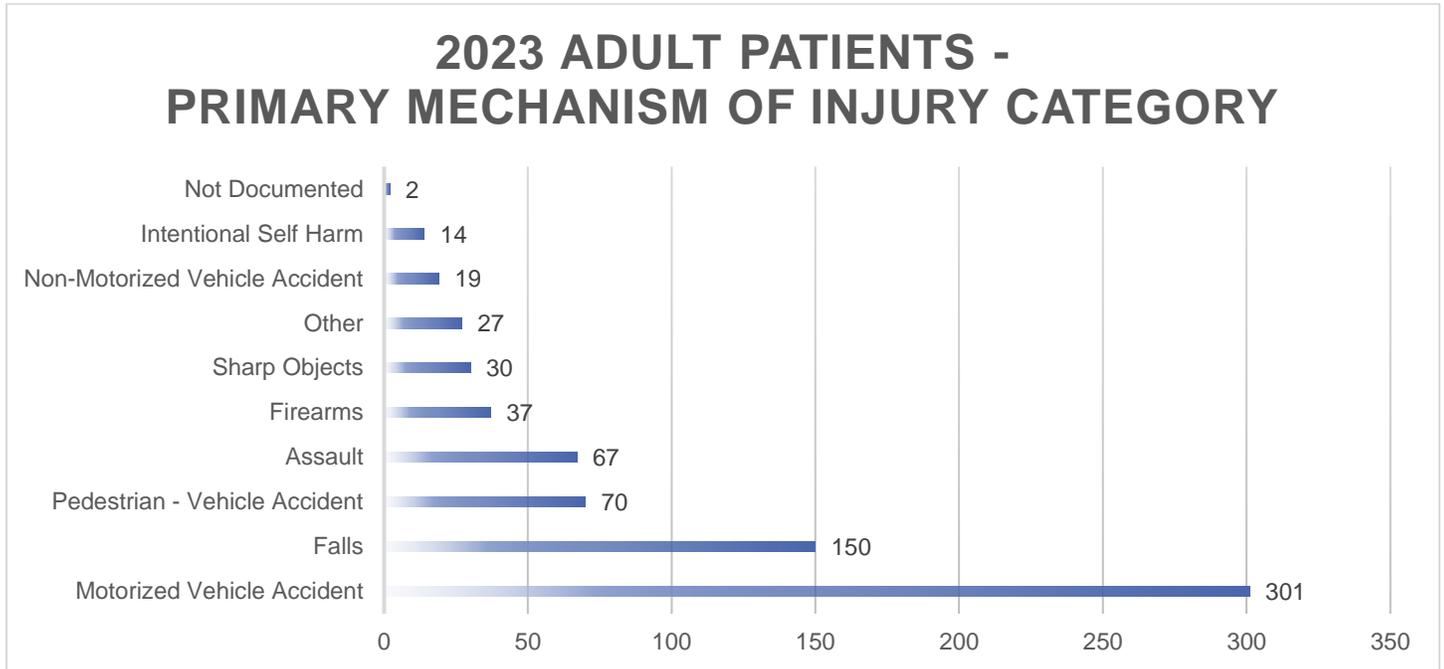


### Trauma System of Care

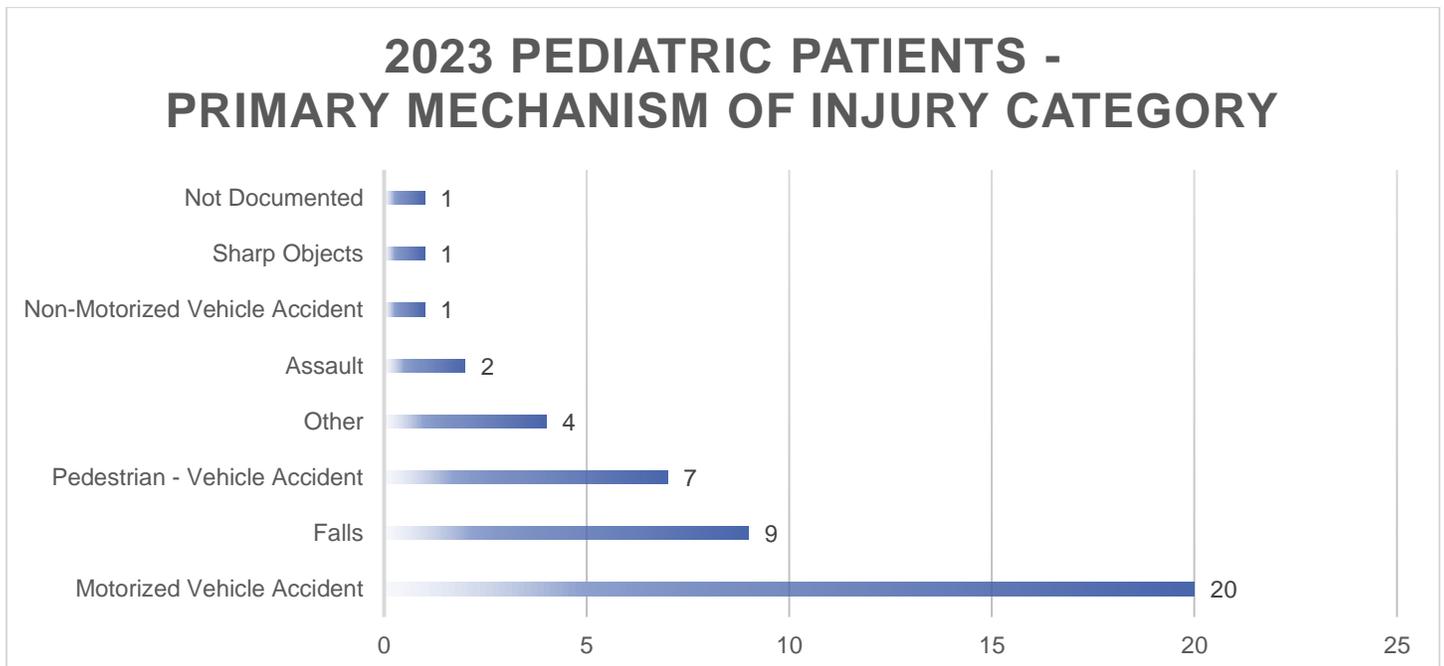
Traumatic injuries constitute one of the most commonly encountered reasons for calls for EMS service. The injuries evaluated by EMS may range from a minor laceration to significant trauma impacting multiple organs or systems within the body. Because of the range of injuries encountered and difficulty evaluating internal injuries, the EMS Agency has adopted the Center for Disease Control (CDC) Field Trauma Triage Criteria to give EMS providers a framework by which to determine the potential severity of a patient's injuries. The CDC's Field Trauma Triage Criteria assigns patients to a different "Step" in an algorithm based on their vital signs, injuries, mechanism of injury, or other factors that may affect the patient's response to their injuries. This same framework also helps guide EMS providers to select the appropriate destination for patients who have sustained traumatic injuries and thus helps ensure that patients most in need receive the specialized care available at a trauma center.

In 2023, in the County of Monterey there were a total of 762 patients who were identified as meeting Step 1, 2, and/or 3 of the CDC Field Trauma Triage Criteria. These patients are the potentially most severely injured and likely will benefit from evaluation and treatment at a trauma center. Of these 762 patients, 717 were adults and 45 were pediatric patients (defined as less than 15 years of age). 706 of these patients were transported by EMS with 91% (639 patients) transported to a trauma center.

The mechanism of injury encountered varied between adult and pediatric patients. Adult patients were most likely to need EMS services for injuries resulting from motorized vehicle accidents (42%) followed by falls (21%). The two most frequent causes of injury for adults remained constant from the 2022 data, but there was a 10% increase in the number of injuries resulting from motorized vehicle accidents.



In 2023, pediatric patients were also most likely to sustain injuries from motorized vehicle accidents (44%) and falls (20%). This data represents a change from 2022 when the majority of pediatric injuries resulted from pedestrian-vehicle accidents. The change does coincide with the large increase in adult patient injuries related to motorized vehicle accidents. The EMS Agency's development and tracking of this type of data may help inform the selection of future community education campaigns.



# TRI-COUNTY BUPRENORPHINE PROGRAM

In 2023 the Monterey County EMS Agency partnered with San Benito and Santa Cruz Counties to implement the Buprenorphine Program as a way to address the opioid-addiction crisis within our region.

Along with support from the EMSA, California Bridge, and several other community-based partners, this program has provided patients struggling with addiction the opportunity for treatment access and a network support providers.

In 2023,

- 497 presenting with possible opioid use disorder and/or withdrawal symptom were seen by EMS personnel.
- 7 patients were administer buprenorphine, transported to the hospital by EMS personnel where they received further treatment, navigation to connect these patients to additional services, and follow up.

The EMS Agency along with its partner agencies are reviewing the 2023 data to develop a plan to remove barriers (e.g. stigma, unfamiliar with buprenorphine program) that prevent patients from receiving administration of buprenorphine.

You can find further information about this program in the “2023 Accomplishment Highlights” section of this report.

<p style="text-align: center;"><b>Monterey County EMS System Policy</b></p> <div style="display: flex; justify-content: space-between; align-items: flex-start;">  <div style="text-align: right; font-size: 0.8em;"> <p>Protocol Number: E-5 Effective Date: 5/23/2023 Review Date: 6/30/2024</p> </div> </div> <p style="text-align: center; margin-top: 20px;"><b>OVERDOSE AND POISONING</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>BLS CARE</b></p> <p>Routine Medical Care.</p> <p>Identify and locate the substance. Protect self and consider contacting Poison Control. (800)876-4766</p> <p>Prevent additional contact with the substance, as warranted. Prevent further access to the substance by the patient.</p> <p>Do not induce vomiting. Give nothing by mouth.</p> <p><b>Substance-Specific Treatment.</b> In addition to Routine Medical Care and condition specific treatment:</p> <p><u>Suspected Opioid Overdose.</u></p> <p>Naloxone, up to 4mg IV if respirations are less than 10/minute. Assess for improved respiratory rate and quality. May repeat one time if respirations remain less than 10/minute.</p> </div> <p style="margin-top: 10px;"><b>ALS CARE</b></p> <p>Routine Medical Care.</p> <p><u>Consider Substance-Specific Treatment</u></p> <p><b>Substance-Specific Treatment.</b> In addition to Routine Medical Care and condition specific treatment:</p> <p><u>Suspected Opioid Overdose.</u></p> <p>Naloxone, up to 2mg IV/IM/IN/IO if respirations are less than 10/minute. Titrate to improved respiratory rate and quality. May repeat up to 8mg if respirations remain less than 10/minute. May be administered IM by an EMT working on a paramedic unit.</p> <p>Naloxone 4mg IV if using a single dose IV device.</p> <p><u>Medication for Addiction Treatment (MAT).</u></p> <p>Buprenorphine 16mg SL – See EMS System Policy #4520: MAT – EMS Buprenorphine (Opioid Withdrawal) Flowchart. May repeat 8 mg if symptoms worsen or persist to a total max dose of 24mg SL.</p> <p><b>Note.</b></p> <p>Provider agencies must have approval from the EMS Agency in order to participate in this local</p>	<p style="text-align: center;"><b>Monterey County EMS System Policy</b></p> <div style="display: flex; justify-content: space-between; align-items: flex-start;">  <div style="text-align: right; font-size: 0.8em;"> <p>Policy Number: 4520 Effective Date: 5/23/2023 Review Date: 6/30/2024</p> </div> </div> <p style="text-align: center; margin-top: 20px;"><b>Medication for Addiction Treatment (MAT)</b></p> <p><b>I. INTRODUCTION</b></p> <p>Buprenorphine may be utilized for stable patients exhibiting signs or symptoms of opioid withdrawal, or for patients who are successfully resuscitated following an opioid overdose, including the administration of naloxone. ALS providers may activate a prehospital-based MAT program, which allows paramedics to administer buprenorphine AND link the patient with a hospital treatment program.</p> <p>This is a Tri-County (Monterey/Santa Cruz/San Benito) effort to reduce both all-cause and overdose mortality among individuals with Opioid Use Disorder (OUD). Offering buprenorphine treatment to individuals experiencing opioid withdrawal or to those who experience a nonfatal opioid overdose provides an opportunity to reduce opioid overdose fatalities.</p> <p>At this time, we are limiting this optional scope of practice item to AMR paramedics only, although we anticipate extending this project to all ALS 9-1-1 transport providers in the future. This limited roll-out will allow us to study cost, utilization, and overall effectiveness before considering whether to expand the local optional scope of practice (LOSOP) authorization to all ALS providers.</p> <p><b>II. ASSESS FOR EXCLUSION CRITERIA CLARIFICATION</b></p> <p>A. While patients who are pregnant are excluded from administration of buprenorphine, patients who are currently breastfeeding are approved for administration.</p> <p>B. Patients who are currently intoxicated or show signs of recent use of benzodiazepine, alcohol or other intoxicants which has resulted in an altered mental status should be excluded from administration.</p> <div style="text-align: right; margin-top: 10px;">  </div> <p><b>III. ADMINISTRATION</b></p> <p>A. See the EMS Buprenorphine (Opioid Withdrawal) Flowchart (below).</p> <p>B. Both doses/strips of buprenorphine may be given concurrently (i.e., the administration of 16mg may be given at the same time).</p> <p><b>IV. TRANSPORT</b></p> <p>All 7 Tri-County based Hospitals are CA Bridge Sites and appropriate destinations for transport: Community Hospital of Monterey Peninsula; Watsonville Community Hospital; Dominican Hospital; Mee Memorial; Natividad Medical Center; Salinas Valley Health; and Hazel Hawkins Hospital.</p>
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## **FINANCES**

### **County Service Area (CSA) 74**

In 1988, Monterey County sponsored a ballot measure for the establishment of the CSA-74 benefit assessment on real property within the county to finance a countywide Paramedic Emergency Medical Services (EMS) program. On March 7, 2000, Monterey County voters approved Measure A, replacing the former CSA-74 benefit assessment with an equivalent special tax, in compliance with Proposition 218. The special tax is collected and administered by the EMS Agency and is used "for the purpose of funding the countywide Paramedic EMS System, which will provide advanced life-saving support to victims in response to emergency calls."

The special tax for CSA 74 is assessed in accordance with the County of Monterey Land Use Codes. The basic unit is a single-family dwelling. The current rate per parcel is \$12.00. All other land uses are either a percentage or multiple of that basic unit. Trailer Spaces and Hotel Rooms are calculated differently as there may be many of them on a single parcel.

The break down based on billed parcels for FY22-23 is as follows:

CSA Units	120,373	\$1,721,418
Trailer spaces and hotels rooms	<u>416</u>	<u>\$182,472</u>
<b>Total</b>	<b>120,789</b>	<b>\$1,903,890</b>

In addition to supporting operations of the EMS Agency to comply with its responsibility to oversee the EMS System, CSA-74 funds are also used to supplement the countywide EMS training efforts and equipment acquisition of emergency first responders. The amount disbursed to each participating agency is calculated using the methodology established in the MOU dated June 17, 2011.

During FY22-23, the EMS Agency continued to use CSA-74 monies to pay for the costs of the countywide, integrated electronic patient care reporting (ePCR) system to ensure compliance with Assembly Bill 1129, which revised the California Health and Safety Code, Section 1797.227 to require local emergency medical care providers to submit electronic data.

### **Maddy Fund**

In 1989, the Monterey County Board of Supervisors established the County Emergency Medical Services Fund (EMSF) under Section 1797.98 of the Health and Safety Code (Maddy Fund) to provide for collection and distribution of fine proceeds authorized by the California State Legislature adopting of Senate Bill 612 and 1773. These laws allow counties to levy an assessment of \$4.00 per \$10.00 of fines for specified traffic violations.

Pursuant to state law, the money in the fund is disbursed and utilized in the following manner:

- Up to 10% of the proceeds are available for the program's administration.
- The remaining 90% compensates health care providers for emergency medical services provided to individuals who do not have healthcare insurance and cannot afford to pay for emergency medical care and for discretionary EMS purposes.

The distribution breakdown of the remaining 90% of the funds is as follows:

- 58% to reimburse physicians for a portion of unreimbursed indigent services;
- 25% to reimburse hospitals which provide a disproportionate share of unreimbursed emergency medical care; and

- 17% for Health Department's Emergency Medical Services Agency discretionary activities.

Maddy funds are distributed on a quarterly basis to physicians and on an annual basis to the hospitals.

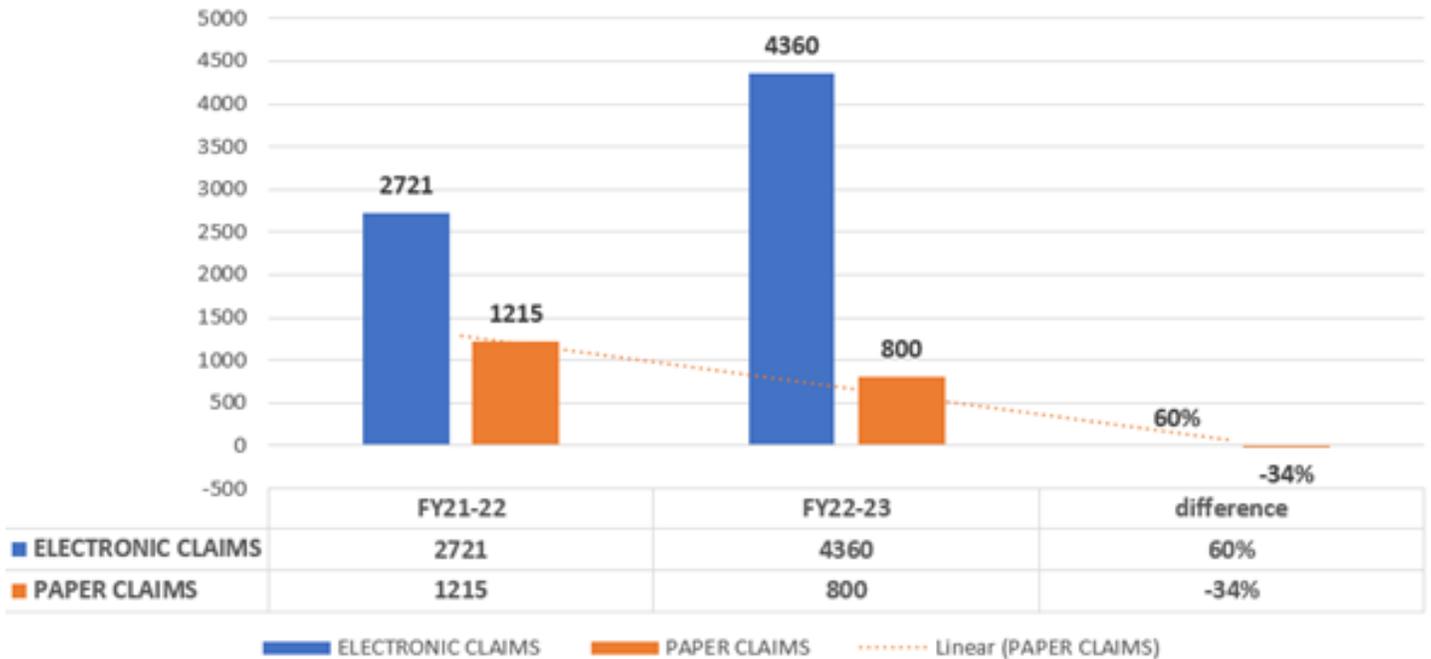
Health & Safety Code Section 1797.98(b) (4) also allows each administering agency to maintain a reserve fund of up to 15% of the amount of the fund reimbursable to physicians and hospitals. The purpose of the reserve is to ensure that physicians and hospitals continue to receive reimbursement for a portion of their services.. In FY2022-23, the EMS Agency established a reserve fund in accordance with State law.

In FY 22-23, the EMS Agency successfully completed the transition to a secure, electronic submittal of claims. The number of claims received and processed electronically increased by 60%. Now 84% of all claims are received and processed electronically. Similarly, the number of paper claims received and processed was decreased by 34% . Now, only 16% of all claims are submitted on paper and processed manually.

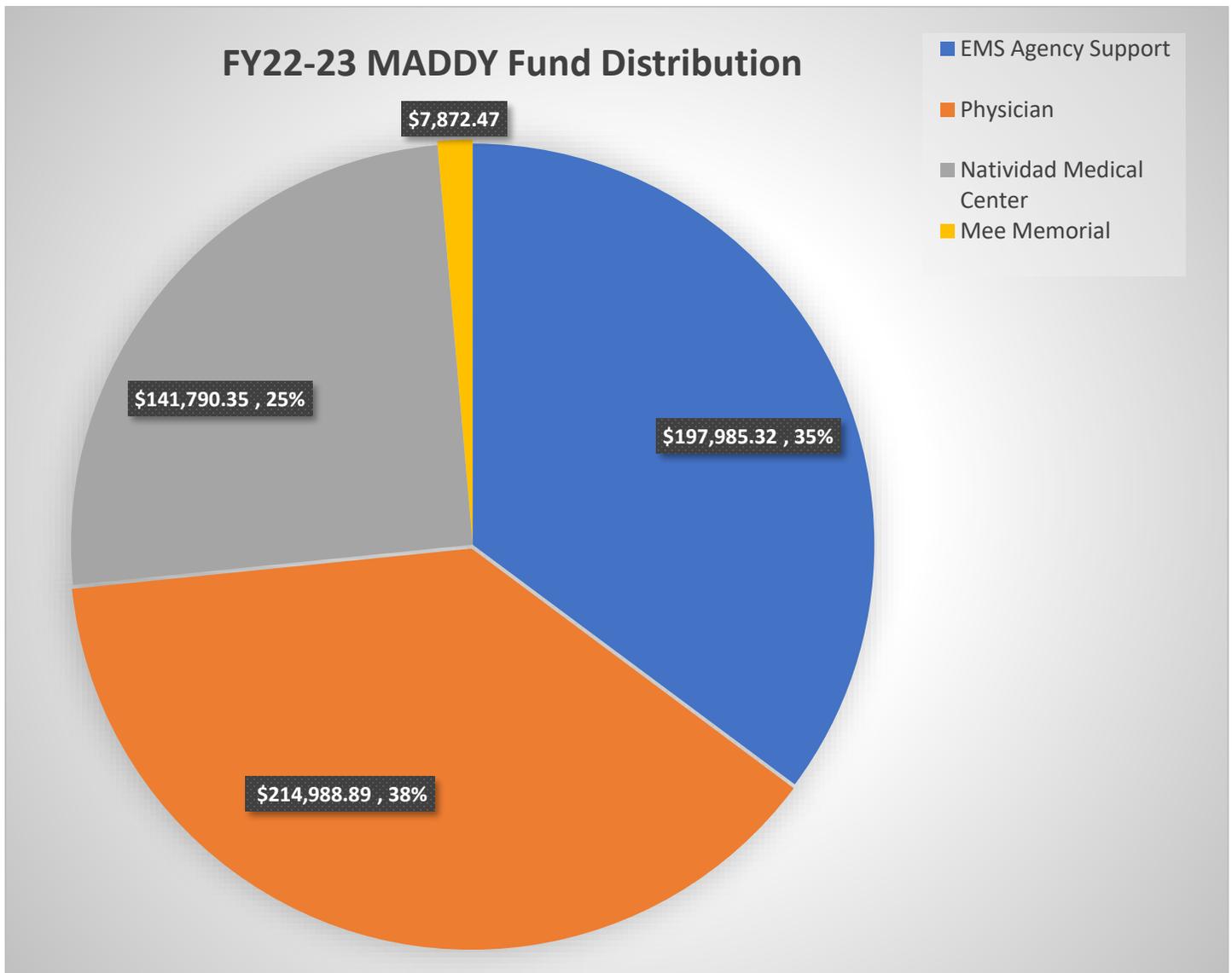
In FY22-23 the EMS Agency saw an increase of 31% in overall claims submitted. We will continue to monitor the trend with the transition to electronic submittal of claims.

A table showing the number of claims received in FY22-23 appears below:

### ELECTRONIC & MANUAL CLAIM COMPARISON



A table showing the disbursement of Maddy Funds in FY22-23 appears below:



It is worth noting that there has been no change in the per parcel rate since FY 2000-01 and therefore, the revenue generated from CSA-74, the EMS Agency's primary source of funding, has not kept up with the continued rise in costs. Applying an average inflation rate of 2.50% per year between 2001 and 2023, the per parcel rate today would have increased to \$21.18, or a cumulative 73.95% increase. The Maddy fund revenue has decreased in the last five years. In the 2022 EMS Annual Report, we reported that in FY2021-22, revenue decreased by \$65,000. In FY2022-23, Maddy revenue continues to decrease. We experienced a decrease of nearly \$63,000 from \$842,019 to \$779,224. The CSA-74 special tax and the Maddy Fund are the EMS Agency's primary sources of funding. Given the downward trend in Maddy revenue in the last five years, coupled with a CSA-74 special tax that has not changed since FY2000-01, it has become imperative for the EMS Agency to explore ways to generate new revenue such as the implementation of fees to ensure the fiscal stability of the EMS Agency. As a result, the EMS Agency has been exploring the implementation of fees to generate additional revenue with the goal of maintaining the fiscal stability of the EMS Agency.

# 2023 ACCOMPLISHMENT HIGHLIGHTS

## IMPLEMENTATION OF PULSEPOINT AED REGISTRY

Throughout 2023, the EMS Agency worked to transition all Public Access Automatic External Defibrillator (AED) placement records into the PulsePoint Registry. Public Access AEDs are devices that are placed in public locations for use during sudden cardiac emergencies. These AEDs are designed to be user-friendly so that even individuals without medical training can use them to deliver an electric shock to the heart to help restore normal heart rhythm during cardiac arrest. PulsePoint is a public, non-profit organization that provides a no-cost AED registry as part of its core mission to improve cardiac arrest survival.

California Health and Safety Code §19300 requires specified buildings constructed or renovated on or after January 1, 2017 to have an AED available for use. Additionally, California Health and Safety Code 1797.196 requires anyone that acquires an AED to notify the local EMS Agency of its existence, location, and type of AED acquired.

PulsePoint enables the EMS Agency to have a centralized database of registered AEDs. Those who acquire AEDs can register AEDs through the PulsePoint Registry app on their iOS or Android device or through an embedded link on the EMS Agency's website. Using PulsePoint as a public AED registry helps to improve awareness and accessibility of AEDs in the community. The registry maps the locations of AEDs and has a feature that can inform bystanders and emergency responders about nearby AEDs during cardiac emergencies, potentially increasing the chances of early defibrillation and improving survival rates.

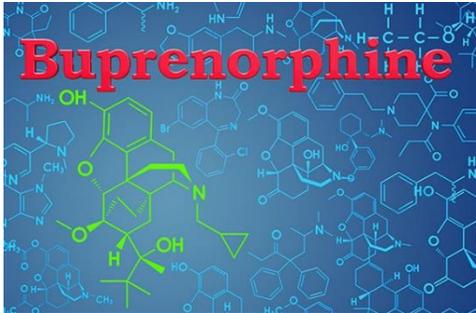
The EMS Agency shares the information contained within PulsePoint with the Emergency Communications Department (ECD) so that 9-1-1 dispatchers can share Public Access AED locations with callers to potentially use during a medical emergency.



As of the end of 2023, there are 843 records in the PulsePoint Registry. This number represents an increase of 422 (100%) from the number of records at the start of the transition period.

## **TRI-COUNTY BUPRENORPHINE PROGRAM**

In 2023, the Monterey County EMS Agency partnered with San Benito and Santa Cruz Counties to implement the Buprenorphine Program to address the opioid addiction crisis within our region. With support from the EMSA, California Bridge, and several other community-based partners, this program has provided patients struggling with addiction with treatment access and a network of support providers.



Buprenorphine is an opioid used to treat OUD as well as acute/chronic pain. It can be used under the tongue (sublingual), in the cheek (buccal), as a skin patch (transdermal), by injection, or as an implant. This Tri-County project allows local EMS providers to administer buprenorphine by a sublingual film.

The program starts with EMS providers identifying patients who are struggling with either opioid-related withdrawals or a nonfatal overdose. Opioid withdrawal is a syndrome of distressing physical and psychological symptoms that can occur after stopping illicit opioids or prescription opioid medication. Withdrawal symptoms can also occur after precipitated withdrawal, such as after naloxone administration. Symptoms are painful and unpleasant, often leading patients to relapse. Buprenorphine administration in the prehospital setting provides relief from withdrawal symptoms and establishes a pathway for the patient to receive medication-assisted treatment through a designated 'Bridge' program. Key elements of the Bridge program model include low-barrier, immediate access to medication-assisted treatment; navigation to ongoing care in the community; and a culture of harm reduction. This Bridge program starts once the EMS personnel attempt to connect the patient with one of the seven local hospital opioid treatment programs within the Tri-County area. With this multilayered approach, the EMS Agency hopes to both reduce the number of opioid-related deaths and reduce the number of people suffering from addiction.

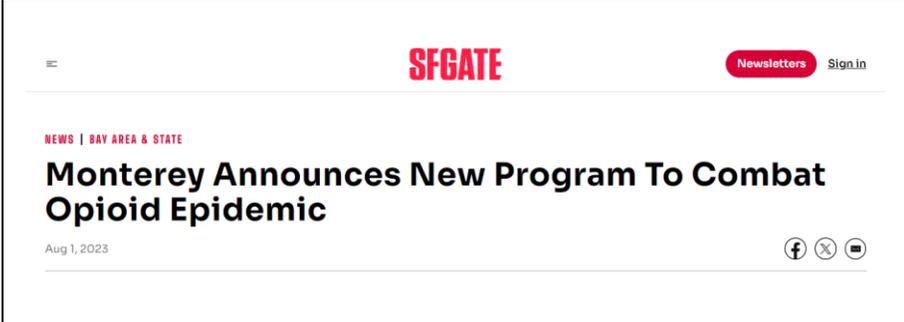


On May 23<sup>rd</sup>, 2023 the Tri-County Buprenorphine program began in the County of Monterey and within less than a week saw its first patient. Since then, EMS providers have been able to treat multiple patients and start the process of guiding their patients to critical services. As the EMS Agency continues with this program, the goal is to assess the program through multiple perspectives in order to enhance its effectiveness. This is achieved with regular meetings and reviews with Santa Cruz County EMS, San Benito County EMS, American Medical Response, EMS Bridge, and local opioid addiction treatment programs.

Programs such as EMS Buprenorphine treatment are relatively new to the EMS industry, meaning EMS providers now must take a new approach to patient treatment. While historically EMS providers have only seen their care through a prehospital lens, now providers are having to consider long-term patient care. By treating this patient population now with Buprenorphine and providing access to support systems, Paramedic providers can prevent future patient encounters, benefitting not only the

patient but also the entire EMS system. With this new approach, it is incumbent on the EMS Agency to communicate and educate providers on implementing this tool in the most beneficial manner.

Along with the clinical support the EMS Agency has provided with this program, it has also worked on educating the public and stimulating community buy-in. The Monterey Herald, Monterey County Weekly, SF Gate, and even CBS Bay Area News have all written about this tri-county program and the opportunities this program can afford to those struggling with opiate addiction.

 <p>The screenshot shows the top portion of a news article on the SF Gate website. The header includes the SF Gate logo, a 'Newsletters' button, and a 'Sign In' link. Below the header, the article title 'Monterey Announces New Program To Combat Opioid Epidemic' is displayed in large, bold black text. Underneath the title, the date 'Aug 1, 2023' is visible, along with social media sharing icons for Facebook, Twitter, and Email. The text 'NEWS   BAY AREA &amp; STATE' is located above the title.</p>	<p><b><u>Article/Story Links:</u></b></p> <p><a href="#"><u>SF Gate Article</u></a></p> <p><a href="#"><u>Monterey County Weekly Article</u></a></p> <p><a href="#"><u>CBS News Story</u></a></p> <p><a href="#"><u>Monterey Herald Article</u></a></p>
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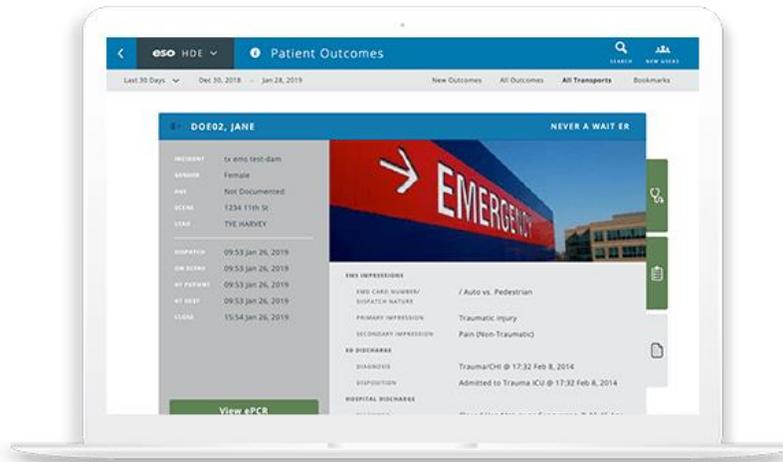
## **DISCONTINUATION OF THE ET3 PROGRAM**

In July of 2022, the EMS Agency approved AMR to implement the telehealth component of the Emergency Triage, Treat, and Transport (ET3) program (approved by Centers for Medicare & Medicaid Services (CMS)) aimed to provide greater flexibility in caring for non-emergency patients who call 9-1-1 by incorporating remote healthcare services. However, by June of 2023, CMS decided to terminate the program in December. This decision stemmed from issues of low utilization rates and high operational costs that rendered the program unsustainable. The EMS Agency terminated the program locally effective September 30, 2023. Despite the initial promise, discontinuing the telehealth portion of ET3 marked a setback in the quest to enhance emergency medical care delivery and highlighted some challenges of integrating innovative programs into traditional healthcare systems. Still, the EMS Agency remains hopeful about the idea of exploring the ET3 again or a similar type of EMS-focused telehealth program in the future.

## **BIDIRECTIONAL HEALTH DATA EXCHANGE**

The Health Data Exchange program, commonly referred to as HDE, is one of the most important tools in the EMS Agency's QI program. This ESO-based system allows for the exchange of critical patient care information between hospitals and EMS providers. At the beginning of 2023, Salinas Valley Health was the only local hospital participating in the program. Since then, Natividad has fully implemented the program. Now, the HDE program enables EMS providers to review, in extraordinary detail, the treatment and outcomes of patients who are brought to a County of Monterey hospital. In conjunction with the progress at Natividad, Community Hospital of the Monterey Peninsula (CHOMP) and Mee Memorial have started integrating the HDE program into their systems and are looking to mirror the data-sharing capabilities as established by the EMS Agency .

With these new data parameters, the EMS Agency and our EMS providers now hold information that allows for critical analysis of patient care and can see the effectiveness of our patient care by following patient outcomes.



Examples of some of the ways that HDE benefits the EMS system include:

- EMS caregivers can review previous calls and assess their performance based on the outcome information. HDE allows EMS providers to compare their diagnosis and treatment rendered with that of the Emergency Department physician who cared for the patient.
- HDE allows the EMS Agency to run data reports comparing the EMS providers impressions with the eventual in-hospital diagnosis for a variety of conditions including some related to Specialty Care centers for STEMI and stroke. This helps us ensure that patients are transported to the most appropriate facility for their condition.
- HDE provides patient outcomes for patients who experienced an out-of-hospital cardiac arrest (OHCA). This information is vital to evaluate the quality of CPR and other treatments with an overall goal of increasing the number of patients who survive cardiac arrest.
- HDE also provides our hospitals with vital information gathered from the scene and patient by EMS transport providers and first responders as well as information regarding treatment rendered by EMS. This allows hospital staff to make more informed patient care decisions.

## **2023 WINTER STORM RESPONSE**

The Medical Health Operational Area Coordinator (MHOAC) was activated in the Emergency Operations Center (EOC) for both the January and March 2023 storms. The MHOAC functions within the Medical/Health Branch of the Operations Section. During the storms, EMS Agency personnel provided in-person staffing on a 24/7 basis in the EOC for approximately three weeks with additional remote staffing as well. Due to the large number of Medical/Health-related priorities, there were frequently two members of the EMS Agency providing support to the EOC within one member focusing on EMS operations and another focusing on supporting medical and behavioral health needs at numerous temporary evacuation points (TEPs) and emergency shelters countywide.



### Objectives for the MHOAC included:

- Ensuring the integrity of the EMS system.
- Monitoring road closure and potential impacts to the EMS system.
- Preparing for potential isolation of the Monterey Bay Peninsula and the impacts to ambulance response/transportation and hospital staffing/resource needs.
- Supporting medical/behavioral health need within TEPs, emergency shelters, and the community of Pajaro itself.

<p style="text-align: center;">  <b>Monterey County EMS Agency</b>  <b>MEDICAL HEALTH OF AREA COORDINATION (MHOAC)</b>  <b>AGENDA</b>          Wednesday, January 13, 2023          15:30          Meeting via Zoom       </p> <hr/> <ol style="list-style-type: none"> <li>1. Monterey County EMS Agency – <i>MHOAC</i> <ol style="list-style-type: none"> <li>a. Current Med/Health concerns           <ol style="list-style-type: none"> <li>i. impact to hospital staffing; and</li> <li>ii. emergency pt. transportation</li> </ol> </li> </ol> </li> <li>2. Weather/Projected Flood Update (Hwy 68 and Hwy1/156) – <i>NOAA</i></li> <li>3. Potential Road Closures and Timelines – <i>Staff</i></li> <li>4. Transportation of Hospital Staff Essential Workers (follow-up conversation) – <i>All</i></li> </ol> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>5. <b>Hospital Staffing – Current/Projected Hospital Impacts/Needs – <i>Hospitals</i></b>          NMC:          SVMH:          CHOMP:          Mee:  <ol style="list-style-type: none"> <li>a. Solutions</li> <li>b. Plans</li> <li>c. Round Table – All</li> </ol> </p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>6. <b>EMS – Current/Projected EMS Impacts/Needs</b>          Monterey County EMS Agency – System Update (Planning &amp; Preparation)          Ground/Air Ambulance Providers  <ol style="list-style-type: none"> <li>a. Solutions</li> <li>b. Plans</li> <li>c. Round Table – All</li> </ol> </p> </div> <ol style="list-style-type: none"> <li>7. Fire Provider Agencies – <i>All</i></li> </ol>	<p style="text-align: center;">  <b>COUNTY OF MONTEREY</b>  <b>HEALTH DEPARTMENT</b>          Elsa Mendoza Jimenez, Director of Health       </p> <hr/> <p style="text-align: center;"> <small>Administration    Animal Services    Behavioral Health    Clinic Services</small>  <small>Emergency Medical Services    Environmental Health    Public Administrator/Public Guardian    Public Health</small> </p> <p>Date: January 12, 2023</p> <p>To: Monterey County Fire Chiefs &amp; System Participants</p> <p>From: Monterey County EOC EMS Agency/MHOAC Unit</p> <p>Subject: <b>Monterey Bay Peninsula Potential Road Closures – EMS Preparation and Response</b></p> <p>Recent storm activity and projected weekend rainfall has the potential to leave communities on the Monterey Bay Peninsula without routes for ingress and egress via standard automobile or ambulance ground transportation. This could result in staffing impacts at acute care facilities and an inability to access definitive care at our local trauma center or other facilities outside of Monterey County.</p> <p>In preparation for this possibility, the Monterey County EMS Agency has initiated the following actions:</p> <ul style="list-style-type: none"> <li>• Activated and staffed the Medical Health Operational Area Coordinator (MHOAC) with EMS Agency personnel within the Emergency Operations Center (EOC).</li> <li>• Contacted facility emergency management personnel to assess status and needs.</li> <li>• Coordinated with American Medical Response (AMR) to ensure adequate ambulance staffing and equipment availability for the potentially isolated communities.</li> <li>• Coordinated positioning of a private air ambulance at the Monterey Regional Airport.</li> <li>• Established medical/health coordination calls for acute care facilities and EMS system participants to discuss status and needs.</li> <li>• Drafted a Flash Report requesting positioning of a dedicated air asset on the Monterey Bay Peninsula.</li> <li>• Worked to establish access to additional alternate means of patient transportation such as high-water capable vehicles.</li> <li>• Issued a memorandum waiving AMR's electronic patient care report (ePCR) completion time requirements for the duration of potential impact.</li> <li>• Drafted a memorandum outlining guidance for patient destination determination for impacted areas.</li> <li>• Worked in concert with the Regional Disaster Medical Health Coordinator (RDMHC) and Cal OES staff to pre-position a Region II ambulance task force (5 ambulances and a Strike Team Leader) in Salinas. The ETA is 1/12/2023 at 20:00.</li> </ul>
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### In conjunction with EOC leadership and local/regional system partners, the MHOAC Program:

- Planned and coordinated response activities with a myriad of medical/health partners including hosting multiple coordination meetings with EMS and hospital system stakeholders.
- Worked with the Monterey County Health Department, the American Red Cross, Region II representatives, and the state EMS Authority to coordinate medical and behavioral health staffing for the TEPs and shelters from these organizations as well deployment of a Cal MAT team and disaster healthcare workers/volunteers from counties throughout the Region.
- Worked with healthcare providers to ensure the availability of medical and behavioral health resources within the Pajaro community.
- Worked with EOC Logistics to ensure fulfillment of numerous requests for medical-related supplies including equipment, medications, personal protective equipment, and COVID testing supplies.
- Activated an EMS Plan with direction for Hospital/EMS providers concerning emergency transportation and patient destination.
- Coordinated planning activities with acute care facilities to ensure hospitals have implemented their continuity of operations planning and response activities and their staffing needs were supported.

- Updated and activated a Monterey/San Luis Obispo County ‘Highway 1’ Road Closures – Update & EMS Transportation Plan.
- Drafted a Landslide Risk (Arroyo Seco Road - West of Carmel Valley Road) and EMS Transportation Plan (4/14).
- Participated in several press briefings and community meetings to ensure that evacuees and residents received information regarding the available medical and behavioral health services.

The EMS Agency through the MHOAC program stands ready to support EMS system stakeholders and the community in times of crisis such as the 2023 storm response.

## **EMS SYSTEM DESIGN AND IMPROVEMENT**

During 2023, the EMS Agency undertook an effort to seek input regarding the County of Monterey’s EMS system from a wide swath of stakeholders, including members of the public. Our efforts began with the distribution of a written SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis tool to our stakeholders including the general public. This assessment tool asked stakeholders to not only complete an assessment of the EMS system as it currently stood, but also to look into the future to better meet the needs of patients and the system as a whole. The SWOT analysis asked stakeholders to spend some time thinking about the factors that positively and negatively impact patient care and our EMS system as a whole in all areas including, but not limited to operations, clinical, innovation, partnership/collaboration, and equity.



### Monterey County EMS Agency - SWOT Analysis



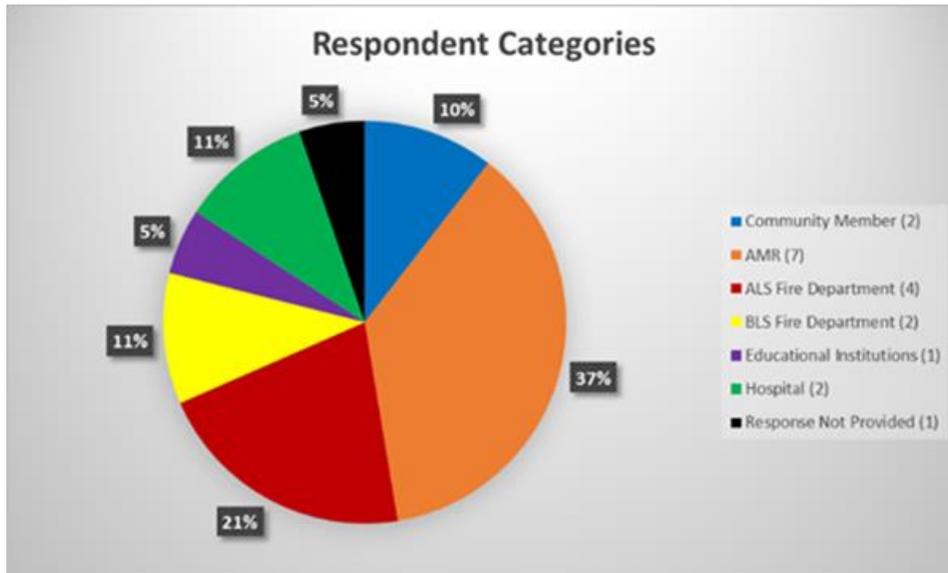
The EMS Agency is seeking your input to assist with our ongoing efforts to improve the EMS System for the County of Monterey. As a part of this process, we would like to complete an assessment of the EMS System as it currently stands and take an opportunity to look into the future to better meet the needs of patients and the system as a whole. We have chosen a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis as a tool to assist with this. Please spend some time thinking about the factors that positively and negatively impact patient care and our EMS System as a whole in all areas including, but not limited to operations, clinical, innovation, partnership/collaboration, and equity. Please use the form below to provide your feedback. We will utilize your input to inform our future efforts around EMS System design and improvement.

<p>The first two items on the SWOT analysis are primarily an internal facing assessment. They look at the strengths and weaknesses within the Monterey County EMS system itself. These are factors that are present realities and which EMS has a large amount of control or influence over.</p>	
<b>STRENGTHS</b>	
<b>WEAKNESSES</b>	
<p>The last two items on the SWOT analysis are primarily an external facing assessment. They look at opportunities and threats/challenges arising from external elements. The items may be largely outside of our control or influence, but nonetheless affect the work done within the EMS System.</p>	
<b>OPPORTUNITIES</b>	
<b>THREATS/CHALLENGES</b>	
<p>Additional Comments:</p>	

Name:

Organization:

Please provide your feedback by Sunday, June 11th, 2023  
 Completed forms may be submitted to the EMS Agency at:  
[EMSAdmin@co.monterey.ca.us](mailto:EMSAdmin@co.monterey.ca.us)



**RELEASE OF DRAFT RFP SCOPE OF WORK (SOW) FOR PUBLIC COMMENT**

The current agreement for Ambulance Services between the County of Monterey and American Medical Response is set to expire June 30, 2025. The Emergency Medical Services (EMS) Agency is developing a Request for Proposals (RFP) for ambulance service for the County of Monterey Exclusive Operating Area (EOA) to begin on July 1, 2025.

The EMS Agency is seeking feedback from members of the community, city and county officials, and the EMS system as a whole on the Draft RFP Scope of Work (SOW).

The draft of the RFP SOW and a form to submit feedback are available via the EMS Agency's website at [www.mocoems.org](http://www.mocoems.org).

Public meetings are being held to provide additional opportunities to hear from our community. These meetings will take place on the following days:

**Wednesday November 15, 2023, from 5:00 PM to 7:00 PM**  
at City Hall, 212 S. Vanderhurst Ave. King City, CA 93930  
Or via Zoom <https://tinyurl.com/ycx4w2mx> Passcode: 688712

**Friday November 17, 2023, from 5:30 PM to 7:30 PM**  
at the Community Room, Marina Library,  
190 Seaside Cir., Marina, CA 93933  
Or via Zoom <https://tinyurl.com/dywmcr6z> Passcode: 588333

**The public comment period closes on Friday, November 17, 2023.**

The EMS Agency looks forward to hearing from you.




In addition to opportunities to provide feedback in writing, the EMS Agency also hosted numerous meetings and public forums giving stakeholders multiple chances to speak directly to EMS Agency team members regarding their thoughts and ideas about the EMS system.

The EMS Agency utilized the insights that we obtained from these efforts as well as our own experience overseeing and regulating the EMS system to inform our work to develop a Request for Proposals (RFP) for ambulance services for the County of Monterey Exclusive Operating Area (EOA). Towards the end of 2023, the EMS Agency released a draft RFP Scope of Work for public comment. Once again, we sought feedback from members of the community, city and county officials, and the EMS system as a whole. The EMS Agency accepted written comments on the Scope of Work and held a series of public meetings both online and at locations throughout the county. We are using the feedback we received in writing and at these meetings to assist with edits and fine tuning of the RFP prior to its release to potential bidders.

# LOOKING AHEAD

Much of the EMS Agency's work in 2024 will center around the process to develop a Request for Proposals (RFP) for ambulance services for the County of Monterey. The agreement with our current provider of ambulance services will come to an end on June 30, 2025 and thus the EMS Agency must have a provider poised to assume responsibility for providing these services as of July 1, 2025. The process to draft and prepare the RFP for release to potential bidders is lengthy and technical in order to ensure compliance with not only statutes and regulations, but also the requirements of the County of Monterey Contracts and Purchasing Department as well as those of the state EMS Authority (EMSA).

In this report, we previously discussed our efforts in 2023 to assess the current status of our EMS system and identify areas for improvement. These efforts will continue in 2024 as the EMS Agency plans multiple opportunities for our stakeholder input, presents potential future EMS system delivery models, and reworks and revamps the language included in the RFP in general and the Scope of Work in particular. Our overall goal is to develop an RFP that not only meets all of these requirements, but one that will also result in a model EMS system consistent with the EMS Agency's Vision of providing compassionate and clinically appropriate care for the people of the County of Monterey.

In reaching this goal, the EMS Agency is also tasked with addressing the diverse and often conflicting viewpoints of our stakeholders. Some stakeholders seek an EMS system that focuses its efforts and resources on responses to prehospital requests for emergency medical assistance and transport, while others seek a system that also devotes efforts and resources towards requests for transports from and between medical facilities (interfacility transports or IFTs) that are outside of the pre-hospital care for which the EMS Agency is responsible.

Potentially included in these IFTs are requests for critical care transport (CCT) services for the transfer of patients with complex or unique medical needs beyond the scope of the average prehospital care provider. The current ambulance service agreement requires a Registered Nurse (RN) on-call 24/7 to accompany and provide medical care to these patients. With only one RN available, challenges arise when there may be more than one patient in need of transport.

Another EMS system design challenge for the coming RFP is finding a way to meet the needs of behavioral health patients who require transport to an out-of-county facility for continued care. The current ambulance agreement requires AMR to transport these patients, regardless of where the behavioral health facility is located. The farther away the receiving facility is, the more taxing transporting the patient becomes on the system because ambulances are taken out of the EMS system for an extended period. The longer a patient must travel in an ambulance increases safety risks for the patients and the ambulance crews.

To some, the answer may be simple: Add more ambulances to the system. More ambulances means higher rates, and the risk with higher rates is that residents of the County of Monterey will avoid calling 9-1-1 during a medical emergency. The EMS Agency must identify and design an EMS system model that, first and foremost, meets the needs of the patient, also an EMS system model that will navigate the conflicting needs of stakeholders, ensure that the County of Monterey receives at viable bids from an ambulance services providers, and minimizes the financial impact and burden to those patients who utilize the EMS system. This endeavor truly entails a intricate balancing act as the

inclusion of additional services or requirements increases the expense for the ambulance service provider and ultimately the rates faced by patients. Additionally, it may result in a lack of bidders and place the delivery of EMS in jeopardy.

For all of these reasons and others, in 2024 the EMS Agency is focusing our efforts on designing an efficient, clinically sound, and fiscally responsible EMS system for the County of Monterey.

# CONCLUSION

The EMS Agency would like to thank the Board of Supervisors for the opportunity to present the 2023 EMS Annual Report to highlight some of the work the team, along with our agency partners, achieved during 2023, bring attention to of the challenges our system faces today, and outline our goals for 2024. We are proud of what we have accomplished, grateful of the relationship with our partner agencies, and honored and committed to serving our community.

