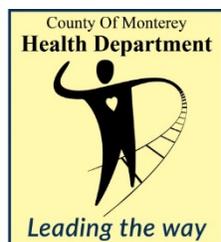


2017
2018

Monterey County Emergency Medical Services Agency Report to the Monterey County Board of Supervisors

ANNUAL REPORT

COUNTY OF MONTEREY | Health Department



Contents

Comments from the EMS Director	3
Comments from the EMS Medical Director	4
The Monterey County EMS Agency: 2017-2018	5
Financial Management	5
Community Services Area (CSA) 74	5
The Maddy Fund	6
Policy/Procedure and Protocol Revisions	7
Website and Social Media	7
Website Redesign	8
Facebook Account	8
The Monterey County EMS System: 2016-2017	9
The 9-1-1 Emergency Medical Services System	9
Exclusive Operating Area (EOA) Ambulance Provider: American Medical Response Monterey	11
Dispatch Time Performance	12
Response Time Performance	13
AMR Response Time Performance	13
Computer Aided Dispatch (CAD) System and FirstWatch	17
The Monterey County Trauma System/Natividad Trauma Center	17
The Monterey County Cardiac Care/STEMI System	22
STEMI Quality Improvement (QI)	22
The Monterey County Stroke System and QI Committee	23
Monterey County EMS Data System	24
EMS Advisory Committees	25
Improving Patient Care and System Quality Improvement	25
The EMS Quality Improvement Program	25
EMS Personnel Certification, Accreditation, and Discipline	27
EMT Certification/Recertification	27
Paramedic Accreditation	28
Prehospital Discipline	28
EMS Education	29
The Monterey County EMS System: Looking Forward	29
EMS 20/30: Monterey County’s Process to Assess, Design and Implement a Triple Aim-Focused EMS System for the next decade	29

Phase 2: EMS System Strategic Plan..... 30
Phase 3: Development, Release, Scoring, and Awarding of the Request for Proposal..... 31
Mutual Aid Provided During a Disaster 31
Annex A.....33

Comments from the EMS Director

Honorable Chair and Members of the Board of Supervisors:

During the July 1, 2017 through June 30, 2018 Fiscal Year, the Monterey County EMS Agency had numerous significant accomplishments. I would like to highlight three of these accomplishments, each with long term benefit to the people of Monterey County.

The Monterey County EMS Agency worked closely with first responders, ambulance providers, base hospitals, and medical communications centers to help them develop organization-specific, state law-mandated Quality Improvement Plans. Because emergency medical services is the prehospital practice of medicine, overseen by a physician, quality improvement programs are necessary to assure patient safety and clinical compliance with protocols. Each Quality Improvement Plan describes the quality improvement activities that the organization will conduct and describes the linkage of that quality improvement program with the EMS Agency's System-wide Quality Improvement Program.

EMS System Policies and Procedures set standards for, and define the clinical and operational characteristics of, the Monterey County EMS System. This year, the EMS Agency created or revised over seventy-five EMS System Policies and Procedures. In fact, this is the third consecutive year that more than 50 EMS System Policies and Procedures have been created or revised. These revisions assure that the prehospital care provided within Monterey County is contemporary, clinically-based, and safe.

Working closely with EMS System stakeholders, the EMS Agency made significant progress to develop a single, unified EMS Data System that integrates all first responders, ambulance providers, communication centers, and hospitals. This EMS Data System will allow meaningful quality improvement at the provider organization level and the EMS System level. The EMS Data System will also facilitate health improvement and research through statistical analysis, and will in the final phase be connected to a Health Information Exchange, to provide health information directly to traditional health care providers and to allow EMS personnel to access patients' health information during an emergency.

Once again, the EMS Agency would like to thank the Honorable Members of the Monterey County Board of Supervisors, Dr. Lew Bauman, Ms. Elsa Jimenez, community partners, first responders, emergency telecommunications professionals, EMTs and paramedics, and emergency department and specialty center personnel for your dedication, commitment, and effort in support of the Monterey County EMS System.

Respectfully submitted,

Michael Petrie

Michael Petrie, EMT-P, MBA, MA

Comments from the EMS Medical Director

Many months, and in many cases years, have been spent to develop a state-of-the-art EMS system with the finest cardiac, stroke, and trauma care. EMS policies and protocols written for our EMTs and paramedics are designed to ensure the best care is started in the field- “prehospital” setting. The past year has seen the EMS agency dedicated to checking and reconciling the care provided with an enhanced Continuous Quality Improvement (CQI) program. Having personnel and equipment in the right place is only one part of quality care. Was the right drug given and in the right amount? Most important, has the medic providing care maintained their training and skills required in Monterey County, which in some cases exceeds state requirements? With electronic records, many components of this program are now done real time with a focus on teamwork, integrity, and transparency.

The EMS agency has also focused on communications and disaster management and acted as a lead agent working with our four hospitals. A web-based hospital status system was fully implemented, with real-time updates on each hospital’s resources and capabilities. This allows prehospital providers to have better information to determine the best patient destination. An 800 MegaHertz radio system is also in place in our hospitals. This system is extremely important in case of routine communication failure. Developing a system with better disaster communications in place between both prehospital and hospital providers has been the result. Communication drills with both systems are conducted daily in our community.

Every policy and protocol is written to get the right resources to the right place, right time, and as efficiently as possible. With a county as rural as it is urban, the EMS agency continues to insure uniformity of healthcare anywhere and everywhere within our county.

*BEST/MOST APPROPRIATE RESPONSE-----BEST FIELD CARE----RIGHT DESTINATION-
BEST OUTCOME*

I have lived in Monterey County over 25 years. It is a very special and unique place. I am proud to be a resident here and honored to be leading our community of emergency medical experts in caring for our residents.

Sincerely,

James Stubblefield, M.D.

James Stubblefield, M.D., FACEP, FAAEM

The Monterey County EMS Agency: 2017-2018

Financial Management

Community Services Area (CSA) 74

In 1998, 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 (now) special tax for CSA 74 is assessed in accordance with the Monterey County Land Use Codes. The basic unit is a single-family dwelling. 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 for fiscal year 2017-18 is as follows:

CSA units	118,199	\$1,608,720
Trailer spaces and hotel rooms	<u>320</u>	<u>76,355</u>
Total	118,519	\$1,685,075

During FY17-18, the EMS Agency worked to implement the changes approved in FY16-17 that simplified the reimbursement process and minimized the records that must be submitted to the EMS Agency for expenditure review or audit while continuing to meet CSA-74 disbursement requirements and other applicable laws.

In addition, the EMS Agency used CSA-74 monies to pay for the initial costs of the implementation of a single integrated electronic patient care reporting (ePCR) system county-wide 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.

As previously reported, in FY15-16, the EMS Agency assessed CSA-74 Fund utilization and determined a need to increase reserves to provide the equivalent of 45 days of operating expenses for a 911 paramedic ambulance provider, should the contracted 911 provider walk

away. The EMS Agency did not make progress in the achievement of this goal during FY17-18 but will continue to work to achieve this goal.

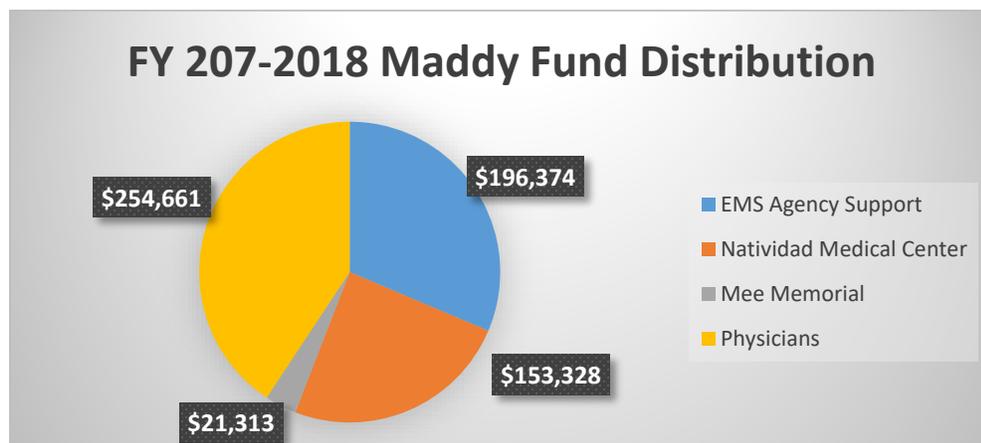
The Maddy Fund

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 adoption of Senate Bills 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 to fund 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 is as follows: 58% (or 52.2% of total collections) to reimburse physicians for a portion of unreimbursed indigent services/bad debt costs; 25% (or 22.5% of total collections) to reimburse hospitals which provide a disproportionate share of unreimbursed emergency medical care; and 17% (or 15.3% of total collections) for the Health Department's Emergency Medical Services Agency discretionary activities. The distributions from the fund to hospitals and the Health Department are made during the fiscal year. Distributions of the physician reimbursement are made on a quarterly basis.

During FY17-18, the EMS Agency implemented the use of a new database developed by the Health Department IT staff during FY16-17 and began to work with providers to transition to a secure, electronic submittal of claims that will eliminate, or at least minimize, the need for manual data entry and thus increase the accuracy of data.

The EMS Agency goal for FY18-19 is to lead a successful transition of providers to a secure, electronic submittal of claims to increase data accuracy. A table showing the disbursement of Maddy Funds appears below:



Policy/Procedure and Protocol Revisions

In Fiscal Year 17-18, the Monterey County EMS system continued to progress.

July 1, 2017 saw the implementation of the policies developed in the previous Fiscal Year. There were 29 new and revised policies effective July 1. Policies were put in place to help manage paramedic staffing for special events, to include use of the National Practitioner Data Bank as part of the background checks for EMT applicants, to give direction for management of the scene when the patient has engaged the use of the End of Life Option Act, and to permit the use of bicycle teams at special events among many other changes.

To ensure that the Monterey County EMS system continues to move forward, the EMS Agency did not stop the policy and protocol development and revision process. The EMS Agency found nine (9) policies that were out of date or that should be combined with other policies and were deleted. There were 43 policies created or revised and 26 new or revised treatment protocols to be implemented on July 1, 2018. Among the new and revised policies are policies:

- allowing for designated alternates for the members of the EMCC,
- for definitions to ensure consistency of terms across all policies and protocols, scope of practice policies to ensure clear delineation of scope of practice between paramedics, EMT's, Emergency Medical Responders, and those functioning under a Public Safety First Aid scope of practice,
- for training, monitoring, and testing the EMS disaster-related communications systems,
- allowing for the full Monterey County paramedic scope of practice in the event of communication failure with the base hospital,
- specifying the equipment and supplies to be carried on ambulances and both paramedic and BLS fire vehicles,
- revised to help ensure patient and crew member safety when transporting behavioral health patients,
- which allow the EMT to provide primary patient care during transport in specified settings.
- To decrease the use of backboards.
- Requiring the use of an electronic patient care record (PCR) for all EMS service providers.

Website and Social Media

Goal Seven in the EMS Agency's Strategic Plan is to communicate the EMS Agency's programs, activities, and services to EMS stakeholders. Throughout Fiscal Year 17-18, the EMS Agency continued to improve its website and social media presence, which are the primary means of communicating with most EMS system stakeholders, especially field EMTs and paramedics. This year, the EMS Agency's outreach efforts continued to focus on three areas:

website redesign, expanding the use of the Facebook account, and rebidding the Monterey County EMS App (smartphone application). These social media communication channels are increasingly important to reach the younger and more connected EMS professionals and the public within Monterey County.

Website Redesign

During FY17-18, the EMS Agency completed a redesign of the website and added significantly new content to its web page. It also became much easier to navigate. This webpage can be accessed at: www.MoCoEMS.org. The content includes agendas and meeting packets for all EMS Advisory Committees, policies and procedures, clinical treatment protocols, EMS Plans, a Trauma Plan, Quality Improvement Plans, and EMS provider performance data. Also included is a section on the Agency's EMS 20/30 System Redesign Process – including everything from public notices to media coverage. During the next fiscal year, EMS provider contracts, and additional performance reports will be made available on this website. There is also a tab for submitting unusual occurrences – a subject discussed later in this report. This website redesign is a significant improvement in our ability to provide information.

Facebook Account

In March 2016, the EMS Agency created a Facebook page, which is used primarily to communicate with the public and members of the EMS system, especially emergency medical technicians and paramedics in the field. This Facebook page features forthcoming continuing education opportunities, announcements of meetings and other events, EMS System advisories, and pictures of EMS providers and the EMS System, and other related information. The EMS Agency has even used this Facebook page to query EMS Providers about their recommendations for policy and procedure and clinical protocol changes. This Facebook page directly links to sources of information on the EMS Agency's website. The page is www.facebook.com/mocoems. The page can also be found by searching for "Monterey County EMS" within Facebook. Since starting the page in March 2016, the Monterey County EMS Facebook page has more than 1,015 likes, an increase of about 365 likes during the past fiscal year. There is even a "chat" function allowing for questions or comments to be submitted directly to the EMS Agency.

EMS App (software application)

The EMS Agency solicited bids for the development of a new EMS App for the field users. In September 2018, the app went "live." It includes all contacts, protocols, policies and resources needed for field personnel. It is available in both iOS and Android applications. Some of the more advanced features include; drug calculators, one button push driving directions to special facilities and phone numbers, and MCI policy references. The EMS App is dynamic and will

include all updates to policy real time. Feedback from users has helped develop some user enhancements such as the ability to submit forms electronically in the field.

The Monterey County EMS System: 2016-2017

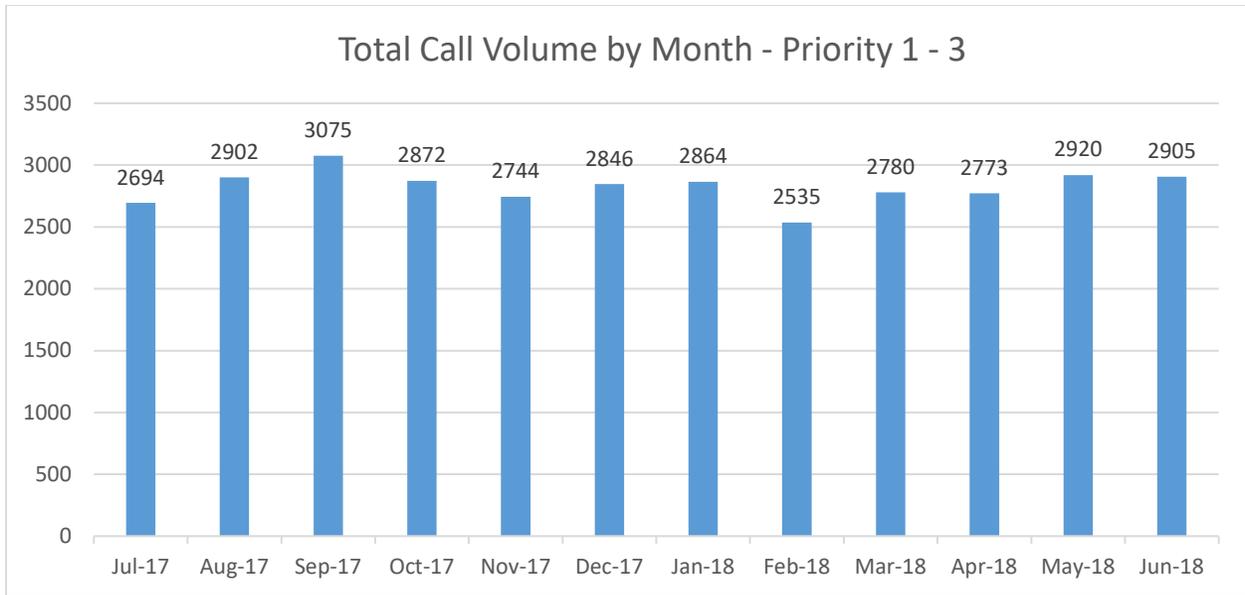
The 9-1-1 Emergency Medical Services System

A functioning EMS system is composed of diverse components working together to meet the needs of those who call 9-1-1 for medical assistance. Coordination of these EMS system components is the responsibility of the EMS Agency. The EMS Agency actively monitors the response to medical emergencies, approves EMS training providers for public safety first aid, Emergency Medical Responder (EMR), Emergency Medical Technician, Paramedic, and EMS continuing education. The EMS Agency also establishes systems of care for specialty services such as stroke, trauma, and heart attacks.

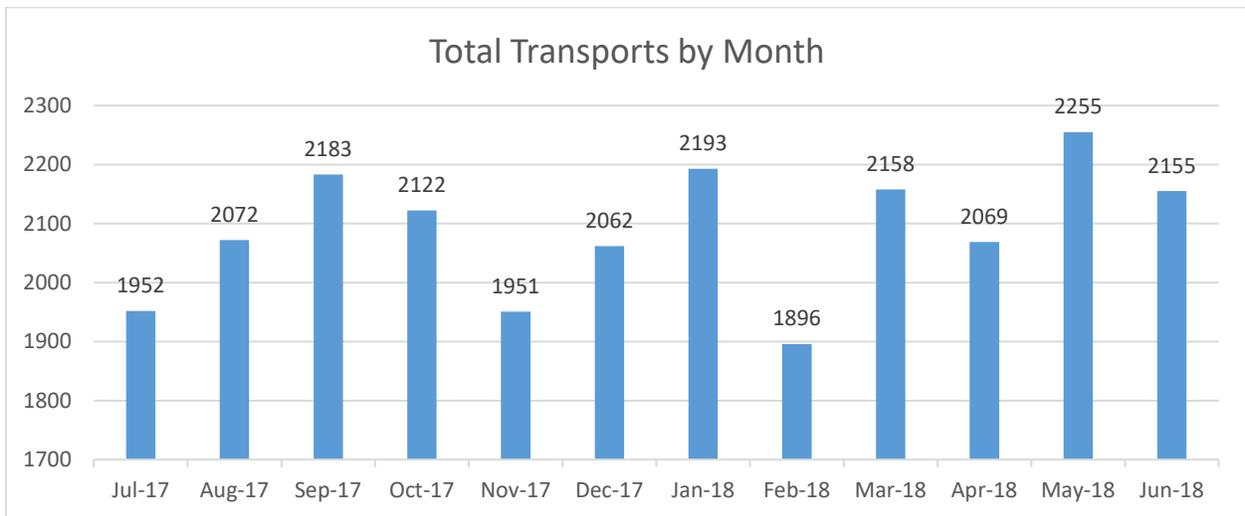
The medical response to 911 calls involves multiple EMS providers. Public safety agencies provide first response. These responders typically arrive before the ambulance and can initiate assessment of the patient and provide care. First response providers are mostly trained to the EMT level but some provide paramedic-level care in several areas of the County. In the rural areas, EMT and EMR levels of care are provided.

There are four ground ambulance providers in the county and all ambulances are staffed to provide paramedic level care. There are also two air ambulance providers with bases in Monterey County. The CHP also sometimes provides air transport at the paramedic level of care.

American Medical Response (AMR), the contractor that provides ambulance services throughout most of Monterey County, had another very busy year. They responded to more than 33,910 requests for service, resulting in 25,068 transports. The first chart shows the number of calls for service received by AMR in FY 2017-2018 by month for priorities 1 – 3. Priority 1 and 2 calls are the most serious and require a red lights and siren response. Priority 2 does not require red lights and sirens.



The chart below shows the transport volume for AMR for that same reporting period.



The Monterey County Regional Fire District (MCRFD) provides ambulance service to the Carmel Valley area. MCRFD also saw an increase in requests for ambulance service; they responded to 1,895 calls resulting in 971 transports.

Carmel Fire Department provides ambulance service to the City of Carmel-by-the-Sea and responded to 1,211 calls and transported 775 people.

The Fort Hunter Liggett Fire Department serves Fort Hunter Liggett and had 139 ambulance calls with 61 patient transports. The Fort Hunter Liggett Fire Department also provides mutual aid first response services to the area surrounding the military base.

Air ambulances (helicopters) are used for the transport of critically injured or ill patients in the more rural parts of the county. These resources can sometimes be a life-saving option in those circumstances where ground transport times would be extended.

CALSTAR has provided air ambulance services to Monterey County for nearly thirty years. In the FY 2017-2018 period, CALSTAR responded to 112 calls for service around the County. CALSTAR also provides critical care air ambulance services to transfer patients from one hospital to another. CALSTAR provided 191 interfacility transfers.

Mercy Air has been contracted by Fort Hunter Liggett to provide air ambulance service on base. Fort Hunter Liggett has allowed Mercy Air to provide response and transport to air ambulance requests off post when possible. Mercy Air had one transport out of six flights in FY 2017-2018.

Stanford Lifeflight, and the California Highway Patrol (CHP) also occasionally provide occasional air ambulance services in the county.

Exclusive Operating Area (EOA) Ambulance Provider: American Medical Response Monterey

American Medical Response (AMR – Monterey) is Monterey County's contracted ambulance provider for the Monterey County Exclusive Operating Area (EOA). State law allows the EMS Agency to contract with an ambulance provider for a specific EOA by way of an agreement, which grants exclusivity to the provider for calls generated in the EOA. The current agreement between the EMS Agency/County and AMR grants exclusivity for 911 paramedic Advanced Life Support (ALS) emergency calls, critical care transport, and Basic Life Support (BLS) interfacility transports. The Monterey County Regional Fire Protection District, the Carmel Fire Department, and the area within Fort Hunter Liggett are not served by AMR. Those areas are served by their own respective fire departments, who maintain separate agreements with the County. AMR is by far the largest transport provider in the Monterey County EMS system and provides approximately 93% of the total transports. AMR is nearing the end of their current contract/agreement with the County. That necessitates a Request for Proposal (RFP) process to determine who the provider will be for the next five to ten-year cycle for this EOA. That process is described in more detail later in this report.

The agreement with AMR sets specific standards for operational, clinical, and financial performance, and includes detailed provisions for monitoring and enforcement of the agreement. In past years, much of the effort in monitoring the agreement revolved around response time compliance. Those efforts are important and are discussed in more detail in a later section of this report. Response time compliance is not the only standard to review however when examining the overall performance of AMR.

In 2016, the EMS Agency began working with AMR to develop performance “metrics” – measurements that are used to analyze AMR’s performance beyond response time compliance. The goal is to look at other indicators involving clinical quality and additional aspects of operational performance. The EMS Agency continues regular monthly meetings with AMR (started in January 2017) to review performance metrics with AMR management and EMS Agency staff. These meetings last for approximately two and a half hours, thus allowing for a thorough review of those metrics. Other issues as identified by either the Agency or AMR are also discussed at those meetings. AMR has been responsive to requests for additional reports and has worked collaboratively with the EMS Agency to revise and expand reports. An example would be the creation of run charts to show changes over time.

The reports provided by AMR contain information on responses (including mutual aid requested and provided), calls or transports upgraded from code 2 (non-emergency) to code 3 (emergency), total transports, standby hours, unit hours scheduled and actual unit hours provided (ability to staff scheduled shifts), mechanical failures and crashes, dispatch performance, clinical measurements such as cardiac arrest saves and advanced airway proficiency, staff turnover and tenure information, employee training, public education, complaints, and patient offload times at the hospital. Many of these metrics show that the system is operating well. An example is the very small number of code two transports that are upgraded to code three. This number is consistently between a handful and under twenty – an impressive number considering the total call volume for a month is often close to 3,000 calls. An area for improvement however is the cardiac arrest survival rate – which is often lower than other high performance systems. Improving this metric is a multi-faceted challenge which involves providers on several levels. Looking at these metrics can help to spot trends in the early stages before they become significant challenges or issues and can provide a roadmap for areas to improve. Some issues, like staffing levels, are a frequently encountered challenge, not only in this system but in many others.

The EMS Agency will continue to work toward more comprehensive reporting with additional EMS provider agencies. Lessons learned from the process with AMR will help to facilitate that process.

Dispatch Time Performance

One of the metrics reported on and measured by the EMS Agency is dispatch performance or dispatch interval performance. This is the time it takes for the EMS dispatcher to assign an ambulance resource to an emergency call. In the current agreement, the provider is required to assign a resource to the pending EMS call in under :59 seconds, 90 percent of the time. Current performance for Priority 1 calls (highest medical acuity) is around 98%. The EMS Agency continues to monitor these metrics each month to identify any improvements needed or barriers to remove, to maintain high compliance to these time sensitive actions.

Response Time Performance

The AMR agreement also stipulates response time performance standards based on the perceived acuity of the call and the population density of the area in which the call is located. For 9-1-1 calls, there are three priorities:

Priority 1 calls are life-threatening emergencies, such as cardiac arrests, choking, and major hemorrhage. Priority 1 calls receive a red light and siren response from first responders and ambulance.

Priority 2 calls are non-life-threatening emergencies that require an urgent red light and siren response.

Priority 3 calls do not require a red light and siren response, but require an immediate response due to an urgent, but not life-threatening, medical condition.

The required response times for each emergent priority and zone (based on population density) are indicated in the table below. The map in Appendix A identifies the location of each color zone, based on population density. The green zone represents the highest population density (i.e. areas around Salinas and the Peninsula), yellow is less populated (cities such as Castroville, Carmel, and Soledad), orange (areas like the 101 corridor), and red (wilderness areas). Per the agreement, late calls can sometimes be exempted for reasons such as disasters, extraordinary weather, road closures, or call “spikes” in the system. When exemptions are granted, those calls are no longer considered to be non-compliant.

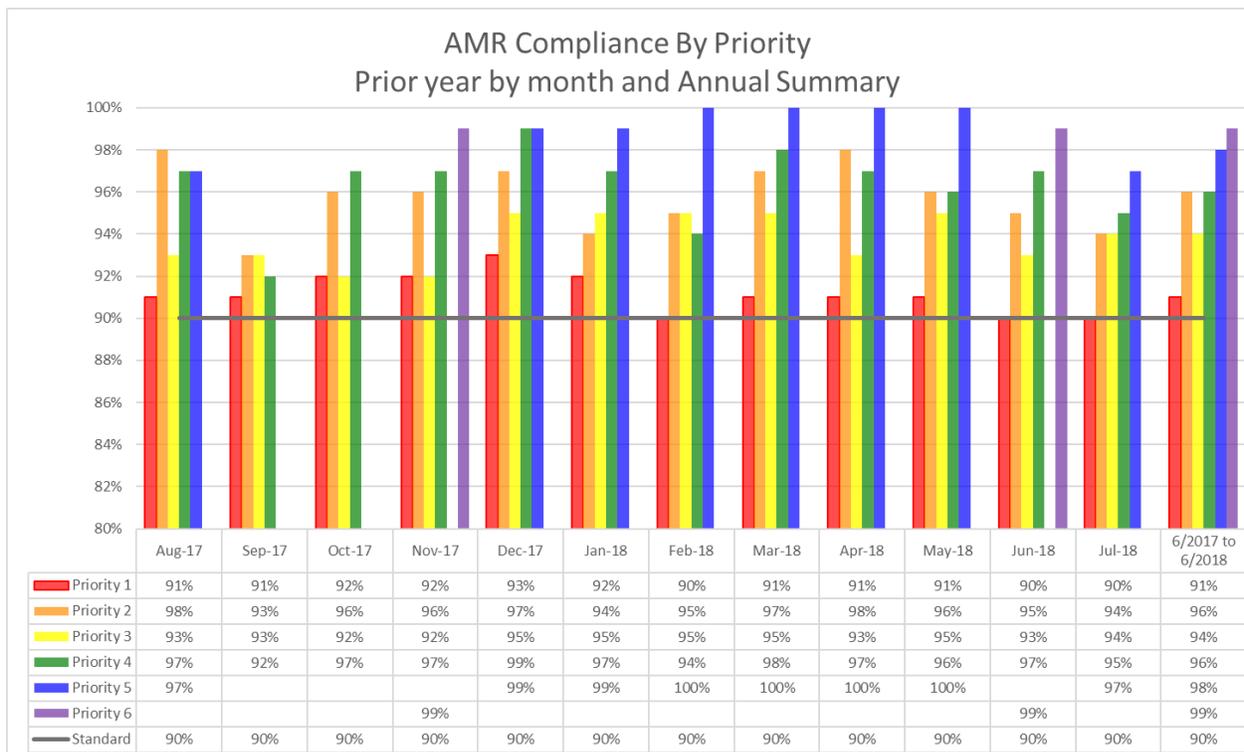
Time are calculated in minutes	Green	Yellow	Orange	Red
Priority 1	8	12	16	ASAP
Priority 2	10	16	20	ASAP
Priority 3	12	20	24	ASAP

AMR Response Time Performance

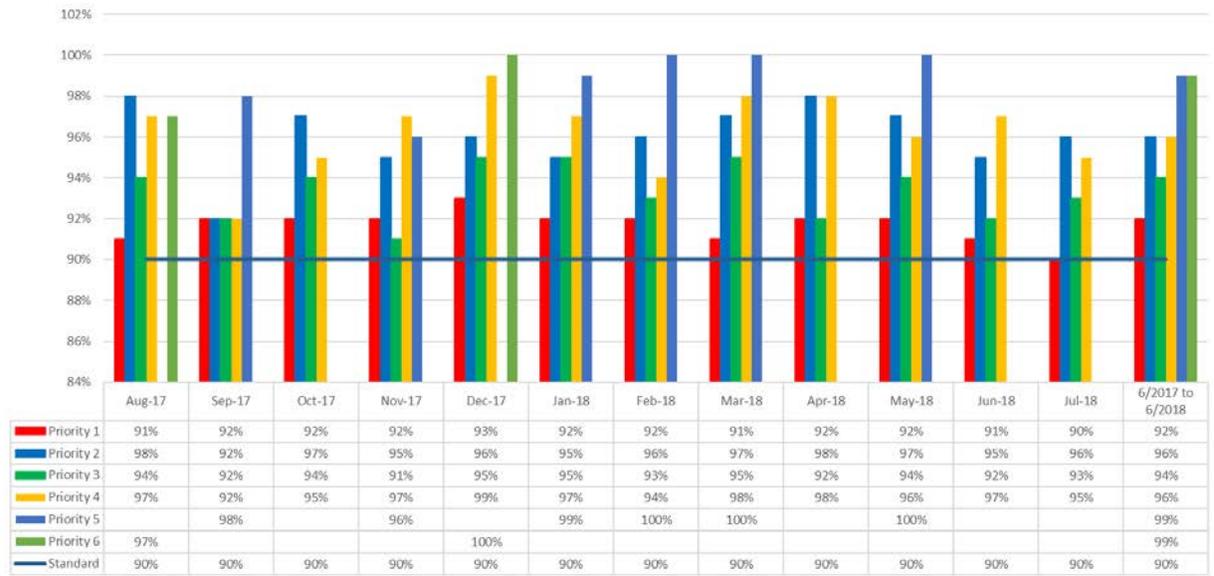
In previous Annual Reports, the EMS Agency reported that AMR failed to meet contractually required response time standards on a consistent basis. AMR’s overall response time performance has improved significantly during the period of this report. There continued to be challenges in the Yellow and Orange zones however, especially with priority one calls. AMR pays fines when certain requirements are not met, as stipulated in the contract. They also pay per minute fines for “outliers” or calls that are excessively late.

Starting in March 2017, the EMS Agency and AMR both started using the FirstWatch system to adjudicate response time compliance for AMR. That system is described in more detail later in this report, but is mentioned here as it is such an important part of measuring response time compliance. Since both the EMS Agency and AMR are now using the same system, and have real-time access to the same information, the discrepancies and differences in analysis of response time data are no longer an issue. This is a major improvement in how that process is conducted.

The following charts show AMR’s response time compliance for a twelve-month period from August 2017 to July 2018. The latest data available as this report was developed is included. Blank spaces represent months in which there were not enough calls (100) to adequately analyze data. When that happens, the months are “rolled up” until the 100-call threshold is met.



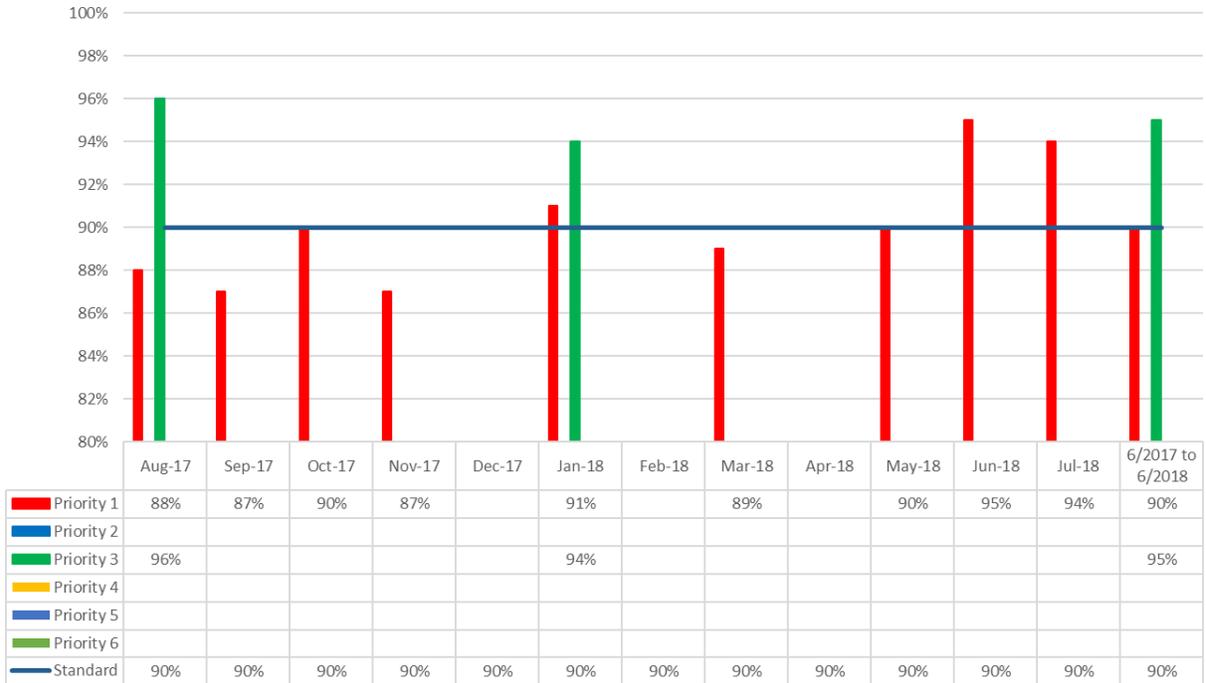
Compliance By Priority Green Zone Prior year by month and Annual Summary



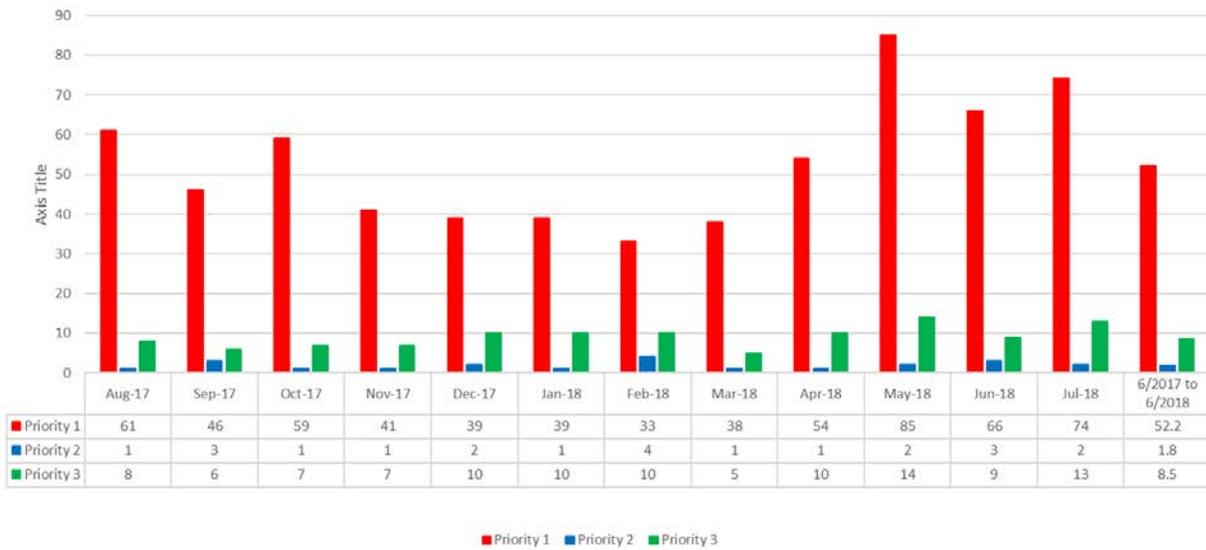
Compliance By Priority Yellow Zone Prior year by month and Annual Summary



Compliance By Priority Orange Zone Prior year by month and Annual Summary



Count Of Calls By Priority Red Zone Annual Summary is monthly average for prior year.



As noted earlier, AMR did not meet response time compliance standards in the Yellow and Orange zones for several months during the time-period discussed in this report. They submitted a revised deployment plan and established a new 12-hour unit to improve compliance in both those zones. The EMS Agency will continue to monitor compliance and will assess fines as appropriate. It should be restated however that overall response time compliance improved significantly since the last annual report submitted to the Board.

The EMS Agency reports this information at numerous meetings, including the Contract Compliance Working Group (CCWG), the Medical Advisory Committee (MAC), and the Emergency Medical Care Committee (EMCC). Long time members of the CCWG have expressed appreciation for the improved level of reporting on response time compliance and other data over the past several years.

Computer Aided Dispatch (CAD) System and FirstWatch

As the contracted ambulance provider for most of the county, AMR operates their EMS call intake and dispatch functions from the Monterey County 911 Emergency Communications Department (ECD). Monterey County ECD is a co-located, combined public safety agency dispatch center. In February of 2017, Monterey County ECD went live on a new CAD (Computer Aided Dispatch) system, replacing their decades old system for a high performing multi-agency CAD system. AMR is integrated into the county's 911 CAD and phone system, which allows coordinated services. These services include; shared radio channels for interoperability, system status management and deployment of ambulance resources, use of MPDS (Medical Priority Dispatch System), Pre-Arrival Instructions and Dispatch Life Support to callers until responders arrive on scene. All of AMR dispatch personal are certified Emergency Medical Dispatchers.

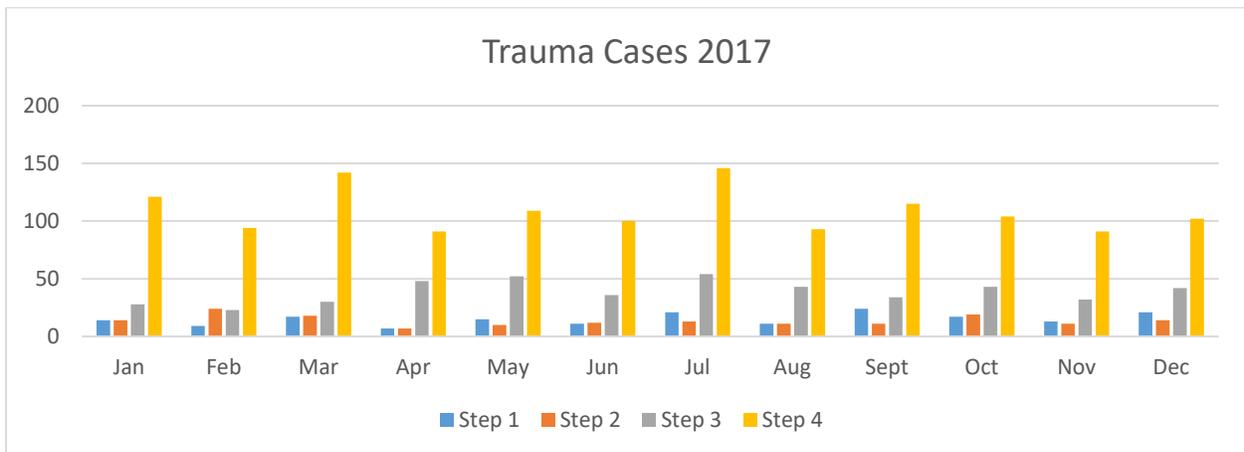
AMR and the EMS Agency use FirstWatch, a third-party data management system, to collate, reconcile, identify and to report on many performance metrics. Firstwatch is interfaced into the 911 CAD system and can export any data points, including GPS, necessary to monitor contract compliance and identify EMS system performance. Call volume, response time performance, triggers and alerts are examples used currently. FirstWatch provides real time system analytics to monitor system performance by the hour.

The Monterey County Trauma System/Natividad Trauma Center

Natividad Medical Center was designated as Monterey County's Level II Trauma Center in 2014 and began operations on January 5, 2015. In 2016, Natividad Medical Center underwent a consultative visit from the American College of Surgeons Committee on Trauma (ACS-COT) to identify areas in need of improvement to obtain the ACS-COT's designation as a Level II Trauma Center. Since that time, Natividad Medical Center and the EMS Agency have worked

closely together to implement the changes needed to ensure a successful verification site visit. The verification site visit is scheduled to take place in early November of 2018. The Monterey County EMS Agency has worked closely with Natividad Medical Center to development communication pathways, collaborate with them in updating policies and protocols related to the trauma system, and to ensure Quality Improvement efforts and loop closure are efficient and appropriate. Natividad Medical Center offers monthly Trauma Grand Rounds, one-hour free educational presentations, open to EMS personnel to assist with education and training of prehospital personnel.

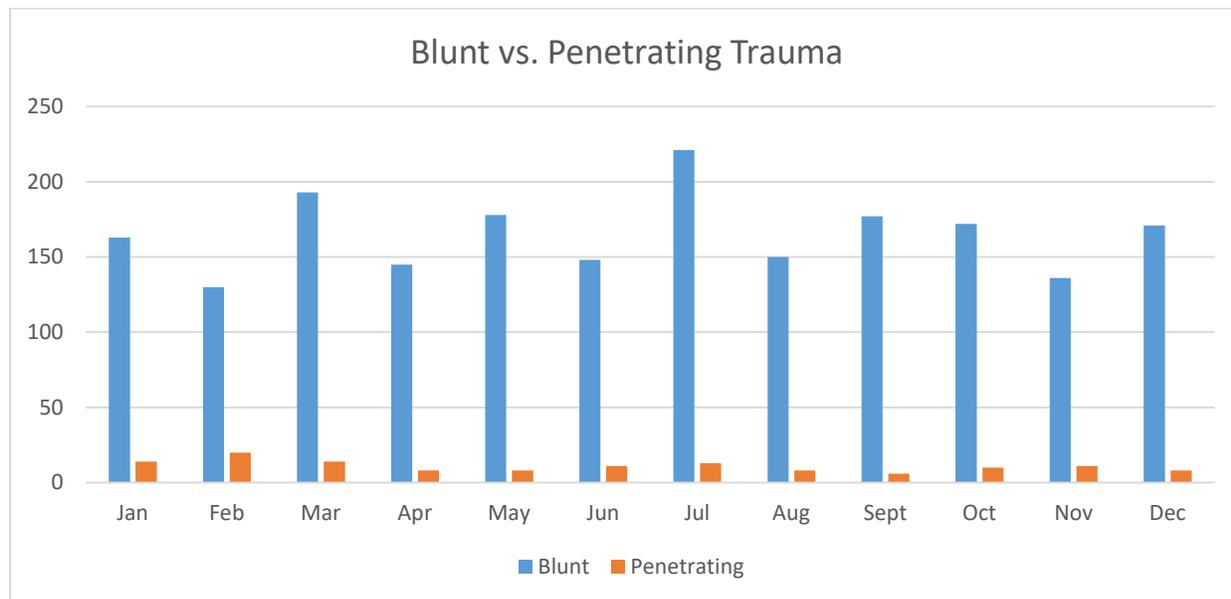
The Monterey County EMS System uses the Centers for Disease Control (CDC) Field Trauma Triage Criteria, which uses four steps to categorize the severity of the trauma patient’s injury. Step 1 patients are the most seriously injured patients based on vital signs and level of consciousness. Step 1 patients are transported to a trauma center. Step 2 patients have significant injuries as assessed by field personnel, based on anatomical findings, such as penetrating injuries to head, neck and torso, and extremities close to the torso; serious chest, pelvic or skull injuries; paralysis and other serious injuries. These patients are also transported to a trauma center. Step 3 patients are categorized based upon the mechanism of injury, such as falls from greater than 20 feet, serious motor vehicle accidents, motorcycle accidents, or auto versus pedestrians. These patients are transported to the trauma center as well. Step 4 patients are patients with co-morbidities, such as pregnancy >20 weeks, older adults, patients on anticoagulants or with bleeding disorders, or based upon EMS provider judgement. Step 4 patients can be transported to non-trauma centers in the Monterey County EMS System, since those facilities can effectively care for those patients’ injuries. The following chart identifies EMS system trauma patients by their step criteria and by month for the calendar year 2017.



During 2017, the Monterey County EMS system treated and/or transported 2,116 trauma patients. That number includes patients throughout the spectrum of trauma care, from patients with minor injuries to patients with life-threatening and ultimately fatal injuries. Beginning on January 1, 2017, the EMS Agency further refined the definition of Step 4 patients to be in closer compliance with the CDC Trauma Triage Criteria. As expected, that number shows a marked

decrease from last years' report, which showed over 3,600 trauma patients treated in the EMS System. This change reflects the refining of the Step 4 trauma triage definitions.

Trauma patients are also classified as “blunt” or “penetrating” trauma. Blunt trauma refers to injuries sustained in motor vehicle collisions, motorcycle or bicycle accidents, pedestrians struck, falls, various kinds of assaults, and other related mechanisms of injury. Penetrating trauma results from such mechanisms as gunshot wounds or stabbings. The chart below identifies the number and percentage of blunt and penetrating trauma patients in Monterey County during calendar year 2017.



The EMS Agency has worked closely with Natividad Medical Center and with the other hospitals within Monterey County to obtain, aggregate, and report on countywide data to show a “systems” approach to the trauma system in Monterey County. 2017 data shows more aggregated data than previous years. The EMS Agency has notified Natividad Medical Center that an analysis of the time and money spent monitoring the trauma system is underway, and that the annual fee paid by the trauma center will increase to cover the EMS Agency’s costs.

One of the major accomplishments of the Monterey County Trauma System was the finalization of an agreement between the County of Monterey EMS Agency and Natividad Medical Center for the provision of trauma services. This agreement delineates the responsibilities of both the EMS Agency and Natividad Medical Center, and assists the Trauma System by setting standards by which Natividad Medical Center functions as a Monterey County-designated Level II Trauma Center.

In 2017, the EMS Agency formed a Helicopter EMS (HEMS) Utilization Task Force, a multi-disciplinary group assembled to fully evaluate each use of an airship within the 9-1-1 system to ensure appropriate usage. The group finalized a scoring mechanism to objectively evaluate airship usage in Monterey County. Unfortunately, the group has been put on hold until the EMS

Agency is better able to forward the Patient Care Reports from all air providers, which contain Protected Health Information (PHI), to all members of the group in a HIPAA compliant manner.

Trauma Related Committees

California Title 22, Division 9, Chapter 7, §100255 (o) requires “quality improvement and system evaluation to include responsibilities of the multidisciplinary trauma peer review committee.” This requirement is met in Monterey County by the participation of Natividad Medical Center and the Monterey County EMS Agency in Santa Clara County’s Trauma Executive Committee, composed of Trauma Surgeons and Trauma Program Managers from Natividad Medical Center, Santa Clara Valley Medical Center, Stanford Medical Center, and Regional Medical Center of San Jose; these are the Trauma Centers that provide services to Santa Clara, San Benito, Santa Cruz, San Mateo and Monterey Counties. All participating hospitals perform peer review of selected cases at the Trauma Executive Committee, and select one case from each hospital to be presented at the Trauma Care System Quality Improvement Committee (TCSQIC). The TCSQIC is a larger group comprised of representatives from Santa Clara, Santa Cruz, San Mateo, San Benito, and Monterey County Trauma Centers and EMS Agencies. Data is presented as well as case presentations selected at the Trauma Executive Committee meetings. The TCSQIC and the Trauma Executive Committee both meet every other month.

Natividad Medical Center and the Monterey County EMS Agency also participate in the State of California’s Bay Area Regional Trauma Care Committee (RTCC). The RTCC meets 3 times per year, and brings together representatives from all Trauma Centers and EMS Agencies in the California Trauma Bay Area Region. This region consists of Solano, Contra Costa, San Francisco, San Mateo, Alameda, Santa Clara, Santa Cruz, San Benito, Monterey, and Marin Counties. The State of California established five RTCCs in 2008 to facilitate communication and collaboration within and between regions, to share and support best practices, to assist with the interpretation of regional data, and to provide requested technical assistance to local EMS agencies and to the State EMS Authority related to the development and operation of a system of trauma care for the State of California.

Ongoing goals for the trauma system are summarized in the following general areas:

- Continued monitoring of the care provided in the trauma center by way of data analysis, the reporting of relevant data as appropriate, and participation in local and regional trauma audit committees.
 - Monterey County meets this goal by participating in RTCC, TCSQIC and Trauma Executive Committee meetings in Santa Clara County. Additionally, Monterey County holds quarterly Trauma Evaluation Quality Improvement Committee (TEQIC) meetings, where representatives from Monterey County hospitals and other counties that send trauma patients to Natividad Medical Center, Natividad Medical Center, and prehospital care providers receive data from the EMS Agency, and advise the EMS Agency on trauma system policy, organization, training, and equipment. Meetings are confidential and are not open to the public

because TEQIC evaluates trauma care of individual patients in the form of case reviews. Agenda items include updates on policy development or protocols, continuing education opportunities, trauma data review, review of field triage and patient inclusion criteria, and other indicators.

- Further development and evaluation of the trauma data system to ensure the availability of accurate data for use by local system stakeholders and reporting to other entities as required by statute and regulation, and to ensure that data entered and reports generated are accurate, valid, and easily utilized by users of the system.
 - Monterey County EMS Agency meets this goal by regular reporting of aggregated data to stakeholders at the quarterly TEQIC meetings.
- Continued analysis of the care being provided to trauma patients at the field level to include patient assessment, treatment, and destination decisions.
 - Monterey County EMS Agency meets this goal by the Trauma Coordinator reviewing every trauma call transported by EMS providers in Monterey County. Issues identified are addressed with both the Trauma Center and the EMS provider.
- Revision and development of policies and procedures based on new information and identified need.
 - Monterey County meets this goal by regular review and revision of trauma policies and protocols.
- Continued integration of non-trauma center hospitals in Monterey and adjacent counties in trauma system planning and quality improvement efforts.
 - Monterey County EMS Agency meets this goal by the inclusion of all hospitals within and outside of Monterey County that send patients to Monterey County in the membership of the TEQIC meetings.
- Continued analysis of trauma system funding streams, costs, and reimbursement to ensure long term financial viability of the system.
 - Monterey County EMS Agency will meet this goal by performing a time study to more accurately assess the costs incurred by the EMS Agency in the trauma system. These costs will be passed on to Natividad Trauma Center to assure financial solvency of the Trauma System in Monterey County.

New goals for 2018 – 2019 fiscal year include:

- Assisting Natividad Medical Center to obtain verification from ACS-COT as a Level II Trauma Center.
- Continued review and revision of trauma policies and protocols.
- Identification of trauma issues and training issues in the prehospital trauma system.
- Continued collaboration with Natividad Medical Center in their trauma program
- Continued collaboration with all Monterey County hospitals in obtaining outcome data on trauma patients.

The Monterey County Cardiac Care/STEMI System

S-T Elevation Myocardial Infarction, or STEMI, is the medical term that describes those patients who are suffering from the most immediately life-threatening type of heart attack. The STEMI Quality Improvement Committee reviews the STEMI care system and advises the Monterey County EMS Agency on STEMI system policy, organization, training and equipment. EMS Agency staff report on the committee activities to the Continuous Quality Improvement Technical Advisory Group (CQI TAG), and from there to the Medical Advisory Committee.

The Monterey County STEMI system, which began in 2010, improves patient access to life-saving cardiac interventions by accurately identifying these patients, transporting them to one of the two STEMI Receiving Centers in Monterey County – Community Hospital of the Monterey Peninsula (COMP) and Salinas Valley Memorial Hospital (SVMH) – where rapid, specialized treatment can be immediately initiated. In 2015, CHOMP achieved accreditation from the American College of Cardiology as a Chest Pain Center. In June 2016, SVMH achieved accreditation as a Chest Pain Center through The Joint Commission. These accreditations demonstrate that CHOMP and SVMH have met or exceeded stringent criteria established by the accrediting bodies for the specialized treatment of these patients.

Paramedics can obtain an electrocardiogram (ECG) in the field and transmit it directly to the STEMI Receiving Center and to the interventional cardiologist’s cell phone. This early notification of the critical nature of the patient results in faster activation of the cardiac catheterization lab, and a shorter time to the time-sensitive interventions taken there.

STEMI Quality Improvement (QI)

The STEMI QI Committee meets quarterly to discuss issues with the system, review data from the two STEMI Receiving Centers and from the prehospital providers, and to review specific cases. The committee is comprised of representatives from the STEMI Receiving Centers, non-STEMI hospitals in Monterey and San Benito Counties, prehospital providers and EMS Agency staff. Metrics, such as the number of patients seen, the number of those patients transported via EMS, “door to balloon” and “EMS to balloon” times are reported to the EMS Agency. The STEMI QI Committee reviews these metrics and can advise on any changes that might help to further improve STEMI care in Monterey County. Because the committee reviews and discusses specific cases, the meetings are confidential and are not open to the public.

Future STEMI System Goals:

- The EMS Agency is looking at various STEMI registries to allow for easier and more rapid data input and interpretation of the data.
- Closer monitoring of missed STEMI cases – those patients who may be suffering from a STEMI who were not identified by EMS personnel as such. Currently, the STEMI QI group has defined a “missed STEMI” and noted circumstances where it may be acceptable to have missed it (e.g., the patient is a major trauma patient, or the patient is in cardiopulmonary arrest).

The Monterey County Stroke System and QI Committee

The Stroke QI Committee reviews stroke system care and advises the EMS Agency on stroke system policy, organization, training, and equipment. EMS Agency staff report on Stroke QI Committee activities to the Continuous Quality Improvement Technical Advisory Group (CQI TAG), and from there to the Medical Advisory Committee. Early recognition of stroke by EMS personnel, rapid transport to a designated Stroke Center and specialized care for these patients has been reported to vastly improve outcomes and decrease morbidity and mortality for patients suffering from a stroke. Like STEMI, stroke care is very time-dependent. Stroke patients who access emergency care through the 9-1-1 system have been shown to receive faster care and have better outcomes. The two designated Stroke Centers in Monterey County are the Community Hospital of the Monterey Peninsula (CHOMP) and Salinas Valley Memorial Hospital (SVMH). Both hospitals have achieved designation from The Joint Commission as Primary Stroke Centers, verifying that they have met or exceeded stringent criteria established by The Joint Commission for the care of stroke patients.

The Monterey County Stroke System, which began in 2011, includes training of EMS personnel, immediate communication with a neurologist at the hospital, and expedited processes at the hospital for suspected stroke patients for rapid identification and treatment of Stroke patients.

Stroke QI Committee

The Stroke QI Committee meets quarterly to discuss system issues, do case reviews, and to review system-wide data on stroke patients. Since specific cases are reviewed in the Stroke QI Committee, this committee is confidential and is not open to the public.

As with all specialty patients, recommendations from lead agencies in Stroke care, such as the American Heart Association/American Stroke Association (AHA/ASA) are changing frequently. The Monterey County EMS Agency keeps up with changes recommended by AHA/ASA, and our policies and protocols reflect the changes in the expert recommendations. One of the major changes in 2018 is the AHA/ASA recommendation that interventions may be performed on specific stroke patients up to 24 hours after the initial injury has taken place. The Monterey County Stroke protocol was changed to mandate that symptoms of a stroke that occurred 20 hours or less should be transported expeditiously to the nearest Stroke Center.

Goals for the 2018-2019 year include:

- The EMS Agency will subscribe to the AHA/ASA Get With The Guidelines (GWTG) Stroke Registry. Both the Monterey County Stroke Centers submit data to this registry. Once the EMS Agency is on the Registry, data collection will be simplified for the Stroke Centers and the EMS Agency.
- The EMS Agency continues to refine data collection with the Stroke Centers, and the reporting of pertinent data to improve the Stroke System.

Community education on stroke signs and symptoms will be another focus of the Stroke Centers and EMS providers. Currently, both Stroke Centers do community outreach; inclusion of EMS

providers in this will help to educate the public about what they can expect from EMS and the importance of calling 9-1-1 when stroke symptoms occur.

Monterey County EMS Data System

As reported last year, the EMS Agency, working with system stakeholders, has been involved in a process to bring a single county-wide electronic patient care report (ePCR) and data system to the EMS system in Monterey County. This “unified” system will replace the several disparate systems currently in place – systems which do not integrate. Some providers do not currently use an electronic system at all. A single system, including data from all the county’s EMS providers, will make for vastly improved analysis of what’s going on in the system and will provide a good foundation for system enhancements and changes. It will better inform policy and protocol development and will help to integrate EMS into the larger healthcare system. That includes participation in Health Information Exchanges (HIE) which allows for the sharing of patient data to improve continuity of care. Improvement of the care we provide, on an ongoing basis, is the primary aim of all our quality improvement efforts. This new ePCR/Data system will be an important tool in those efforts.

The system chosen by a review panel composed of EMS stakeholders, after an RFP process, was ESO Solutions – a national leader in the field of emergency services record-keeping. The panel looked at ease of use, analytic capabilities, and the system’s ability to integrate with other data systems. ESO scored very high on all counts. The County finalized an agreement with ESO Solutions in April of 2016.

CSA-74 funds have been used for the initial implementation of the system and will be used, while funding exists, for continued maintenance of the system. EMS providers cannot be compelled to use the County ePCR system, but they are required to provide data in a format that integrates seamlessly into that system. The expense of that integration process is the responsibility of the provider agency. Fortunately, almost all the provider agencies (14/16) in the county have submitted signed agreements to use the County system; the two who will not participate will still submit data into the system as required by state law and county policy.

Helicopter services that serve our county (and others) will not be using the County system but have promised to integrate their data. Dispatch data from the Communications Center will also integrate into the County system; that connection has already taken place on a trial basis. Eventually, the system will be able to receive certain data elements from hospitals such as emergency department and discharge diagnosis data. Receiving data from hospitals will provide a much-needed look at outcomes. Outcome data is vital in determining the efficacy of the treatment provided in the prehospital setting.

Two data sharing agreements were finalized over the past year – after a lengthy writing and review process – between the County/EMS Agency and the providers participating in the system.

These kinds of agreements are quite complex and took nearly a year to complete. The agreements were finally signed and returned to the EMS Agency – and should have been approved by the Board by the time this report is submitted. These agreements memorialize the responsibilities of both parties to ensure the security of protected health and personal information. End-user training was completed over five days in various locations throughout the county in anticipation of Board approval. Final approval by the Board will allow the system to “go live.” In the meantime, provider agencies have been practicing with the system, creating fictitious patient care reports to familiarize their personnel with the software.

EMS Advisory Committees

The EMS Agency seeks to continually improve the EMS system. The input of those who function within the EMS system is invaluable to the EMS Agency. The primary conduits for this feedback come from the EMS advisory committees. The EMS Agency obtains input from committee members who represent all areas of the EMS system - from 9-1-1 communications, first responder personnel, ambulance provider personnel, EMS provider leadership, hospital staff, and ED physicians. This input informs the development and implementation of EMS policies, procedures, and treatment protocols. The Medical Advisory Committee (MAC) and EMS Operations Subcommittee (EMS Ops) both provide excellent input into policies and protocols related to patient care and operations. Those two committees report to the Emergency Medical Care Committee (EMCC). The EMCC assists with administrative policy development and provides a forum for discussion of financial issues in the EMS system. It is important to get both clinical and operational perspectives on the EMS system on a regular basis to drive the ongoing development and maturation of the system. There are several other committees that help drive quality in the system. They are discussed in more detail below.

Improving Patient Care and System Quality Improvement

The EMS Quality Improvement Program

In 2004, the California Emergency Medical Services Authority (EMSA) enacted regulations requiring Quality Improvement (QI) plans from all EMS providers at the EMT level or above, Base Hospitals, and Local EMS Agencies (LEMSAs). 2017 involved multiple training sessions for all EMS providers and Base Hospitals in the requirements of a QI plan. By early 2018, all EMS providers and Base Hospitals in Monterey County had submitted and received approval on their individual organizational QI Plans from the Monterey County EMS Agency. Beginning in November 2017, the EMS Agency in collaboration with members of the Continuous Quality Improvement Technical Advisory Group (CQI TAG) developed specific indicators to monitor prehospital care in several different areas, as required by Title 22. Over the course of 2018, the indicators have been refined, and the EMS Agency is currently working on a method for all

organizations to submit data electronically. The EMS Agency anticipates that data collection on these indicators will begin by the end of 2018.

During 2018, the EMS Agency developed a form which is used to report on QI Committee activities to the Medical Advisory Committee (MAC), and to ensure loop closure on action items discussed at the QI meetings. This form follows the POTEE format: Plan, Organize, Train, Exercise, and Evaluate. Each action item fits into one of these 5 categories. The action item is tracked to completion on this form. The form may also be used to track Unusual Occurrences, complaints, and case reviews.

Continuous Quality Improvement Technical Advisory Group (CQI TAG)

The CQI TAG is comprised of representatives from all EMS providers and hospitals. This group advises the EMS Agency on issues involving the quality of medical care being provided to the citizens and visitors to Monterey County. The CQI TAG meets quarterly, and reviews specific cases, discusses issues of quality of care, and measuring of indicators to highlight successes and areas in need of improvement within the EMS System. The CQI TAG receives reports from all the other clinical QI Committees (STEMI QI, Stroke QI, and TEQIC), and reports on all issues in clinical QI Committees to the MAC. The focus of the CQI TAG in 2017 and 2018 has been the writing and submission of QI plans by all EMS providers and Base Hospitals to the EMS Agency, and the development of indicators to monitor the EMS System. Additionally, all transport providers and hospitals in Monterey County have been encouraged to participate in the CARES Registry. CARES stands for Cardiac Arrest Registry to Enhance Survival, and is a nationwide registry for all cardiac arrests which measures outcomes to improve the care of these critically ill patients. The CARES Registry provides data specific to Monterey County annually, allowing comparisons in outcomes nationally.

Proposed policy and protocol changes are discussed at the CQI TAG meetings. As the experts in emergency medical care within the EMS System in Monterey County, suggestions for revisions from this committee are valued as this committee represents the end users of those policies and protocols.

Goals for the upcoming year include:

- Countywide data collection, aggregation and reporting on specific indicators
- Development of a system for EMS Providers and Base Hospitals to submit data to the EMS Agency electronically
- Identifying QI issues in the EMS System, and implementing processes to correct areas in need of improvement.
- Follow up on the areas in need of improvement to measure whether the changes implemented improved the issue.
- Identification of areas of excellence in the Monterey County EMS System.

Unusual Occurrences

Over the past year, the Monterey County EMS Agency has enhanced the focus on the reporting, addressing, and tracking of Unusual Occurrences (UOs) in our system. This was accomplished by implementing a new Unusual Occurrence Policy with three primary goals:

- To establish a peer to peer report and response mechanism for resolving issues and incidents that are reportable but are not a threat to public health and safety or pose a threat to the integrity of the EMS system.
- To establish a mechanism for reporting and investigating issues and incidents which pose a threat to the integrity of the EMS system and/or pose an imminent threat to public health and safety and/or possibly constitute a violation of California Health and Safety Code Section 1798.200 et seq.
- To set standards for regular reporting of incidents to the EMS Agency for monitoring the EMS system and identification of opportunities for improvement in clinical outcomes and/or system structures and processes.

A mechanism was created on the EMS agency website for direct reporting on Unusual Occurrences. This link accepts submittals from both the public, as well as those working within the EMS system.

There were 59 documented and reported Unusual Occurrences from July 01, 2017, through July 1, 2018. All 59 cases were investigated and resolved.

EMS Personnel Certification, Accreditation, and Discipline

EMT Certification/Recertification

As discussed in the EMS Education section of this report, the increased requirements for initial EMT training have resulted in a drop of applications received for new EMT certification. The EMS Agency processed 69 applications to provide initial EMT certification. This is a small drop from the 74 EMT certifications processed in the previous fiscal year. While there was a drop in initial EMT certifications, there was an increase in EMT re-certifications. The EMS Agency provided 297 EMT re-certifications in this fiscal year compared with 264 EMT re-certifications in the previous year.

The EMS Agency began using the National Practitioner Data Bank (NPDB) as a medical license background check to compliment the use of the Live Scan criminal background check system. Through this increased monitoring of EMT backgrounds, the EMS Agency continues to lead in

setting the highest standards for the EMT's seeking certification through the Monterey County EMS Agency.

Paramedic Accreditation

Paramedics are licensed through the State after completing the required coursework and testing. To work as a paramedic and to utilize the paramedic scope of practice, the paramedic is required to have local accreditation to practice as a paramedic in the Monterey County Scope of Practice. To obtain initial accreditation, the paramedic is required to demonstrate, under an experienced paramedic's direct observation, that they can function as a paramedic using the Monterey County EMS Policies and Protocols correctly.

In this fiscal year, there were 23 paramedics who successfully completed the initial accreditation process and received accreditation from the EMS Agency. This is a decrease from the 36 paramedics receiving initial accreditation in the previous year. This seems to follow the state-wide trend of fewer people seeking a career as a paramedic.

Continued accreditation is provided to Monterey County paramedics who meet the requirements for continuing accreditation. The paramedic is required to maintain their paramedic license, have current certificates showing successful completion of several nationally recognized courses providing training in the management of trauma, pediatrics, and cardiac care. Paramedics are also required to successfully demonstrate their ability to utilize the skills that are part of their scope of practice.

In this fiscal year, 73 paramedics received continued accreditation which is down slightly from the 79 paramedics who received continued accreditation in the previous year.

Prehospital Discipline

One large-scale investigation into approximately 155 Paramedics involving Monterey County EMS Agency policy violations was conducted from November 27, 2017, through July 30, 2018. All Paramedics involved have been retrained, and the enforcement portion of this investigation has been handed off to the California Emergency Medical Services Authority (EMSA) for further investigation and enforcement action.

There are currently seven open and ongoing EMT-Basic investigations and enforcement actions:

3 Currently on Probation

1 Temporary Suspension Order

1 Awaiting Court

1 Waiting for the Stipulated Settlement Probation Offer to be signed

1 Notice of Administrative Investigation has been sent

EMS Education

This fiscal year saw the training of law enforcement officers from eleven (11) law enforcement agencies which applied for and received approval under Monterey County EMS policy to provide life-saving naloxone for potential victims of narcotic overdose. Three of the law enforcement agencies have already administered naloxone.

The EMS Agency provides approval for organizations and individuals who wish to provide continuing education (CE) for EMS providers. The EMS Agency approved one new EMS CE provider and provided continued approval of another EMS CE provider whose four-year approval was expiring. There are currently 15 approved EMS CE providers in Monterey County.

Due to investigation activity, three EMS CE provider organizations were reviewed. One organization was found to be compliant with State regulations and Monterey County EMS policy. Two organizations were found to not be compliant with State regulations and Monterey County EMS policy. Approval to provide EMS CE was revoked for these organizations. Both organizations brought their EMS CE program into compliance, applied for approval to be an EMS CE provider, and were reinstated as EMS CE providers after a thorough review of their programs. One EMS service provider voluntarily gave up their EMS CE program and approval was removed.

Monterey County has three EMT training programs. Enrollment in these EMT training programs has decreased over the last couple of years. There are multiple reasons believed to be behind this decrease in enrollment. The primary reasons behind this trend are thought to be related to the increased student expense to meet increased pre-enrollment criteria such as completing a Live Scan criminal background check, increased course hours to meet the additional course topic requirements found in State regulations, and people having less of an interest in EMS as a career.

The NCTI Paramedic Program continues to offer paramedic training through a satellite training center operated in Monterey County. This training center is a valuable resource as the next nearest paramedic training programs are in San Luis Obispo or in the San Jose area. Enrollment has been down in this program as well.

The Monterey County EMS System: Looking Forward

EMS 20/30: Monterey County's Process to Assess, Design and Implement a Triple Aim-Focused EMS System for the next decade

The major forward-looking initiative during the 2017-2018 Fiscal Year was EMS 20/30, which is the EMS Agency's process to implement a Triple Aim-focused EMS System for the next decade. The three goals of the Triple Aim are to: improve clinical quality, improve patient satisfaction, and to maintain or reduce costs. This process consists of three phases: the EMS System Assessment, the EMS System Strategic Plan, and the development, release, scoring, and awarding of the Request for Proposal (RFP) for Ambulance Service within the Monterey County

Exclusive Operating Area (EOA). The EMS Agency contracted with the respected EMS consulting firm of Fitch and Associates for support throughout this initiative.

State EMS Environment

The EMS Agency's assessment, planning and RFP process has been significantly shaped by investigations and regulatory actions by the California EMS Authority against the Contra Costa County EMS Agency. On April 13, 2018, the California EMS Authority retroactively rescinded their approval of the Contra Costa County EMS Agency's 2015 Ambulance Exclusive Operating Area (EOA) RFP. In taking this action, the EMS Authority alleged that the Contra Costa County EMS Agency failed to "ensure a fair, competitive process." From this action, the Monterey County EMS Agency recognizes two key points: (1) that the California EMS Authority acted against an EMS Agency 3 years after the alleged illegal action occurred; and, (2) that the Monterey County EOA Ambulance RFP process must be fair, objective, and unbiased.

Phase 1: EMS System Assessment

Fitch and Associates was engaged in mid-June 2017 and began the EMS System Assessment in July 2017. The EMS System assessment was comprehensive. Fitch and Associates reviewed thousands of pages of EMS System Policies and Procedures, EMS Plans, key reports, and other key EMS system documents.

Fitch and Associates provided an opportunity for interested EMS stakeholders to provide input into the RFP and RFP process. Fitch and Associates interviewed over sixty County of Monterey and EMS System stakeholders including the members of the Board of Supervisors, County and Health Department leaders, fire chiefs, fire department consultants, city managers, police chiefs, planning directors, hospital executives and medical officers, EMS labor, and members of the Emergency Medical Care Committee. Fitch and Associates also answered questions and received recommendations from the public at five facilitated bilingual public hearings held in each supervisorial district throughout Monterey County.

The Monterey County System Assessment was completed in December 2017. Based upon the strengths and weaknesses identified in the Monterey County EMS System, this report described thirty-eight opportunities to enhance the EMS System. Many of these recommendations to enhance the EMS System are now projects or programs in the EMS System Strategic Plan. Other recommendations to enhance the EMS System will be addressed in the RFP for Exclusive Operating Area Ambulance Services. The EMS System Assessment was accepted by the EMCC and the Board of Supervisors.

Phase 2: EMS System Strategic Plan

Following completion of the EMS System Assessment, in February 2018, Fitch and Associates developed the Monterey County EMS System Strategic Plan. In mid-February 2018, Fitch and Associates facilitated two workshops seeking stakeholder input into the EMS System Strategic Plan. While these workshops were poorly attended by stakeholders, those stakeholders present provided valuable input into the future direction and characteristics of the EMS System.

The Monterey County EMS System Strategic Plan defines the EMS System’s Mission, Vision, Values, Goals and Objectives during the next three years. This plan also contains metrics to measure the completion of objectives. While many of these objectives will be completed through the Ambulance Exclusive Operating Area (EOA) Request for Proposal (RFP) process, other objectives will be achieved through new or revised EMS System Policies and Procedures, revisions to the County Ambulance Ordinance Code, through structural changes in the EMS System, or through training. This plan has been accepted by the Emergency Medical Care Committee and is scheduled to be presented to the Board of Supervisors.

Phase 3: Development, Release, Scoring, and Awarding of the Request for Proposal

The EMS Agency and Fitch and Associates are currently drafting the RFP for EOA Ambulance Services for the February 1, 2020 to January 31, 2030 period. The EMS Agency is working closely with other County Departments, including the County Counsel’s Office, the Health Department, County GIS, and County Contracts/Purchasing. This RFP document incorporates many suggestions received from EMS System Stakeholders, leverages the strengths of the current EMS System, and corrects many of the weaknesses and deficiencies identified in the EMS System Assessment Report.

The development of the RFP has not been without controversy. Some stakeholder groups, specifically including two hospitals and fire chiefs, have requested to review and revise the RFP document prior to release. While the EMS Agency recognizes their interest in the RFP document, the California EMS Authority has stated on numerous occasions that the RFP process must assure that no organization or group of organizations may be provided a competitive advantage or be placed at a competitive disadvantage. Should the EMS Authority determine that the EMS Agency has a biased or unfair process, they could refuse to provide state anti-trust immunity or retroactively rescind that immunity, preventing Monterey County from maintaining an economically-viable Exclusive Operating Area for Ambulance Services.

Because releasing the RFP document to one group would require the EMS Agency to release the RFP publicly, and because accepting recommendations from one organization while rejecting recommendations from other organization would expose the EMS Agency to charges of bias and an unfair process, the EMS Agency has determined, consistent with state law, to not release the RFP until it is approved by the EMS Authority and released for proposals by potential contractors. This RFP will be publicly released, questions answered, bids accepted and scored, and a recommendation for approval presented to the Board of Supervisors in 2019.

Mutual Aid Provided During a Disaster

Unfortunately, California is facing increasing challenges with large wildfires – along with the other kinds of disasters which regularly strike our state. As a part of the statewide Medical/Health Mutual Aid System, Monterey County played an important role in helping our neighbors when they asked for help over the past year. On several occasions, EMS Agency staff responded to disasters in the northern part of the state, assisting in Emergency Operations

Centers in Lake, Napa, and Sonoma counties. As the Medical/Health Operational Area Coordinator (MHOAC) for Monterey County, EMS Agency staff are well prepared to function in that type of environment. For the first time in our county's history, Monterey County sent an Ambulance Strike Team of five ambulances, including resources from AMR and Monterey County Regional Fire (including the Strike Team Leader), to the mudslides in Santa Barbara County. This help was greatly appreciated by those who received it. We may be the beneficiary of that same kind of help someday. The EMS Agency helped to coordinate an Ambulance Strike Team Leader class in March 2018 to prepare more personnel for this important function.

Appendix A

