

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
ACTION AGENDA SUMMARY

DEPT: Health Services Agency *MSV*

BOARD AGENDA # \*B-6

Urgent

Routine

AGENDA DATE March 3, 2015

CEO Concur with Recommendation YES  NO   
(Information Attached)

4/5 Vote Required YES  NO

SUBJECT:

Approval to Use System Enhancement Funds (Emergency Medical Services Penalties) for Upgraded Electrocardiogram (EKG) Transmittal Ability

STAFF RECOMMENDATIONS:

Authorize the Mountain Valley Emergency Medical Services Agency to Purchase 12-Lead Transmittal and Cardiac Analytics for upgraded Electrocardiogram (EKG) transmittal ability, funded from the System Enhancement Fund.

FISCAL IMPACT:

Mountain Valley Emergency Medical Services Agency (MVEMS), the Joint Powers Agency of five counties including Stanislaus County, administers the ambulance agreements for Stanislaus County. Those agreements include financial penalties when response times are out of compliance. Those penalties reside in a Stanislaus County-specific "System Enhancement Fund" held by MVEMS. That fund's current balance is approximately \$904,000. The proposed expenditure of approximately \$65,000 would be paid for from that fund. Additionally, the three designated cardiac receiving hospitals would be responsible for and have agreed to an annual license fee of approximately \$10,000 each.

BOARD ACTION AS FOLLOWS:

No. 2015-77

On motion of Supervisor Chiesa, Seconded by Supervisor Monteith

and approved by the following vote,

Ayes: Supervisors: Chiesa, Monteith, De Martini, and Chairman Withrow

Noes: Supervisors: None

Excused or Absent: Supervisors: O'Brien

Abstaining: Supervisor: None

1) X Approved as recommended

2) \_\_\_\_\_ Denied

3) \_\_\_\_\_ Approved as amended

4) \_\_\_\_\_ Other:

MOTION:

ATTEST: Christine Ferraro  
CHRISTINE FERRARO TALLMAN, Clerk

File No.

## **DISCUSSION:**

### **Background**

Under the Health and Safety Code, Division 2.5, Chapter 4, Article 1, Section 1797.200, *“Each county may develop an emergency medical services program. Each county developing such a program shall designate a local EMS agency which shall be the county health department, an agency established and operated by the county, an entity with which the county contracts for the purposes of local emergency medical services administration, or a joint powers agency created for the administration of emergency medical services by agreement between counties or cities and counties pursuant to the provisions of Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code.”* Stanislaus County participates in a Joint Powers Agency (JPA), the Mountain Valley Emergency Medical Services Agency (MVEMSA), and has addressed various related policy matters as contained in the Stanislaus County Ordinance 6.70.

The Emergency Medical Services Committee (EMSC) was established by the Stanislaus County Board of Supervisors on August 28, 2001, pursuant to their authority under applicable California law, including, but not limited to, Stanislaus County Ordinance Chapter 6.70, California Health and Safety Code Section 1797 et seq. and California Code of Regulations, Title 22, Division 9. The role of the EMSC is to evaluate and make recommendations as they relate to the planning and provision of emergency medical services (EMS) within the county, including ambulance agreements. The committee also serves in an advisory capacity to the Mountain Valley EMS Agency and the Stanislaus County Board of Supervisors on EMS issues.

Prior to November 2002, ambulance provider agreements included a provision that fines would be automatically assessed for non-compliant responses to Code 3, 911 calls. The funds generated through these fines were distributed back into the Emergency Medical Services (EMS) community in the form of local grants to EMS system participants for special projects, training, and equipment purchases designed to enhance EMS within the county. Ambulance providers, first response agencies, and local hospitals were allowed to periodically submit grant proposals, which were reviewed by the EMS Agency. Proposals meeting criteria were presented to the EMSC who would in turn make the determination on whether individual proposals would be funded, modified, or denied in accordance to the bylaws of the Stanislaus County Emergency Medical Services Committee:

***Article III. Function and Responsibility, Section 2, Responsibilities, (F)***  
*states, “The Committee shall approve a mechanism for the disbursement of Stanislaus County EMS System Enhancement Funds, recommend priorities for awarding those funds, and monitor the distribution of those funds.”*

The grant program was eliminated in June 2003 due to the removal of the automatic fine provision in the 2002 ambulance agreements, therefore, removing the regular

funding stream of fine assessments. The automatic fine provision was replaced with a new provision in which fines would be assessed only if the ambulance providers were not able to rectify response time deficiencies in a reasonable timeframe. This new provision afforded a mechanism for collections of fines albeit, a significant decrease in collections compared to the automatic fine provision. Therefore, in lieu of the grant program, the EMS Committee approved the following recommendations related to the use of the System Enhancement funds, prioritized as follows:

1. ***Capital expenditures geared toward the integration of EMS dispatch in the 9-1-1 Regional Dispatch Center;***
2. ***Training costs associated with the transfers of EMS dispatch to the 9-1-1 Regional Dispatch Center;***
3. ***EMS training equipment to be shared between fire agencies and ambulance providers.***

On April 16, 2013 the Board of Supervisors approved changes to the ambulance agreements. Under State Health and Safety Code Division 2.5, Chapter 4 Section 1797.204, "The Local EMS Agency shall plan, implement and evaluate an emergency medical services system, in accordance with the provisions of this part, consisting of an organized pattern of readiness and response services based on public and private agreements and operational procedures." Supported by the Stanislaus County Ordinance 6.70.040, recommendations by the Emergency Medical Services Committee, and policy direction given by the Board of Supervisors on September 25, 2012, the MVEMSA Executive Director negotiated the new agreements.

The new ambulance provider agreements included provisions related to state-wide ambulance provider standards pertaining to improved response time compliance. These standards help to ensure better services to the community based on existing Exclusive and Non-Exclusive Zone response time requirements as well as implementing new response time penalties (fines), sometimes referred to as incentives. The penalties were increased to a level which serve as a meaningful non-compliance deterrent and were established within industry standards. Consistent with the "deterrent" purpose, the fines are much higher for larger volume "Metropolitan" providers, compared to the more rural, lower volume providers.

The implementation and assessment of automatic penalties of Code 2 and Code 3, 911 calls resulted in a significant increase to the System Enhancement Fund account. The undesignated balance of the System Enhancement Fund as of January 30, 2015 is approximately **\$904,000**.

### System Enhancement Fund Purchase Request

During the quarterly EMSC meeting held on December 11, 2014, two proposals requesting the use of System Enhancement Funds were presented by the MVEMSA Medical Director. The first proposal was for 12-Lead Transmittal and Cardiac Analytics and the second was for a Laerdal SinMan 3G patient simulation mannequin and monitoring software. Following the presentations, the EMSC expressed the need to establish priorities and processes for use considerations from this fund, particularly due to its current fund level and anticipated continued growth. As a result, the EMSC has formed a separate work group that will focus on establishing proposed priorities and processes for use of the System Enhancement Fund.

However, the EMSC determined that the benefit of the 12-Lead Transmittal and Cardiac Analytics proposal was so compelling, that the recommendation to the Board of Supervisors should not wait. The second proposal was pended for consideration until after the development of the System Enhancement Fund priorities and processes by EMSC work group.

### Information and Justification for Purchase of 12-Lead Transmittal and Cardiac Analytics

The 12-Lead Transmittal and Cardiac Analytics proposal requested funding for both the equipment and the software which would be used by all Advanced Life Support (ALS) pre-hospital providers in Stanislaus County. This technology provides field paramedics the ability to consult with base hospital physicians for particularly difficult cardiac cases where timely intervention is critical. From the field, the ST Segment Elevation Myocardial Infarction (STEMI) Alert is communicated to the receiving facility via radio which then mobilizes the STEMI team in preparation for the arrival of the patient, thus saving upwards of 30 minutes in providing definitive care to patients. Timely intervention at a Cardiac Catheterization Lab is defined as a “patient contact to balloon” time of less than 90 minutes and is critical to a positive outcome.

The ability to transmit 12-Lead EKGs from the field will allow receiving hospitals to mobilize their cardiac STEMI teams in an efficient manner, while minimizing the unnecessary over-triage of patients. STEMI over-triage can be particularly taxing to the cardiac team during after-hours and holiday periods when interventional cardiologists are activated from home or other off-site locations. Current over-triage rates from the field vary from 40% – 60%, resulting in the inefficient use of resources by STEMI receiving centers.

Moreover, the 12-Lead transmittal process accesses “cloud technology” giving the field crew the ability to send cardiac monitor data to a central cloud-based server. This technology will enable MVEMSA to access cardiac arrest event data and provide immediate feedback and education to ALS crews concerning their management of these very critical patients. CodeStat (Physio Control Monitors) and Rescue Net Code Review (Zoll Monitors) software would allow MVEMSA and provider quality

improvement teams to access events related to the cardiac arrest and gives the team the ability to annotate the event and provide feedback in the form of an objective “report card” within 24-hours (48 hour for weekend events). This feedback loop provides invaluable, timely education to the crews as well as unprecedented quality improvement opportunities for the system as a whole. The ability to annotate and provide feedback to ALS crews is a significant aspect to the systems of care for pre-hospital cardiac arrest patients.

The cost to provide 12-Lead transmittal and cardiac arrest analytics to Stanislaus County will be approximately \$65,000 which includes WiFi/Cellular modems for all cardiac monitors as well as analytics software for cardiac arrest review. The wireless equipment will remain the property of the MVEMSA and will be surrendered by the contracted ambulance provider upon termination of the agreement. Additionally, the three designated STEMI receiving centers; Doctors Medical Center, Memorial Medical Center and Emanuel Medical Center, have committed to the \$10,000 annual license fee in order to receive, view and distribute incoming 12-Lead EKGs. Therefore, the EMSC seeks the approval from the Board to purchase the 12-Lead Transmittal and Cardiac Arrest Analytics at a cost of approximately \$65,000 using System Enhancement Funds.

This request was reviewed and supported by the Health Executive Committee of the Board of Supervisors, comprised of Supervisors O’Brien and Withrow, on February 10, 2015.

Once the EMSC has approved the recommended priorities and processes established by the EMSC workgroup, they will be submitted to Board of Supervisors for approval. Any future recommendations to the Board of Supervisors for funding from the System Enhancement Fund will be subject to the yet to be established priorities and processes as recommended by the by the EMSC.

**POLICY ISSUE:**

Approval of the use of the System Enhancement Fund is consistent with the Board of Supervisors’ priorities of A Healthy Community, Effective Partnerships and Efficient Delivery of Public Services, by providing necessary equipment and software to community ALS ambulance providers in order to improve health outcomes of cardiac patients.

**STAFFING IMPACT:**

There is no staffing impact associated with this report.

**DEPARTMENT CONTACT:**

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