

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

DEPT: HEALTH SERVICES AGENCY *ms*
Urgent _____ Routine X
CEO Concurs with Recommendation YES X NO _____
(Information Attached)

BOARD AGENDA # B-12
AGENDA DATE August 28, 2001
4/5 Vote Required YES _____ NO X

SUBJECT:

ACCEPT THE FINAL REPORT ENTITLED, "STANISLAUS COUNTY EMS SYSTEM REVIEW AND OPTIMAL CONFIGURATIONS FINAL REPORT" AND THE "FINAL REPORT SUMMARY" AS PREPARED BY HEALTH ANALYSIS, LLC.

STAFF
RECOMMEN-
DATIONS:

1. ACCEPT THE FINAL REPORT ENTITLED, "STANISLAUS COUNTY EMS SYSTEM REVIEW AND OPTIMAL CONFIGURATIONS" AND THE "FINAL REPORT SUMMARY" AS PREPARED BY HEALTH ANALYTICS, LLC.

(CONTINUED ON PAGE 2)

FISCAL
IMPACT:

It is anticipated that the cost of the implementation of the recommendations will be absorbed through efficiencies gained by consolidation of services, grants or from within the providers' budgets. No direct cost to the County or other public agencies is anticipated. The newly formed Emergency Dispatch Response Committee and EMS Agency will evaluate funding opportunities.

BOARD ACTION AS FOLLOWS:

No. 2001-648

On motion of Supervisor Caruso _____, Seconded by Supervisor Simon _____
and approved by the following vote,
Ayes: Supervisors: Mayfield, Blom, Simon, Caruso, and Chair Paul _____
Noes: Supervisors: None _____
Excused or Absent: Supervisors: None _____
Abstaining: Supervisor: None _____

- 1) X Approved as recommended
- 2) _____ Denied
- 3) _____ Approved as amended

MOTION:



ATTEST: CHRISTINE FERRARO TALLMAN, Clerk

By: Deputy

File No. BD-19-B-1

SUBJECT: ACCEPT THE FINAL REPORT ENTITLED, "*STANISLAUS COUNTY EMS SYSTEM REVIEW AND OPTIMAL CONFIGURATIONS FINAL REPORT* " AND THE "*FINAL REPORT SUMMARY*" AS PREPARED BY HEALTH ANALYSIS, LLC.

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**STAFF
RECOMMEN-
DATIONS
(CONTINUED):**

2. ACCEPT THE RECOMMENDATIONS OF THE EMERGENCY MEDICAL SERVICES (EMS) DISPATCH AND RESPONSE TASK FORCE REGARDING THE RESTRUCTURING OF THE EMS DISPATCH, FIRST RESPONSE AND AMBULANCE TRANSPORT CONFIGURATION FOR STANISLAUS COUNTY AS CONTAINED IN THE, "*STANISLAUS COUNTY EMS SYSTEM REVIEW AND OPTIMAL CONFIGURATIONS FINAL REPORT*" AND THE "*FINAL REPORT SUMMARY*. "
3. DIRECT THE EMS AGENCY TO WORK WITH THE HEALTH SERVICES AGENCY AND STANISLAUS REGIONAL 911 JPA FOR THE PURPOSE OF COORDINATING ALL EMS DISPATCH SERVICES, (WITH THE EXCEPTION OF TURLOCK FIRE DEPARTMENT) INTO A REGIONAL 911 DISPATCH SYSTEM.
4. DIRECT THE EMS AGENCY TO WORK IN CONJUNCTION WITH THE HEALTH SERVICES AGENCY, LOCAL FIRE DEPARTMENTS AND AMBULANCE SERVICE PROVIDERS TO INTEGRATE EXPANDED SCOPE EMT-I, ALS FIRST RESPONSE, QUICK RESPONSE VEHICLES OR CONTRACTED ALS FIRST RESPONSE SERVICES IN AREAS WHERE SUCH SERVICES WOULD BE MEDICALLY APPROPRIATE AND FINANCIALLY FEASIBLE.
5. DIRECT THE EMS AGENCY TO DIRECT THE CURRENT AMBULANCE SERVICE PROVIDERS TO DEVELOP A COOPERATIVE, COORDINATED AND STANDARDIZED COUNTYWIDE MODEL FOR EMERGENCY MEDICAL RESPONSE SERVICES IN THE COUNTY TO ACHIEVE A SEAMLESS SERVICE DELIVERY SYSTEM. THIS MODEL SHALL BE APPROVED BY THE STANISLAUS COUNTY EMERGENCY MEDICAL SERVICES COMMITTEE (EMSC) PRIOR TO IMPLEMENTATION AND THE PERFORMANCE CRITERIA ESTABLISHED IN THIS MODEL SHALL BE INCLUDED IN ALL AMBULANCE SERVICE AGREEMENTS.
6. DIRECT THE HEALTH SERVICES AGENCY AND EMS AGENCY TO PERIODICALLY REPORT BACK TO THE BOARD OF SUPERVISORS ON THE PROGRESS BEING MADE FOR RECOMMENDATIONS 3, 4 AND 5 IN SIX MONTHS.

SUBJECT: ACCEPT THE FINAL REPORT ENTITLED, "*STANISLAUS COUNTY EMS SYSTEM REVIEW AND OPTIMAL CONFIGURATIONS FINAL REPORT*" AND THE "*FINAL REPORT SUMMARY*" AS PREPARED BY HEALTH ANALYSIS, LLC.

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DISCUSSION: In May 2000, the Board of Supervisors established the Stanislaus County Dispatch and Response Task Force. The charge of the task force was to evaluate the EMS system configuration options and alternatives developed by the EMS Agency, consultants, and the EMS community and report back to the Board of Supervisors with their recommendations by June 2001.

Over the past year, the task force met a total of nine times. During the early part of the project the consultant firm, Information Analytics (IA), conducted an EMS system evaluation study which included extensive input from the local community and EMS system stakeholders. Following the study, a full day orientation workshop was held in which the task force members were provided an extensive orientation by IA staff, and members of the EMS community, on the complexities of the EMS delivery system and current system advantages and deficiencies. The consultants then presented the task force several options for system improvement in the area of EMS dispatch, first response and ambulance transport services. The task force, with the ongoing involvement of county counsel, selected options for further development. On June 27, 2001 the task force met and approved their final report. Staff recommends that the Board accepts the final report.

On August 13, 2001, the staff met with the task force and made the following recommendations:

1. Direct the EMS agency to work with the Health Services Agency and Stanislaus Regional 911 JPA for the purpose of coordinating all EMS dispatch services, (with the exception of Turlock Fire Department) into a regional 911 dispatch system.
2. The EMS agency to work in conjunction with the Health Services Agency, local fire departments and ambulance service providers to integrate expanded scope EMT-I, ALS first response, quick response vehicles or contracted ALS first response services in areas where such services would be medically appropriate and financially feasible.

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**DISCUSSION
(CONTINUED):**

3. Direct the EMS agency to direct the current ambulance service providers to develop a cooperative, coordinated and standardized countywide model for Emergency Medical Response services in the County to achieve a seamless service delivery system. This model shall be approved by the Stanislaus County Emergency Medical Services Committee (EMSC) prior to implementation and the performance criteria established in this model shall be included in all ambulance service agreements.

4. Direct the Health Services Agency and EMS agency to periodically report back to the Board of Supervisors on the progress being made for recommendations 3, 4 and 5 in six months.

**POLICY
ISSUE:**

The consolidation of EMS communication services and the improved integration of EMS first response services, will contribute to ensuring a safe, healthy community.

**STAFFING
IMPACT:**

None.

**Summary of
Stanislaus County
EMS System
Review and
Optimal
Configurations
Final Report**

Prepared by:
HealthAnalytics, LLC

July 11, 2001

Introduction

Emergency medical service (EMS) issues, like law enforcement and fire suppression, can be highly emotional and political. The American Ambulance Association's, *Ambulance Services Contracting Guide* echoes this reality with the following observation: *"Every EMS system is either designed for the benefit of the patients it serves, or is designed primarily for the convenience of itself and its member organizations. A conflict between these two objectives is an unavoidable aspect of any discussion regarding EMS system design. This issue is controversial as it challenges the very existence of many organizations and the traditional role which they play in the EMS system."*¹ To provide public policymakers with an objective presentation of the facts, the Mountain-Valley EMS Agency (MVEMSA) engaged the consultants to evaluate and make specific recommendations regarding three functional areas of the County's EMS system to the Dispatch and Response Task Force (DRTF). The three areas were EMS communications, first responder services, and ambulance transportation. The consultants were charged with completing a high-level system evaluation of these three areas and developing recommendations to optimize operations and improved EMS system performance.

The most significant challenge facing the current EMS system is the proposed reduction in reimbursement by the Healthcare Finance Administration (HCFA). At the same time the demand for services is growing, the population is aging, and there is an increase in the uninsured that depend on emergency services as a source of primary care. Given these demand and funding challenges, the Stanislaus County EMS system will have to become more efficient to maintain service levels. While there is no quintessential reference to cite as "the source" for EMS system designs, there are references and examples of system characteristics and features that result in improved clinical and financial performance. Although some may wish to further debate the issue, the time required to make mission critical system changes, in light of these future challenges, is running out.

To assist the DRTF with making its final recommendations, the consultants developed and submitted three interim reports. The DRTF combined this information with their understanding of issues specific to Stanislaus County and directed the consultants to narrow proposed EMS design options to those that best fit the County's "mission." That mission has been articulated in one of the County's previous planning efforts as *"...appropriately provide quality prehospital care services to the public in a cost effective manner as an integrated part of the overall health care system."*²

¹ "Contracting for Emergency Ambulance Services," A guide to Effective System Design, American Ambulance Association, May 1994, Pg. 37.

² "EMS Design 2000: The Local EMS system Model," The EMS Design 2000 Planning Task Force, September 1995, pg 5.

EMS System Component Evaluation

The consultants evaluated the County's EMS communications, first responder services, and ambulance response zone configurations. Stanislaus County presently has 6 EMS communications centers, 19 different first responder agencies, and 5 emergency ambulance providers responsible for serving 9 different ambulance response zones (6 of which are exclusive operating areas). The evaluation consisted of assessing current clinical capabilities, available infrastructure, human resource issues, response time performance, agency proposed pilot projects, sources of alternate funding, and system stakeholder acceptability of various options.

The consultants acquired and analyzed raw response data, reviewed copies of previous reports and audits, and other operational policies and procedures to obtain an understanding of current system operations. Interviews were conducted with agency senior staff, the EMS oversight agency, public policy-makers, and other system stakeholders and opinion leaders (e.g., hospitals, air medical program administrators, health plan administrators, medical directors, etc.) to obtain insights about the current EMS system from a variety of perspectives. The consultants were responsible for conducting two public forums to receive input on interim work products that were developed to keep stakeholders informed on the progress of the project.

Summary of Findings

The following findings constitute the most significant issues that must be addressed and thus were used in the development of recommended options for EMS communications, first response, and ambulance response zones:

EMS COMMUNICATIONS

- Some of the centers technology appeared to be well-suited to manage the specific set of resources it was responsible for managing, however, radio interoperability has created response and coordination problems.
- Multiple transfers between communication centers increases the risk for extended call processing times. Anecdotal observations support this contention.
- Response time data sets vary by communication center, which makes it difficult to evaluate the combined performance of EMS providers on a single incident and a system wide basis.
- Different methods of call prioritization are resulting in redundant caller interrogation/interviews.
- A variety of activities (e.g., quality assurance, GIS updates, training, etc.) are redundant and thus increases system costs.

Summary of Stanislaus County EMS System Review & Recommendations

- An opportunity exists to improve call-processing times, EMS resource coordination, the consistency and usefulness of operational data, radio interoperability and more efficient use of existing radio frequencies through consolidation.
- EMS communication consolidation will not improve EMS system performance without careful attention to EMS requirements.

FIRST RESPONSE

- First responder agencies are committed to providing EMS first response and have a genuine desire to improve service levels for their constituencies.
- The diverse geography, land use, and population density create operational challenges that have been addressed using a variety of deployment and staffing approaches.
- No single EMS first responder approach will meet the needs of all jurisdictions.
- There are underserved areas that could benefit from an increase in first responder clinical capabilities.
- System efficiency could be enhanced in some areas with ALS first responder services.
- Sources of funding will have to be developed to support changes in first responder clinical capability.

AMBULANCE RESPONSE ZONES

- The system structure does not ensure the closest available ambulance is sent to every emergency call.
- There are inconsistencies in countywide response time performance by ambulance providers.
- There is significant duplication of infrastructure and therefore built-in inefficiencies to the 'system.'
- There is no alignment of operational and/or financial incentives amongst the ambulance providers.
- Non-emergency medical transportation market rights are not designed or allocated to best support the financial viability of the EMS system.
- Operational and financial incentives are not aligned between ambulance providers and first responder agencies.

Dispatch and Response Task Force Direction & Recommendations

The consultants provided several options to the DRTF regarding communications, first response and ambulance response configurations. The DRTF then gave the consultants specific directions for further analyses and development in each of the three areas.

Summary of Stanislaus County EMS System Review & Recommendations

EMS COMMUNICATION CENTER

The most significant final recommendation from the DRTF regarding EMS communications was to move toward a single 'physically consolidated' EMS communication center (with the exclusion of Turlock FD, at their request). **The consultants strongly support this recommendation.**

In moving toward a consolidated EMS communications center, the consultants identified a number of issues that need to be considered and/or further researched. These issues include: emergency medical dispatch protocols, radio interoperability, computer aided dispatch functions, automatic vehicle location, data exchange and system administration oversight.

FIRST RESPONDER RECOMMENDATIONS

The DRTF recommended four of the five possible first responder clinical upgrade options identified by the consultants. These include: expanded scope EMT, ALS first response, quick response vehicles and contracted ALS first response. It was believed that each of these options may be appropriate options for different areas and departments throughout the county. **The consultants strongly support this recommendation.**

In attempting to implement these four options, the consultants identified a number of issues that need to be considered and/or further researched. These issues include: infrastructure and staffing, response time performance, level of service, performance monitoring and funding.

AMBULANCE RESPONSE ZONES

The direction given the consultants by the DRTF was to create ideal system features that would be present in a single provider ("oneness") model. The following excerpt from the American Ambulance Association's *Contracting Guide* helps to illustrate why this is important.

"...Achieving this level of performance requires certain policy decisions from local government, described below, which are not acceptable in every community. High-quality, cost-effective ambulance service can be realized without all of these characteristics: however, the combination of state-of-the-art quality, reliability and economic efficiency has been achieved more frequently in systems that have all of the following characteristics:

- *Single-provider system (emergency and routine)*
- *Flexible production strategy (emergency and routine)*
- *Variable staffing levels*
- *Event-driven redeployment*
- *Economic efficiency as a prerequisite to retaining market rights.*

Summary of Stanislaus County EMS System Review & Recommendations

Many communities enjoy the benefits of quality ambulance service without having a sole provider for all emergency and non-emergency services. Yet, these tiered systems – while capable of delivering excellent clinical and response-time performance – generally have a greater total system cost....

In simple terms, EMS policy makers may choose any two of the following features, but history has repeatedly shown that it is economically impossible to sustain all three:

- *Quality patient care and response time reliability*
- *Little or no local tax subsidy*
- *Multiple emergency transportation providers competing on a retail basis in the same service area."*

Where multiple emergency transportation providers are allowed to compete on a retail basis in the same service area or split calls on a rotational basis, governments are forced to choose between accepting a quality of service below the market's true potential, or accepting subsidy levels sufficient to replace revenues drained from the system by redundant operations.

Of course, these facts are in contrast to the commonly applied economic principles that multiple providers in a market will increase quality and hold down prices. There are two reasons this principle does not hold true in the case of ambulance services:

1. *Competition within the market (retail competition) does not maximize performance in emergency (and some non-emergency) ambulance services.*
2. *The ambulance industry is a utility-type industry..."*

The DRTF also instructed the consultants to develop a one-year process with key milestones for the current five ambulance providers to follow to achieve a single provider like model. Rather than going immediately to bid, the DRTF chose this option as a means to give the ambulance companies a chance to collaboratively develop a system that could support, but also meet the "oneness" requirements that have been so successful in other communities. They further recommended that if any of the milestones during this process are not met the local EMSA should immediately start a competitive bid process to achieve the objectives of the "oneness" model.

The consultants also strongly support the direction of moving towards a "oneness" model. However, the consultants believe the best way to achieve this goal is to go directly to a competitive bid process.

The consultants believe there are significant advantages to using a competitive bid process versus the one-year process recommended by the DRTF. These include:

Summary of Stanislaus County EMS System Review & Recommendations

- The same outcome of the one-year process can still be achieved (i.e., nothing to lose).
- This would likely be a quicker and cleaner process.
- There were significant funding issues identified with the communications and first responders recommendations that could completely or partially be funded through a bid process with a carefully crafted RFP.
- A competitive bid process provides more significant incentive for current providers to work together to achieve the “oneness” model.
- A competitive bid process will at least partially if not completely eliminate the anticipated problems regarding anti-trust issues.
- The county would have more control of the ultimate outcome.

In summary, the consultants believe that in general the citizens of Stanislaus County are receiving adequate services from the County’s current EMS providers. However, as presented in this summary, there are a number of opportunities to improve the efficiency and quality of EMS services. It will not be long until these opportunities become necessities in order to maintain current service levels with changes in demand and reimbursement. Having the opportunity to work with such dedicated providers, public policymakers and oversight agencies is always a pleasure. With this in mind the consultants would like to express our gratitude for the opportunity to participate in this system evaluation process. As Stanislaus County moves down these important paths, we also stand ready to assist the County further if it is desired.