



Mountain-Valley

Emergency Medical Services Agency

June 10, 2011

Stanislaus County Board of Supervisors
C/O Richard W. Robinson, CEO
1010 10th Street, Suite 6800
Modesto, CA. 95354

2011 JUN 24 11:01
BOARD OF SUPERVISORS

SUBJECT: FY 2009/10 Annual Report of the Stanislaus County EMSC

Honorable Supervisors,

Enclosed for your review is the 2009/10 Annual Report from the Stanislaus County Emergency Medical Services Committee (EMSC), and the Mountain-Valley EMS Agency on the state of the Emergency Medical Services (EMS) system in Stanislaus County. This report is intended to keep the Board of Supervisors informed of activities and progress made in the EMS arena over the past year.

Due to the recent changes in leadership at Mountain-Valley EMS Agency and lack of a quorum at a March 2011 EMSC meeting, the FY 2009/10 Annual Report is delivered later than anticipated.

It is our sincere hope that you will appreciate the accomplishments made by the committee, and the local EMS system as a whole. You will find that many system improvements have been completed, and significant progress has been made toward the implementation of many other long-term EMS system objectives. Some of the on-going challenges that the committee will continue to address in the up-coming year include:

- **Implementation of the New SR911 CAD System** The implementation and start date of the new SR911 CAD system has been delayed due to a number of circumstances. The go-live date was extended and will be further discussed in upcoming EMSC meetings.
- **Status of Fire District Response to EMS Calls** Due to increasing financial pressures, several fire departments throughout the county have been reevaluating their ability to respond to EMS calls. One department has already reduced the number and type of EMS calls which they will respond to, and a number of other departments are considering similar measures.
- **Ambulance Provider Agreements** The ambulance provider agreements expire in October 2012. EMSC has begun the process of reviewing the agreements with MVEMSA staff and providers regarding language addition/deletion/revision.

The committee would also like to acknowledge the Mountain-Valley EMS Agency for the significant contributions and leadership they have provided over the past year. The staff growth and system improvements made by the Agency are indeed commendable. They have shown their continued ability to address sensitive and complex issues in a well organized and professional manner.

If you should have any questions regarding the content of the document, please contact Richard Murdock, Mountain-Valley EMS Agency's Interim Executive Director, at (209) 529-5085.

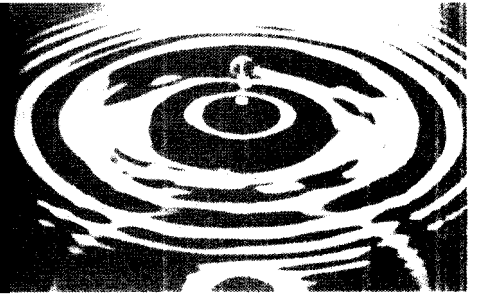
Sincerely,

A handwritten signature in black ink that reads "Paul Baxter". The signature is written in a cursive, flowing style.

Paul Baxter
Chairperson, Stanislaus County EMSC

Cc: Stanislaus County Emergency Department Managers
Stanislaus County City Managers
Stanislaus County Fire District Boards of Directors
Stanislaus County Hospital District Boards of Directors
Managed Care Providers
Stanislaus County Medical Society
Stanislaus County Health Services Agency
Stanislaus County Providers and Dispatch Centers

Mountain-Valley EMS Agency



**The Stanislaus County Emergency
Medical Services Committee**

In conjunction with Mountain-Valley EMS

Annual Report

To the Stanislaus County
Board of Supervisors

FY 2009/10

**STANISLAUS COUNTY
EMERGENCY MEDICAL SERVICES COMMITTEE
2009 REPORT TO THE BOARD OF SUPERVISORS**

The County of Stanislaus

Resident Population	510,385
Geographic Size	1,515 sq mi
Geographic Description	2/3 rural
Municipalities	23

911 System Call Volume

Total Responses 2009

ALS Ground Ambulance Transports **41,870**

EMS Aircraft Response
EMS Aircraft Transports

Comparison to Year 2008

Total Responses
Ground Ambulance Transports
EMS Aircraft Response
EMS Aircraft Transports

Interfacility Transports

Ground Ambulance (2009)

Specialty Centers

Trauma Patients

DMC	891
MMC	958

Prehospital Care Provider Agencies

Fire Departments	20
Ground Ambulance Providers	7
Air Ambulance Providers	2

Prehospital Care Personnel

Emergency Medical Technicians	1256
Paramedics	284
Mobile Intensive Care Nurses	269

Permitted EMS Assets

ALS Fire Apparatus
Private ALS Ground Ambulances
Private Air Ambulances
Private BLS Ground Ambulances
QRV's
Supervisor Vehicles

Communications Centers

PSAPs	4
Secondary PSAPs	1
Private Ambulance Dispatch Centers	1
Air Ambulance Dispatch Centers	1

Acute Care Facilities

Acute Care Hospitals	5
Emergency Departments	5
Level 2 Trauma Centers	2
Base Hospitals	5

County Medical-Health Resources

MCI Trailer	1
Electronic Patient Tracking Systems	6
ChemPacks	2
Disaster Medical Unit	1
EMS Radio Caches	6

Training Programs

Emergency Medical Technician	4
First Responder	5
Mobile Intensive Care Nurse	1
Continuing Education Providers	29

*The information reported on this page is for the 2009 calendar year

**STANISLAUS COUNTY
EMERGENCY MEDICAL SERVICES COMMITTEE
2009 REPORT TO THE BOARD OF SUPERVISORS**

Stanislaus County EMS Annual Report

Reporting Period: 07/01/09 – 6/30/10

*The reporting period from this page forward represents the fiscal year for 2009/10

Mountain-Valley EMS Agency (MVEMSA) represents the counties of Alpine, Amador, Calaveras, Mariposa, and Stanislaus. The EMS Agency exists as a regulatory entity, whose primary purpose is to ensure the safe and high quality delivery of emergency medical care to the communities of the member counties.

MVEMSA is pleased to present the **Stanislaus County FY 2009/10 Emergency Medical Services Annual Report**. The report reflects the hard work, innovation and dedication of the hundreds of people across Stanislaus County who make the Emergency Medical Services (EMS) system effective.

MVEMSA's new direction is to foster a "partnership philosophy" with the organizations that participate in our system. In this role, MVEMSA will maintain the goal of serving as a resource to our provider organizations and assisting each in their mission to provide high quality patient care. The following is a summary of some key responsibilities, activities, and accomplishments of the EMS Agency.

The Agency has currently gone through some leadership changes and is led by Interim Executive Director, Richard Murdock, who answers to a Joint Powers Agreement (JPA) Board of Directors comprised of one Supervisor from each member county served.

Staffing within the Agency consists of personnel who manage programs that are "regional" in nature, e.g. trauma system, and personnel who are primarily dedicated to multiple county specific oversight and operations coordination.

The EMS Agency utilizes and facilitates several Committees to allow for collaborative planning, stakeholder input, and transparency in process. Some of which include:

The Emergency Medical Services Committee (EMSC). The EMCC was created under the authority of Health and Safety Code Section 1797.270. Membership is established and appointed by the Stanislaus County Board of Supervisors. The primary responsibility of the committee is to act in an advisory capacity to the EMS Agency and the Stanislaus County Board of

*The information reported on this page is for the 2009 calendar year

Supervisors. The committee focuses on the review of ambulance operations, dispatch, trauma systems development, and training for the public and field personnel. Sub-committees operating under the authority of the EMSC are utilized to review specific areas of the EMS system operations.

The EMS Agency Staff attend the following recurring meetings in Stanislaus County:

- Regional Advisory Committee (RAC)
- Trauma Audit Committee (TAC)
- Local Continuous Quality Improvement Committee
- Stanislaus County EMSC
- Stanislaus County Healthcare Emergency Preparedness Committee (SCHEPC)
- LifeCom Quality Improvement Committee
- PSAP (Public Safety Answering Point) Managers Meeting
- Stanislaus County Fire Chiefs
- Healthcare Executive Meetings
- Doctors Hospital STEMI Committee
- Memorial Hospital STEMI Committee
- System Status Committee
- Disaster Council
- Dispatch Governance
- Patient Tracking Group Meeting
- MCI Reviews
- Medical Reserve Corp
- Regional Fire Authority

In addition, the EMS Agency staff attended and participated in Emergency Medical Services Administrators Association (EMSAAC) meetings and Emergency Medical Directors Association of California (EMDAC). Staff also attends the following state-wide meetings; Revisions to Base Hospital Regulations for California, Trauma Advisory Committee, EMS Commission, CQI Workgroup, and the American Heart Association, to better serve the citizens of Stanislaus County.

A. Implementation of the New SR911 CAD System

Due to delays in the development of the new SR911 CAD system, the go-live date was extended

B. Emergency Department Saturation

The problems associated with a limited day-to-day emergency department and in-house hospital capacity in Stanislaus County has improved over the past year with the creation of Policy 958.20 "Stanislaus County EMS/Hospital System Saturation." The purpose of the policy is to prevent the escalation of EMS/Hospital system saturation and mitigate its impact on the EMS community by developing a system for appropriate distribution of available resources during a system overload or disaster. In addition, the policy provides EMS/Hospital system managers and local government representatives with timely and accurate information. This information allows them to mitigate current or pending healthcare resource or capacity deficiencies and to augment standard EMS System MCI Policies and Procedures.

Mountain-Valley EMS Agency monitors local system saturation on an ongoing basis. As a result, the EMS Agency, EMSC or SCHEPC, and local hospitals are currently considering further changes to the Stanislaus County Healthcare System Saturation Policy to ensure the policy offers the most responsive options available to high census peaks. The Stanislaus County Public Health Department and the Stanislaus County Healthcare Emergency Preparedness Committee (SCHEPC) have developed a Medical Health Surge Plan to address large scale incidents in the event the EMS and Hospital Saturation policies / plans become overwhelmed.

Hospital Emergency Department Diversion Hours*, 2009

Hospital	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sept</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Total</i>
<i>Doctors Medical Center</i>	0	0	1	5	1	5	4	0	0	0	0	0	16
<i>Memorial Medical Center</i>	0	0	0	19	13	6	6	5	0	0	0	0	49

Source: www.emsystem.com

C. Distribution of the H1N1 Vaccine to EMS and Fire Department Personnel

As a result of the H1N1 epidemic, EMS and Fire Department personnel within Stanislaus County were given the opportunity to receive the H1N1 vaccination. MVEMSA developed policies under the paramedic expanded scope of practice in order to use paramedics for administering the H1N1 vaccine. The vaccine was ordered in conjunction with Stanislaus County Health Department.

Ambulance Provider Paramedics and Fire ALS First Responder Paramedics were used to administer vaccines for EMS, fire department and law enforcement personnel.

D. Hospital HavBed Reporting

Mountain-Valley EMS Agency has been working with Stanislaus County Public Health on daily HavBed reporting. The reporting is a daily reporting of hospitals bed availability. MVEMSA provides a daily report to Dr. Walker on the bed status within Stanislaus County.

E. Status of Fire District Response to EMS Calls

Stanislaus County Fire Chiefs approved fire response to high acuity level calls only, NAEMD – Echo, Delta, Charlie level determinants

F. Report on Implementation of CPAP and STEMI Pilot Program

As a result of the negative trending data received on unsuccessful nasal intubation attempts, Dr. Mackey, MVEMSA Medical Director, decided to remove nasal intubation as a skill performed by MVEMSA accredited Paramedics. Nasal Intubation was replaced with a new device called CPAP or Continuous Positive Airway Pressure. The CPAP device works to improve oxygenation in a patient having respiratory problems. Each provider is responsible to submit their training curriculum to Dr. Mackey for approval. After approval, the provider will be responsible to provide the respective training to their employees on the utilization of CPAP. After training is complete, the provider can use the CPAP device in the pre-hospital setting.

The 12 Lead Pilot Project study was implemented by Dr. Mackey for the MVEMSA multi-county areas to evaluate patients for suspected ST Elevation Myocardial Infarction otherwise known as STEMI. The Pilot Project will run for the duration of one (1) year.

The 12-Lead EKG strips and Patient Contact questionnaires are collected from STEMI Receiving and Referral Centers with a 100% review of all 12-Leads by Dr. Mackey through the duration of the pilot study. During the period November 1, 2009 thru June 30, 2010 a total of 1070 12-Lead questionnaires were collected in Stanislaus County. STEMI and Chest Pain Performance Indicators are being developed for implementation in July 2010 to complement the 12-Lead Pilot Study.

G. Ambulance Transports

Table 1 – Number of Patients Transported to Hospital ED from 911 System*, 2009

Hospital	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sept</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Total</i>
<i>Doctors Medical Center</i>	1155	1039	1233	1252	1253	1185	1224	1300	1248	1242	1111	1154	14396
<i>Memorial Medical Center</i>	1141	1031	1159	1226	1211	1149	1179	1218	1246	1268	1281	1299	14408
<i>Kaiser Hospital</i>	351	375	436	375	379	336	370	272	263	278	263	236	3934
<i>Oak Valley Hospital</i>	178	195	203	212	193	198	194	189	174	161	163	160	2220
<i>Emanuel Medical Center</i>	579	591	583	598	670	560	608	570	545	517	493	598	6912
Monthly Total:	3454	3231	3614	3638	3706	3426	3576	3545	3476	3433	3311	3447	41373

Source: LifeCom Communications*

*Notes for Table 1: These numbers only reflect patients that originated in Stanislaus County and transported by AMR, Oak Valley, Pro-Transport, West-Side, or Patterson District Ambulance.

H. Ambulance Service Response Time Compliance

The Mountain-Valley EMS Agency and the EMSC regularly monitor the response times of all emergency ambulance service providers in the county to ensure they meet their contractual responsibilities as outlined in their agreements. Failure to comply with these standards after initial warnings may result in fines in accordance with the Stanislaus County Ambulance Provider Agreements.

I. EMS Dispatch Center Update

A non-emergency dispatch center agreement with ProTransport-1 was approved by the Board on December 10, 2009

MVEMSA Communication Coordinator continues to work on the SR 911/LifeCom CAD-to-CAD interface project. The Coordinator also attended meetings with first responder agencies to further educate them on the EMD process and consider response of fire first responders by utilizing the EMD protocol system.

Attending the newly formed SR911 QI Committee Meetings and charged with developing a QI process in reviewing medical request transferred from SR911 to the LifeCom Center.

SR911 QI Committee worked on a "Proposed Call Processing Algorithm" for Fire Dispatch. The proposed call processing will reduce or eliminate the duplicate line of questioning between the two call centers, ensure the immediate dispatch of First Responders to all high acuity level calls, and dispatch first responders to all other EMS calls only after EMD call triage has been completed.

Update to MPDS Version 12 Protocols

The CAD-to-CAD Operational Committee ceased to meet during 2009/10 period due to the delay in SR911 CAD implementation.

J. Approval of Mountain-Valley EMS Agency Training Calendar

The contract between Mountain-Valley EMS Agency and Stanislaus County includes several performance expectations. One of these requirements is for MVEMSA to publish an annual training calendar of all training activities and have this calendar approved by the EMSC. This calendar has been reviewed and approved by the EMSC, and is regularly updated as new training programs become available. The training calendar is also posted on the MVEMSA website.

K. Acquisitions

Implemented Photo ID Certification System on January 1, 2010

The Photo ID Certification System was purchased with FY 08/09 HPP Grant Funds. The development of a new certification and training database was a primary goal in this project ensuring that data fields were in line with the EMT Registry requirements.

Electronic PCR database software

Evaluation of Software Platforms able to replace the unsupported EPCIS PCR database was completed during the quarter. The MVEMSA Board of Directors approved contracting with EMSsystems to replace EPCIS. This new Regional Data Repository, called WEBCUR, will be implemented beginning in the 1st Quarter of Fiscal Year 2010/11. A regional Data Reporting Policy was also approved by the Agency. Providers will be required to submit CEMSIS-compliant data as part of the PCR record.

MDT (Mobile Dispatch Terminals) for Stanislaus County Rural Ambulance Providers

MVEMSA secured Homeland Security Grant Funding to purchase and implement use of MDTs on all rural provider ambulances.

In addition to the above 2009/10 activities and accomplishments, the following documents / reports have also been included, as attachments to this report;

- The *Trauma Care System Annual Report-2009* which describes the status of the regional trauma system implemented by Mountain-Valley EMS Agency in February of 2004,
- Minutes of all EMSC meetings for 2009/10, and
- EMS Training Calendar – 2009

As a committee, we sincerely hope the information provided in this report is useful to the Board of Supervisors and in keeping with the initial direction and charge of the Board. Any questions or comments regarding the content of this report can be directed to EMSC Committee staff at the following address:

Stanislaus County EMSC
C/O Richard Murdock
Mountain-Valley EMS Agency
1101 Standiford Ave. Suite D1
Modesto, CA 95350
(209) 529-5085

Your acceptance of the above report is respectfully requested.

THIS REPORT WAS APPROVED BY THE MEMBERSHIP OF STANISLAUS COUNTY EMSC ON JUNE 9, 2010.

Trauma Care System Annual Report – 2009



**Mountain-Valley
Emergency Medical Services Agencies**

**TRAUMA SYSTEM ANNUAL REPORT
2009**

**Richard Murdock
Interim Executive Director**

**Kevin Mackey, MD
Medical Director**

**Linda Diaz, BSN, RN, PHN
Trauma System Coordinator**

**Norma Cavanaugh
EMS Data Registrar**

Table of Contents

1. Acknowledgements.....	1
2. Introduction.....	2
3. Regional Overview.....	5
4. Injury Prevention.....	7
5. Trauma Reports.....	8
a. Demographic	
b. Pre-hospital	
c. Trauma Location	
d. Hospital Admission Patterns	
e. Mechanism of Injury	
f. Emergency Department	
g. Patient Distribution Tables	
h. National Trauma Data Bank Comparison	
i. Patient Outcomes	
6. Special Focus Section- 55 and Over.....	26
7. References.....	31
8. Acronyms.....	32

Acknowledgements

Mountain-Valley EMS Agency would like to thank all of the system participants whose hard work and dedication made this report possible. It is the commitment to excellence from the field personnel, to the nurses and doctors who care for trauma victims that allows us to excel in providing trauma care within our local trauma system. Doctors Medical Center and Memorial Medical Center continue to demonstrate their leadership and dedication to trauma by maintaining the stringent requirements of a level two Trauma Center. Both facilities have met and exceed the designation requirements by the State of California and are verified by the American College of Surgeons.

The EMS Agency would like to give a special thanks to the following people who have contributed to the extensive data collection used in this report:

Anita Schlenker, RN
Trauma Coordinator
Doctors Medical Center

Sharon Perry, BSN, RN, CEN
Trauma Coordinator
Memorial Medical Center

Norma Cavanaugh
Mountain-Valley EMS Data Registrar

Edna Wagner
Trauma Registrar
Memorial Medical Center

Cheryl McLane
Trauma Registrar
Doctors Medical Center

Introduction

A trauma system is more than just having ambulances and hospitals available to treat patients. In an effective trauma system the delivery of care for those severely injured is provided in an organized approach. This approach initiates and orchestrates a multidisciplinary response. A trauma system includes any aspect of care that may affect a trauma patient. These include injury prevention programs, 911 dispatch procedures, pre-hospital care treatment guidelines, appropriate triage and transport protocols, in-hospital medical care, and rehabilitation services. This pre-planned continuum of care should flow from one aspect to another effortlessly. All aspects of the system should be monitored and evaluated as a part of the quality program. This assessment allows for a continuous performance improvement in the care provided to trauma patients. Multiple studies have confirmed that mortality and morbidity decrease when major trauma victims are cared for within a trauma system. One study demonstrated that the overall risk of death was 25% lower when care was provided at a level 1 trauma center than when it was provided at a non-trauma center. (CDC, 2009).

Patient Flow Through a Pre-Planned Trauma Care Continuum

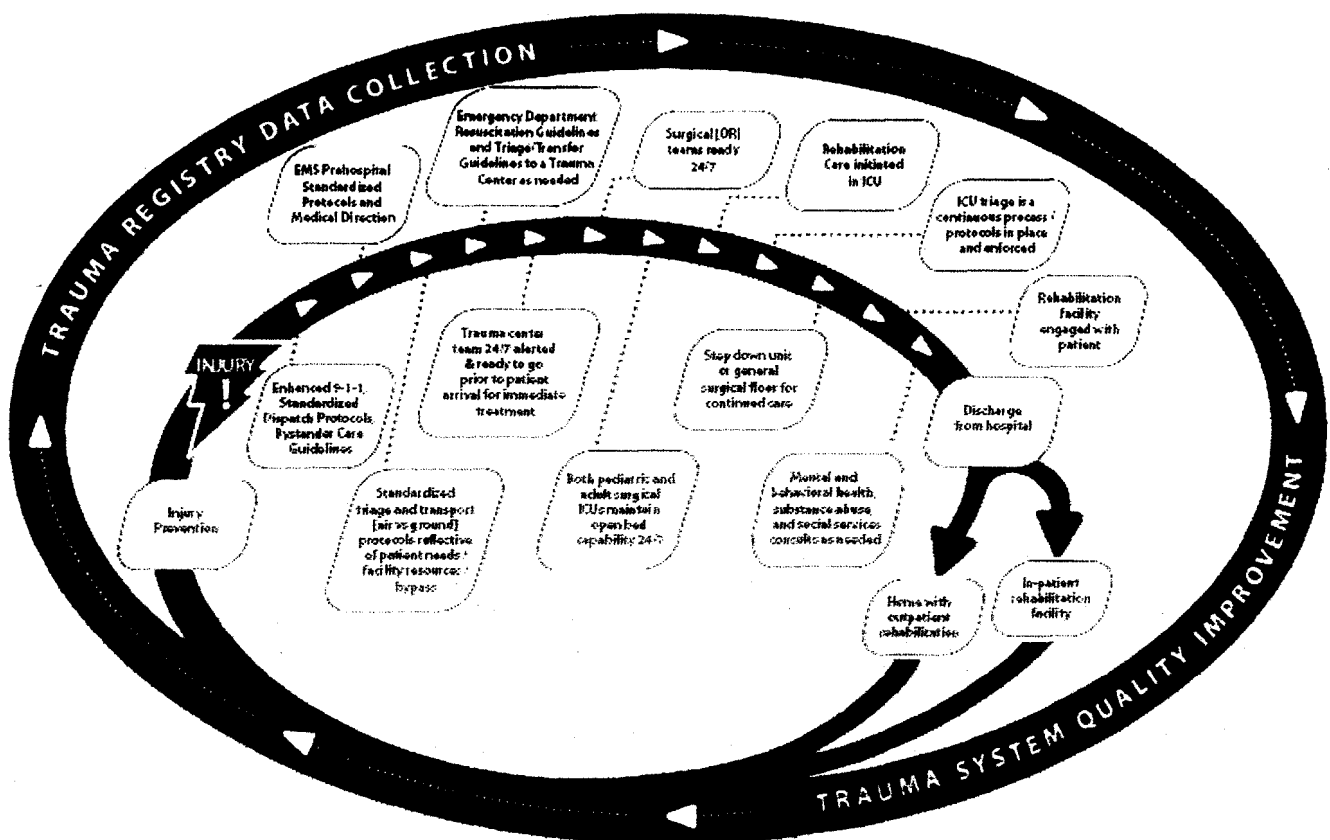


Figure 1
(HRSA, 2006).

The CDC continues to list trauma as the fifth most common cause of death and the leading fatality for people between the ages of 1 and 44. (CDC, 1999) The impact of traumatic injuries on an individual, family, or society as a whole is tragic. The traumatically injured patient not only suffers from the medical aspects of their injuries but they also must overcome the emotional and financial burden, as well. Direct medical costs and indirect costs such as lost productivity of a traumatic brain injury, alone, totaled an estimated \$60 billion in the United States in 2000. (Finkelstein, et al, 2006).

10 Leading Causes of Death by Age Group, United States – 2007

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 2,755	Unintentional Injury 1,588	Unintentional Injury 865	Unintentional Injury 1,228	Unintentional Injury 12,597	Unintentional Injury 14,977	Unintentional Injury 16,951	Malignant Neoplasms 60,167	Malignant Neoplasms 105,171	Heart Disease 496,095	Heart Disease 616,967
2	Short Gestation 4,857	Congenital Anomalies 546	Malignant Neoplasms 480	Malignant Neoplasms 479	Homicide 5,911	Suicide 5,278	Malignant Neoplasms 13,285	Heart Disease 37,434	Heart Disease 65,527	Malignant Neoplasms 389,730	Malignant Neoplasms 562,875
3	SIDS 2,453	Homicide 388	Congenital Anomalies 196	Homicide 213	Suicide 4,140	Homicide 4,713	Heart Disease 11,839	Unintentional Injury 20,315	Chronic Low Respiratory Disease 12,777	Cerebrovascular 115,961	Cerebrovascular 135,952
4	Maternal Pregnancy Comp. 1,769	Malignant Neoplasms 394	Homicide 113	Suicide 180	Malignant Neoplasms 1,653	Malignant Neoplasms 3,463	Suicide 6,722	Liver Disease 8,212	Unintentional Injury 12,193	Chronic Low Respiratory Disease 109,562	Chronic Low Respiratory Disease 127,924
5	Unintentional Injury 1,285	Heart Disease 173	Heart Disease 110	Congenital Anomalies 176	Heart Disease 1,064	Heart Disease 3,223	HIV 3,572	Suicide 7,776	Diabetes Mellitus 11,304	Alzheimer's Disease 38,797	Unintentional Injury 123,706
6	Placenta Cord Membrane 1,135	Influenza & Pneumonia 109	Chronic Low Respiratory Disease 74	Heart Disease 131	Congenital Anomalies 402	HM 1,091	Homicide 3,032	Cerebrovascular 0,365	Cerebrovascular 10,900	Diabetes Mellitus 51,528	Alzheimer's Disease 74,632
7	Bacterial Septicemia 820	Septicemia 75	Influenza & Pneumonia 48	Chronic Low Respiratory Disease 64	Cerebrovascular 195	Diabetes Mellitus 610	Liver Disease 2,570	Diabetes Mellitus 5,793	Liver Disease 8,004	Influenza & Pneumonia 46,941	Diabetes Mellitus 71,362
8	Respiratory Disease 780	Benign Neoplasms 79	Benign Neoplasms 41	Influenza & Pneumonia 55	Diabetes Mellitus 165	Cerebrovascular 505	Cerebrovascular 2,133	HIV 4,155	Suicide 3,069	Nephritis 38,464	Influenza & Pneumonia 52,717
9	Circulatory System Diseases 624	Benign Neoplasms 59	Cerebrovascular 35	Cerebrovascular 45	Influenza & Pneumonia 165	Congenital Anomalies 417	Diabetes Mellitus 1,984	Chronic Low Respiratory Disease 4,153	Nephritis 1,440	Unintentional Injury 38,252	Nephritis 46,446
10	Neonatal Hemorrhage 597	Chronic Low Respiratory Disease 57	Septicemia 36	Benign Neoplasms 43	Trachea 160	Liver Disease 354	Septicemia 910	Viral Hepatitis 2,815	Septicemia 4,251	Septicemia 26,362	Septicemia 31,625

The three causes are: Complicated Pregnancy, HIV, Septicemia
Source: National Vital Statistics System, National Center for Health Statistics, CDC.
Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

Figure 2

It is important to remember that traumatic injuries are not “random, uncontrollable acts of fate; rather, most injuries are predictable and preventable.” (Houk, et al, 1987). Because trauma is a preventable disease it is important to evaluate the three phases of injury prevention. The first phase is *primary prevention* and the efforts are focused on preventing or avoiding the occurrence of the injury. This is done through injury prevention activities such as walk to school safety programs, the Every 15 Minute program, etc. *Secondary prevention* focuses on the time the event occurred and works to reduce the severity of the injury producing event. Examples of this is accomplished with the use of helmets, car safety standards, the use of seatbelts, etc. The third stage is called *tertiary prevention* or “post-event” this phase focus on reducing the impact of the injury. This is done through the evaluation of policies, protocols and the care provided.

This report was developed as a tool to evaluate these phases of prevention. By evaluating and analyzing our own system of care, we work to decrease the morbidity and mortality of those treated within our community. (HRSA, 2006).

The quality of care is tracked and trended through the meticulous work of data collection. This report is generated from the system registry on data collected from the year 2009. Some reports involved the entire database, which now houses over 12 thousand records. It is important to recognize the limitation of this data as community-based non-trauma centers do not submit data and the data provided by the trauma centers only reflects those most seriously injured.

Regional Overview

The catchment area for our local trauma system has remained unchanged. Doctors Medical Center and Memorial Medical Center are the only two trauma centers between Sacramento and Fresno. They serve a population of approximately 1 million people. The flow of trauma patients can come from a wide range of locations such as the wilderness of Yosemite National Park, the rural agricultural areas of Merced or the metropolitan areas of Modesto. Our Trauma Centers continue to be the primary trauma destination for six counties; Stanislaus, Merced, Calaveras, Tuolumne, Mariposa and the southern portion of San Joaquin.

The State of California is in the process of finalizing its first official trauma plan. Given the size and diversity of California it was determined early in the planning that the State would need to split into five regions. Our local trauma system belongs within the Central California Regional Trauma Coordinating Committee (RTCC). In addition to the Counties of Mountain-Valley EMS,

the RTCC also serves Merced, Madera, Fresno, Kings, Tulare, and Kern Counties.

The Central RTCC provides care to a population of 3.5 million people and is roughly 32 thousand square miles.

This group has had several meetings to develop the structure and foundation of this new committee and is now moving forward to evaluate and address issues here in the Central Valley. As a first step, the committee determined that a gap analysis was needed to assist in that overall evaluation.

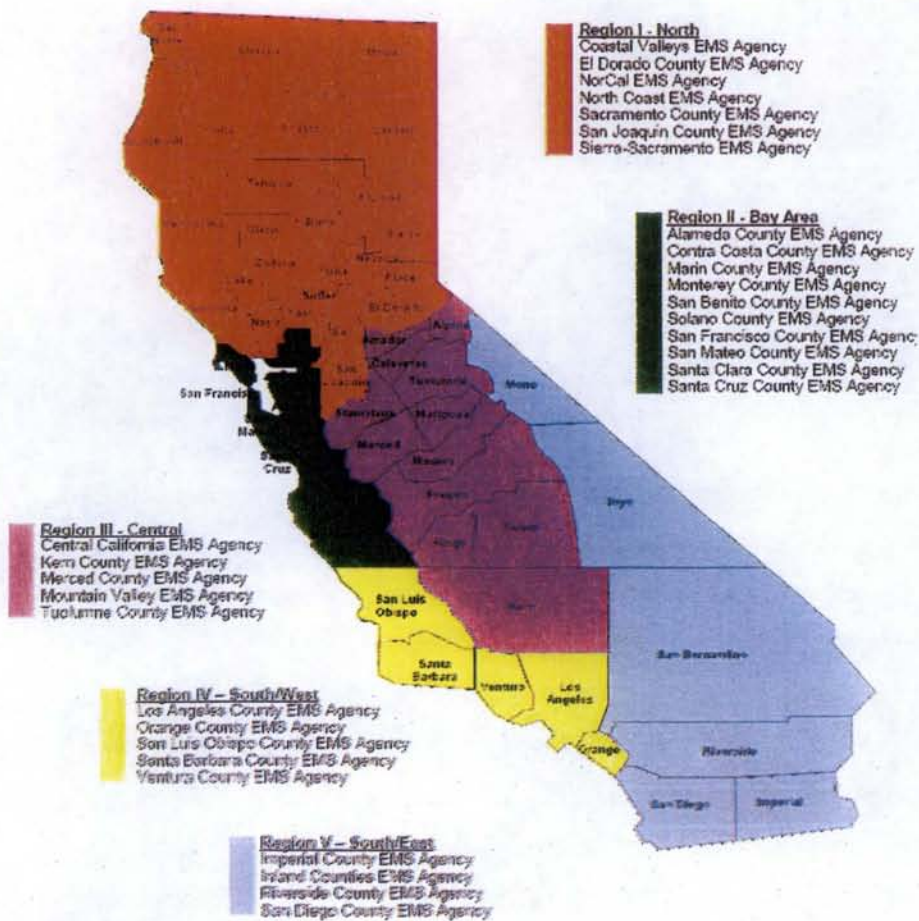


Figure 3

Regional Overview

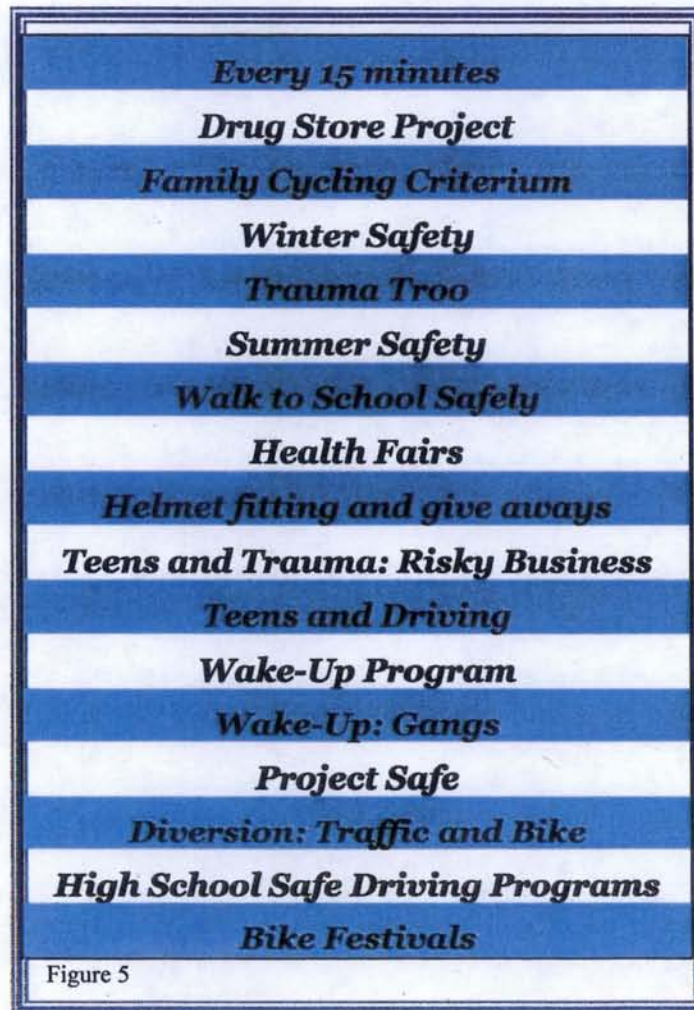
	California RTCC Trauma Centers					
	Level I	Level II	Level III	Level IV	Total Adult TC	Pediatric TC
Central California	1	3	1	0	5	0
Northern California	1	6	9	7	23	1
Bay Area	3	7	0	0	10	3
South Eastern	3	7	1	2	13	3
Southern	5	11	0	0	16	6
Totals	10	34	11	9	67	13

Figure 4

Despite the size of the region, there are only 5 Adult Trauma Centers and no Pediatric Trauma Centers. As noted in figure 4, these resources are considerably less than the rest of the State. The lack of hospitals that provide care to patients with major traumatic injuries in Central California is certainly a concern. There is roughly 100 miles between each Trauma Center and the system is at full capacity on most days. In addition, the San Joaquin Valley has 51% fewer specialty physicians than the rest of the State and it is projected that our growth rate will double that of the rest of the State. (UC Merced, 2007). Our Trauma Centers are required to have a full call panel with a list of most specialty physicians; this means that our community hospitals often rely on them to provide care for patients with minor injuries. The Central California RTCC continues to evaluate and research options as these factors strain the overall system. The answers are complex and not simple to resolve.

Injury Prevention:

Doctors Medical Center and Memorial Medical Center have dedicated over 2,000 hours to primary injury prevention activities. The nurses at these facilities work with various agencies (law enforcement, fire departments, schools, etc.) to help stop traumatic injuries from occurring. Their dedication is not just to Stanislaus County, as they participate in activities throughout the region, in various counties. The following is a list of some of the outreach activities they have participated in this year.



Trauma Reports:

Demographics:

In 2009, our trauma system saw 1,850 patients between the two centers. The average trauma patient is 35 years-old, white, male with drugs or alcohol in his system 51% of the time. He has an average length of stay in the hospital (AvLOS) of 5.36 days. The AvLOS was identified last year as being well above the national average and became a performance indicator. With a focused quality review, the Trauma Centers have been able to drop the average by two days.

The Injury Severity Score (ISS) is determined by evaluating and scoring the anatomical injuries of the trauma patient. This scoring method is a way of standardizing the severity of injuries sustained and is widely used in the trauma community. ISS values range from one, a minor injury, to 75, a severe injury with a low probability of survival. You will see this scoring tool throughout this report.

System Averages					
	Age	ISS	AvLOS	AvICU	Toxicity
2006	34	12	6	6.3	48%
2007	34	12	7.55	6.74	53%
2008	36	9	7.47	5.65	53%
2009	35	10	5.36	5.9	51%

Figure 6

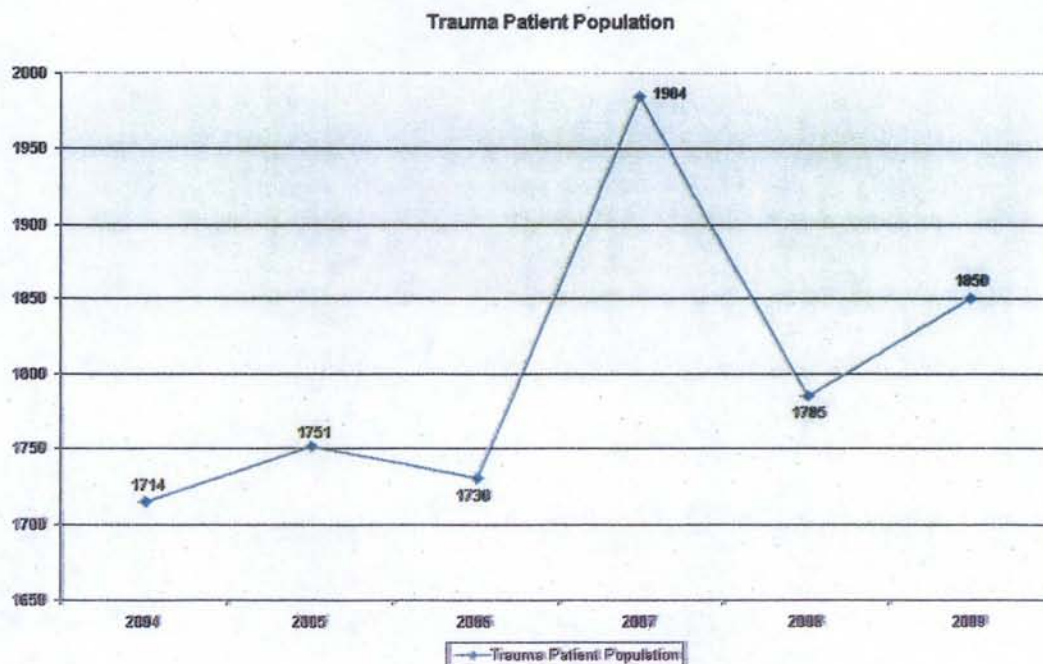


Figure 7

Trauma Reports:

Demographics:

These figures have remained the same over the last few years. Males make up 73% of our trauma population, taking the lead in all age categories. Most of our traumas occur between the ages of 17 and 55, which correlates with national trends.

Percentage of Trauma Patients by Gender
n=1850

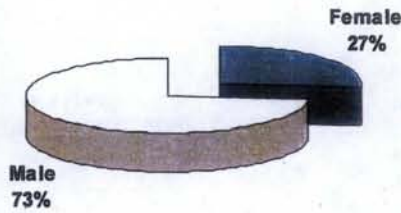


Figure 8

Race Distribution
n=1845

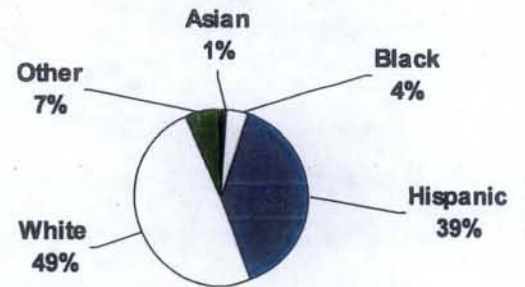


Figure 9

Age and Gender - 2009
n = 1849

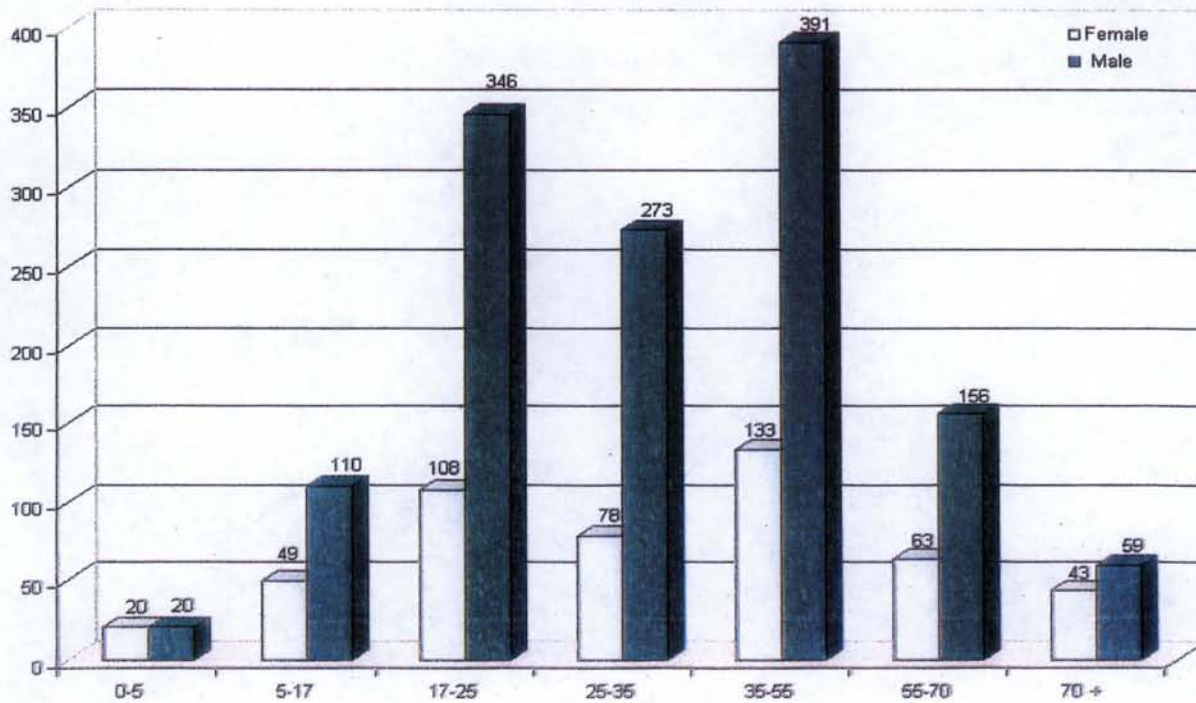


Figure 10

Trauma Reports:

Pre-hospital:

We currently have 1,800 pre-hospital personnel certified or accredited within the region. There is extensive trauma training required by all paramedics. They hold certifications in *Pre-hospital Trauma Life Support* or *Basic Trauma Life Support*. They have additional training in trauma triage and multiple trauma courses that are offered by the Trauma Centers during their symposiums and grand rounds.

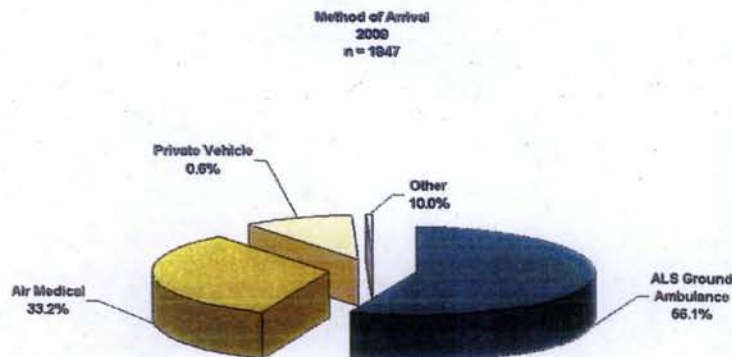


Figure 11

The average scene time for a trauma patient is 18 minutes. This is below the 20-minute standard established by the American College of Surgeons. Fifty-six percent of the trauma population arrives by ground ambulance, with AMR-Stanislaus transporting 41% of those.

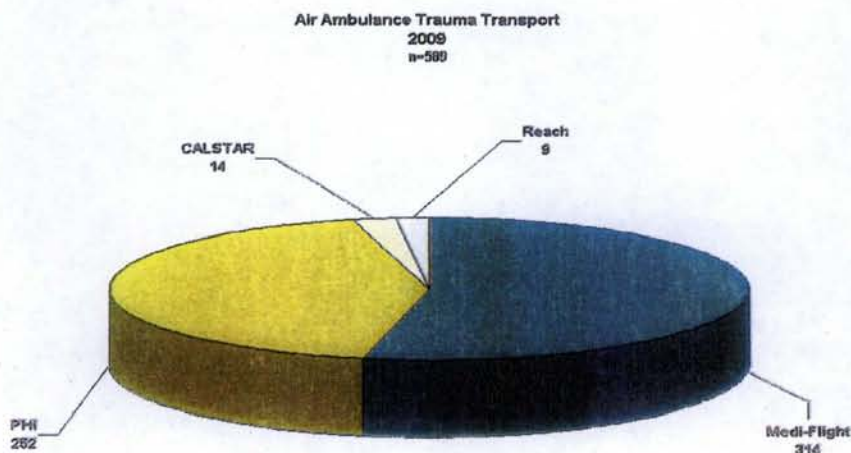


Figure 13

Transporting Provider	Count
American Legion	37
Ebbetts Pass Fire	12
Riggs	339
West Side	61
Priority One Ambulance	1
AMR - San Joaquin	45
Escalon Ambulance	28
Manteca Ambulance	17
Ripon Ambulance	12
Hughson Ambulance	14
AMR - Stanislaus	663
Oak Valley Ambulance	139
Patterson Ambulance	55
ProTransport	14
Modesto City Fire	3
Tuolumne County Amb	93
Mercy Medical Transport	37
Other	31

Figure 12

Trauma Reports:

Location:

The following graphs examine the trauma patients from the various counties within the catchment area. Falls are the leading cause of injury in the mountain communities, while motor vehicle crashes lead in more urban areas.

In examining the Emergency Department dispositions, most counties demonstrate a 30-40% discharge to home, with the exception of Tuolumne at 12%. Tuolumne is also noted as having the highest Injury Severity Score (ISS) at 12 and the highest mortality rate at 9.1%. Tuolumne also leads with inter-facility transfers at 21% as demonstrated in figure 18. These figures may indicate an issue with the triage of patients, a point that we will need to examine closer over the next year.

Mechanism of Injury by County							
2009							
n = 1816							
	Calaveras	Mariposa	Merced	San Joaquin	Stanislaus	Tuolumne	Total
AIR	0	0	0	0	0	1	1
ASSAULT	0	1	22	10	63	3	99
ATV	1	3	6	5	19	5	39
BIKE	2	1	9	2	44	2	60
BOAT	0	3	0	0	1	2	6
BURN	0	0	0	1	5	0	6
DIVE	0	0	0	0	1	1	2
EXP	0	0	0	0	2	0	2
FALL	12	17	30	9	107	18	193
GSW	1	1	37	5	118	3	165
MCC	13	9	24	11	115	10	182
MVC	17	17	181	54	375	41	685
OTHER	3	3	12	5	51	5	79
PED	1	1	30	4	115	4	155
SELF	0	0	2	0	1	1	4
SPORT	3	0	4	1	10	4	22
STAB	1	1	23	6	83	0	114
TRAIN	0	0	1	0	1	0	2
Total	54	57	381	113	1111	100	1816

Figure 14

County Breakdown					
2009					
n = 1816					
	Total Deaths	Mortality %	Avg. Age	Avg. ISS	Total Patients
Calaveras	3	5.556	43.87	10.89	54
Mariposa	3	5.263	41.49	9.81	57
Merced	12	2.902	35.2	8.5	381
San Joaquin	5	4.425	36.54	10.42	113
Stanislaus	60	5.44	34.48	9.65	1111
Tuolumne	9	9.091	43.45	12.12	100

Figure 15

ED Disposition By County								
2009								
n = 1726								
	HOME	OR	ICU	DEATH	FLOOR	AMA	TRANSFER	Total
Calaveras	14	7	9	1	16	0	3	50
Mariposa	23	4	12	1	13	0	0	53
Merced	125	55	72	2	92	0	13	359
San Joaquin	32	17	23	2	28	0	3	105
Stanislaus	428	147	164	35	252	1	40	1067
Tuolumne	11	16	35	1	23	0	6	92

Figure 16

Trauma Reports:

Location:

Referral Hospital Distribution 2009 n = 171	
Sutter Amador Hospital	1
Corcoran District Hospital	1
Madera Community Hospital	2
John C. Fremont Hospital	6
Memorial Hospital Los Banos	21
Doctor's Hospital of Manteca	6
St. Doninic's Hospital	2
Dameron Hospital	2
Sutter Tracy Community Hospital	12
Memorial Hospital	4
Oak Valley District Hospital	7
Emanuel Medical Center	22
Sierra View District Hospital	1
Sonora Community Hospital	22
Mercy Medical Center	48
Kaiser Foundation Hospital	4
Other	10

Figure 17

Trauma by County 2009 n = 1860			
	Scene	Transfer	Total
Alameda	3	0	3
Alpine	1	0	1
Amador	1	0	1
Calaveras	59	5	64
Fresno	1	0	1
Los Angeles	0	1	1
Madera	2	2	4
Mariposa	49	6	55
Merced	391	69	460
Sacramento	1	0	1
San Benito	1	0	1
San Joaquin	117	24	141
Santa Clara	2	0	2
Stanislaus	964	30	994
Tulare	1	1	2
Tuolumne	88	23	111
Yosemite NP	0	1	1
Unknown	7	2	9

Figure 18

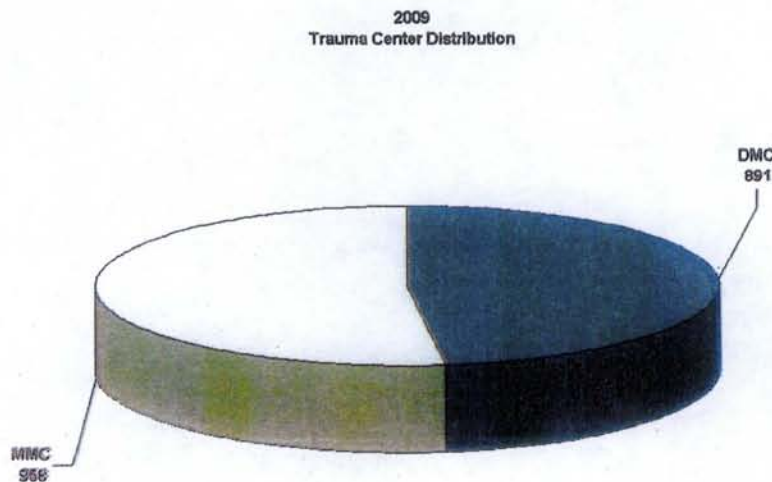


Figure 19

Trauma Reports:

Mechanism of Injury:

We saw a 47% increase in the number of pedestrian traumas this year, with a 7.1% mortality rate. We have not seen these rates this high in the last five years. Pedestrian injuries rank third as the highest cause of death within our system from 2004-2009. This continues to be higher than the national trends. As in years past, motor vehicle crashes (MVC) are the most common cause of injury, followed with falls and motorcycle crashes (MCC). Eighty-three percent of our trauma patients suffer from blunt injuries.

Mechanism of Injury 2009		
Cause Code	Total	Percent
AIR	1	0.1%
ASSAULT	99	5.4%
ATV	40	2.2%
BIKE	63	3.4%
BOAT	6	0.3%
BURN	6	0.3%
DIVE	2	0.1%
EXP	2	0.1%
FALL	201	10.9%
GSW	165	8.9%
MCC	188	10.2%
MVC	694	37.5%
PED	155	8.4%
SELF	4	0.2%
SPORT	26	1.4%
STAB	114	6.2%
TRAIN	2	0.1%
OTHER	81	4.4%
Total	1849	100.0%

Figure 20

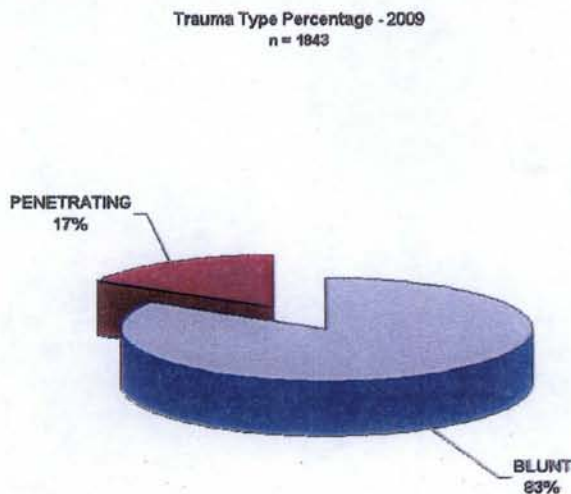


Figure 21

Trauma Reports:

Mechanism of Injury:

Trauma by Cause and Age Range - 2009
n = 1838

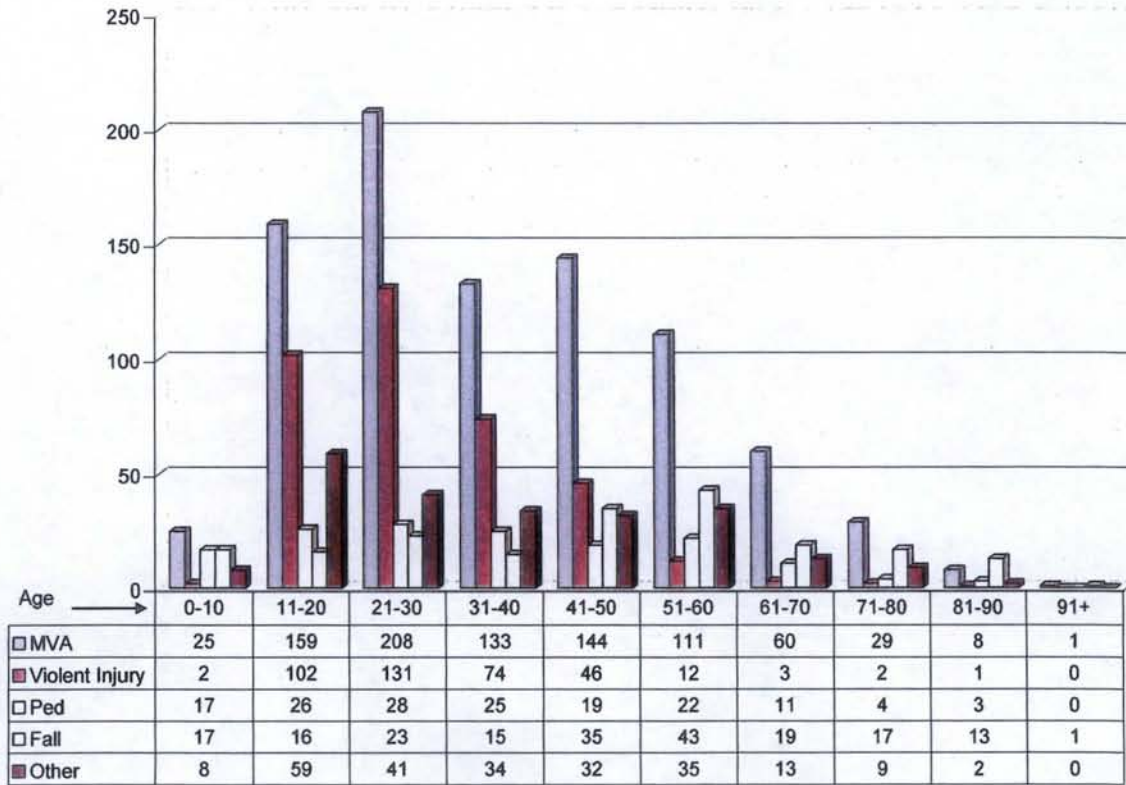


Figure 22

Trauma Reports:

Hospital Admission Patterns:

One third of traumas occur between the hours of 6pm and midnight, with 7:30pm being the most common time. Most traumas occur in the warmer summer months. Saturday and Sunday continue to be our high volume days. When looking closer at the times and days, Figure 26 shows that the highest volume of traumas occur between Saturday night into early Sunday morning.

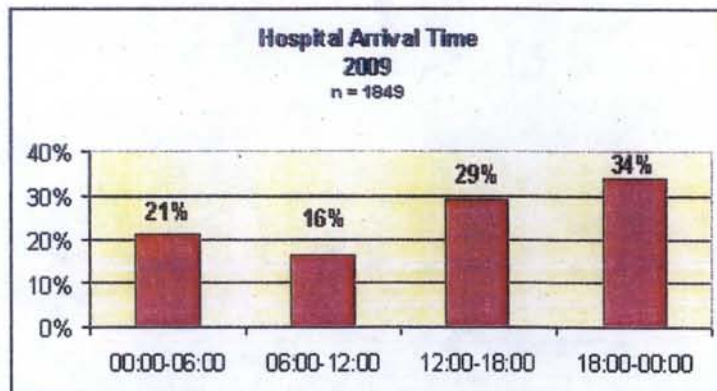


Figure 23

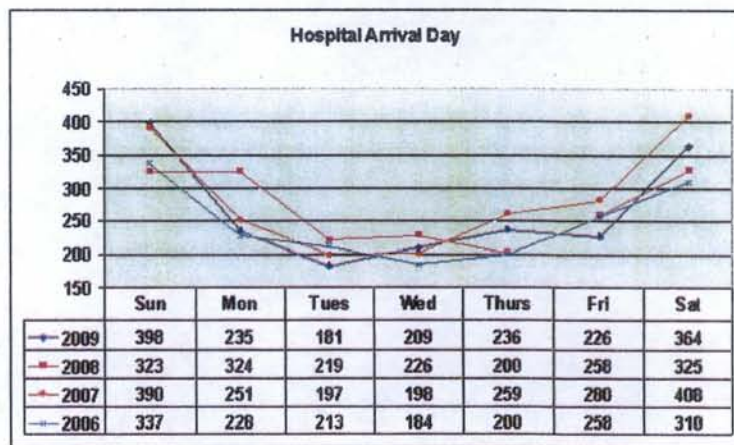


Figure 24

Monthly Admission Patterns

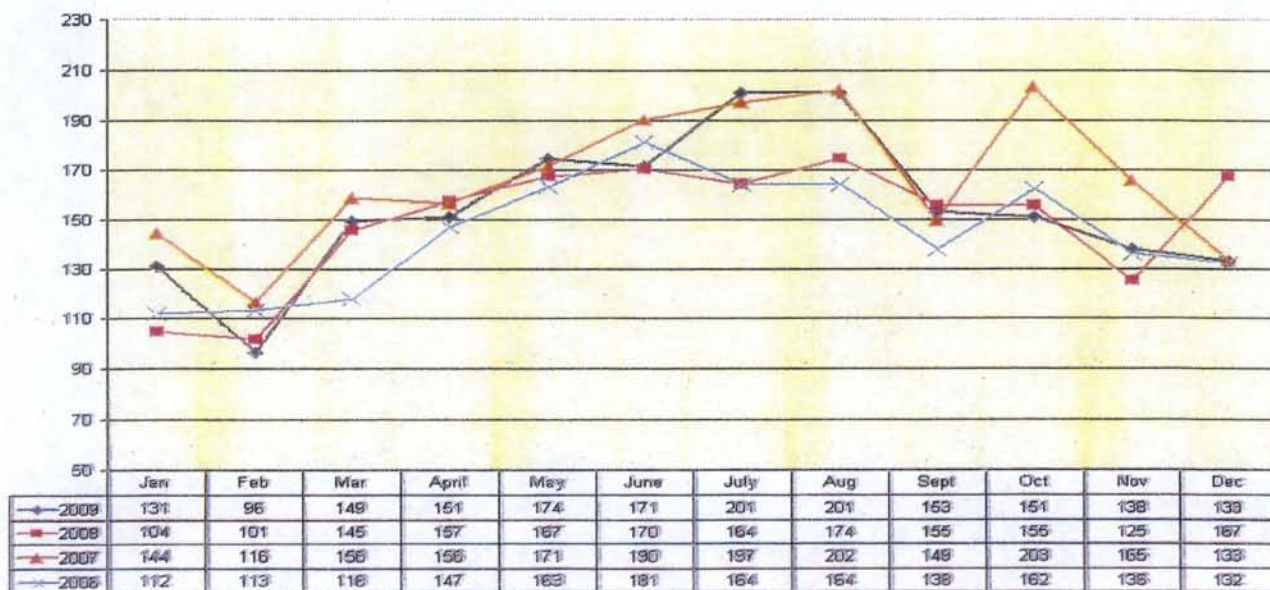


Figure 25

Trauma Reports:

Hospital Admission Patterns:

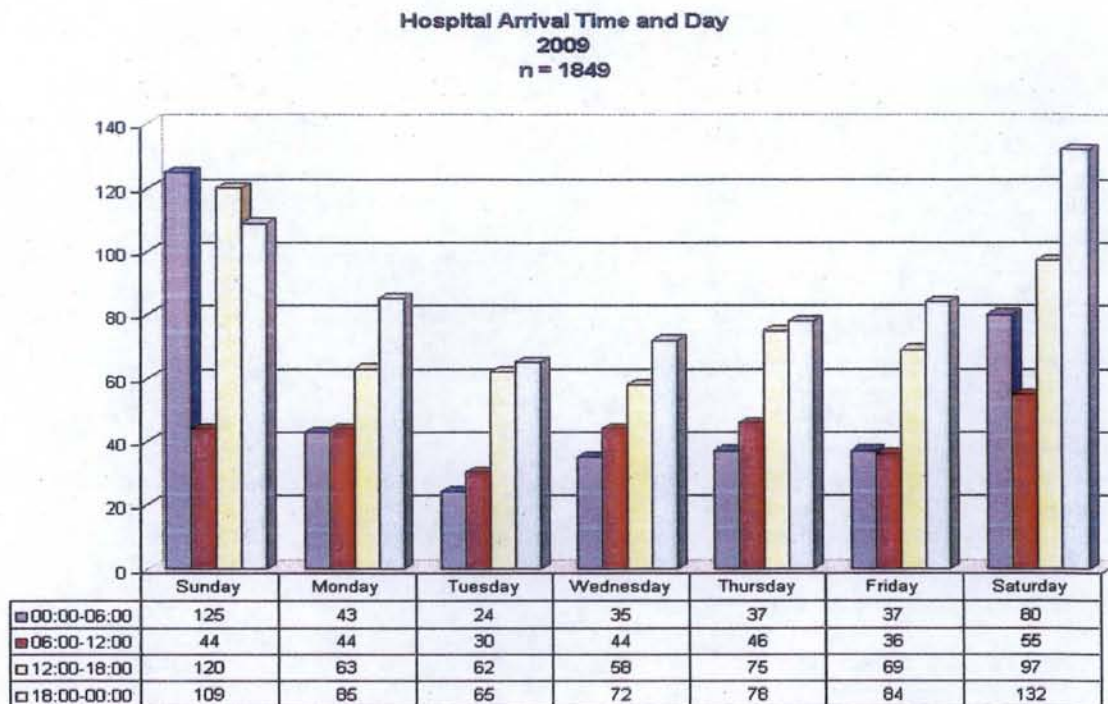


Figure 26

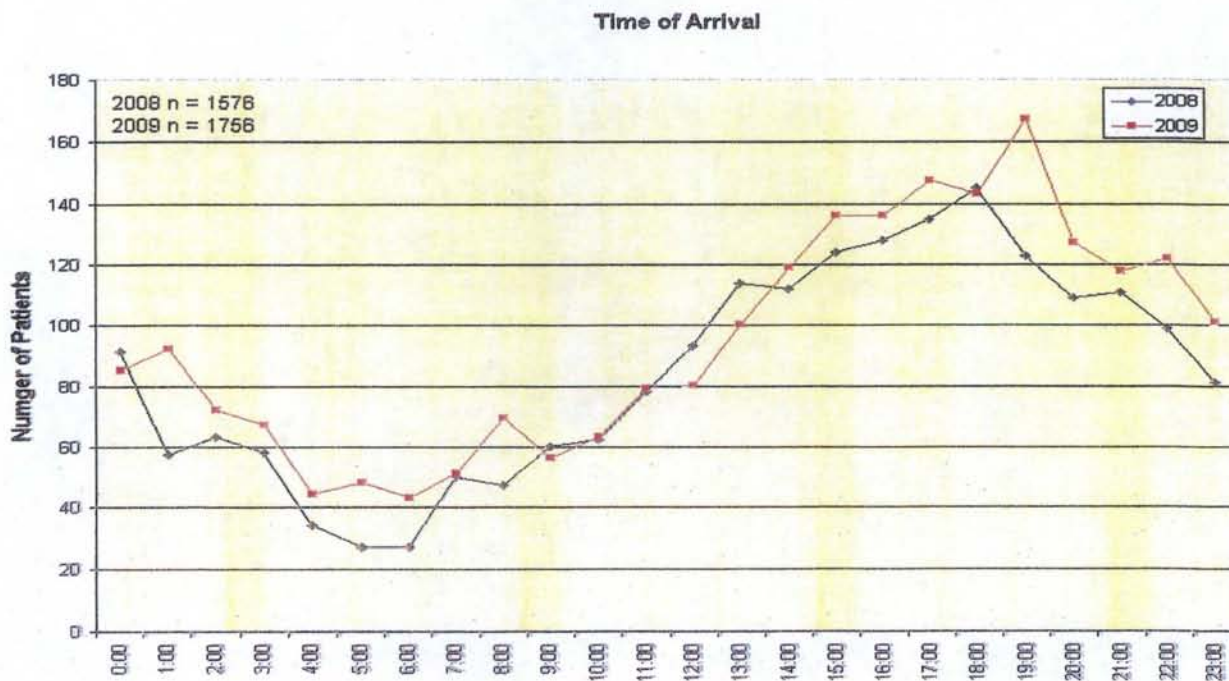


Figure 27

Trauma Reports:

Emergency Department:

Injury Severity Scores can be broken into different categories identifying minor (0-9), moderate (10-24), and severe (≥ 25) injuries. As noted in figure 28, 65% of our trauma activations have minor injuries while 35% have moderate to severe injuries.

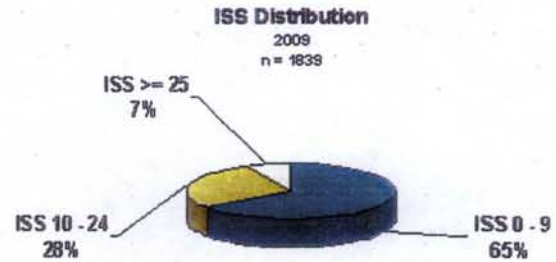


Figure 28

As traumas arrive in the ED, activation levels are called to identify the appropriate response teams. Tier I patients are the most severely injured. Forty-two percent of our population is activated with a Tier II response and 25% of those are admitted to the ICU or OR. Forty-seven percent of the Tier III's are discharged from ED.

Trauma Category Distribution - 2009
n = 1833

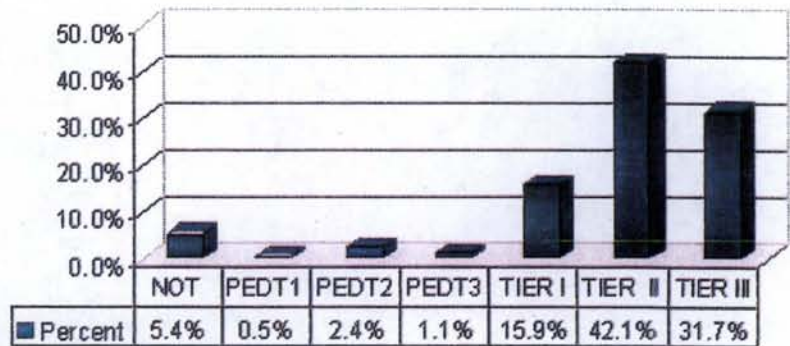


Figure 29

Emergency Department Distribution by Trauma Category - 2009								
n = 1832								
ED DISPOSITION	NOT	PEDT1	PEDT2	PEDT3	TIER I	TIER II	TIER III	TOTAL
AMA	0	0	0	0	0	0	1	1
DEATH	0	2	0	0	8	1	1	12
DOA	1	1	0	0	29	0	0	31
FLOOR	54	0	4	3	18	198	144	421
HOME	2	0	32	12	21	265	274	606
ICU	18	3	3	1	116	99	78	318
JAIL	0	0	0	0	0	15	17	32
LD	0	0	0	0	0	2	2	4
MED.PT	0	0	0	0	0	1	0	1
OR	13	1	1	2	87	94	55	253
PSYCH	0	0	0	0	1	3	0	4
STEP	10	0	0	0	2	70	2	84
TRANSFER	1	2	5	3	12	29	13	65
TOTAL	99	9	45	21	294	777	587	1832

Figure 30

Trauma Reports:

Emergency Department:

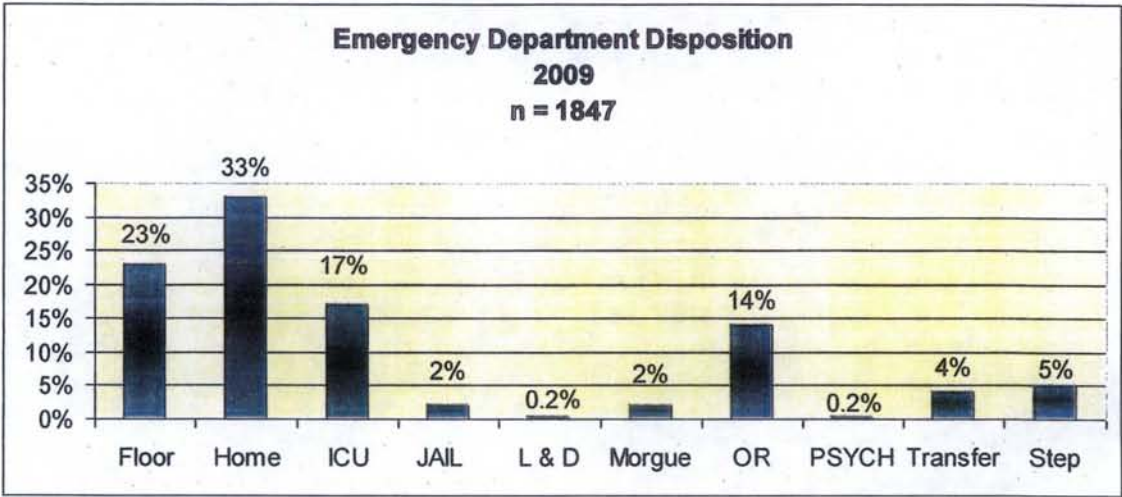


Figure 31

Fifty-nine percent of all trauma activations are admitted with 4% transferred to a higher level of care. Thirty-one percent of the admissions are going directly to the operating room or to the intensive care unit. Our ED length of stays remains unchanged from last year but these numbers continue to demonstrate a great improvement from 2007 where our critically injured had significantly long waits for admission.

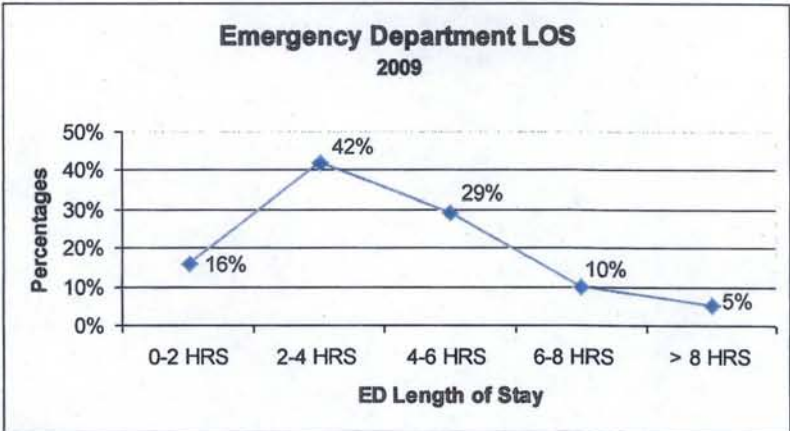


Figure 32

Emergency Room with ISS Groupings - 2009					
n = 1836					
	ISS 0 - 9	ISS 10 - 15	ISS 16 - 24	ISS >= 25	Total
0-2 HRS	170	26	29	60	285
2-4 HRS	547	117	65	36	765
4-6 HRS	313	121	66	29	529
6-8 HRS	100	44	22	8	174
> 8 HRS	51	20	9	3	83

Figure 33

Trauma Reports:

Patient Distribution Tables:

Patient distribution tables give a detailed look at the trauma patients within the system. These tables reflect system averages, mortality percentages, length of stays, ICU days, etc.

ISS Distribution with % Mortality, Average LOS, Average ICU - 2009 n = 1699				
ISS	Total	%Mort	AvLOS	AvICU
1-9	1181	0.085	2.66	2.97
10-15	189	1.058	6.65	4.55
16-24	192	9.375	12.02	7.13
25-75	137	51.825	13.07	8.03

Figure 34

Trauma Type by Gender with Average ISS, Average Age and Percent of Positive Toxicity - 2009 n = 1838					
Trauma Type	Gender	Total	ISS Mean	AvAge	%Tox
Blunt	Female	463	8.92	37.3	50.54
	Male	1069	9.64	37.35	51.169
Burn	Female	3	16.67	33.58	66.667
	Male	3	4	33.67	33.333
Penetrating	Female	26	12.35	28.81	38.462
	Male	274	10.77	28.14	55.474

Figure 35

Age by Gender with # of Deaths, Average LOS, Average ICU %, And Average ISS - 2009 n = 1849							
Age	Gender	Total	Deaths	AvLOS	AvICU	%ICU	AvgISS
1 - 10	Female	29	2	1	0	0	6.55
	Male	40	4	1.41	3	7.5	9.1
11 - 20	Female	98	1	4.68	5	20.408	7.71
	Male	267	9	4.17	5.51	16.105	9.14
21 - 30	Female	93	3	3.49	3	16.129	6.97
	Male	338	12	5	4.32	20.118	8.88
31 - 40	Female	70	2	7.1	8.38	18.571	11.14
	Male	214	12	4.88	3.91	20.561	9.54
41 - 50	Female	72	5	9.94	10.17	16.667	11.85
	Male	206	12	5.74	5.39	19.903	10.12
51 - 60	Female	61	2	6.35	7.46	21.311	9.15
	Male	163	11	7.44	7.6	25.767	11.99
61 - 70	Female	33	3	5.93	5.8	30.303	9.42
	Male	73	7	6.38	9.47	26.027	12.12
> 70	Female	38	3	7.8	7.25	31.579	11.27
	Male	54	6	9.6	7.05	38.889	10.87

Figure 36

Trauma Reports:

Patient Distribution Tables:

Cause by Gender with Average, Minimum and Maximum Age 2009 n = 1849						
Cause Code	Sex	Total	Percent	Mean	Min	Max
AIR	Female	0	0	0		
	Male	1	100	59	59	59
ASSAULT	Female	6	6.1	38.68	1.08	72
	Male	93	93.9	33.41	15	77
ATV	Female	13	32.5	28	15	69
	Male	27	67.5	34.15	15	72
BIKE	Female	12	19	39.17	15	52
	Male	51	81	36.02	7	79
BOAT	Female	2	33.3	24.5	15	34
	Male	4	66.7	31.25	15	64
BURN	Female	3	50	33.58	1.75	59
	Male	3	50	33.67	19	51
DIVE	Female	0	0	0		
	Male	2	100	31.5	28	35
EXP	Female	0	0	0		
	Male	2	100	32	28	36
FALL	Female	48	23.9	51.58	2.167	92
	Male	153	76.1	44.04	2	88
GSW	Female	16	9.7	23.19	12	43
	Male	149	90.3	26.16	10	56
MCC	Female	17	9	41.94	23	62
	Male	171	91	38.19	6	80
MVC	Female	292	42.1	35.59	1	94
	Male	402	57.9	36.85	2.333	89
OTHER	Female	19	23.5	38.42	5	73
	Male	62	76.5	39.53	1.917	88
PED	Female	54	34.8	35.85	1.667	82
	Male	101	65.2	35.11	1.167	86
SELF	Female	2	50	38.5	24	53
	Male	2	50	54.5	53	56
SPORT	Female	4	15.4	30.5	14	60
	Male	22	84.6	25.73	11	63
STAB	Female	6	5.3	33.67	21	48
	Male	108	94.7	28.61	15	86
TRAIN	Female	0	0	0		
	Male	2	100	32.5	20	45
TOTAL		1849	100	35.87	1	94
	Female	494	26.7	36.92	1	94
	Male	1355	73.3	35.49	1.167	89

Figure 37

Trauma Reports:

National Trauma Data System:

The National Trauma Data System collects data from multiple trauma centers throughout the nation. Using the data from the distribution tables, we can compare our system to national benchmarks.

ISS Distribution Compared to National Trauma Data Bank 2009 n=1838			
ISS Distribution			
ISS Distribution	Total	MVEMSA	NTDB
1-8	1181	64.4%	45.2%
9-15	328	17.8%	32.4%
16-24	192	10.4%	12.8%
>24	137	7.5%	9.6%

Gross Mortality Rate	
MVEMSA	5.0%
NTDB	4.4%

Case Fatality		
ISS Distribution	MVEMSA	NTDB
1-8	0.1%	0.7%
9-15	0.9%	1.9%
16-24	8.9%	5.3%
>24	32.3%	29.3%

Median Hospital LOS by ISS (Days)		
ISS Distribution	MVEMSA	NTDB
1-8	1	2
9-15	3	4
16-24	6	5
>24	6	7

Median ICU LOS by ISS (Days)		
ISS Distribution	MVEMSA	NTDB
1-8	2	3
9-15	2	3
16-24	3	4
>24	3	7

Figure 38

Trauma Reports:

Patient Outcome:

Seventy-four percent of patients are discharged to home after admission and 7.5% require rehabilitation or skilled nursing services. We saw a large increase (almost 50%) in the number of admissions transferred to another hospital, from 4.8% last year to 8% this year. Most of these transfers are to receive specialized care, while some are for insurance reasons. We will continue to monitor this trend.

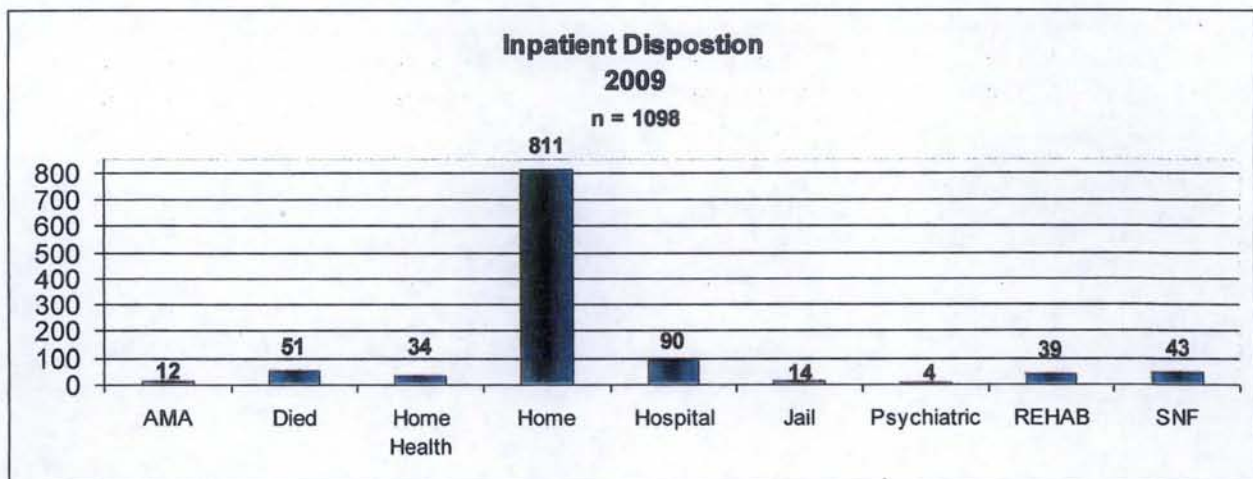


Figure 39

The next few graphs examine our mortalities. In 2009, the highest mortality rate was from people who sustained gunshot wounds, as 15.8% of that population died as a result. This is followed by pedestrians at 7.1% and motor vehicle crashes at 4.6%.

Place of Death Distribution and Percentages
2009
n - 94

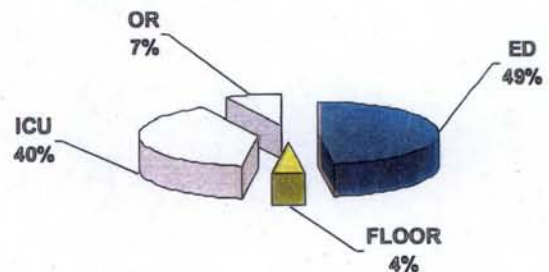


Figure 40

Trauma Reports:

Patient Outcome:

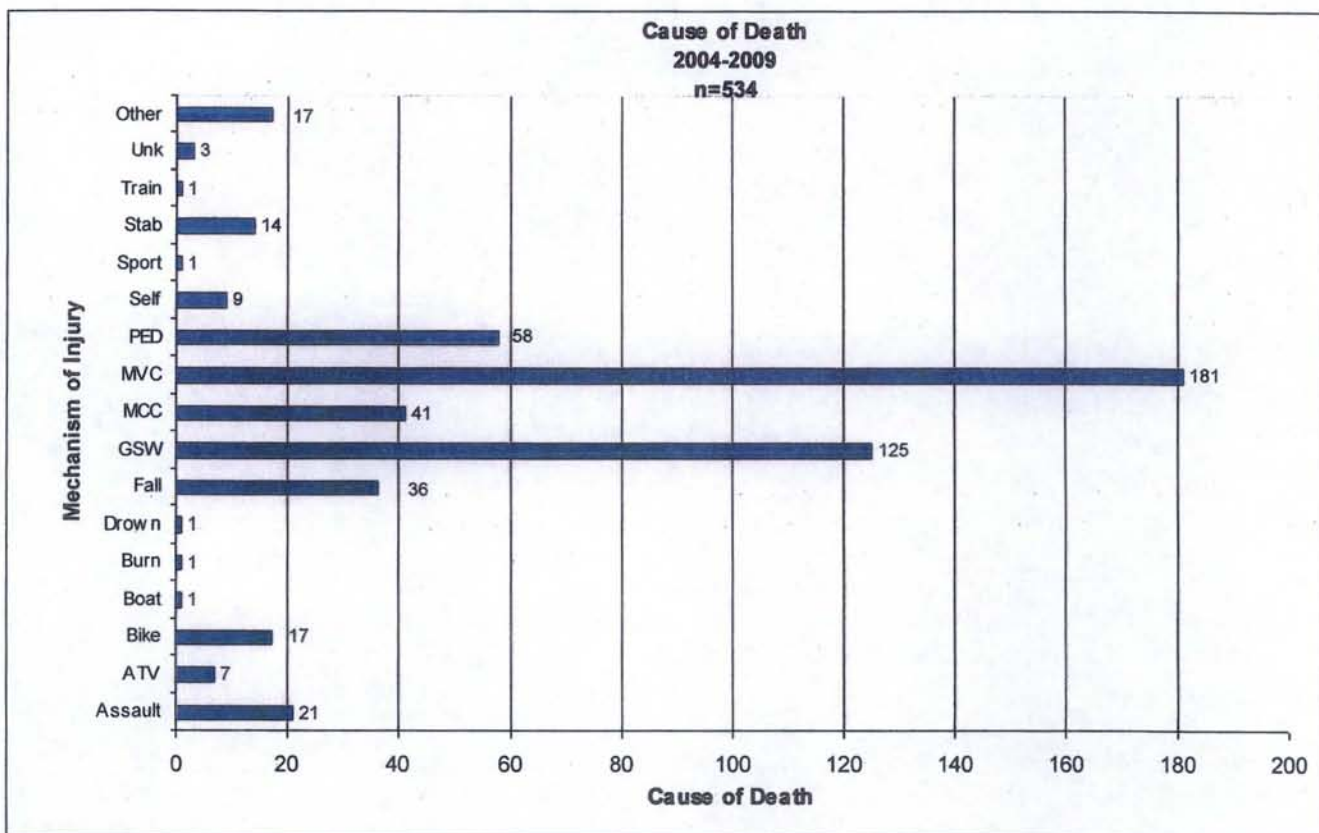


Figure 41

Death by Cause 2004 Through 2009							
Cause	2004	2005	2006	2007	2008	2009	Totals
Assault	6	2	3	2	6	2	21
ATV	1	2	0	1	3	0	7
Bike	5	4	2	3	2	1	17
Boat	0	1	0	0	0	0	1
Burn	1	0	0	0	0	0	1
Drown	1	0	0	0	0	0	1
Fall	12	12	2	1	4	5	36
GSW	22	21	18	21	17	26	125
MCC	6	7	8	6	6	8	41
MVC	38	35	29	26	21	32	181
Other	3	4	0	4	1	5	17
PED	13	12	9	9	4	11	58
Self	4	1	1	1	1	1	9
Sport	0	0	0	0	1	0	1
Stab	2	2	3	2	2	3	14
Train	0	1	0	0	0	0	1
Unk	2	0	1	0	0	0	3
Total	116	104	76	76	68	94	534

Figure 42

Trauma Reports:

Patient Outcome:

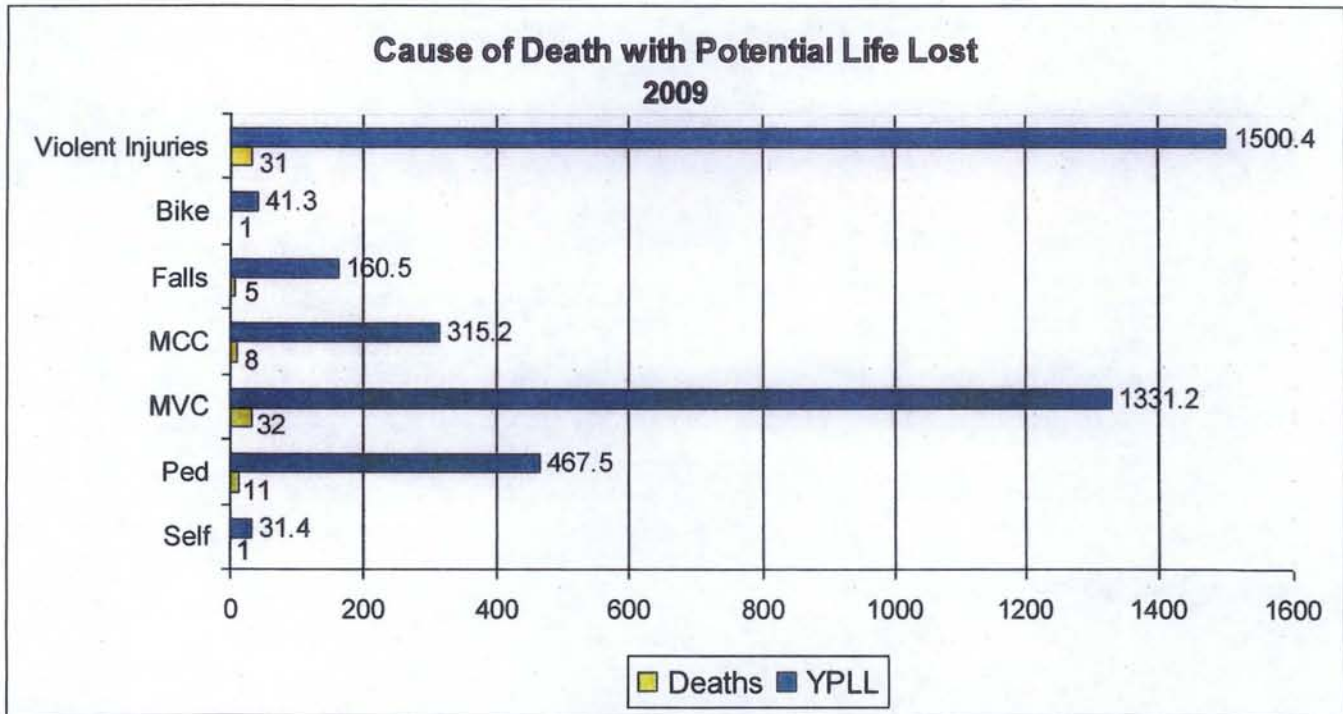


Figure 43

Years of Potential Life Lost (YPLL) calculates the estimated years of life lost due to a death. Using the Center for Disease Control and Prevention, Vital Statistic Life Tables (2005), you take the estimated expected life and subtract the median age for the group, then taking the difference and multiplying it by the number of deaths.

$$YPLL = (\text{Estimated Expected Life} - \text{Median Age}) \times \text{Number of Deaths}$$

Violent injury continues to be our leader in years of potential life lose. This population is usually young and has a high mortality rate. In years past, violent injury averages 1100 making a large increase in this year's figures.

Trauma Reports:
Patient Outcome

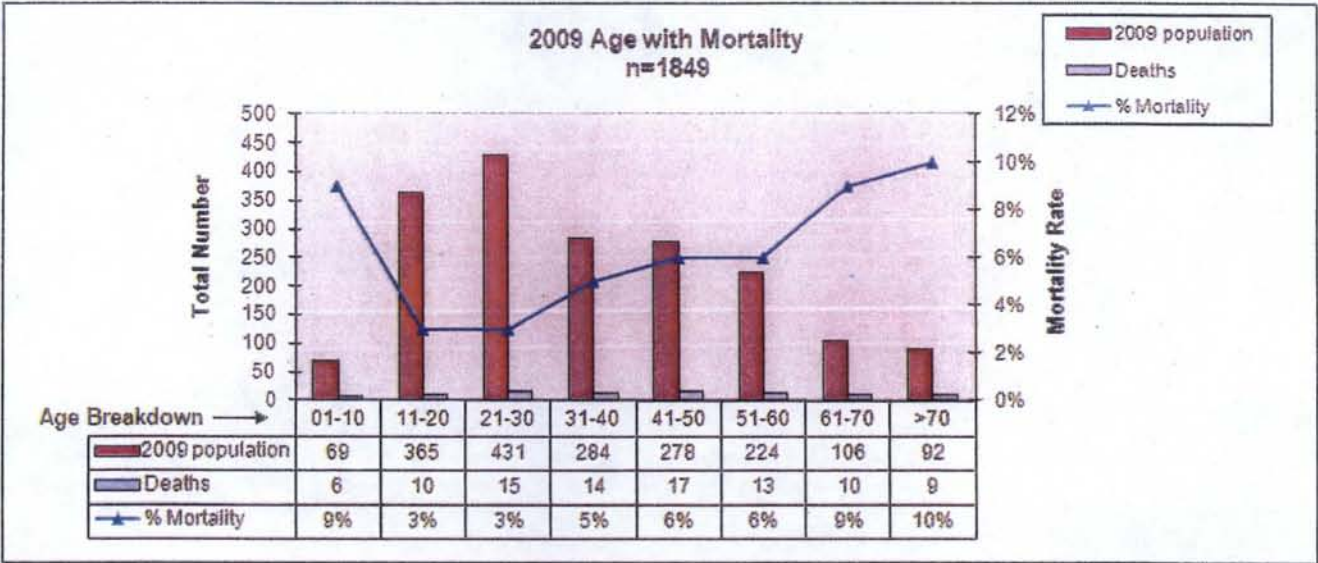


Figure 44

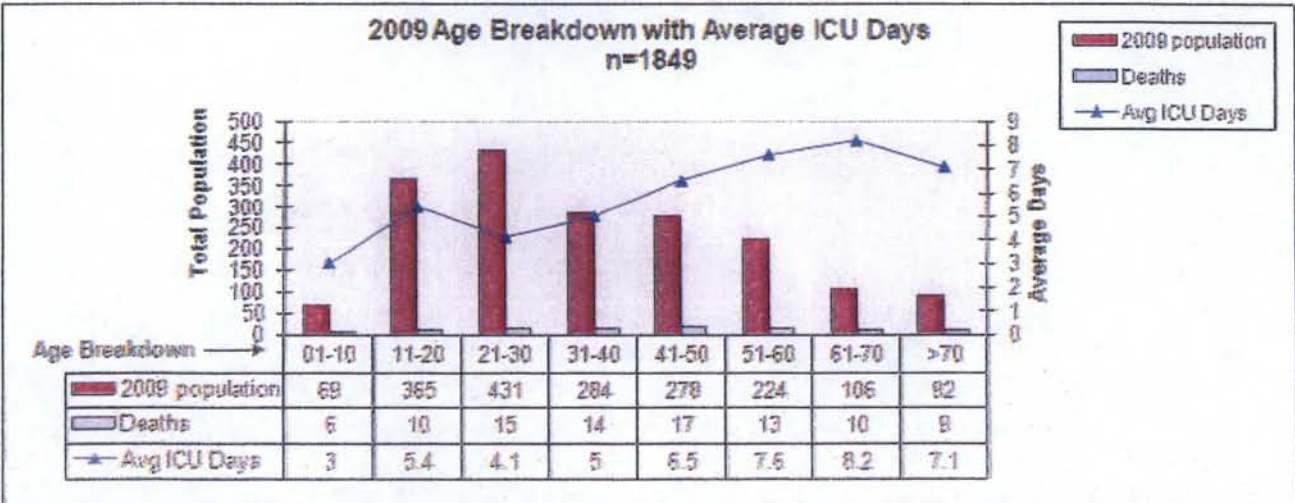


Figure 45

Special Focus:

55 and older:

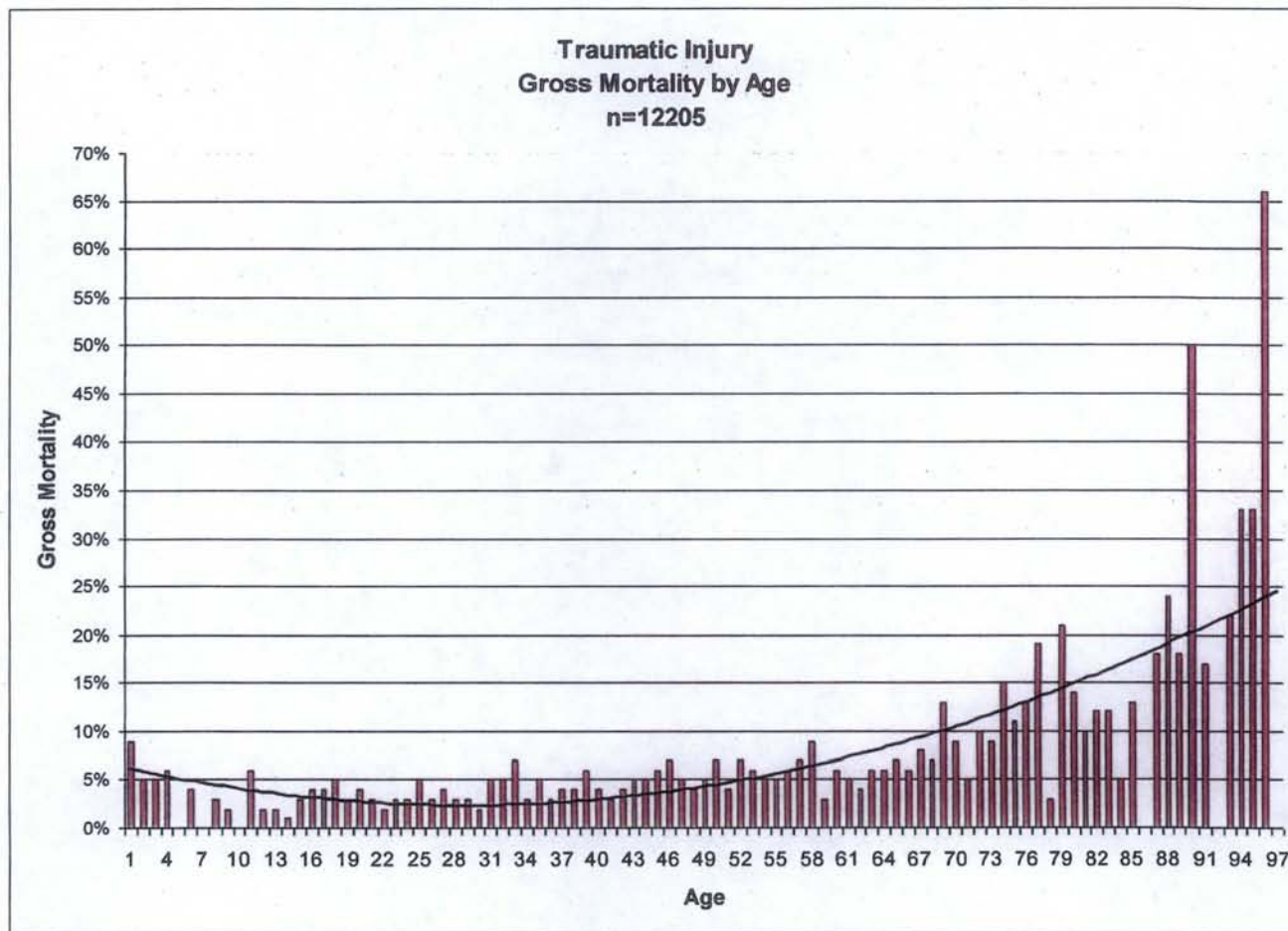


Figure 46

In the pre-hospital trauma triage criteria, patients over the age of 55 are considered for transport to the Trauma Centers. This section evaluates this criterion with the entire database. In figure 46, the gross mortality is compared to the age of the patient. The trend line rises to 6% at age of 55; this is above the overall gross mortality of 5%. It is also worth noting that our elderly patients, those 70 and older, rise to 13%.

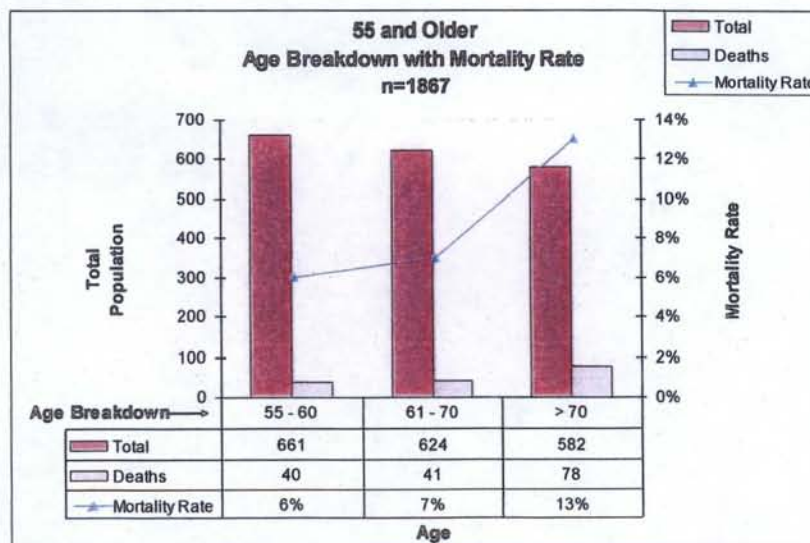


Figure 47

Special Focus:

55 and older:

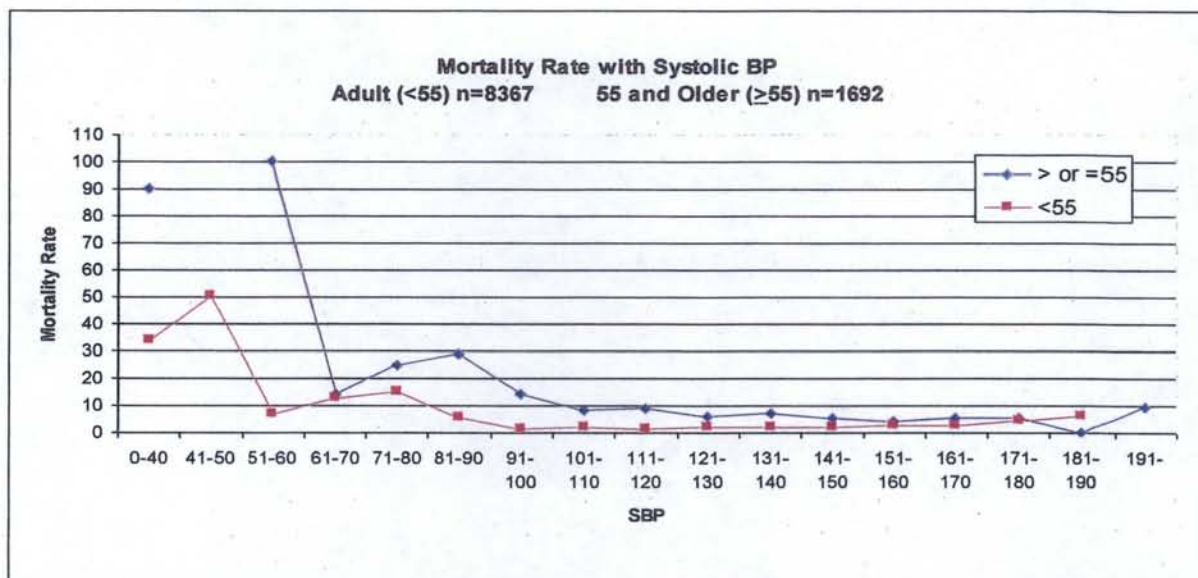


Figure 48

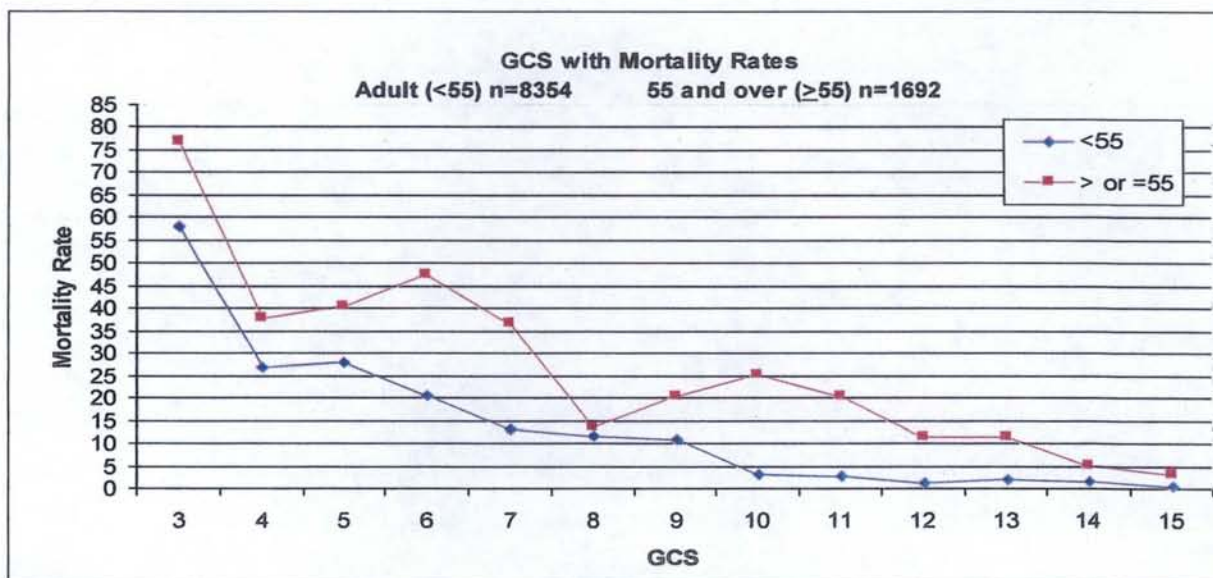


Figure 49

In figure 48 and 49, the mortality rates of patient above the age of 55 were compared with those under the age of 55. Pre-hospital triage criterion often considers blood pressure values, in figure 48, the over 55 age group demonstrates a higher mortality rate than those less than 55 when the systolic blood pressure drops below 100. In evaluating a patient for head injuries, the mental status is scored using the Glasgow Coma Score (GCS). In figure 49, the GCS for the 55 and older group rises above 5% with a GCS of 14; those under the age of 55 have a mortality rate of 1% with the same score.

Special Focus:

55 and older:

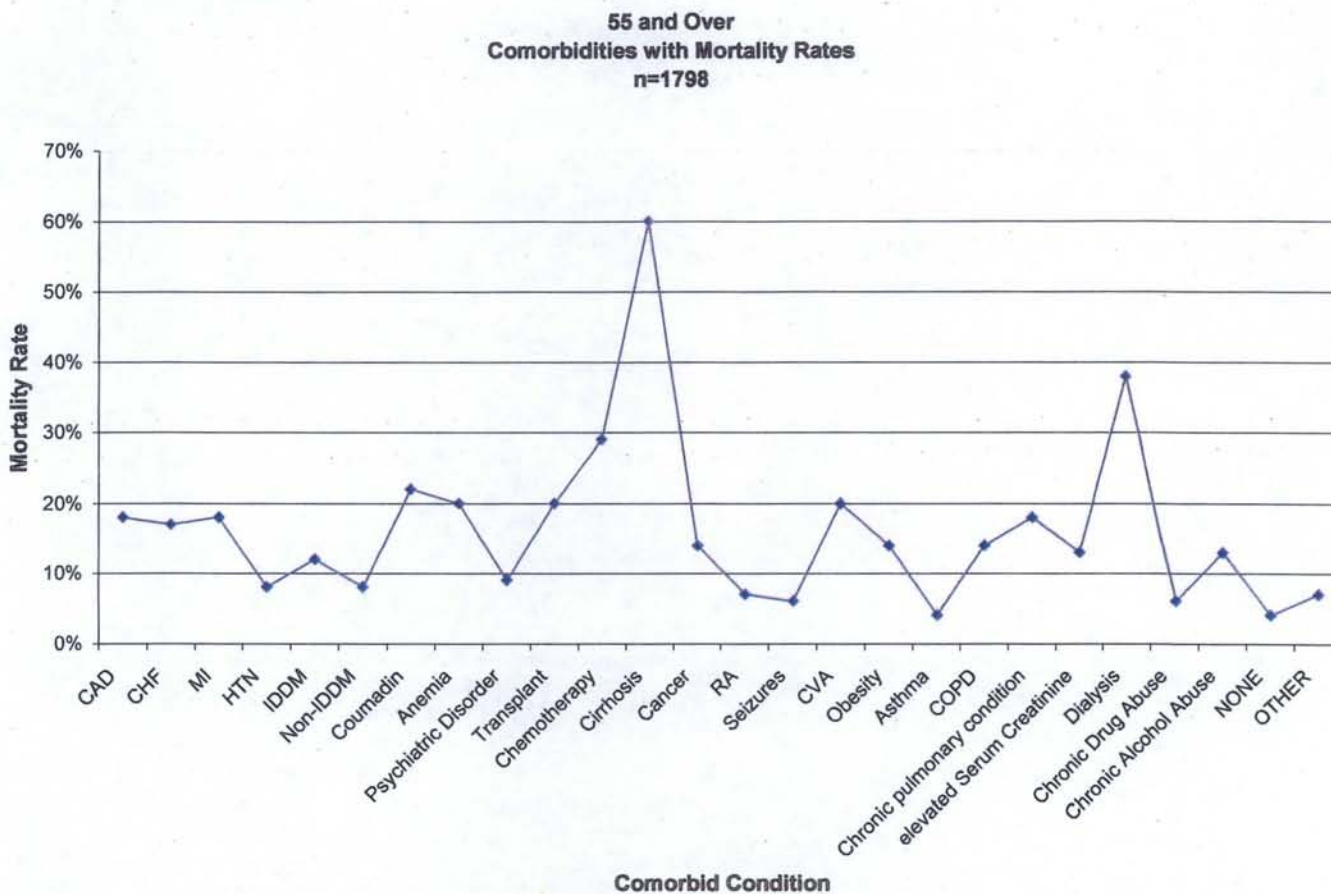


Figure 50

Many of our patients over the age of 55 have other health issues that play a contributing factor in recovering from a traumatic injury. Figure 50, identifies the major health issues and their effects on mortality rates. Patient's with cirrhosis of the liver have 60% mortality rate after a traumatic injury. Renal failure and patients receiving blood thinners (Coumadin) also have high mortality rates.

Special Focus:

55 and older:

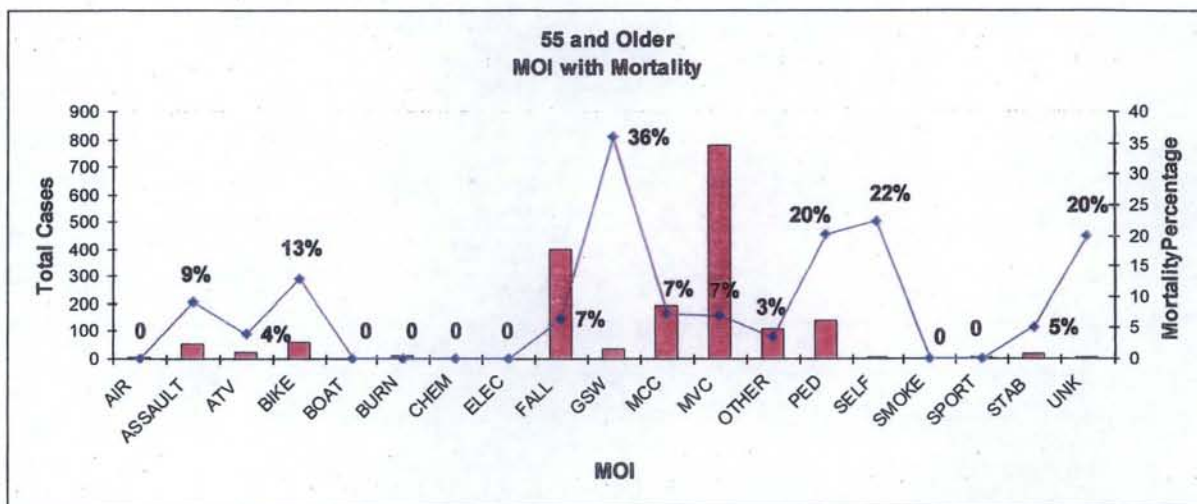


Figure 51

Mortality rates when compared to mechanism of injury shows that gunshot wounds (GSW), self-inflicted wounds and pedestrian incidents are the highest for this age group. Given that, the number of incidents are low for GSW's (total of 36) and self-inflicted (total of 9), the pedestrian group which totaled 138, warrants a closer evaluation. Fifty percent of the pedestrian group has multi-system injuries and 25% have an Injury Severity Score of greater than 25.

Overall our 55 and older trauma population is at a higher risk for mortality, they have higher hospital stays and longer ICU stays, as demonstrated in figure 54. These factors confirm the need for specialized trauma care at our Trauma Centers.

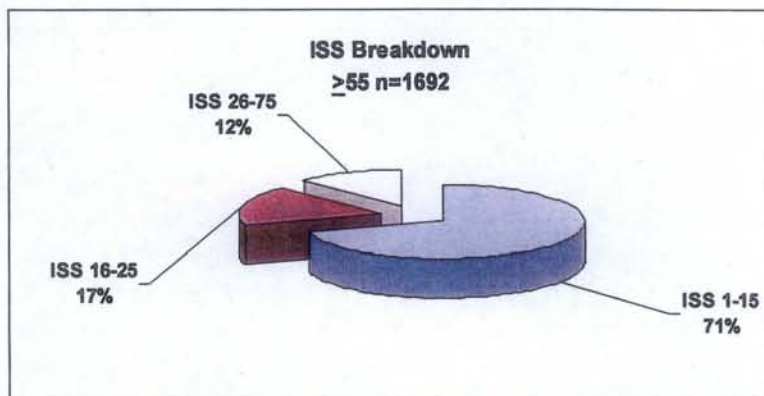


Figure 52

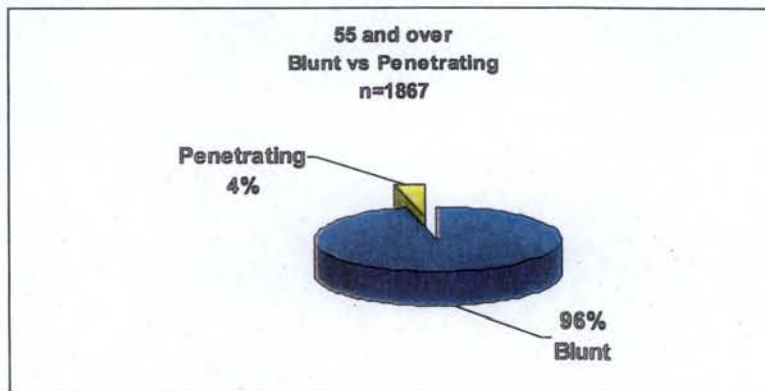


Figure 53

Special Focus:

55 and older:

55 and over n=1867						
Age	Total	Deaths	AvLOS	AvICU	%ICU	AvgISS
51 - 60	661	40	7.24	7.16	23.601	12.33
61 - 70	624	41	6.62	6.3	26.122	11.78
> 70	582	78	8.6	8.16	31.443	13.89
Total	1867	159	7.48	7.25	26.888	12.64

Figure 54

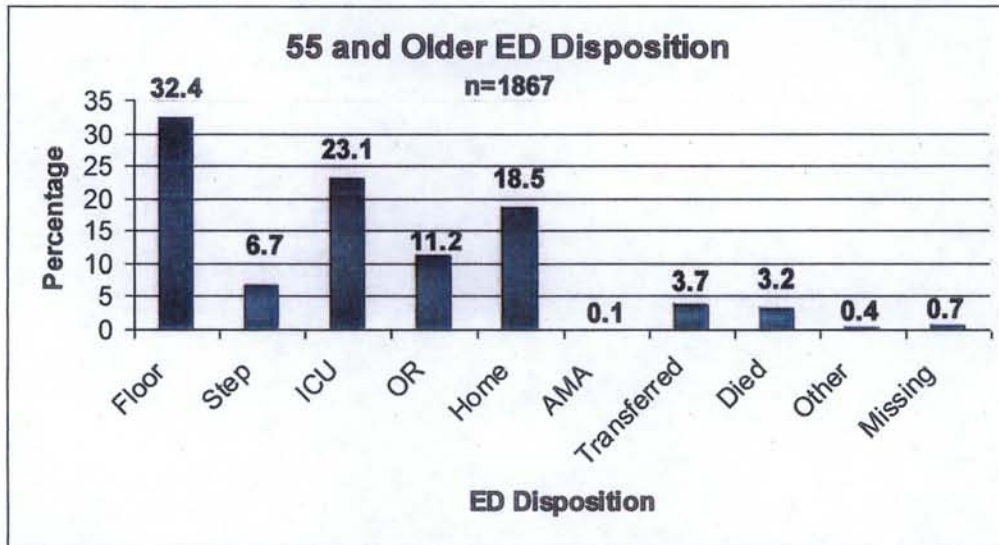


Figure 55

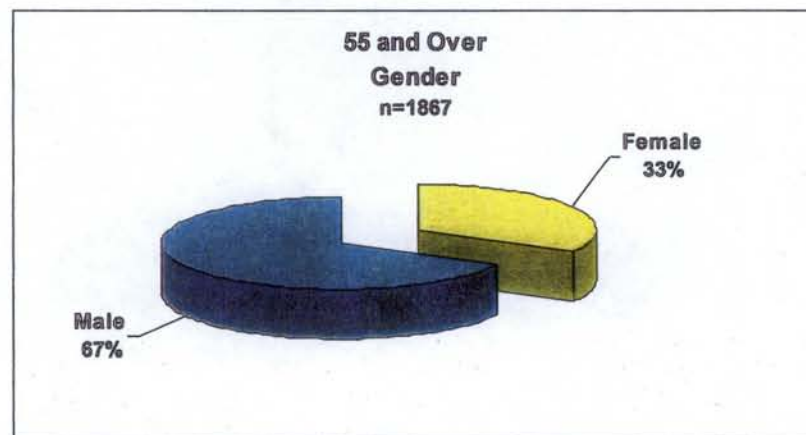


Figure 56

References

American College of Surgeons. (2006) *Resources for Optimal Care of the Injured Patient*.
Chicago, Illinois.

Centers for Disease Control and Prevention (CDC), National Center for Health Statistics
(NCHS). Deaths: Final data for 1997. *National Vital Statistics Reports* 47(19), June 1999.
Retrieved December 10, 2010 from <http://www.cdc.gov/nchs/fastats/lifexpec.htm>.

Centers for Disease Control and Prevention (CDC), National Center for Health Statistics
(NCHS). Deaths: Final data for 2005. *National Vital Statistics Life Tables*. Retrieved
December 10, 2010 from <http://www.cdc.gov/nchs/fastats/lifexpec.htm>.

Finkelstein E, Corso P, Miller T and associates. *The Incidence and Economic Burden of Injuries
in the United States*. New York (NY): Oxford University Press; 2006.

Houk, V.; Brown, S.T.; and Rosenberg, M. One fine solution to the injury problem. *Public
Health Reports* 102:5, 1987. [PubMed; PMID 2825230](#)

US Department of Health and Human Services, Health Resources and Services Administration,
Trauma/EMS Systems Program: Model Trauma Systems Planning and Evaluation,
February 2006. Retrieved December 10, 2010 from [www.hrsa.gov/trauma /model.htm](http://www.hrsa.gov/trauma/model.htm)

Acronyms

AAAM.....	American Association for Automotive Medicine
ALS.....	Advance Life Support
AMR.....	American Medical Response
ATV.....	All Terrain Vehicle
AvAge.....	Average Age
AvLOS.....	Average Length of Stay
AvICU.....	Average Intensive Care Days
AvgRPS2.....	Average Probability of Survival- Trauma Center Arrival
AvScn.....	Average Scene Time
CHEM.....	Chemical Burn
EMS.....	Emergency Medical System
ED.....	Emergency Department
EXP.....	Expired
GSW.....	Gun Shot Wound
ICU.....	Intensive Care Unit
ISS.....	Injury Severity Score
L & D.....	Labor and Delivery
LOS.....	Length of Stay
MCC.....	Motorcycle Crash
MICN.....	Mobile Intensive Care Nurse
MVEMSA.....	Mountain-Valley EMS Agency
MVC.....	Motor Vehicle Crash
NTDB.....	National Trauma Data Bank
OR.....	Operating Room
PACU.....	Post-Anesthesia Care Unit
PED.....	Pedestrian
Peds.....	Pediatrics
SELF.....	Self-Inflicted Injury
Step.....	Step-down Unit
YPLL.....	Years of Potential Life Lost
%Tox.....	Percent of Positive Toxicity
%Mort.....	Percent of Mortality

EMSC Meeting Minutes for 2009/2010

ATTACHMENT # 1

**Stanislaus County
Emergency Medical Services Committee
June 11, 2009
Minutes**

Location: LifeCom Dispatch Center
4701 Stoddard Road
Modesto, California

Time: 10:00 a.m.

Committee Members Present: Cleve Morris, Paul Baxter, Gary Hinshaw, Karen Hall, Tom Burns, Mary Ann Lee, Gary Hampton, Bob Wikoff, John Cremin

Committee Members Absent: Niamh Harrington

Guests: Dan Bobier, Jared Bagwell, Ray Leverett, Chuck Coelho, Richard Reed, Sarah Gordon, Henry Benavides, Cindy Woolston, Alicia Hinshaw, Bob Watt, Stephen Mayotte, Mike Passalaqua

Staff: Steve Andriese – Executive Director, Marilyn Smith – Response and Transport Coordinator, Tina Casias - Executive Secretary, Tom Morton - QI Coordinator

1. Welcome and Introductions

The meeting was called to order at 10:05 a.m. by Chairman Baxter with a quorum of members present. Chairman Baxter asked that all meeting attendees introduce themselves.

2. Review and Approval of Agenda

M/S/C To approve agenda as submitted

Vote: Unanimous

3. Correspondence

There was no correspondence.

4. Public Comment Period

There were no public comments.

5. Approval of the Minutes of December 11, 2008

Gary Hinshaw referred to Page #7 of the December 11, 2008 minutes requesting to change Item # c-OES, line # 22, word 13 and 14 from 'Search and Call' to 'Certification and Qualification'.

Chairman Baxter referred to Page #5 of the December 11, 2008 minutes requesting to change line # 8, 2nd word from 'Burns' to 'Baxter'.

M/S/C (Cremin/Wikoff) To approve the minutes as amended.

Vote: Unanimous

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 2

6. Committee Reports**a. System Status**

Cindy Woolston of AMR reported of an earlier meeting in which the Committee reviewed the standing items on their agenda as follows:

- 1) The System Status Plan was reviewed with no changes.
- 2) A review of EMSC agenda items and discussion concerning agenda item # 8- Ambulance Response Time Reports
- 3) A discussion concerning the purchase of MDT's for rural ambulance providers. The request for approval of the purchase of the MDT's will be submitted to the Board of Supervisors for their June 30, 2009 meeting.

b. SHEPC

Mr. Andriese informed Committee members that neither Mr. Penner nor Mr. Buchanan was present to give a report on SHEPC.

c. OES

Chief Hinshaw reported that the FY09 Homeland Security grant had been received by the County. The full allocation will be somewhere around \$1.1 million or \$1.3 million. There are very specific issues embedded in the Homeland Security grant that has not been established before. 25% of the allotment must fund planning exercises and training. This is a sizeable chunk of money. He asked the ambulance providers and fire based providers to contact their work group if they have not already been contacted. There is a 30-45 day window to create a work plan that will be sent to the approval authority some time in July.

Chief Hinshaw also reported that the County is in the last 1 ½ years of the Local Hazard Mitigation Plan. This does not apply to some of the ambulance providers. However, it does apply to districts, district hospitals, cities, counties, and fire districts. That plan is a five year renewal process that must be in place in order to be eligible for about 50 state and federal grants. The process has been started, and must be submitted 6 months before its due. The due date is January 6, 2011. That means the process will be started in about a month, and the County will invite everyone to participate. If you do not participate, you may be ineligible for future grants.

7. Revision of EMSC Bylaws

Mr. Andriese began by stating that there had been some discussion over the past few meetings regarding the possibility of having alternates for each sitting committee member. The basis for the discussion was the difficulty in getting a quorum at some of the scheduled meetings. At the previous meeting in March 2009, a quorum had not been achieved, and at that time staff was directed to look into the possibility of changing the bylaws to incorporate member alternates.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 3

Mr. Andriese proceeded to relate to the Committee some history on previous discussions on the subject of 'alternates'. At the time the Committee bylaws were initially formed and sent to the Board of Supervisors for approval, there were discussions at the County level as to whether or not to consider having alternates. A consensus was reached indicating that alternates would not help create the desired consistency in membership.

Based on the direction given to Staff, County Counsel was contacted to readdress this issue. At the same time, the County Counsel suggested other revisions to the bylaws. The proposed revisions were: (1) Re-labeling of some items so labeling would be consistent; (2) Clarification of EMSC member responsibilities; (3) The addition of 'alternate' members to the Committee.

Mr. Andriese turned over further explanation to Staff member Marilyn Smith. She indicated that many of the proposed changes had to do with committee member responsibilities. She indicated that when the responsibilities were originally written in the bylaws, each responsibility read that the Committee 'shall review and recommend approval' on any requested revision. This meant that whatever revisions were presented to committee members had to be approved. It is believed that this was not the original intent. The changes indicated throughout the responsibilities section of the document are that the committee 'shall review and make recommendations' for each area of member responsibility.

Another proposed revision was in the section on memberships. This was changed to read that *the County Board of Supervisors will appoint both members and alternates. The alternate will be appointed from the same sponsoring group as the original member. Regular committee members may be represented by their appointed alternate. If both the regular and alternate are in attendance, only the regular member shall have voting privileges.*

Marilyn Smith advised that all the proposed changes must be recommended for approval by the Committee to the Stanislaus County Board of Supervisors.

Mr. Andriese stated that the Board of Supervisors must approve the revisions to the bylaws with a two-thirds majority vote.

Chief Hinshaw referred to Article 4, Section 4 of the bylaws which states, "*If any member fails to attend two consecutive meetings, or a total of three meetings within one year, their membership may be terminated by a majority vote of the Committee.*" He then asked if this section also applies to alternates.

Marilyn Smith replied that she believed the *intent* of the statement was to encourage attendance by the regular members. The purpose was the assurance of regular attendance. The concern was that alternates would not be familiar with the issues

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 4

being presented before the Committee.

Steve Andriese interjected stating that he felt the statement was problematic.

Chairman Baxter stated that the Committee could go ahead and recommend approval of the current revisions, and Staff could discuss the questionable statement with County Counsel, and make revisions to it as appropriate prior to sending to the Board of Supervisors for approval.

M/S/C (Cremin/Wikoff) To approve as amended

Chairman Baxter interjected and asked that the vote be cast with a show of hands. Nine votes for approval were cast by a show of hands.

Vote: Unanimous

8. Ambulance Response Time Reports

Marilyn Smith referred Committee members to response time reports provided them in their packets under attachment # 3. These response time reports are for calendar year 2008. Overall, the ambulance providers met response time compliance obligations. Those providers and areas that did not meet compliance are as follows:

- a) AMR/Zone 1-Blue - Did not meet urban requirements in March, April, and July.
- b) Hughson/Zone C - Did not meet response time compliance for the twelve month period. Actual compliance is 83.8%.
- c) Hughson/Zone D - Hughson provided service in Zone D from January to early May. They did not meet urban response time compliance for the 79 calls they ran during that time frame. Actual compliance was at 88.6%. They also did not meet rural response time compliance over a twelve month period. They ran 11 calls, and their actual compliance was at 81.8%.
- d) Oak Valley/Zone 4 - Did not meet suburban response time compliance over a twelve month period. They ran 111 calls, and their actual compliance was at 84.7%.
- e) Patterson/Zone 5 - Did not meet suburban response time compliance over a twelve month period. They ran 111 calls, and their actual compliance was at 81.1%.
- f) AMR/Zone 8 - Did not meet suburban response time compliance over a twelve month period. They ran 155 calls, and their actual compliance was at 85.8%.
- g) Oak Valley/Zone D - Did not meet rural response time compliance over a twelve month period. They ran 82 calls, and their actual compliance was at 80.5%.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 5

Marilyn Smith referred to the response time reports for the months of February, March, and April 2009. The reports reflect response time compliance for the last twelve months or 500 call compliance. The packet also contains the exemption reports for the months of February, March, and April 2009. Current response time issues have been identified on the report as follows:

- a) Oak Valley/Zone D - 12 month rural compliance is 21:07. Actual compliance is at 79.2%. This is based on 96 calls. They were out of compliance in March and April.
- b) AMR/Zone 8 - 12 month suburban 90%ile compliance is 12:33. Actual compliance is 80.06%. This is based upon 170 calls. Compliance was missed by 1 call each month.
- c) Hughson/Zone C - 12 month urban 90%ile compliance is 8:40. Actual compliance is at 82.2%. This is based on 292 calls. Their monthly response times are an improvement over last reporting period.
- d) Oak Valley/Zone 4 - 12 month suburban 90%ile compliance is 14:13. Actual compliance rate is 81%. The 12 month compliance is based upon 116 calls. They were out of compliance in April.
- e) Patterson/Zone 5 - 12 month urban 90%ile compliance is 7:36. Actual compliance rate is 89.6%. They missed compliance by 1 call. They were out of compliance in March and April.
- f) Patterson/Zone 5 - 12 month suburban 90%ile compliance is 12:27. Actual compliance is at 81.3%. This is based upon 112 calls. This is an improvement over the last reporting period.

All other providers and zones were very much in compliance.

Member Tom Burns referred to Page 25 and 26 in the packet and questioned why response times were exactly the same for 5 months on page 25, and 8 months on page 26.

Marilyn Smith explained that the ambulance providers are given the opportunity to apply for exemptions. An exemption report was also included in the packet. If an exemption is granted, the call is given a time of 7:30.

Another member asked if there were certain criteria in order to be able to receive an exemption. Marilyn Smith gave some examples as weather, train, traffic, road construction, road closure, mutual aid, etc.

Member Tom Burns questioned how MVEMSA staff were calculating response times for calls that were granted an exemption. He objected to the fact that the call was being counted in the providers total call volume rather than not being counted at all. He felt this was better than placing an artificial time on the exempt calls.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 6

Chairman Baxter requested a very small model report (a sampling of 1 or two providers) be provided for the next reporting period in order that the process can be understood. He also requested that MVEMSA Staff check State guidelines in case there is already statutes covering this.

Mr. Andriese explained that the formula was established by the former Executive Director, Ray Jester, who also was a statistician.

9. EMS System Enhancement Fund Recommendations

Mr. Andriese explained that this agenda item has been placed on the EMSC meeting agenda for the previous two meetings. Staff was directed to re-evaluate the criteria that had been established by this committee in June 2003, which established the criteria for the utilization of the System Enhancement Funds. Staff looked at the 2003 criteria, and made some recommendations to the Committee at the last EMSC meeting. There was some discussion at that time, but it was not voted on because there was not a quorum of members present.

The System Enhancement Fund currently has a balance of \$228,440. It has been the Staff recommendation that these funds, and any future funds that may be collected, be allocated in the following manner:

- 1) A minimum of \$50,000 be maintained in the fund as an 'Emergency Reserve' to be utilized only for emergency, non-planned EMS system needs, as determined by the EMSC, that may arise when no other funding source(s) are readily available.
- 2) An amount of the existing funds, to be determined by the EMSC based upon receipt of the final report and funding need recommendations of the CAD-to-CAD Project Committee, will be allocated for components of the CAD-to-CAD project providing a virtual linkage between SR911 and LifeCom Dispatch Centers.
- 3) Any funds not previously allocated may be awarded by the EMSC for capital expenditures, equipment and supply purchases, contractual services, funding of training programs, or any other purpose which benefits or enhances EMS services to Stanislaus County on a system-wide basis.

Mr. Andriese completed his assessment stating that these are the recommendations of MVEMSA staff.

After much discussion and comment it was decided to leave the policy intact as approved by the EMSC Committee in 2003 until such time as more information can be provided on various ongoing projects.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 7

10. Ambulance Providers Request to Increase Response Times

Steve Andriese began by reminding Committee members of a presentation given at the last EMSC meeting by the Stanislaus County Ambulance Service Providers requesting an increase in response times for urban and suburban areas, and how that's measured.

Staff found that, in working with the ambulance providers and Fire Chiefs, they were able to develop three options to address the issue. The options are as follows:

- 1) Maintain the current response time criteria.
- 2) Maintain the current response time and exemption criteria with changes enacted.
 - a) Fines will be automatically imposed, only if the provider exceeds the 90%ile response time compliance four times in twelve reporting periods at greater than 7:30 in an urban zone and 11:30 in a suburban zone
 - b) If the 90%ile exceeds 8:30 in the urban zone and 12:30 in a suburban zone during any single reporting period, the fine schedule will be one and a half times the current rate and automatically imposed.
 - c) A reporting period will be revised to be: 500 calls or a month, whichever comes last.
 - d) Fines may be imposed on calls in a reporting period only once.
- 3) The 90%ile response time criteria will be revised to 8:30 for urban zones and 12:30 for suburban zones with the following changes:
 - a) Fines will be automatically imposed for calls not meeting response time criteria in a reporting period at one and a half times the existing fine schedule.
 - b) Fines may be imposed on calls in a reporting period only once.
 - c) Exceptions will only be allowed for calls delayed by dense fog.
 - d) A reporting period will be revised to be: 500 calls or a month, whichever comes last.

Marilyn Smith provided a handout to Committee members for a survey in which she polled all the EMS agencies in the State of California. There are only a couple of EMS agencies with systems similar to Mountain-Valley's. They are San Joaquin, San Louis Obispo, and Merced.

Barry Hurd provided a handout and proceeded to explain it's content to Committee members.

Steve Andriese explained the pros and cons of each of the options that were developed. He stated that the staff recommendation was as follows:

Staff recommends that the Committee approve Option # 2 with an amendment to '2a' which increases the fineable response times to 8:00 (urban) and 12:00 (suburban).

After much discussion and possible legal consideration, it was decided to table this matter, and place on September's meeting agenda.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 8

11. EMS Dispatch Center Update

Mr. Andriese explained that Cindy Murdaugh is the staff person who usually attends the CAD-to-CAD Operations meetings. However, she was unable to attend the EMSC meeting due to a conflict with another meeting.

Mr. Andriese reported that the goal of the CAD-to-CAD Operations Committee was to look at the virtual link between the two dispatch centers, and to reduce the amount of time spent for communications between both Cads while making the virtual link identical at both dispatch centers.

The CAD-to-CAD Operations Committee has established several stages that need to be accomplished before a virtual link can be completed. One objective being worked on at the policy level is how to determine what calls would be considered appropriate to respond to, and is that based upon EMD triage similar to what is currently being done at LifeCom; or, should there be another set of criteria that is used and then sent for EMD triage. There are many components to this, and details that need to be worked out.

One of the things being held up is the issue of what the cost will be for this virtual link. This is something that has been put on hold until SR911 fully implements their CAD.

The CAD-to-CAD Policy Committee is attempting to get all the policy level questions; meet with all the agency providers and different groups to make sure all the policy level issues and recommendations are addressed; and to be able to discuss these with the technical committee in order to be able to report back to the Steering Committee.

Mr. Andriese referred to Lucian Thomas of SR911 for an update on a timeline for the SR911 CAD implementation.

Mr. Thomas explained that this project is huge, and involves a CAD system that is over 20 years old. It is a huge endeavor, and SR911 wants it implemented correctly. The new implementation date will probably be in December 2009. If there are remaining unresolved issues, the implementation date may be pushed further back.

Chairman Baxter referred back to Agenda Item #7-Revision of EMSC Bylaws and asked Mr. Andriese when the process of filling the alternate positions can begin assuming the Board of Supervisors approves the requested revisions.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 9

Mr. Andriese stated that once the revisions are acted upon by the Board of Supervisors, the Agency will send out notifications to all the representative groups to identify alternates.

Tom Burns referred back to Agenda Item #10-Ambulance Providers Request to Increase Response Times and asked if once Agency staff comes back with their recommendations could a report be provided that would show how many providers would have fallen out under the new system?

Marilyn Smith asked for clarification.

Tom Burns replied stating that with the new recommendations how many providers would have had fines imposed on them based on the Agency's recommendations.

Marilyn Smith asked if there was a particular timeframe she should look at?

Tom Burns answered by stating 'over the last year'.

Marilyn Smith then suggested that she could provide a report beginning 06/01/2008 – 06/30/2009.

Tom Burns said this was fine.

12. Report on CSUS Center for Public Policy for Stan County EMS System Study 1999

Mr. Andriese informed members that this item was put on the agenda at the request of Committee member Tom Burns.

Tom Burns began by reporting that the aforementioned study had been done in February of 1999 by the Stanislaus County Center for Public Policy. It was a comprehensive study on the assessment of emergency medical services in the County of Stanislaus. Mr. Burns felt that since it had been several years since the last one had been done, it was time to request another study be done. He felt that this study would address some of the issues discussed earlier, possibly paying for it from System Enhancement Funds. He stated that this was his original purpose for putting the report on the agenda. However, now, after all the discussion, he felt it may be inappropriate to take any current action on this item.

Mr. Burns requested that the Agency look into the cost of funding such a study.

ATTACHMENT # 1

Minutes - Stanislaus County EMSC
June 11, 2009
Page 10

Mr. Andriese informed members that the study done in 1999 was funded by Stanislaus County costing approximately \$140,000, and included contributions by the EMS Agency and several other groups.

Chairman Baxter suggested contacting CSUS to see if they might be interested. An additional suggestion was to not limit it to CSUS.

13. Date and Location of Next Meeting

The date of the next meeting will be September 10, 2009. It was determined that the meeting will be held at LifeCom Dispatch Center.

14. Adjournment

The meeting was adjourned at 11:55 a.m. by Chairman Baxter.

**Stanislaus County
Emergency Medical Services Committee
September 10, 2009
Minutes**

Location: LifeCom Dispatch Center
4701 Stoddard Road
Modesto, California

Time: 10:00 a.m.

Committee Members Present: Cleve Morris, Paul Baxter, Gary Hinshaw, Tom Burns, Mary Ann Lee, Bob Wikoff, John Cremin, Niamh Harrington, Ray Wasden

Committee Members Absent: Karen Hall

Guests: Dan Bobier, Jared Bagwell, Ray Leverett, Sarah Gordon, Cindy Woolston, Alicia Hinshaw, Steve Mayotte, Barry Hurd, Cathy Cam

Staff: Steve Andriese – Executive Director, Tina Casias - Executive Secretary, Tom Morton - QI Coordinator; Marilyn Smith, Response and Transport Coordinator

1. Welcome and Introductions

The meeting was called to order at 10:10 a.m. by Chairman Baxter with a quorum of members present. Chairman Baxter asked that all meeting attendees introduce themselves.

2. Review and Approval of Agenda

M/S/C (Wikoff/Lee) To approve agenda as submitted

Vote: Unanimous

3. Correspondence

Steve Andriese explained that the MVEMS Agency received a letter from the Stanislaus County Clerk of the Board in which the Agency was informed of the appointment of Roy Wasden to the EMSC as the urban city representative.

4. Public Comment Period

There were no public comments.

5. Approval of the Minutes of June 11, 2009

M/S/C (Lee/Burns) To approve the minutes as presented

Vote: Unanimous

6. Approval of Consent Calendar

- a) MVEMS Agency FY2009/10 EMS Plan Report
- b) MVEMS Agency FY2008/09 Trauma Report
- c) MVEMS Agency FY2009/10 Training Calendars

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
September 10, 2009
Page 2

Steve Andriese explained that the Consent Calendar is new to the EMSC Committee, and proceeded to explain that all of the reports indicated in the Consent Calendar are annual reports.

He referred to the first report, Item # 6a-FY2009/10 EMS Plan, and explained how each of the state's LEMSAs are required to write their EMS Plan every five years, and update resource lists each year in between. The only changes made this year, he explained, were updates to the resource list, and reformatting of the Transportation Plan portion of the report.

The second report, Item # 6b-FY2008/09 Trauma System Report, identifies the current status of the Trauma System in the Region.

The third report, Item # 6c-FY2009/10 Training Calendars, includes documents required by the contract between Mountain-Valley EMS Agency and Stanislaus County.

Mr. Andriese requested Committee approval of all three reports.

M/S/C (Wasden/Hinshaw) To approve the Consent Calendar

Vote: Unanimous

7. Committee Reports

a. System Status

Cindy Woolston of AMR referred to an earlier meeting in which the Committee reviewed the items on their agenda as follows:

- 1) The System Status Plan was reviewed, and there were no changes.
- 2) The EMSC agenda was discussed.
- 3) The Committee discussed hospital emergency department turn around times, which has been a standing agenda item with the System Status Committee.
- 4) The delivery of the MDT's has been delayed due to some kind of glitch in the computer hardware or computer program. There is still training scheduled even though the MDT's have not yet been delivered.
- 5) A Fire Chief's meeting update was given to the System Status Committee by Alicia Hinshaw.

b. SHEPC

Mr. Andriese informed Committee members that neither Mr. Penner nor Mr. Buchanan were present to give a report.

Stanislaus County EMSC-Minutes
September 10, 2009
Page 3

c. OES

Chief Hinshaw reported that the FY09 Homeland Security Grant has been approved by the Board of Supervisors. The State's allocation has not yet been distributed.

Mr. Hinshaw also reported that last Spring, with the initial H1N1 outbreak, OES and other local and State agencies were involved in various related activities. Subsequently, the State asked that all agencies track any costs associated with personnel and staff time, and requested a report be submitted to them for possible reimbursement from State or Federal funds.

It has been estimated that the cost of personnel and staff time reported to the State amounted to approximately \$600,000 in just one week. Chief Hinshaw suggested that should a reoccurrence of the H1N1 situation arise again in the Fall, consideration should be given to certain situational processes such as preparedness, response mitigation, and recovery. Should a local proclamation be declared, those issues associated with personnel and offsetting costs of mitigation should be captured by all participating agencies.

8. Kaiser Base Hospital Update

Marilyn Smith reminded Committee members that Kaiser Hospital opened its doors to provide services in Stanislaus County on October 6, 2008. Since that time Agency staff has been working with them, on a regular monthly basis, in order to integrate them into the EMS system. The final step in the integration process was for them to meet the requirements of base hospital designation.

An agreement has been signed between Kaiser Hospital and Mountain-Valley EMS Agency that establishes Kaiser Hospital as a base hospital effective October 1, 2009 at 8:00 a.m. Agency staff is waiting for final confirmation that all kinks in the system have been worked out. Once Agency staff receives notification, a letter will be sent to dispatch agencies, ambulance providers, and neighboring counties letting them know that Kaiser will become a base hospital beginning October 1, 2009.

9. Stanislaus County System Saturation Policy Update

Steve Andriese reported to Committee members that there has been a system saturation policy in place for several years that tried to address the ongoing problem of saturation at the hospitals. The problem of hospital saturation began in 1998 when the County endured an extremely bad flu season. Since that time, saturation has been ongoing.

Mr. Andriese reflected that back in the 80's, there were *nine* emergency departments in Stanislaus County. For many years, that number was reduced to *four*. Subsequently, emergency department system saturation has existed on an ongoing basis. Agency staff has been working with the hospitals, on a regular basis, in an

Stanislaus County EMSC-Minutes
September 10, 2009
Page 4

attempt to solve the problem of patient saturation when it occurs.

Mr. Andriese went on to say that approximately two years earlier, the emergency department managers met with Agency staff to revise the system saturation policy. A draft of the revised policy was brought before the Committee previously for approval, but was not approved by the Committee. For the last two years, this policy has been fine tuned.

In the past couple of months, there has been a significant change in the working draft of the policy. The current policy contains steps that give hospitals the opportunity to declare a two hour diversion if impacted with more patients than it could handle. For a couple of years, this seemed to relieve the situation. If one hospital was impacted, another could take up the slack. Now, unfortunately, the situation has worsened, and all hospitals are experiencing saturation at the same time.

Now, the ED managers are proposing to eliminate diversion and rotating patients, by activating the hospital's internal surge plans early on, allowing them to handle the patient load. If this should fail, and they are still overwhelmed with patients, the policy provides for the hospital to contact the Disaster Control Facility, who, in turn contacts other facilities to determine their situation. If two hospitals meet the criteria by having major critical patients at a certain level, a conference call with the hospitals and the EMS Agency would need to occur to see if rotation was advisable or if the Stanislaus County Surge Plan should be enacted.

A trial study currently in effect began on September 1st, and will end on October 1st. Once the trial study has been completed, the situation will be re-addressed.

One particular hospital has expressed their concern with the proposed plan. They wish to continue to have an outside relief valve enabling them to use other facilities, as necessary. However, this idea is not supported by the rest of the hospitals. MVEMSA Staff have been working with Dr. Walker, the ED managers, and the hospital administrator who is having an issue with the proposed plan.

The issue is a complex one. Realistically, there are more patients than facilities to care for them. If emergency departments were to shut down, patients could not be taken to doctor's offices or clinics. It is required, by law, that they be taken to a hospital.

Mr. Andriese stated that a report will be given at the next meeting. Once a consensus has been reached by the group, Staff will return with the final draft of the policy requesting Committee approval.

Stanislaus County EMSC-Minutes
September 10, 2009
Page 5

At 10:20, Dr. Harrington arrived. Chairman Baxter introduced her to Committee members.

10. Approval of MVEMS Agency FY2008/09 EMS Report to the Board of Supervisors

Steve Andriese explained that this Committee, as well as, Mountain-Valley EMS submits a report to the Board of Supervisors. A draft has been submitted for review and approval.

Committee member Burns requested a change to page # 6 of the document; C. Status of Fire District Response to EMS Calls; Line # 2; delete the word 'commitment' and insert the word 'ability'.

An additional change was requested by another Committee member and Chairman Baxter also located on page # 6; D. Ambulance Service Provider Changes; 3rd paragraph, Line # 2; delete the word 'address' and insert the word 'discuss'.

Chairman Baxter explained that typically the Agency prepares a cover letter to the Board of Supervisors along with the report. He requested that one or two items of concern be included in the cover letter. He felt that one item should be the Fire District's ability to respond to EMS calls in the future. Steve Andriese suggested that the second item should discuss System Saturation.

Agency staff was requesting approval of the report, as well as, approval of the cover letter.

M/S/C (Burns/Wasden) To approve report as amended including those items to be added to the cover letter

Vote: Unanimous

11. Ambulance Provider Response Time Reports

Marilyn Smith referred to attachment # 6 of the agenda packet. She explained that the reports were response times for the months of May, June, and July 2009. The reports reflect response time compliance for the last 12 months or 500 call compliance. Also, included with this attachment are the exemption reports for the months of May, June, and July.

Current response time issues were identified on the reports as follows:

- | | |
|----------------------|--------------------------------------|
| a) Hughson-Zone C | Out of Compliance May 2009-Urban |
| b) Oak Valley-Zone D | Out of Compliance July 2009-Suburban |
| c) Oak Valley-Zone D | Out of Compliance May 2009-Rural |

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
September 10, 2009
Page 6

- | | |
|----------------------|---|
| d) AMR-Zone 1 Blue | Out of Compliance June & July 2009-Urban |
| e) Oak Valley-Zone 4 | Out of Compliance May, June, July 2009-Suburban |
| f) Patterson-Zone 5 | Out of Compliance May & July 2009-Urban |
| g) Patterson-Zone 5 | Out of Compliance May, June, July 2009-Suburban |
| h) AMR-Zone 8 | Improvement-Suburban |

The Agency was not recommending that the Committee assign any fines against these providers at this time.

There was discussion and comments regarding the exemption reports and how they effect response time compliance.

Committee members were concerned with repeated poor performance, which ultimately effects contractual performance. After some discussion, the following motion was decided upon.

M/S/C (Burns/Wasden) Any provider out of compliance either on a 500-call compliance or 12 month compliance needs to have a report for the Committee at the next meeting as to why that occurred and how they plan to correct it.

Vote: Unanimous

12. Ambulance Providers Request to Increase Response Times

Mr. Andriese explained that this issue has been reported on at past meetings. At the last meeting, the Committee looked at a recommendation presented by MVEMSA staff. The recommendation was not to change response times, but to change the way fines are calculated. However, a change in the fine schedule could be interpreted as a change in response time standards. Initially, the Agency's conversation with County Counsel indicated that if the Agency did not change the response time standards, but created a mechanism of establishing fines; this would be different, and would not have to go before the Board of Supervisors for approval.

After this agenda had already been sent out, Agency staff again spoke to County Counsel. There had been a change in opinion which was that if fines were being levied at something less than the standard, then it was considered a change in the standards, and would require approval by the Board of Supervisors.

After some discussion, it was decided to take no action. However, the providers could take this issue before the Board of Supervisors if they chose to do so.

13. Letter to Hughson Ambulance Regarding Performance Issues

Steve Andriese explained that MVEMSA staff had sent a letter to Hughson

Stanislaus County EMSC-Minutes
September 10, 2009
Page 7

Ambulance regarding contract performance issues, which constituted a breach of contract. He explained that he was bringing this issue before the Committee, at this point, for information purposes only, because it brings up a larger issue that needs to be addressed.

Hughson Ambulance has historically been the sole provider in a very small district with a very small call volume. In November 2008, ProTransport began servicing the same area, and the call volume of Hughson Ambulance was cut in half.

Since that time, several issues have surfaced where contractual obligations have not been met because of reduced profits, and increases in fees, staffing, etc. They have not been actively involved in the Quality Improvement Committee, the System Status Committee, and have not been keeping up with some of their payments for dispatch.

As a government agency that contracts with Hughson Ambulance, MVEMSA has a legal and ethical obligation to hold them to the standard that is shown in the contract. This places Hughson Ambulance in a tough situation.

Mr. Andriese explained that he wanted to bring this matter before the Committee for the following reasons:

- a) To advise the Committee that there is a provider with issues in meeting performance criteria
- b) To direct the Committee to the more important issue regarding non-exclusive areas in Stanislaus County. Non-exclusive areas are open to any providers who wish to service these areas, as long as the potential providers meet certain criteria. Because these areas are non-exclusive, the Sherman Anti-trust Law applies. The only way around this law is to develop exclusive operating areas, where non-exclusive operating areas now exist.

Mr. Andriese explained that the current Stanislaus County ambulance provider agreements expire in November 2011. He felt that it was not too early to begin looking at the next step to be taken before the contracts actually expire. If major changes are to be made within the System, this should include developing exclusive operating areas where there is no qualified grandfathering process that could be utilized. The Agency would have to go out to bid. This process takes about two years.

Mr. Andriese felt that he should provide a 'heads-up' to the Committee on this issue since it is not unique. There are ambulance service providers throughout the State of California looking for non-exclusive areas that they could begin servicing, even if not profitable, but for experience only. This concept is very disruptive for an EMS System, when providers come and go, and the System constantly has to be

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
September 10, 2009
Page 8

redesigned around them.

Mr. Andriese would like to agendize this issue for the next meeting, and begin looking at available options on whether or not this issue of non-exclusive areas within the County should be addressed. At this time Mr. Andriese was not proposing any action, but seeking direction from the Committee to agendize for the next meeting. The Committee agreed.

14. Fire Response to EMS Calls

Marilyn Smith reported that Agency staff has been working with the providers, and with the Fire Service, to address issues identified by both groups. This group of providers is now called the EMS Provider Committee.

Ms. Smith introduced Chief Steve Mayotte of Stanislaus Consolidated Fire. She explained that he represents the Fire District at their Committee meetings. He is also the President of the County Fire Chiefs Assoc., and is here at the EMSC meeting to explain the latest.

Chief Mayotte explained their Committee was put together approximately four months ago, and have been meeting once a month. Attendees at the meetings consisted of representation from all the ambulance providers, LifeCom Dispatch, MVEMSA, Fire, and, on occasion, SR911.

Topics of discussion were:

- a) The utilization of first responders resources.
- b) The development and implementation of a quality improvement program.

The EMS Provider Committee was asked to address the following:

- a) The evaluation of the current dispatch criteria.
- b) The evaluation of the questions during caller interrogation.

The following has been discussed and implemented:

- a) Fire will respond incidents triaged at Echo, Delta, and Charlie levels. At this time, any ambulance Code 3 response will generate a Code 3 response from Fire. However, this could change at a later date.

15. Results of RFI for Stanislaus County EMS Study

Mr. Andriese recalled that at the last meeting, the Committee asked that an RFI (Request for Information) be sent to some of the Universities in the area to see if there was an interest in doing a study on the EMS system similar to the one done in 1992. An RFI was sent out to UC Merced, UOP, and Stanislaus State University. The Agency has not received any responses.

Stanislaus County EMSC-Minutes
September 10, 2009
Page 9

Mr. Andriese stated that what he has heard is that there has been major cutbacks in the Research Departments at each of the Universities, and, at this point, there does not seem to be an interest.

Mr. Andriese asked for the Committees' direction.

The decision was to table this item.

Chairman Baxter stated that the 'Date and Location of Next Meeting' was inadvertently left off the agenda. The next meeting date will be December 10th, and will be held at the LifeCom Dispatch Center in the Yosemite Conference Room.

16. Adjournment

The meeting was adjourned at 11:44 a.m. by Chairman Baxter in memory of Gil Costa, one of the first paramedics in Stanislaus County.

ATTACHMENT # 1

**Stanislaus County
Emergency Medical Services Committee
December 10, 2009
Minutes**

Location: LifeCom Dispatch Center
4701 Stoddard Road
Modesto, California

Time: 10:00 a.m.

Committee Members Present: Cleve Morris, Paul Baxter, Gary Hinshaw, Tom Burns, Mary Ann Lee, John Cremin, Niamh Harrington, Roy Wasden, Karen Hall,

Committee Members Absent: Bob Wikoff

Guests: Dan Bobier, Jared Bagwell, Ray Leverett, Cindy Woolston, Alicia Hinshaw, Steve Mayotte, Barry Hurd, Cathy Camelio, Richard Reed, Chuck Coelho, Lucian Thomas, Rick Ornelas, Barry Hurd, Teri Griffith, David Mattai, Jeremy Coe, and Thom Crowder by Teleconference

Staff: Steve Andriese – Executive Director, Tina Casias - Executive Secretary, Tom Morton - QI Coordinator, Marilyn Smith - Response and Transport Coordinator; Doug Buchanan - Disaster Coordinator

1. Welcome and Introductions

The meeting was called to order at 10:00 a.m. by Chairman Baxter with a quorum of members present. Chairman Baxter asked that all meeting attendees introduce themselves.

2. Review and Approval of Agenda

Mountain-Valley staff requested to reorder the agenda by moving Agenda Item # 11 after Agenda Item # 4.

M/S/C (Cremin/Burns) To approve agenda as amended

Vote: Unanimous

3. Correspondence

MVEMSA received notification from the Stanislaus County Clerk of the Board regarding the appointment expiration of John Cremin, Cleve Morris, Tom Burns, Robert Wikoff, and Neimah Harrington.

4. Public Comment Period

There were no public comments.

11. Update on the Implementation of the New SR911 CAD System

Lucian Thomas of SR911 reported on the latest developments of the new SR911 CAD system. He stated that there will be a delay in bringing the new CAD system online on December 11, 2009. The go-live date will be extended to some time in Spring, probably April or May. A firm go-live date is expected to be determined by the vendor in about three weeks.

Chairman Baxter asked a schedule of dates could be provided to Steve Andriese once the firm dates have been determined.

Stanislaus County EMSC-Minutes
December 10, 2009
Page 2

Mr. Thomas said he would be happy to come back and report on the progress of the project at the next EMSC meeting on March 11, 2010.

5. Approval of the Minutes of December 10, 2009

M/S/C (Burns/Hinshaw) To approve the minutes as presented

Vote: Unanimous

6. Committee Reports

a. System Status

Cindy Woolston reported on the following items:

- 1) Review of the System Status Plan with issues regarding the rotation of calls between ProTransport and Hughson Ambulance. All issues were resolved.
- 2) Distribution of the H1N1 vaccine--EMS and Fire Dept. personnel have been vaccinated. Law enforcement personnel are in the process of being vaccinated.
- 3) The rural providers received their MDT's (Mobile Data Terminals).

b. SHEPC

Doug Buchanan reported on the SHEPC (Stanislaus Healthcare Emergency Preparedness Council). Judy Mahan of Doctor's Medical Center will be replacing Scott Penner as chairperson. The new chairperson will be invited to make a report at a future EMSC meeting.

The Committee meets on a monthly basis. Sub-committees have been established, as part of a committee reorganization, and are tasked with reporting on various topics of concern. One of the more active sub-committees tackled the subject of 'reportable diseases', because there had been some discrepancies unfold between field personnel reports, and hospital reports.

Another area the Committee is currently working on is hospital HavBed reporting. This reporting is a daily reporting of hospitals on bed availability. The EMS Agency has also been working on this subject with the Public Health Department.

c. OES

The FY09 budget was released by the State and approved by the Board of Supervisors. There is a new element called the "Environmental Historic Preservation". Everything must be put through a filter system. If there is any kind of historical preservation issues, it has to be brought back and submitted to the State for approval. OES does have the authorization to expend FY09 funds.

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
December 10, 2009
Page 3

7. Update on the Emergency Policy for the Administration of H1N1 Vaccinations to First Responders

Marilyn Smith of the MVEMS Agency reported how policies were developed for the administration and reporting leading to State EMS Authority approval for paramedic expanded scope of practice in order to allow for the administration of the H1N1 vaccine. The vaccine was ordered in connection with the Health Department, and the initial shipment was delivered to the Health Department for storage until disseminated.

So far, ambulance provider personnel have been vaccinated, as well as, fire department employees. Ambulance provider personnel have vaccinated 366 members of the pre-hospital community. They will begin to vaccinate law enforcement personnel during the next week, as well as, those that work or are being held in detention centers.

8. Stanislaus County System Saturation Policy Update

Douglas Buchanan reported that the hospitals have already put in place their own internal processes and triggers for system saturation. However, back in April 2009, the Stanislaus County Health Services Agency was looking at the development of a Healthcare Surge Protocol. The County and the EMS Agency was working with the hospitals trying to modify the system saturation plans, and the hospitals. The hospitals had their own internal plans; the EMS Agency had a plan for responding to the initial surge while working with ER's trying to absorb any sudden surge within the Community or any ongoing surge; and the County's plan of centralizing resources.

It was a group effort among multiple agencies that enabled the County to successfully revise their surge plan. Several people worked on getting the hospitals to finally report on the same internal triggers and thresholds so that they speak the same language, and include the same activities.

A policy was created by the EMS Agency that included all the new threshold language. The hospitals are working under a trial version of the MVEMS Agency policy. It is now out for 60-day review. It should be coming before the EMSC Committee, in its final version of the policy, by the next meeting date.

9. Ambulance Provider Response Time Reports

Marilyn Smith went over the reports for response time compliance for the months of August, September, and October 2009. The reports reflect response time compliance for the last twelve months or 500 call compliance.

Current response time issues have been identified as follows:

a) Hughson-Zone C 12 month urban actual compliance is 76.9%

ATTACHMENT # 1

Stanislaus County EMSC-Minutes

December 10, 2009

Page 4

- | | |
|----------------------|--|
| b) Hughson-Zone C | Suburban actual compliance was 66.7% |
| c) Oak Valley-Zone D | Urban actual compliance was 84.6% |
| d) Oak Valley-Zone D | Suburban out of compliance by 1 call in October |
| e) Oak Valley-Zone D | Rural actual compliance was 81.5%; but out of compliance in October. |
| | |
| f) AMR-Zone 1 Blue | Blue Zone actual compliance was 88.6% in September |
| g) Oak Valley-Zone 4 | Suburban actual compliance is 82.4% |
| h) Patterson-Zone 5 | Suburban actual was 81% |
| i) AMR-Zone 8 | Suburban actual is 77.2% |
| j) Westside-Zone A | Urban actual compliance was 88% |

10. Ambulance Providers Improvement Plans for Non-Compliant Response Time Criteria

Ambulance providers considered non-compliant at the last EMSC meeting (AMR, Patterson, Oak Valley, Hughson) in December 2009 presented their plans to Committee members on how they intend to improve their response times. They also pointed out some of the reasons for non-compliance relating to the topography of the areas.

12. Update on the New Fire Dispatch Protocols

Alicia Hinshaw made a presentation to the Committee on the "Proposed Call Processing Algorithm". This proposed call processing will (1)Reduce or eliminate the duplicate line of questioning between the two Call Centers, (2)Ensure the immediate dispatch of First Responder to all high acuity level calls, (3)Dispatch first responders to all other EMS calls only after EMD call triage has been completed.

13. Report on the Implementation of the CPAP Program and STEMI Pilot Program

Based upon some of the negative trending data received on the unsuccessful nasal intubation attempts, Dr. Mackey made a decision to remove nasal intubation as a skill performed by Mountain-Valley accredited Paramedics. A new device called CPAP (Continuous Positive Airway Pressure) has been implemented to improve oxygenation in a patient having respiratory problems. Each provider is responsible to submit their training curriculum for CPAP to Dr. Mackey in order to be approved. Once the training curriculum is approved, it is the responsibility of the provider to train their respective employees on the utilization of CPAP. The CPAP device can be utilized in the pre-hospital setting once the training is complete.

14. Date and Location of Next Meeting

The next meeting date will be March 11, 2010.

15. Adjournment

Chairman Baxer adjourned the meeting at 11:40 a.m.

ATTACHMENT # 1

**Stanislaus County
Emergency Medical Services Committee
March 11, 2010
Minutes**

Location: LifeCom Dispatch Center
4701 Stoddard Road
Modesto, California

Time: 10:00 a.m.

Committee Members Present: Cleve Morris, Paul Baxter, Gary Hinshaw, Mary Ann Lee, Roy Wasden,
Karen Hall, Bob Wikoff

Committee Members Absent: John Cremin, Niamh Harrington Seavy, Tom Burns

Guests: Jared Bagwell, Richard Reed, Cindy Woolston, Alicia Hinshaw, Cathy
Carmelio, Bob Gooch, Robert Salter, Marvin Velasquez, Dan Bobier,
Barry Sutherland, Chuck Coelho, Ray Leverett, Jake Schulke, Lucian
Thomas, Barry Hurd, Jeremy Coe

Staff: Steve Andriese – Executive Director, Tina Casias - Executive Secretary,
Marilyn Smith - Response and Transport Coordinator; Doug Buchanan -
Disaster Coordinator

1. Welcome and Introductions

The meeting was called to order at 10:02 a.m. by Chairman Baxter with a quorum of members present. Chairman Baxter asked that all meeting attendees introduce themselves.

2. Review and Approval of Agenda

M/S/C (Hinshaw/Wasden) To approve agenda as submitted

Vote: Unanimous

Motion Passed

3. Correspondence

Notification was received from the Stanislaus County Clerk of the Board regarding the re-appointments of John Cremin, Cleve Morris, Tom Burns, Robert Wikoff, and Neimh Harrington Seavy.

4. Public Comment Period

There were no public comments.

5. Approval of Minutes of December 10, 2009

The following correction to the minutes was requested:

- 1) Determination of the person who seconded the motion on Agenda Item #5
It was determined to have been Gary Hinshaw.

M/S/C (Hinshaw/Wasden) To approve minutes with requested corrections

Vote: Unanimous

Motion Passed

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
March 11, 2010
Page 2

6. Committee Reports

a. System Status

Cindy Woolston reported that the following items were discussed at the System Status meeting of 3/11/10:

1) Emergency room turn-around times

There were issues at Memorial Hospital where crews were being delayed for quite some time. There were some issues at Doctors Hospital, but those were resolved quickly.

2) MDT's

Rural providers have received their MDT's, and are currently having them installed.

3) Infection Control Procedures

The System Status Committee was given a report by Alicia Hinshaw. The procedures entail patient delivery to an ED, and the patient is diagnosed with communicable disease. Nurses from the ED will notify LifeCom. LifeCom will determine what providers responded to that call, and will notify the appropriate agencies. This will ensure that those providers who responded to the call can receive treatment.

4) County System Status Plan

A brief presentation was given on AMR's plan for redeployment of areas that they cover. Copies of this plan were handed out to Committee members. Cindy Woolston gave a brief synopsis in which she explained that AMR is currently meeting with the unions in both Modesto and Turlock. Their intention is to roll out this plan by May 1st.

b. SCHEPC

Doug Buchanan reported that there is a new chair for the SCHEPC (Stanislaus County Healthcare Emergency Preparedness Council) namely, Judy Mahan of Doctors Medical Center. The groups current activities are:

1) Communicable Disease reporting by prehospital groups. Alicia Hinshaw and Rick Ornalus worked on this project.

2) Clinic and long term care groups are currently trying to coordinate their disaster response plans. The hospitals have already developed plans. Also, this group has been working patient tracking issues, and conducting patient tracking exercises.

c. OES

Chief Hinshaw reported that the State decided to do an audit. The audit took place on the week between Christmas and New Years. Grants for FY2006/2007 were targeted for the audit. Three minor findings were found, and responded to quickly. Among the 58 counties, they are considered to have 'best practicing' status. 'Best practicing' status can be both good and bad. On the 'bad' side, it

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
March 11, 2010
Page 3

may open the door for a federal audit.

The FY2010 Homeland Security Grant has been received. The overall grant will be higher than last year. Last years grant was \$1.3 million. The money must be spent according to State stipulations.

The first Disaster Council meeting is scheduled for March 18th. The Council is made up of representatives from 9 cities within the county. Underneath the Disaster Council is the Operational Area Council, chaired by Chief Hinshaw. This council is required by State law.

OES has received what they consider a new 'tool'. It is video teleconferencing. The State has purchased this technology for all 58 counties. This new 'tool' gives them the ability to video conference with counties on either side for disaster issues and other issues. The 'tool' is located in their Center.

They have been asked to participate in the 'Inland Region Mass Evacuation Plan' for Golden Guardian. During the next season, there will be a test run of a mass, catastrophic, flood in the Central Valley beginning with Sacramento. The Inland Region Mass Evacuation Plan will involve Cal Trans, CHP, and all the counties in the Inland Region.

7. Update on the Implementation of the new SR911 CAD System

Lucian Thomas of SR911 provided update information for Committee members. He reported that on March 22, 2010, determination of the final system configuration will be made. Functional testing of the system will take place on April 11, 2010. If all goes well in the testing phase training will take place by the end of May 2010 or the beginning of June 2010. They are scheduled to go live by the end of August 2010 or the beginning of September 2010.

Chairman Paul Baxter requested that once SR911 has gone live, Lucian Thomas should coordinate with Mountain-Valley staff in order to arrange for a tour at the next EMSC meeting of September 2010 or December 2010.

8. Stanislaus County System Saturation Policy Update

Mr. Andriese reported that for several years this region has had a system saturation policy in place for the entire region. Stanislaus County is much different from the other counties because of the number of hospitals. Approximately three years ago, the Agency began developing a System Saturation Plan specific to Stanislaus County. The current draft of the plan has been revised several times.

Staff member Doug Buchanan reported on the highlights of the policy. He began by explaining what steps are taken if a surge occurs. The hospital contacts the control facility. If 2 or more hospitals are impacted, the EMS Agency Duty Officer is

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
March 11, 2010
Page 4

contacted. The Duty Officer assesses the data from each of the ER's to see if they have met the Level 1, 2, or 3 criteria. If so, the Agency conducts a conference call that includes the hospital administrators, and the OES Officer to discuss the steps being taken internally in an effort to overt the surge or saturation. A threat assessment group may be activated by OES as to whether or not the Stan Mac should be activated.

Even though the current version of the policy may have to be modified in the future, the Agency would like to move it out of draft form to an actual policy.

Mr. Andriese explained that in the Saturation Plan submitted today, the Agency tried to use clear terminology to differentiate between saturation and an actual surge event where the County is required to get involved.

Mr. Andriese thanked the ED managers, hospital administrators, and all involved in getting this plan revised and into working form.

If the plan is approved, it will go directly to the MVEMSA Board of Directors for approval.

M/S/C (Lee/Wasden) To approve policy # 958.20-Stanislaus County System Saturation Policy

Vote: Unanimous

Motion Passed

9. Ambulance Provider Response Time Reports

Marilyn Smith reported that the most recent data for review was the response times for the months of November 2009 - January 2010. She explained that current response time issues have been identified as follows:

- (1) Oak Valley - Zone D - 12 month Rural compliance is 20:55. Actual compliance is 83.5%. Based on 91 calls. This is improvement over last reporting period.
- (2) AMR - Zone 8 - 12 month Suburban 90%ile compliance is 12:44. Actual compliance is at 77.8%. This is based on 162 calls. They were out of compliance in November.
- (3) AMR - Zone 3 - Suburban Zone was out of compliance by one call in January.
- (4) Oak Valley - Zone 4 - 12 month Suburban 90%ile compliance is 13.21. Actual compliance is based on 127 calls. They were out of compliance by one call in November and December.
- (5) Patterson - Zone 5 - 500 call compliance in their urban zone is 7:43. Actual compliance is 89.6. They missed compliance by two calls. They were out of compliance in December.
- (6) Patterson - Zone 5 - 12 month Suburban 90%ile compliance is 12:59. Actual compliance is 79.4%. This is based on 107 calls. They were out of compliance by one call in November and January.

Stanislaus County EMSC-Minutes
March 11, 2010
Page 5

- (7) AMR - Zone 1 Blue - The Blue Zone was out of compliance in November and December. Actual November compliance was 87.9% and December's compliance was at 87.1%.

Concern was raised regarding consistent response time non-compliance over a twelve month period.

Mr. Andriese explained that if the zone is suburban or rural one call could put that provider out of compliance.

Another concern expressed by Committee members was that contracts are in place which provides the standard for response times for providers to meet. If these standards are not being met, it becomes the Committees responsibility to consider action.

Mr. Andriese was asked how these contractual response times were arrived at. He explained that the State EMS Authority, many years ago, developed response time standards. Their standard for urban response was 8 minutes. This 8 minute response time is from the time the 911 call comes in to the primary p.s.a.p., to arrival on the scene. Since providers are not responsible for dispatch of the call, the contact standard for urban is 7 ½ minutes. He explained that the guidelines were actually changed a number of years ago from 12 minutes to 20 minutes for everything other than urban. Wilderness standards are 'when you get there'.

After some other questions and discussion, a consensus of concern prevailed. It was expressed that there is a contractual agreement in which the providers have agreed to, and the Committee does not have the authority to change response time policy without having a public hearing before the Board of Supervisors.

Direction was given as follows:

- (1) Calculate fines for the next meeting for all providers out of compliance.
- (2) After working with non-compliant providers, report, in writing, what action staff recommended to providers to 'fix' their non-compliance issues, and the result of these actions.
- (3) Provide excerpts from contractual documents as to what the penalties are.

10. Stanislaus County Board of Supervisors Action of 12-22-09

Committee member Mary Ann Lee informed the other Committee members that she had requested this item be placed on the agenda.

She reported that Stanislaus County has already contracted with a third party, to work with them on the plausibility, and cost to the County, if they were not to remain in the Mountain-Valley EMS Agency Joint Powers Agreement.

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
March 11, 2010
Page 6

She reported that Stanislaus County's current contract with Mountain-Valley will expire on June 30, 2010. The Board of Supervisors has already approved entering into a contract for the 2010/2011 Fiscal Year beginning July 1, 2010 and ending June 30, 2011. By December 31, 2010 Stanislaus County will definitely determine whether or not they will remain a member of Mountain-Valley's Joint Powers Agreement.

11. Ambulance Contract Renewal Options for 2012

Steve Andriese explained that at the EMSC meeting of September 10, 2009 Mountain-Valley EMS Agency staff was directed by the Committee to compile a report listing the various options and recommendations available to the County upon the expiration of the current agreements in 2012. The proposal will be reviewed in detail at the next regular meeting.

12. EMS Committee Elections

Committee elections were held. Committee members voted to re-elect Paul Baxter as Chairman, and Gary Hinshaw as Vice-Chairman.

M/S/C (Wikoff/Wasden) To nominate and elect Paul Baxter as Chairman, and Gary Hinshaw as Vice-Chairman

Vote: Unanimous

Motion Passed

13. Date and Location of Next Meeting

The next meeting date will be June 10, 2010 at the LifeCom Dispatch Center.

14. Adjournment

Chairman Baxter adjourned the meeting at 11:35 a.m.

ATTACHMENT # 1

**Stanislaus County
Emergency Medical Services Committee
June 10, 2010
Minutes**

Location: LifeCom Dispatch Center
4701 Stoddard Road
Modesto, California

Time: 10:00 a.m.

Committee Members Present: Paul Baxter, Gary Hinshaw, Mary Ann Lee, Roy Wasden, Bob Wikoff,
Niamh Seavy, John Cremin

Committee Members Absent:

Guests: Jared Bagwell, Cindy Woolston, Ray Leverett, Barry Hurd, Chuck
Coelho, Lucian Thomas, Dan Bobier

Staff: Steve Andriese – Executive Director, Tina Casias - Executive Secretary,
Marilyn Smith - Response and Transport Coordinator; Tom Morton - QI
Coordinator

1. Welcome and Introductions

The meeting was called to order at 10:05 a.m. by Chairman Baxter with a quorum of members present. Chairman Baxter asked that all meeting attendees introduce themselves.

2. Review and Approval of Agenda

M/S/C (Lee/Wasden) To approve agenda as submitted

Vote: Unanimous

Motion Passed

3. Correspondence

A letter was sent to the EMSC Chairman Paul Baxter and Committee members from the Stanislaus County Ambulance providers requesting the formation of a sub-committee to evaluate response time criteria.

Chairman Baxter advised that the writers of the letter should have been listed individually in lieu of the generic 'Stanislaus County Ambulance Providers'.

Steve Andriese reported that in discussing this with the ambulance providers, it was decided to agendize this item for the next meeting on September 2, 2010.

Chairman Baxter suggested that MVEMSA staff put together a proposal for an adhoc subcommittee to be presented at the meeting in September along with other criteria that would be in line with the upcoming renewal of the ambulance provider contracts.

4. Public Comment Period

There were no public comments.

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
June 10, 2010
Page 2

5. Approval of Minutes of March 11, 2010

The following correction to the minutes was requested by Committee member Mary Ann Lee: Remove "at a cost of approximately \$80,000;" from page 5, paragraph 2, beginning with line # 1.

M/S/C (Hinshaw/Wasden) To approve minutes with amendment as requested.

Vote: Unanimous

Motion Passed

6. Committee Reports

a. System Status

Cindy Woolston of AMR reported on areas of discussion by the System Status Committee as follows:

- a) Reviewed System Status Plan and concluded there would not be any changes.
- b) Discussed problems with mutual aid responses in Merced County which is effecting the system in Stanislaus County. There is a meeting set up for June 21st in which this issue will be discussed.
- c) Discussed the issues brought out at the Fire Chief's meeting.
- d) There is a Disaster Exercise scheduled for May 2011. The scenario involves a levee break and evacuation.
- e) Discussed Stanislaus County's "Excited Delirium" issue. A policy has been developed, but is not completed as yet.
- f) Dr. Kevin Mackey's resignation was discussed. It was learned from MVEMSA staff that there had been a couple of inquiries.
- g) Decisions were made to include 'Ambulance Provider Involvement Within The Community' in their report for the next EMSC meeting.

b. SCHEPC

Judy Mahan was not available to attend this meeting. Tom Morton of MVEMSA attended the SCHEPC meeting and reported that the meeting was extremely short due to the absence of many of the members. However, goals were met in all the projects being worked on.

c. OES

Chief Hinshaw reported on the Homeland Security Grant for FY2010, and that it's being worked on by various work groups who are doing a terrific job. The amount seems to be the same, but the requirements are different.

OES has been spending a lot of time working with the Community Service Agency on the issue of Care and Shelters. These shelters are primarily in the

Stanislaus County EMSC-Minutes
June 10, 2010
Page 3

in the schools. The last shelter opened one year ago, and is located on the West Side of San Joaquin. OES does not have a lot of experience in this arena, however, they are putting plans together to identify the locations of the current ones, and potential new ones indicating their locations.

7. Update on the Implementation of the new SR911 CAD System

Chief Hinshaw reported for Lucian Thomas who was unable to attend the meeting. Lucian Thomas asked him to convey to the Committee that they were still on track for a September 'go live' date, 'give or take' 60 days. Testing is continuing and they are hopeful that they will be able to stick to the September 'go live' date.

Chairman Baxter asked that SR911 host the December meeting.

8. Ambulance Provider Response Time Reports

Marilyn Smith reported that at the last EMSC meeting staff was directed to provide information on the actions taken by staff to address response time concerns with providers in addition to areas of concern on response time reports presented at the meeting.

She referred to Attachment # 2 to the agenda in which she provided the usual response time reports for February, March, and April 2010 with an analysis, but also included the interactions with providers by MVEMSA staff for any areas of concern.

Discussions ensued concerning exemptions and what constitutes an exemption to the provider. Some thought these exemptions were effecting the outcome of the reports, and requested to see the raw data.

As a result, direction was given to staff to provide reports with exemptions and without exemptions beginning with the next meeting. It was felt this would give a complete picture of the process.

There were no recommendations from staff of fines for non-compliance.

9. Ambulance Fine Calculations

Marilyn Smith reviewed the ambulance provider agreements in preparation for the meeting, and found something unexpected. The agreements lacked a provision regarding fines for the suburban areas. County Counsel was consulted and advised that the way the agreements are currently written, fines cannot legally be imposed for the suburban areas only. The agreements would have to be changed in order to do this.

Ms. Smith explained the fine calculation process according to contract terms, and gave estimated amounts for the fines.

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
June 10, 2010
Page 4

Staff was not recommending any fines be incurred at this time.

10. Stanislaus County Board of Supervisors Action of 12-22-09

Mary Ann Lee reported that the report by the consultant was not yet final. They expect to receive a final report with recommendations within 30 days.

11. Ambulance Contract Renewal Options for 2012

Mr. Andriese proceeded to make a presentation to the Committee on 'Options and Recommendations for Stanislaus County Ambulance Zone Configuration and Designation', and how this effects the renewal of the upcoming ambulance contracts in 2012.

Mr. Andriese proposed a 'special meeting' based on his presentation to focus on determining what options they wanted to begin focusing their efforts on and what direction they would be going in. They need to make decisions in order to have time to achieve them before actual renewal of the contracts.

It was decided to have the 'Special Meeting' on July 22, 2010 at 8:30 a.m.

12. Date and Location of Next Meeting

The regular meeting date was changed to September 2, 2010, 1:00 p.m. at the LifeCom Dispatch Center.

13. Adjournment

Chairman Baxter adjourned the meeting at 11:25 a.m.

**Stanislaus County
Emergency Medical Services Committee
September 02, 2010
Minutes**

Location: LifeCom Dispatch Center
4701 Stoddard Road
Modesto, California

Time: 10:00 a.m.

Committee Members Present: Paul Baxter, Gary Hinshaw, Mary Ann Lee, Bob Wikoff, Niamh Seavy,
Tom Burns

Committee Members Absent: John Cremin, Roy Wasden

Guests: Jared Bagwell, Cindy Woolston, Ray Leverett, Barry Hurd, Chuck
Coelho, Richard Reed, Don Campbell, Teri Norton, Alicia Hinshaw,
Steve Lewis, Jeff Taylor

Staff: Steve Andriese – Executive Director; Richard Murdock- Interim Deputy
Director; Marilyn Smith - Response and Transport Coordinator; Tina
Casias – Executive Secretary

1. Welcome and Introductions

The meeting was called to order at 1:10 p.m. by Chairman Baxter with a quorum of members present. Chairman Baxter asked that all meeting attendees introduce themselves.

2. Review and Approval of Agenda

Committee member Tom Burns questioned why there was not an agenda item for Response Time and Exemption reports which is a required standard agenda item.

Mr. Andriese explained that the current agenda items were supposed to be discussed at the previous 'Special Meeting' on July 22nd, however, there was no quorum for that meeting. So, the meeting for September 2nd was scheduled with the agenda items that should have been discussed at the July 22nd meeting. The regular agenda will resume at the next regular meeting scheduled in December 2010.

Committee member Tom Burns then requested that the 'response time and exemption reports' be mailed out to Committee members.

Mr. Andriese agreed that they would be sent out by email to each member.

M/S/C (Burns/Wikoff) To approve agenda as submitted

Vote: Unanimous

Motion Passed

3. Correspondence

Steve Andriese explained that there were two items of correspondence:

- 1) A letter from Dan Burch, the EMS Administrator of the San Joaquin EMS Agency, regarding the Stanislaus County Ambulance Transportation Plan

ATTACHMENT # 1

Stanislaus County EMSC-Minutes
September 02, 2010
Page 2

- 2) A letter from MVEMSA staff to the Stanislaus County Clerk of the Board, Christine Farraro Tallman, regarding the resignation of Committee member Karen Hall, effective immediately.

4. Public Comment Period

There were no public comments.

5. Approval of Minutes of June 10, 2010

M/S/C (Lee/Hinshaw) To approve minutes as submitted.

Vote: Unanimous

Motion Passed

6. Proposed Establishment of an EMSC Technical Advisory Sub-Committee to Study Response Time Standards

MVEMSA staff member Marilyn Smith reported that at the previous meeting a letter from the Ambulance Providers was introduced in the agenda item for Correspondence. This letter requested the establishment of a Technical Advisory Sub-Committee. The purpose of the sub-committee would be to evaluate response time parameters, evaluate the dynamics of the system, and report their recommendations to the EMS Committee.

The EMS Committee directed MVEMSA staff to develop a potential membership for the sub-committee which is as follows:

- | | |
|---|-------------------|
| 1) Fire Service | 1 Representative |
| 2) Senior Executive from HSA | 1 Representative |
| 3) MICN from Hospital ER | 1 Representative |
| 4) Paramedic from Ambulance Provider Agency | 1 Representative |
| 5) Law Enforcement Representation | 1 Representative |
| 6) City Representative | 1 Representative |
| 7) Public Representative | 1 Representative |
| 8) Ambulance Providers | 2 Representatives |
| 9) Mountain-Valley EMS Agency | 2 Representatives |

It is also suggested that two of the representatives on the aforementioned list be current EMSC members to ensure an effective communication link with the EMSC.

EMSC members were hesitant about establishing a sub-committee due to the possibility that Stanislaus County may end their membership in MVEMS Agency's JPA.

Stanislaus County EMSC-Minutes
September 02, 2010
Page 3

M/S/C (Burns/Lee) Re-agendize this item for the December 9, 2010 meeting

Vote: Unanimous

Motion Passed

7. Ambulance Contract Renewal Options 2012

Steve Andriese began his report by reminding members that at a previous meeting in June 2010 'Ambulance Contract Renewal Options 2012' was placed on the agenda, and a power-point presentation was conducted to look at the first draft of the report that would be sent to the Board of Supervisors. This report included a history of ambulance services within the County. At that time, the draft reflected four options, with others possibly being added to it as the process continues. Also in the report, there will be a section indicating any recommendations of the EMSC to the Board of Supervisors in addition to recommendations of the EMS Agency as to whether there would be any changes to the Ambulance Provider agreements in 2012.

Due to the importance of this issue, a 'Special Meeting' was scheduled to again discuss these 'renewal options', but a quorum of members was not reached. Chairman Baxter was contacted prior to this meeting to consider the possibility of this item again being placed on the agenda for this meeting. Chairman Baxter approved dedicating this meeting to discussion of the renewal options.

Mr. Andriese proceeded with his presentation. During the presentation members suggested changes to Mr. Andriese, which he said he would amend on his next draft.

Let the record show that Gary Hinshaw departed the meeting at 2:50 p.m.

Chairman Baxter indicated there was no longer a quorum of members, and voting on any issue could not take place. However, they could continue the discussion.

Members indicated they wished to continue the discussions on this agenda item at the next meeting.

8. Date and Location of Next Meeting

The date and time of the next meeting will be December 9th at 10:00 a.m. The location will be SR911 unless their CAD system has not been completed. If that's the case, the meeting will be at LifeCom.

9. Adjournment

The meeting was adjourned at 2:56 p.m.

EMS Training Calendar 2009

TRAINING CALENDAR

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

PARAMEDIC ORIENTATION - (209) 529-5085
Second Wednesday of Each Month

FIRST RESPONDER

Modesto Junior College 40-hr course
January 7 ~ April 26, 2009 (Mondays 6-9pm)
May 6- August 12, 2009 (Wednesday 1:30-4:45 pm or 6-9pm)
August 31-December 21, 2009 (Monday 5:30-9:30pm)

Abrams College

*See EMT Schedule -- (contact school for exact dates)

EMERGENCY MEDICAL TECHNICIAN -(EMT-I)

Abrams College - (209)527-7777

Five (5) week course -- 2009 Start dates:

February 20, April 10, May 30, July 17, September 11, October 23, 2009

Recertification -- Monthly / second weekend (Fri. - Sun.)

Ceres Unified School District - (209) 609-1554

January 13 -- May 25, 2009 (Mon. & Wed. 6-9pm)

August 24 - December 11, 2009 (Mon. & Wed. 6-9pm)

Recertification -- contact instructor for dates

Hughson Fire Department (209) 883-2863

Scheduled as needed

Mariposa County (559) 497-3852

November 5, 2008- February 14, 2009 (Wed. 5-9pm & Sat. 9-5:30pm) Holidays Excluded

2009 Fall course dates - TBD

Modesto Junior College (209) 549-7028

May 6 -- August 14, 2009 (Tues. & Thurs 5-8pm)

August 31 -- December 19, 2009 (Tues. & Thurs. 5-8pm)

EMT-I Refresher

June 6 -- June 20, 2009 (Saturday 8-5pm)

October 3 -- October 17, 2009 (Saturday 8-5pm)

Murphy's Fire Department - (209) 728-3864

October 19, 2009 -- December 19, 2009 (Mon. & Thurs. 6-10pm)

Sat. 8-5pm) Holidays Excluded -- Registration: Delta College

Yosemite -- DNC Learning Center - (209) 372-4637

Scheduled as needed

MOBILE INTENSIVE CARE NURSE (MICN)

Memorial Medical Center - (209) 548-7878

January 13 -- March 24, 2009 (Wed & Thurs)

June 30 -- August 4, 2009 (Wed. Only)

Sutter Amador Hospital (209) 223-7478

September 2 - October 1, 2009

ONE / TWO DAY COURSES

WMD Events (with MED-Plus) for PreHospital Providers

Memorial Education Building

March 5, 2009 8am-5pm

WMD On-line training through TEEKS -- contact Agency for Website Link.

Pre-Hospital Symposium

June 13, 2009 - 8am-5pm Memorial Education Building

4-hr Hospital MCI Training

MVEMSA

February 24, 2009 -- 1pm-5pm

July 28, 2009 -- 1pm-5pm



Training available On-line
4-hour Self Study - OES Region IV MCI Training

Mountain-Valley EMS Agency Training Calendar - 2009