

STATE OF COLORADO



Colorado Department
of Public Health
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Emergency Medical and Trauma Services System Annual Legislative Report

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By the Emergency Medical and Trauma Services Section
Health Facilities and Emergency Medical Services Division
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Executive Summary

Colorado's emergency medical and trauma services system provides transportation and immediate care to the sick and injured 24 hours a day, 365 days a year, providing approximately 350,000 patients with care and transportation by ambulance, of which approximately 3,500 are classified as trauma patients. Emergency medical and trauma care services are defined as the immediate health care services needed as a result of an injury or sudden illness, particularly when there is a threat to life or long-term functional abilities. In addition, this comprehensive system provides transportation in non-emergent settings that supports long-term patient care goals. Patient survival depends on several factors, including the availability of appropriately trained health care providers and properly equipped and positioned ambulances, rescue units, trauma centers and other specialized health care facilities. Colorado's coordinated emergency medical and trauma services system offers timely preventive, acute and rehabilitative health care services for the state's residents and visitors.

Statutory authority and limited funding for the development of a comprehensive emergency medical and trauma services system for Colorado is established through:

- The *Emergency Medical Services Act of 1978*
- the Emergency Medical Services Account created in 1989
- the *Trauma Act of 1995*
- the *Colorado Emergency Medical and Trauma Services Act of 2000*
- a new statute in 2005 addressing emergency medical technician (EMT) investigations and discipline and an amendment to the air ambulance licensing statute mandating Commission on Accreditation of Medical Transport Systems accreditation
- 2007 amendments to the EMT certification and air ambulance licensing statute

The number of injury deaths in Colorado was 2,937 in 2006, making trauma the leading cause of death for Coloradans ages 1-44. Studies indicate that 30 percent to 40 percent of all trauma deaths occur within one hour of injury, and that 30 percent to 40 percent of these deaths are preventable if timely, appropriate care is received. Based on trauma registry data and 2000 national cost figures, the department estimates the total annual cost of injury in Colorado to be \$6.85 billion (\$1.49 billion in medical costs and \$5.36 billion in productivity losses). National experience clearly demonstrates that a coordinated and well-developed emergency medical and trauma services system can result in a reduction of the number of preventable deaths and in disability resulting from injury.

The individual program components that make up Colorado's emergency medical and trauma services system include:

- Public Education and Information
- Injury Prevention

- Communications Systems
- Training and Certification of Emergency Medical Technicians
- Transportation Systems, including Air and Ground Ambulance Licensure Standards
- Trauma Center Designation for Acute Care Hospitals and Clinics
- Rehabilitative Care
- Disaster Medical Care
- Education and Research
- Trauma Registry and Prehospital Data Collection
- State and Regional Continuing Quality Improvement Systems
- Planning – State Emergency Medical and Trauma Services Advisory Council and Regional Emergency Medical and Trauma Advisory Councils

This report identifies the specific responsibilities of the department and provides a focused discussion of the utilization of state resources available for system development. The report concludes with a more detailed statement about future and ongoing challenges to system development.

Funding

The Emergency Medical and Trauma Services Section continues to be funded primarily from the Emergency Medical Services Account of the Highway Users Tax Fund, supplemented by the collection of trauma center designation fees, air ambulance licensure fees and limited short-term federal grants. A \$1 fee included in each motor vehicle's annual registration funds the Emergency Medical Services Account, established in 1989. There has been no significant adjustment to this funding process since initial implementation in 1989.

Challenges

Significant improvements in process and a sharpening of focus have been realized and continue to be closely monitored to ensure that the organizational responsibilities of the Emergency Medical and Trauma Services Section are met with the highest levels of quality and accuracy. In 2006, a reorganization of work unit responsibilities to more closely align with organizational goals was accomplished. The effectiveness of the Emergency Medical and Trauma Services Section has continued to improve as evidenced by better communication with community stakeholders and through processes that are predictable and inclusive. These actions support the section's commitment to protecting the safety and welfare of the public while also serving the needs of the stakeholders of the community. The section regularly conducts self-assessments to ensure continued progress.

An ongoing challenge is developing and sustaining rules and policies that are consistent with the changing needs of the emergency medical and trauma services community.

During the past year, new and replacement trauma facility designation rules were drafted and took effect in August 2007. The statewide task force started in 2006 to review and update the rules governing the designation of Level I and Level II trauma centers is nearing

completion. These rules include updates and modifications of the national standards developed by the American College of Surgeons in 2006-2007, as well as issues specific to the provision of trauma care in Colorado. These draft rules will be presented to the SEMTAC and the Board of Health in 2008.

In February 2006, the Emergency Medical and Trauma Services Section began licensing rotary- and fixed-wing ambulances that pick up patients at any point within Colorado. At the present time, all Colorado-based air ambulances and several services based outside of the state are licensed. Licensing has resulted in a requirement that air ambulance agencies must either be accredited by the Commission on the Accreditation of Medical Transport Systems (CAMTS) or actively pursuing such accreditation as evidenced by the CAMTS organization.

As a result of legislation in 2007, a rule revision process has been underway and is nearing completion. In addition to clarifying the time frame during which an applicant must accomplish CAMTS accreditation, new rules will allow the department to authorize air ambulance transports by non-licensed services that meet exigent circumstances criteria. These rules will be completed and presented to the Board of Health for promulgation in early 2008.

The development of a comprehensive patient care reporting system by ambulance services has been an ongoing project during the past ten years. This effort focuses on a statewide database where information regarding individual patient care transports by ambulance services is collected and then analyzed. This information will assist in determining the effectiveness of Colorado's emergency medical and trauma services system and guiding future policy decisions. This system is authorized in statute, although resources to appropriately support this project have been limited. Significant progress has been made during the past year in the collection of patient care reports with over 200,000 being submitted since January 1, 2006. The development of meaningful reports for use at the local, regional and state levels is presently underway. Although progress remains steady, limitations in resources to support this effort continue to be a significant challenge.

The challenge of continuing to review and update rules in data collection, certification, trauma center designation and grant funding remains a primary focus of the Emergency Medical and Trauma Services Section. Upcoming changes at the national level in terms of EMT scopes of practice and education requirements will necessitate significant rule changes over the next 18-24 months.

The revenue generated from the Emergency Medical Services Account continues to be a significant concern. The various programs that depend on this funding are operating within a very narrow margin, and a small shift in expenses or revenue can easily create an unexpected shortfall. The department and the State Emergency Medical and Trauma Services Advisory Council monitor the situation and will be prepared to make adjustments as needed in the grants program, regional funding, certification, training and other program activities.

Given the status of potential natural and/or man-made threats to our state and nation, the importance of ongoing coordination between state and local agencies in the development of

multi-casualty plans is critical. The Emergency Medical and Trauma Services Section, in concert with the Regional Emergency Medical and Trauma Advisory Councils, will continue its work with emergency managers and the All Hazards regions to ensure that emergency medical and trauma services resources are appropriately incorporated into both state and local plans.

In 2006, the State Emergency Medical and Trauma Services Advisory Council made a major commitment to initiating the development of a five-year strategic plan for emergency medical and trauma services in Colorado. This effort has involved all council members, committees and stakeholders by focusing on the identification of priorities at the constituent level being passed upward through the organizational structure. The council has completed its initial process and is presently working to define appropriate goals and objectives. This methodology is designed to ensure that those stakeholders most affected by regional and state policies have the most significant voice in the process. The Emergency Medical and Trauma Services Section will support this effort by providing technical assistance and information as appropriate.

Colorado Department of Public Health and Environment Roles and Responsibilities

The Colorado Department of Public Health and Environment shares regulatory responsibilities for the practice of emergency medical technicians (EMT) and oversight of emergency medical services (EMS) medical directors with the Colorado Board of Medical Examiners. The responsibility for the licensing of ground ambulances is shared with the governing bodies of Colorado's counties. Additionally, the State Emergency Medical and Trauma Services Advisory Council provides recommendations on department rules, utilization of the funds in the EMS Account, implementation of program activities and assistance with the identification of system needs and priorities.

Originally defined by the *Emergency Medical Services Act of 1978*, and *Trauma System Act of 1995*, modified by the *Colorado Emergency Medical and Trauma Services Act of 2000* and again by the passage of Senate Bill 01-174 in 2001, the department's primary roles in the development of emergency medical and trauma services throughout the state are as follows:

- Certification of EMTs, including processing applications, issuing emergency medical technician certificates and investigating complaints and instituting disciplinary actions involving EMTs.
- Regulation of institutions providing emergency medical technician training, including developing curricula, approving course content, monitoring the quality of instruction and investigating complaints involving training centers.
- Administration and management of the Emergency Medical Services Provider Grants Program.
- Provision of community and regional technical support for the development and provision of emergency medical and trauma services across the state in coordination with the Regional Emergency Medical and Trauma Advisory Councils.
- Development and implementation of a comprehensive EMS data collection system.
- Designation of health care facilities as one of six possible levels of trauma centers.
- Analyses of the components' responses to injured patients using quality improvement models.
- Licensing of air ambulance services picking up patients in Colorado.
- Creation and maintenance of the Colorado Trauma Registry.
- Evaluation of the emergency medical and trauma services system.
- Targeted program activities based on available federal funding.

Legislative Background

The 1978 *Emergency Medical Services Act*, as amended, gives the department, the Board of Medical Examiners, and individual counties, with advice from the State Emergency Medical and Trauma Services Advisory Council, limited authority to develop a coordinated emergency medical services system. In the original legislation, the department was given the primary responsibilities of certifying EMTs and of approving course content and curriculum prior to an institution providing training programs for EMTs. Additionally, the legislation mandated that all EMTs be subject to medical direction by a licensed physician; thus, the Colorado Board of Medical Examiners was given supervisory authority over medical directors. The Colorado Board of Medical Examiners was also charged with adopting rules defining the authorized acts and medications for EMTs. Finally, counties were given the responsibility of inspecting and licensing ground ambulances based in their respective counties.

In 1989 a stable, minimum level of funding for the state's emergency medical services system was established by inclusion of a \$1 fee in each annual motor vehicle registration. This revenue is deposited into the Emergency Medical Services Account of the Highway Users Tax Fund. Until July 1, 2002, the annual appropriation was distributed in a fixed ratio with 60 percent designated for distribution as grants to improve and maintain local emergency medical services systems; 20 percent for county planning and coordination of emergency medical services; and 20 percent for the direct and indirect costs of the department for planning, developing, implementing and maintaining the statewide system.

The *Trauma System Act of 1995* gave authority to the department to assist in the development of a coordinated statewide trauma system. System development was the combined responsibility of the department, the Board of Health and all Colorado counties, with advice from the State Trauma Advisory Council. The Board of Health and the department established the trauma system's framework with the development of minimum system standards, including standards for hospitals and other health care facilities to become designated trauma centers. Funding for the designation of trauma centers is derived from fees paid by facilities seeking designation. This fee was intended to address the direct and indirect costs of designation activities. Area Trauma Advisory Councils were formed throughout the state in 1998 and were responsible for development of area plans for the coordinated delivery of care to trauma patients in their respective areas. The administrative, regulatory and Area Trauma Advisory Council components of the trauma program were funded within the EMS Account appropriations as authorized in an FY98 decision item. In addition, a short-term, state grant provided partial support of the trauma registry and initial development of a prehospital trauma data collection system.

The *Colorado Emergency Medical and Trauma Services Act of 2000* created a merged state advisory council, the State Emergency Medical and Trauma Services Advisory Council (Appendix A). It also merged the regional efforts of the Area Trauma Advisory Councils and the voluntary efforts of the Emergency Medical Services Regional Councils to create the Regional Emergency Medical and Trauma Advisory Councils (Appendix B and Appendix C).

The Act also gave the new state council the responsibility of making recommendations for the utilization of the EMS Account funds beginning on July 1, 2002. The required 60/20/20 annual appropriation distribution, described above, was removed at that time. Finally, the legislation gave the department authority to designate Level V Trauma Centers and to license air (fixed- and rotor-wing) ambulance services.

In 2001 the Board of Health was given the authority to adopt rules for the utilization of the results of criminal background checks in the certification of EMTs.

In 2002 a technical bill was passed that rectified some housekeeping matters and eliminated inconsistencies as well as clarified the role, responsibilities and funding of the Regional Emergency Medical and Trauma Advisory Councils.

In 2003 legislation was passed implementing recommendations of a 2002 Legislative Audit. The Board of Health was given the authority to promulgate rules that define the review and designation cycles for Colorado's trauma centers. Other legislation removed the option of conducting name-based criminal background checks for EMT certification, instead requiring fingerprint-based criminal history record checks only. It also gave the Board of Health the authority to adopt rules enabling the department to consider crimes of moral turpitude in the certification of EMTs.

In 2005 the legislature passed two important bills affecting the emergency medical and trauma services system. The first bill clarified the licensing requirements of air ambulances in Colorado by requiring accreditation by the Commission on the Accreditation of Medical Transport Systems (CAMTS) for any air ambulance service transporting patients within or from the state of Colorado. The second bill increased and clarified the investigative powers of the department in the investigation of allegations of misconduct by certified EMTs as well as required the reporting of misconduct by emergency medical services medical directors, emergency medical service agencies, and certified EMTs.

In 2007 amendments were made to the air ambulance licensing statute and to the EMT certification statute. The air ambulance statute was amended to clarify that the department may issue a conditional license to an air ambulance service that is actively working towards Commission on Accreditation of Medical Transport Systems (CAMTS) accreditation, but who has not yet achieved it. The service has two years to achieve CAMTS accreditation, after which it will not be issued a license until accreditation is achieved. Additionally, the Board of Health was given authority to promulgate rules defining exigent circumstances that would allow an unlicensed service to pick up patients in Colorado for a particular transport. The EMT certification statute was amended to provide the department with the ability to accept a name-based criminal history report after an applicant for EMT certification has twice submitted to a fingerprint-based report and the FBI or CBI has been unable to classify the fingerprints.

Part I

Emergency Medical and Trauma Services Section Funding

Overview of Fiscal 2008 Funding

The Emergency Medical and Trauma Services Section's programs are funded primarily from the Emergency Medical Services Account and the collection of trauma center designation fees. A \$1 fee set in 1989 that is included in each motor vehicle's annual registration funds the Emergency Medical Services Account. The Emergency Medical Services Account supports the Emergency Medical Services Provider Grants Program, funding for the Regional Emergency Medical and Trauma Advisory Councils, the direct and indirect expenses of program administration and the development aspects of the emergency medical and trauma services system. Program administration includes certification of emergency medical technicians, oversight of training programs, operation of the State Emergency Medical and Trauma Services Advisory Council, and provision of technical assistance to emergency medical service providers and to Regional Emergency Medical and Trauma Advisory Councils. The trauma program is also supported by fees collected from health care facilities that apply to be designated as trauma centers. The section currently receives two federal grants: an Emergency Medical Services for Children grant from the Maternal Child Health Bureau to enhance emergency medical care for children, and a sub-recipient grant from the Colorado Department of Transportation related to collection of prehospital care [ambulance service] data. State licensure of fixed- and rotor-wing ambulance services became operational during state fiscal year 2005-2006. Fees collected from air ambulance services that apply to be licensed in Colorado support this activity. Table 1 outlines the spending authority for FY08.

	HUTF / EMS Account	Trauma Center Designation Fees	Federal Grants	Air Ambulance Fee
EMS Provider Grants	\$1,928,793			
RETAC Funding	\$1,785,000			
Program Administration	\$1,103,792		\$138,000	\$30,151
Division of Information Technology (Telecomm.)	\$67,756			
Trauma Center Designation (program administration and survey team expenses)		\$380,425		
Indirect Cost Assessment	\$210,062	\$37,000	\$23,566	\$2,148
Total	\$5,095,403	\$417,425	\$161,566	\$32,299

Table 1: Fiscal Year 2008 Long Bill Appropriations

Emergency Medical Services Provider Grants Program

Summary of Legislation

The *Colorado Emergency Medical and Trauma Services Act of 2000* continued the appropriation of funds from the Emergency Medical Services Account for distribution as grants to local emergency medical and trauma services providers. It also gave the State Emergency Medical and Trauma Services Advisory Council the responsibility of making recommendations for the utilization of the Emergency Medical Services Account funds beginning on July 1, 2002.

The department administers a competitive grants program to distribute the grants program funding. Per statute, a minimum of \$150,000 must be used for the training of emergency medical personnel; and \$100,000 must be reserved for emergency grant awards. The priorities for distribution of the remaining grant monies, as defined in the statute, include updating underdeveloped emergency medical and trauma services systems and replacing aging and outdated equipment. The grant money is distributed based on substantiated need as defined in the grant application. This grant program requires a local cash match of 50 percent. Based on financial need, there is an opportunity for applicants to request a waiver of the cash match requirement. Members of the State Emergency Medical and Trauma Services Advisory Council are an integral part of the waiver process to ensure appropriate determination of financial need.

Funding Distribution

The FY08 budget from the Emergency Medical Services Account for the Provider Grants Program is \$1,937,024, which includes the allocation of a minimum \$150,000 for emergency medical personnel training and \$100,000 reserved for emergency grant awards.

The department received 98 provider grant applications for FY08. Four of these applications failed waiver review and did not continue through the grant scoring process. One application was withdrawn. The 93 remaining applications requested funding for projects totaling \$2,732,595 (amount requested as grant funding from the state). Emergency vehicles, the most requested and most expensive equipment, topped the list of funded items. A complete list of the specific grant awards can be found in Appendix D. The table below provides a summary of awards.

Emergency Medical Services Grant Funding 2007- 2008		
	Awarded	Award %
Provider Grants		
Communications	\$94,351	
Data Collection	84,058	
Defibrillation	106,347	
Emergency Medical Services Equipment	53,413	
Emergency Vehicles	984,070	
Extrication Equipment	5,722	
Injury Prevention	0	
Recruitment and Retention	21,344	
Training	314,836	
Other	1,000	
Provider Grants Subtotal	\$1,665,141	86%
Emergency Fund	\$100,000	5%
Special Projects		
EMS Data Collection	\$99,383	
RETAC Quarterly Forum Project	18,000	
Injury severity score training project	22,500	
Ambulance safety toolkit project	20,000	
EMS Management/Leadership Seminar	12,000	
Special Projects Subtotal	\$171,883	9%
Total	\$1,937,074	100%

The \$100,000 emergency fund was established to provide immediate financial assistance to emergency medical services provider agencies experiencing unexpected problems that compromise their ability to provide emergency medical services. This fund is used to address emergency requests when the grant application processing deadlines have passed. Applicants for funding under the emergency fund are required to submit an application that clearly outlines the nature of the need, and the department determines awards.

Statewide Funding Projects

The department, in consultation with the State Emergency Medical and Trauma Services Advisory Council, funds statewide projects that improve emergency medical services and impact all emergency medical service providers in Colorado. The following is a list of these projects slated for implementation in FY08:

- EMS Data Collection - \$99,383

Each transporting ambulance service is required by statute to submit patient care records to the department. In 1998, development of a prehospital care data collection system began. Due to legislative budget constraints, full implementation of this program on a statewide basis has been difficult to accomplish. Since 2005, this project has been reorganized and has made significant progress by establishing a robust statewide data base that presently holds over 200,000 records with additional ambulance services coming into the system on a regular basis. These special project funds, combined with support from the Emergency Medical Services for Children federal grant, will further help the department establish and improve the system to continue to receive specified data from all of Colorado's ambulance services. All project goals to date have been accomplished. Continuation of these activities is contingent upon finding a long-term funding source, as current funding is inadequate to sustain the program for more than three or four years.
- RETAC Forum Project – Statewide Meetings - \$18,000

For the past seven years, quarterly Regional Emergency Medical and Trauma Advisory Council meetings have been conducted in order to enhance the development of the regional councils and offer technical assistance. The department contracts with the regional council selected to host each forum to coordinate the meetings. Department staff, State Emergency Medical and Trauma Services Advisory Council members, regional council coordinators, regional council executive council members, county commissioners and members of the public routinely attend these meetings and provide collective input and direction to support the local implementation of emergency medical and trauma services system goals. Agendas and minutes of each meeting are posted for the public on the department's web site. This process has been extremely beneficial in terms of improving organizational communications between the Emergency Medical and Trauma Services Section, the Regional Emergency Medical and Trauma Advisory Councils, and the State Emergency Medical and Trauma Services Advisory Council and has become a medium for the development of strategic goals that will ultimately benefit all of Colorado's emergency medical and trauma services system.
- Injury severity score training project - \$22,500

The mission of the Colorado Trauma Network, Inc. (CTN) is, "to promote the optimal care of the injured patient in Colorado through injury prevention, education and participation in the statewide trauma system." CTN is sponsoring a training program in injury severity coding for trauma nurse coordinators, registrars and others who collect and use data related to injury in Colorado. The Abbreviated Injury Scale (AIS) score, a measure of injury severity, is one important element of the data hospitals are required by current rules to collect and submit to the Colorado Trauma Registry. These data are then shared with the National Trauma Registry. This information is particularly important as it is used for stratifying injuries into those that are minor, moderate or severe in nature and used to compare death and other outcome data between states, institutions or time periods. The ability of local trauma centers to ensure accurate entry of this information is paramount.

- Ambulance safety toolkit project - \$20,000
This project was funded to support the development of improved ambulance operations policies, standards and educational materials for Colorado's emergency medical service providers. Approximately 50 EMTs are killed and over 3,000 are injured each year in the U.S. as the result of motor vehicle crashes involving ambulances and other emergency response vehicles. In 2006, three individuals were killed as a result of crashes involving ambulances in Colorado. Under the guidance and advice of the State Emergency Medical and Trauma Services Advisory Council, its transportation committee is developing public service announcements, model service policies and model training curricula designed to provide information to Colorado's 190 ambulance services regarding methods to improve safety as it relates to the operation of emergency vehicles on Colorado roadways. The products developed by this group will be made available to all emergency medical service and emergency response organizations throughout the state in hopes of ensuring the enhanced safety of EMTs, patients and the general public.
- EMS Management/Leadership Seminar - \$12,000
Through a contract with the Emergency Medical Services Association of Colorado, this project provides reduced tuition for a management training course for emergency medical services administrators and managers. This project has been well received in prior years and continues to benefit emergency medical services agencies throughout the state. This year's offering will be conducted in multiple locations in Colorado, enhancing attendance by local EMS providers and will be conducted by nationally recognized experts with a focus on the development of leadership and management skills to enhance individual service effectiveness at the local level.

Regional Emergency Medical and Trauma Advisory Council Development

Summary of Current Legislation

The *Colorado Emergency Medical and Trauma Services Act of 2000* created Regional Emergency Medical and Trauma Advisory Councils. There are eleven Regional Emergency Medical and Trauma Advisory Councils. Each regional council consists of a minimum of five counties (Appendices B and C) with the board members being appointed by the counties that make up the region.

Regional councils have the responsibility for creating, supporting, and implementing a regional plan for improving the delivery of emergency medical and trauma care at the local/county level. These efforts will be further refined over the coming year, and appropriate adjustments will be made as data become available. At a minimum, each regional council must:

- Provide a biennial plan that details the regional emergency medical services plan.
- Provide an annual financial report that details the expenditures of money received.

The State Emergency Medical and Trauma Services Advisory Council reviews the plan and financial reports.

Current Funding Distribution

Based on the *Colorado Emergency Medical and Trauma Services Act*, since July 1, 2002, each regional council has received annually \$75,000 plus \$15,000 for each county within a region. These funds are for administrative costs, planning and, to the extent possible, the coordination of services in and between counties. Total FY08 funding for the Regional Emergency Medical and Trauma Advisory Council is \$1,785,000.

Trauma Center Designation

Summary of Legislation

In 1995, trauma system legislation created a Trauma System Cash Fund and authorized the Board of Health to establish a schedule of fees based on the direct and indirect costs incurred in the designation of trauma centers. The fee schedule was adopted in January 1998, with the collection of fees beginning in April 1998. However, the fee basis did not include the costs associated with rule development or modification; processing of appeals or waiver requests; attorney fees; ongoing monitoring; provision of technical assistance, development of the state trauma registry or trauma system development. These costs are being covered by fee revenue at this time. However, within the next three years current fee levels will not be adequate to support these activities.

In Colorado, health care facilities receiving trauma patients by ambulance or other means must participate in the trauma system by agreeing to follow rules regarding the care of those patients. Facilities may choose to be "non-designated" and thus agree not to keep any trauma patients with complex injuries. Facilities that agree to care for trauma patients receive site reviews and are designated by the state as Level I (highest) through Level V trauma centers. The level of designation is commensurate with the level of resources available to care for the trauma patient. As of November 1, 2007, there are 69 designated trauma centers in Colorado with the majority of acute care general hospitals and critical access hospitals participating and about 1/3 of the community clinics and emergency centers also participating.

Since the last report, one new facility, Medical Center of the Rockies in Loveland, has achieved Level II trauma designation status. See Appendices H and I for a listing and map of trauma centers in Colorado.

System development has been furthered this year through the clarification of a variety of trauma rules. The goal of this process is to improve and standardize trauma care in the state and to clarify the process of trauma designation. Additionally, the trauma program has actively provided technical assistance to almost every trauma center in the state on a variety of issues that range from orientation of new trauma nurse coordinators at rural hospitals to dealing with physician availability issues. Since the last report, staff members have been on-

site at more than 35 facilities, providing technical assistance and regulatory oversight. Current plans include 24 trauma designation site reviews during the next fiscal year plus additional technical assistance visits.

Trauma program staff has worked with the injury epidemiology staff to improve various aspects of the trauma registry and to begin to use the data for trauma system review. Identifying additional funding for trauma registry data analysis remains a program priority.

Funding Distribution

The FY08 spending authority for designation-related costs and utilization of fee revenue is \$417,425 and includes site review teams; administrative costs, including the cost of providing a state observer; and the indirect cost assessment.

Part II

Evaluation of the Emergency Medical and Trauma Services System

Following is the status of each of the components of Colorado's emergency medical and trauma services system. Each section includes the contributions made toward system development by the department's Emergency Medical and Trauma Services Section, working in coordination with the State Emergency Medical and Trauma Services Advisory Council and the Regional Emergency Medical and Trauma Advisory Councils. The components are:

- Public Education and Information
- Injury Prevention
- Communications Systems
- Training and Certification of Emergency Medical Technicians
- Transportation Systems, Including Air and Ground Ambulance Licensure Standards
- Trauma Center Designation for Acute Care Hospitals and Clinics
- Rehabilitative Care
- Disaster Medical Care
- Education and Research
- Trauma Registry and EMS Data Collection
- State and Regional Continuing Quality Improvement Systems
- Planning by the State Emergency Medical and Trauma Services Advisory Council and Regional Emergency Medical and Trauma Advisory Councils

Public Education and Information

Since the July 2005 inaugural edition of its newsletter *On the Scene: Covering EMS in Colorado*, the Emergency Medical and Trauma Services Section has incorporated regular articles from the Regional Emergency Medical and Trauma Advisory Council coordinators, the section chief and the state medical director. In addition, the publication includes program updates; upcoming events; and other timely, pertinent emergency medical service-related information. The newsletter serves as a direct communication between the department and emergency medical service providers and has been well received by the communities of interest throughout Colorado. The Emergency Medical and Trauma Services Section also keeps its website current and issues press releases for news and events that the public and press might find useful.

- **Current Activity:** Several Regional Emergency Medical and Trauma Advisory Councils have implemented general public information and education programs utilizing existing local funding or through coordination of activities with other local agencies.
- **Current Activity:** The section has developed and implemented a quarterly electronic newsletter *On the Scene: Covering EMS in Colorado*.
- **Current Activity:** Through the implementation of recruitment and retention mini-grants, several of the regional councils have created regional public information campaigns to inform the citizens of their areas of EMTS functions and to recruit new health care providers.
- **Current Activity:** The Emergency Medical and Trauma Services Section has implemented an annual “town hall” meeting program that supports a minimum of six meetings in various locations throughout Colorado. These town hall meetings provide a venue for staff and stakeholders to meet on a regular basis to discuss issues of interest at the local level. The town hall meetings were well received during the first and second years, and the Emergency Medical and Trauma Services Section looks forward to continuing this important activity.
- **Challenge:** Raising community-based awareness about the complexities of the emergency medical and trauma services system. Identification and maintenance of ongoing support for these activities.

Injury Prevention

Injury prevention activities are coordinated with the activities of the Injury and Violence Prevention Program at the department. This program has made state and local injury data and technical assistance available to constituents. The information allows the Emergency Medical and Trauma Services Section to assist members of the emergency medical and trauma communities in planning injury prevention projects tailored to local needs. In addition, a number of the facilities reviewed by the trauma program in the past year are now using their trauma registry data to assist in selecting priorities for new prevention programs.

The Colorado Emergency Medical Services for Children program, funded by a federal Maternal and Child Health Bureau grant, has collaborated with the injury and violence prevention program to provide limited and targeted resources and information to communities regarding pediatric emergencies. In addition, the staff has worked with the injury and violence prevention program to improve data collection efforts on traumatic injuries to children.

- Current Activity: The department recently submitted a semi-annual performance review report to the National Resource Center for the Emergency Medical Services for Children Program. The report outlines the progress toward putting additional emphasis on programs for children and pediatric emergency care in Colorado.
- Current Activity: As part of their strategic plan, the pediatric emergency care committee, within the State Emergency Medical and Trauma Services Advisory Council is pursuing continuing education requirements for EMTs and paramedics that would specifically call for pediatric-related courses. The Emergency Medical Services for Children program contracted with The Children's Hospital to conduct a Pediatric Education for Prehospital Professionals (PEPP) course in two rural communities, Craig and Durango, in June 2007.
- Current Activity: Injury prevention activities are receiving greater attention from some designated trauma centers as trauma nurses are increasing collaborative efforts with organizations in their communities.
- Challenge: Funding sources (both state and federal) are restricted to very specific types of injury prevention; for example, increasing booster seat use. Little, if any, resource is available for communities to implement strategies designed to address the priority needs as identified through local data, such as falls in the elderly population or adult seat belt use.
- Challenge: Volunteers or staff with little injury prevention expertise often carry out injury prevention projects. There are more opportunities for the Emergency Medical and Trauma Services Section to provide additional technical assistance to these efforts than can be addressed with current resources.

Communication Systems – Public Access and Provider Agency Communications

Public access in the emergency medical services setting is defined as the ability of an individual to secure prompt and appropriate emergency medical care. For nearly 30 years, 911 has been designated as the national emergency telephone number. The single most important piece of information provided during an emergency call is the location of the person(s) requiring help. At 911 communication centers, the caller's telephone number and location are provided automatically. Such systems are called enhanced 911 or E911. Initially, E911 was available to telephone line phones.

In 1996, the Federal Communications Commission acted to improve the E911 service available to cellular telephone users. Wireless E911 is being implemented in two phases. Phase 1 provides a call back number and the location of the cellular tower that received the call to a Public Safety Answering Point. Phase 2 requires that callers' latitude and longitude

information be provided to the Public Safety Answering Point and, depending upon the technology used, the location accuracy is within 50 meters to 300 meters of the cellular phone location.

All counties in the state have E911 telephone line services. As of July 2007, 19 counties were E911 wireless Phase 1 compliant, and 39 were E911 wireless Phase 2 compliant.

In addition to regular telephone lines and cellular phones, a third technology has begun being used to place telephone calls. This technology, known as Voice over Internet Protocol, uses a broadband Internet connection to transport telephone calls. A May 2005, Federal Communications Commission order directs interconnected Voice over Internet Protocol providers to supply E911 services to their customers.

A reliable communications system is an essential component of the overall emergency medical and trauma services system in a catastrophic event. Recent experiences, such as the World Trade Center and the London attacks, highlight the fact that regular telephone lines and cellular phone services are vulnerable to traffic overload. These public access systems may not be available for emergency medical services use during an emergency. A radio based communications system that has reliable access and provides interoperability between responding agencies is a necessity for a robust emergency medical services communications system.

The existing Colorado Digital Trunked Radio system provides statewide, two-way communications to state government, local government and a limited number of federal government agencies over a shared communications platform. The Digital Trunked Radio system is based on Association of Public-Safety Communications Officials Project 25 standards. A standards-based system is ranked as the optimum level on the Homeland Security

Interoperability Continuum. Standards basing has resulted in multiple manufacturers being able to build equipment for use on the Digital Trunked Radio system and other Association of Public-Safety Communications Officials 25 systems.

The Digital Trunked Radio system consists of over 143 tower sites throughout the state that are spread across three zones. The zones are networked to form the system. Radio traffic is able to pass between the zones. This allows a radio user to communicate to another user across Colorado. Appendix G, Digital Trunked Radio Project Schedule map, outlines the build-out schedule of the Digital Trunked Radio system throughout the state.

A 2005 Department of Local Affairs Wireless Interoperability Network grant made approximately \$30 million available to continue the Digital Trunked Radio system infrastructure build out. There are 39 additional Digital Trunked Radio tower sites to be built. The majority of the tower sites will be constructed in the western and southwestern areas of the state. Future plans include adding a fourth zone controller, and perhaps a fifth zone controller, to increase the system's capacity.

The EMS Provider Grants Program has helped to improve and expand EMS communications throughout the state. Funding has provided equipment to agencies so that they can utilize the DTR system and keep many existing legacy systems operational.

The department, the State Emergency Medical and Trauma Services Advisory Council and the liaison from the Colorado Division of Information Technologies, telecommunications section, continue to provide technical assistance and financial resources to local communities in improving radio communications.

- Current Activity: The Digital Trunked Radio system has zone controllers located in the Denver metropolitan area, north central and western Colorado. The feasibility of adding zone controllers 4 and 5 is being evaluated.
- Current Activity: Wireless Interoperability Network grant is underway and is expected to continue into 2007.
- Challenge: The current utilization of cell phones, whereby ambulance services communicate directly with hospitals, is a point of vulnerability in the response system.
- Current Activity: The Emergency Medical and Trauma Services Section, through its liaison representative from the Division of Information Technologies, telecommunications section, works with emergency medical and trauma services agencies throughout the state to provide technical assistance and guidance to agencies and hospitals with regard to implementation of the Digital Trunked Radio system.
- Challenge: Require every trauma center designated Level I through Level V to have installed, at a minimum, one Digital Trunked Radio system radio to be used for transport communications, and interoperability during large-scale emergencies.

Training and Certification of Emergency Medical Technicians

The department is the state agency responsible for the certification of emergency medical technicians (EMT) in Colorado. The department processes approximately 5,000 applications for certification or certification renewal each year for the three practice levels of EMT: EMT-Basic, EMT-Intermediate and EMT-Paramedic. The department's certification responsibilities include processing applications, developing standards and education requirements for initial certification and certification renewal, investigation of regulatory violations by EMTs, the imposition of disciplinary sanctions, litigation of appeals, and certification determinations resulting from criminal background record checks. Appendix K provides information as to the number of EMTs certified at each level as of June 30, 2007, the number of applications received by the department last year, as well as information on volunteer versus career EMTs and volunteer versus paid ground ambulance services.

In addition to EMT certification, the department is responsible for the oversight of 110 educational programs that provide education for EMTs. The department also provides technical assistance to the education programs and supports instructor training programs and curricula approved by the State Emergency Medical and Trauma Services Advisory Council and the Colorado Board of Medical Examiners.

A major project completed during this past fiscal year was an overall update to the regulations for EMT certification. The rule-making process involved extensive stakeholder input through a task force and town hall meetings and took over 18 months, with the rule amendments taking effect on December 30, 2006. These amendments ensure that all regulations are in concert with the current methodology of initial certification and recertification requirements and that disciplinary rules are consistent with the requirements of the 2005 statutory amendments. The Emergency Medical and Trauma Services Section has implemented policies regarding the process of investigating complaints against EMTs, training institutions and trauma centers. These processes have resulted in an increased ability of the department to react quickly and appropriately to complaints regarding emergency medical and trauma service providers. As with all processes in the Emergency Medical and Trauma Services Section, an ongoing program of quality improvement is in place to ensure that these organizational policies continue to result in the highest levels of service to the public and the emergency medical and trauma services communities of interest.

Emergency medical care involves the delivery of care by non-physician providers outside the traditional setting of a hospital or physician's office. In Colorado, every EMT who is providing patient care services is required to be supervised by a medical director who provides direction for the delivery of care. The department routinely coordinates with the physician licensing board, the Colorado Board of Medical Examiners, in the review and approval of medical director applications; and the department provides training for physicians in the supervision of emergency medical services personnel. The emergency medical and trauma services medical director position was created in 1990. During the past year, the state Medical Advisory Group, founded in 1995, has been reorganized and is now known as the Medical Direction Committee. The group was originally developed to provide additional physician input to the department and the Colorado Board of Medical Examiners. In an effort to codify this process and clarify roles and responsibilities, the State Emergency Medical and Trauma Services Advisory Council recommended that the Board of Medical Examiners and the department formalize the appointment process, term length, and role of this important technical advisory body. These recommendations have been finalized, and members of the Medical Direction Committee were selected in July 2007 (Appendix F). The Committee will provide valuable input to the department on scope of practice issues, will review and make recommendations to the Board of Medical Examiners on whether or not to approve requests for waivers for EMTs to practice outside the scope set forth in rule, and will work to ensure that scope of practice rules are appropriately synchronized with current practices and procedures in prehospital care.

The State Emergency Medical and Trauma Services Advisory Council and the department dedicate one of the categories in the Provider Grants Program for recruitment and retention. This is designed to assist local emergency medical service agencies in assessing current workforce needs and in establishing a plan for creation of a stable workforce. The ability to train, to retain and to provide continuing education to rural and frontier services continues to be the primary focus of the recruitment and retention category in the grants program.

- Current Activity: The department partners with stakeholders to present courses

- designed to train emergency medical services educators. Members of the emergency medical and trauma services staff actively participate in these courses to ensure continuity in instructor education.
- Current Activity: The department continues timely and accurate handling of complaints regarding EMTs, including coordination with the Colorado Office of the Attorney General and disposition of cases in a manner that is focused on the protection of patients and service to stakeholders.
 - Current Activity: A process has been developed to ensure that all criminal history record checks are reviewed and appropriately addressed.
 - Current Activity: The department continues to provide technical support and advice to emergency medical service stakeholders in the development of education programs to support the life-long learning process of EMTs.
 - Current Activity: The Emergency Medical and Trauma Services Section has developed an on-line verification system through which any person can access the department's website and check the certification status of current and former EMTs in Colorado.
 - Challenge: The shortage of qualified and interested physicians, nurses, and EMTs in urban, rural and frontier communities continues to be a challenge. Opportunities exist to expand efforts to develop strategies that will strengthen recruitment and retention programs to address local workforce needs.
 - Challenge: While initial training costs have been covered by various federal grants, the maintenance costs associated with preparedness training are expected to be an ongoing challenge.
 - Challenge: Facilitate stakeholder discussions and decision-making processes regarding several upcoming changes at the national level to the education curricula and certification processes.

Transportation Systems – Prehospital Care/Transport Protocols and Licensure Standards

Safe, reliable ambulance transportation is a critical component of an effective emergency medical and trauma services system. This includes the regulation, inspection and licensure of ambulance services and vehicles; provision for uniform coverage 24 hours a day; a protocol for air medical dispatch; and a mutual aid plan. The primary objective of the transportation component is to provide a minimum level of emergency medical and trauma care to all residents and visitors.

Authority for the regulation, inspection and licensure of ground ambulances lies with each respective Colorado county or joint city and county process. The department, with advice from the State Emergency Medical and Trauma Services Advisory Council and the Regional Emergency Medical and Trauma Advisory Councils, has completed regulations, pursuant to the *Colorado Emergency Medical and Trauma Services Act of 2000*, that set minimum standards for Colorado counties to follow in the local licensure of ambulance services. The Board of Health adopted these regulations in July 2005, and the Emergency Medical and Trauma Services Section is providing technical assistance to Colorado counties in their

implementation. Statute establishes minimum requirements for ambulance attendants such as driver's licensure and certification. For the trauma patient, specific minimum standards have been adopted for ambulance and first response unit staffing, agency response and scene times and patient triage and transport destination protocols.

The *Colorado Emergency Medical and Trauma Services Act of 2000* also created authority for the department to develop minimum license standards for air ambulances in Colorado. Statutory amendments in 2005 amended this authority to include mandatory national accreditation as the basis for air ambulance licensing. As a result of the passage of this bill, the Board of Health promulgated regulations that require all air ambulance services that transport patients within or from the state of Colorado to seek and maintain national accreditation (Commission on Accreditation of Medical Transport Systems) in order to be licensed by the department. The licensing process was started in February 2006. In 2007, statutory amendments clarified that the department may issue conditional licenses for those applicants who have not achieved national accreditation at the time of application and allow for the department to authorize a transport by an unlicensed service for exigent circumstances.

- Current Activity: Minimum standards for the operation of air ambulance services have been adopted by the Board of Health and will continue to be enforced as appropriate. Rules implementing the 2007 statutory amendments have been developed and will be presented to the Board of Health for adoption in January 2008.
- Current Activity: The department has licensed 24 fixed- and rotor-wing air ambulance services in Colorado. Nine of these services are based in Colorado. Among them, five of the services are both rotor and fixed wing capable.
- An information audit of county activity regarding the local adoption of standards will be conducted during 2008.
- Current Activity: Sample templates for county licensure of ground ambulances have been developed, and the department continues to provide technical assistance to counties in the creation of local resolutions.
- Challenge: No entity is identified in statute as being responsible for ensuring the provision of emergency medical transportation services (ground ambulance services) to the citizens of, or visitors to, the state of Colorado. Some geographic areas of the state are technically "uncovered," creating financial as well as response challenges to nearby provider agencies.
- Challenge: Efforts to improve operational safety standards throughout the prehospital care industry have been identified as a priority by the State Emergency Medical and Trauma Services Advisory Council and the Department. Improved safety designs of ambulances, increased driver safety training programs, and the increased use of driver surveillance systems are strategies that have a positive impact in the reduction of ambulance crashes. Additional resources to support the implementation of these programs in all Colorado ambulance services should be identified.

Trauma Center Designation, Acute Care Hospitals and Clinics

The purpose of a trauma system is to get the right person to the right facility at the right time. The trauma designation program works with facilities, large and small, across the state to improve their capacity to identify and care for trauma patients. Beginning with extensive technical assistance and mentoring offered to facilities and ending with the regulatory function of trauma designation, the program seeks to assure that trauma care standards are met in each facility. From the facility perspective, designation of hospitals and clinics as trauma centers identifies those facilities that have made a commitment to maintain a level of trauma care resources, including trained staff, equipment and policies and procedures.

The department began facility designation in June 1998 and has designated 69 trauma centers since that time. Appendices H and I provide a list and a map depicting geographic distribution of current designated trauma centers.

- Current Activity: The staff led review teams at 39 facilities in the past year, including one facility new to the trauma system.
- Current Activity: Staff has provided technical assistance to several facilities seeking to change designation status in the next year and several other facilities that are moving their campuses to new locations.
- Current Activity: One rule-writing project has been completed, resulting in clearer designation process rules and new rules regarding facilities entering the trauma system. Another rule-writing project is underway that will revise the entire Level I and Level II designation criteria based on changes at the national level from the American College of Surgeons.
- Challenge: A new prehospital data collection system is being developed, and additional resources would allow completion of the data linkages necessary between the Trauma Registry and the prehospital data collection system. This linkage would greatly enhance the system capability to more accurately assess the effectiveness of Colorado's trauma and prehospital care system and make more informed policy decisions regarding changes and improvements to the overall emergency medical and trauma services system.
- Challenge: Current staff resources are inadequate to provide the technical assistance and training necessary to ensure that facilities, particularly small facilities, understand, plan and implement effective quality improvement programs.

Rehabilitative Care

Adequate rehabilitative care is critical to the goal that each trauma patient returns to a productive life. Most trauma facilities in Colorado can offer at least limited rehabilitative services to trauma inpatients. Early physical, occupational and speech therapy services result in more favorable functional outcomes. In larger trauma centers, such services often begin when a patient is in the intensive care unit and continue into the outpatient setting. More specialized services for head and spinal cord rehabilitation are offered by several well-respected inpatient facilities. However, not all Coloradans have access to the full spectrum of services. Many are uninsured or have insurance that limits the scope of rehabilitation services that can be accessed.

- **Current Activity:** The department requires that trauma centers maintain transfer agreements for rehabilitation services that they do not provide. These agreements are produced for inspection at trauma site reviews. In addition, patient charts are reviewed during trauma designation surveys, and experienced clinicians check to see that appropriate rehabilitative care is carried out in the inpatient setting and that further care is recommended upon discharge.
- **Challenge:** Resources to support access to rehabilitation services continues to hinder patients in some areas.

Disaster Medical Care

Regional coordination of the medical care component of local disaster plans helps ensure the effective utilization of resources to meet patients' needs in the event of a multi-casualty or bio-medical disaster. Coordination of these resources is specifically defined in statute as the responsibility of the counties. The State Emergency Medical and Trauma Services Advisory Council has assisted the department in the development of a Multi Casualty Annex to the All Hazards State Emergency Operations Plan. The Regional Emergency Medical and Trauma Advisory Councils will continue to work toward coordinating the medical components of these local plans and will assist in creating them where needed, for both multi-casualty and bioterrorism response. Specific efforts have been made over the past year to formalize and increase participation and communication among the Regional Emergency Medical and Trauma Advisory Councils and Colorado's All Hazards regions. The close coordination between emergency managers and the emergency medical and trauma services system is vital to the success of these efforts. Regional planning will mitigate the impact of the lack of centralized and coordinated communication systems and community responses to either of these types of events.

Homeland Security Presidential Directive 5 requires federal departments and agencies to make adoption of the National Incident Management System by state and local organizations a condition for federal preparedness assistance through grants, contracts, and other activities beginning in FY05. To help meet this need, the United States Fire Administration and the National Highway Traffic Safety Administration provided assistance to the Emergency Medical and Trauma Services Section for two staff members to become certified as National Incident Management System trainers. All members of the Emergency Medical and Trauma Services Section have completed their required levels of National Incident Management System certification. The Emergency Medical and Trauma Services Section and the Colorado Division of Fire Safety collaborate on providing National Incident Management System programs throughout Colorado.

- **Current Activity:** Regional Emergency Medical and Trauma Advisory Councils are coordinating with the State All Hazards Advisory Committee and local and federal agencies on a regular basis to generate regional emergency management plans that include the medical component in the event of an All Hazards response.
- **Current Activity:** The department continues to work with the State Emergency

Medical and Trauma Services Advisory Council's Mass Casualty Incident plan to ensure ongoing consistency with the State Emergency Operations Plan.

- Current Activity: Section has certified National Incident Management System trainers available for requested training programs, and all staff have achieved the required levels of NIMS certification as identified by department policy.
- Current Activity: Staff participates in State All Hazards Advisory Committee.
- Current Activity: Regional Emergency Medical and Trauma Advisory Councils are providing emergency medical services transport information for inclusion in the Resource Ordering and Status System database for the state.
- Current Activity: Development and maintenance of the medical annex or medical response for the State Emergency Operations Plan continues as appropriate.
- Challenge: Medical responses throughout the state to either a multi-casualty or bioterrorism event must continue to be coordinated at the local, regional and state levels.

Education and Research

Education and research in emergency medical and trauma clinical care ensures the ongoing identification of improvements to emergency medical and trauma patient care as well as information dissemination in the training of emergency medical and trauma care clinicians. In Colorado, trauma education and research are requirements of the Level I and Regional Pediatric Trauma Centers.

- Current Activity: Education and research in trauma clinical care are the responsibilities of the teaching hospitals that also are trauma centers.
- Current Activity: The Emergency Medical and Trauma Services Section partnered with a local education program to sponsor the first all-day education workshop for EMS educators, one of the largest gatherings of EMS educators in Colorado history. The Emergency Medical and Trauma Services Section intends to continue to sponsor the forum on an annual basis.
- Current Activity: The Emergency Medical and Trauma Services Section, along with various education programs and agencies throughout the state, sponsored numerous instructor development courses and continues to expand outreach activities.
- Current Activity: The Emergency Medical and Trauma Services Section maintains an ongoing communication process among the state's trauma centers, academic institutions and other sources of research to provide a conduit of information to all components of the emergency medical and trauma services system, as new research develops improved techniques in medical care.
- Current Activity: The Emergency Medical and Trauma Services Section provides technical assistance and support to educational institutions and organizations throughout Colorado. These activities include the support of a statewide EMS education conference, providing technical materials to educational programs and other appropriate activities to ensure the dispersal of educational information.

Trauma Registry – Prehospital Data Collection

A comprehensive evaluation program is required in order to effectively plan, implement and monitor a statewide emergency medical and trauma care system. This is done with an effective and sufficiently funded trauma registry, prehospital data collection system and appropriate resources to analyze the data in order to improve the system and patient care.

The Colorado Trauma Registry is a unique database designed to capture information about the mechanisms of injury and the care of the trauma patient. Each licensed facility, clinic or prehospital provider that provides service or care to trauma patients currently is required to submit a limited set of patient-specific information to the department. These data, combined with the Colorado Hospital Association's discharge dataset and the department's vital records section's death certificate files, are used to evaluate and monitor the emergency medical and trauma care system. The dataset also will provide information on the system's response to trauma patients and their needs.

Collection and analysis of information from prehospital transport agencies allows evaluation of care provided prior to arrival at the hospital. When combined with data from the in-hospital component (the trauma registry), an overall picture of the continuum of patient care (from the scene to hospital discharge) will be possible. The department has made progress in empowering agencies to collect prehospital data at the local level. The EMS Ambulance Trip Reporting Information Exchange (known as MATRIX) has been developed by the Health Facilities and Emergency Medical Services Division in a manner that allows local ambulance agencies a choice of options to submit their prehospital data to the state database: 1) via a Web-based data entry system developed by staff in the Emergency Medical and Trauma Services Section; 2) via free PC-based data entry software, also developed by Section staff, with quarterly/monthly downloads to the state; and 3) via the use of home-grown or third party vendor software with downloads to the state using a specified XML format. Currently about half of the prehospital agencies in Colorado are routinely downloading data to the state database, resulting in more than 200,000 records collected in the past 18 months (from January 2006 through August 2007).

Agencies are provided with these choices of options to submit their prehospital data to the consolidated database for the state program in a manner that allows local services the flexibility to meet their local needs as well as to become compliant with current reporting regulations. The State Emergency Medical and Trauma Services Advisory Council approved the use of EMS Grants Programs Special Project funds for the EMS Data Project for an additional year. These funds are used to provide technical assistance to prehospital transport agencies in data collection and download to the state database.

Important strides have been made over the past year and have resulted in over 200,000 patient care reports to be submitted to the MATRIX system during its first year of operation. This information, combined with the 10 year history of the Trauma Registry, has already provided information that is proving to be vital in the development of local, regional, and statewide policies that will guide the development of the comprehensive emergency medical and trauma

services system over the next decade. The department will continue to provide technical assistance, develop improved outputs, and work with the remaining ambulance services to increase the submission rates of prehospital care reports.

- **Current Activity:** The section maintains a contract to provide technical assistance to agencies in an effort to progress the data collection effort throughout the state. Issues regarding the interest and ability of agencies to continue this effort have arisen.
- **Current Activity:** The Emergency Medical and Trauma Services Section has successfully expanded the prehospital data system project to include all eleven Regional Emergency Medical and Trauma Advisory Councils and half of the ambulance agencies in Colorado. These agencies are successfully submitting prehospital data to the system on a regular basis, and the department will continue to work with ambulance agencies over the next year to overcome technical and resource challenges that may temporarily be preventing them from participating in the data program.
- **Current Activity:** Standardized reports that may be accessed by ambulance agencies, Regional Emergency Medical and Trauma Advisory Councils, and the department have been developed. This effort is vital to the ongoing success of this project so as to ensure that local, regional and state level administrators, medical directors and policy makers have accurate and concise information upon which to base operational and administrative decisions. These efforts will provide the basis upon which the Colorado emergency medical and trauma services system can continue development in a manner that most appropriately assures quality and timely response to patients. Efforts to improve the reporting component of this system will continue on an ongoing basis to ensure that information is delivered in a timely manner to system stakeholders.
- **Current Activity:** Through a grant of National Highway and Traffic Safety “408” funds from the Colorado Department of Transportation, one staff position has been funded to provide database management and coordination. This is a three-year grant designed to provide resources that will link prehospital data with trauma registry data and become part of the statewide traffic safety data warehouse being developed by several state departments.
- **Challenge:** Access to data in the Trauma Registry and the Emergency Medical Services Data Collection System is contingent upon finding ongoing funding for data linkage, data cleaning, writing standardized reports and general data base management.
- **Challenge:** Getting all members of the prehospital transport community to participate by sending records to the data collection system will require ongoing technical assistance, particularly for small agencies.

State and Regional Continuing Quality Improvement (CQI) Systems

While facilities and agencies are responsible for trauma and EMS quality improvement efforts at their own institutions, the department has been given the responsibility to monitor quality at a regional and state level. System evaluation at the state and regional levels remains at the developmental stage, as effective data collection systems take both time and

funding to implement. The goal is to have integrated data that can be analyzed to seek ways to further reduce death and long-term disability as a result of an injury or serious illness. Data collected under the continuing quality improvement system, as described in statute, are considered confidential. However, as improvements continue in the collection of prehospital and trauma data, efforts to develop comprehensive CQI systems at the regional and state level are gaining momentum. Issues concerning discoverability and protection of CQI systems outside of state government present concerns to system stakeholders and have resulted in some levels of reluctance to participate.

- Current Activity: The EMS Ambulance Trip Reporting Information Exchange (MATRIX) has matured significantly over the past year. The hiring of a grant funded position dedicated to improving the accuracy and accessibility of data in both the MATRIX and the trauma registry has been accomplished and portends significant progress in the next year.
- Challenge: Ensure opportunities for involvement of both prehospital and acute care stakeholders in the development of the state and regional continuing quality improvement plan.
- Challenge: There is insufficient information presently available to answer many of the questions regarding system-wide quality improvement and currently few resources available to develop, implement and evaluate system quality assessment activities.

Planning by the State Emergency Medical and Trauma Services Advisory Council and the Regional Emergency Medical and Trauma Advisory Councils

Planning and coordination in development of the state system is accomplished with advice from the State Emergency Medical and Trauma Services Advisory Council.

Due to variations in the demographics and geography of Colorado, local participation and expertise for identifying problems and designing solutions for local area plans are required. The passage of the *Colorado Emergency Medical and Trauma Services System Act of 2000* created the Regional Emergency Medical and Trauma Advisory Councils, established requirements for regional planning and provided a minimum level of funding beginning in FY02. Eleven Regional Emergency Medical and Trauma Advisory Councils were created across the state by county governments in 2001 to ensure local participation and coordination in regional system planning. This system provides the mechanism whereby each Colorado county is represented in the emergency medical and trauma services system development process and is vital to the continued development of the local health care delivery system.

As these regionalized systems have matured, significant improvements in the collective coordination of activities have also improved. Significant progress has been made to improve communications between the local regional councils, the state council and the department. These efforts have resulted in several operational policy changes aimed at keeping stakeholders better informed of various activities throughout Colorado, as well as keying in on areas of need throughout this comprehensive and diverse system of health care

delivery.

- Current Activity: The State Emergency Medical and Trauma Services Advisory Council has developed and initiated a comprehensive strategic planning process. With input from emergency medical service agencies, fire departments, trauma centers and Regional Emergency Medical and Trauma Advisory Councils, broad goals were identified, and direction was set.
- Current Activity: A strategic planning session was held with Regional Emergency Medical and Trauma Advisory Council coordinators and members of their councils as well as Emergency Medical and Trauma Services Section staff. Small group exercises helped identify strengths, weaknesses, opportunities, and threats to the current structure of the regional councils. Additional exercises aided in establishing common goals and specific, measurable, achievable, realistic, time-bound objectives to obtain those goals. This effort has resulted in several routine policy changes that will continue to improve the overall efficiency of the statewide coordination of emergency medical and trauma services system components.
- Challenge: Defining/solidifying regional councils' identity and improving communication among key elements of the emergency medical and trauma services system (regional councils, state council, Emergency Medical and Trauma Services Section, county commissioners and constituents).
- Challenge: Additional technical assistance to aid regional council coordinators in operationalizing and accomplishing tasks to meet their goals.
- Challenge: Identifying mechanisms that will allow more flexibility in resources available for Regional Emergency Medical and Trauma Advisory Councils development and activities.

Part III

Challenges for Colorado's Emergency Medical and Trauma Services System

Emergency Medical Technician Education and Certification

Regulatory and process changes have led to improved accuracy and customer service in the EMT certification program. These efforts will continue to be monitored as part of an ongoing quality improvement process. A comprehensive updating of the regulations that govern the activities of this program has been completed. Over the last year, the Emergency Medical and Trauma Services Section published the names of EMTs who were subject to final agency disciplinary action in the Emergency Medical and Trauma Services Section's quarterly newsletter. One service improvement recently implemented is an online verification system of EMT certification that will allow anyone to access the Emergency Medical and Trauma Services Section's Web site and verify the status of current and former EMTs in Colorado.

As improvements are initiated and monitored, storage of paper files presents a challenge. The numbers of certified EMTs continues to grow, and additional space with adequate storage systems is being addressed this year. Another area that has seen improvement but still presents some challenges is the fingerprint-based criminal history record check by the Colorado Bureau of Investigation. As the number of applicants who require initial background checks declines, accuracy and efficiency in processing these background reports will improve. This improvement will reduce the turn-around time in the certification of EMTs as well as potentially decrease the amount of paper.

During the next year, changes in the national educational standards and scope of practice for EMTs will force decisions in Colorado regarding the current levels of certification, curriculum requirements, and scopes of practice. Although these changes will most likely be minimal at the EMT-Basic and EMT-Paramedic levels of certification, the national standards for what we now call EMT-Intermediate will change. Each state is clearly entitled to make individual decisions regarding these issues. The impact of these changes in terms of reciprocity, national disaster response capabilities and standardized care throughout the United States must be taken into consideration. The department will work to provide leadership and structure to these discussions in Colorado and work to ensure that the integrity of the profession and the credentialing system are maintained.

Resources

The amount of revenue generated from the Emergency Medical Services Account continues to be of concern for the program in coming years. The program is operating within a very small margin, and a small shift in expenses or revenue can easily create an unexpected shortfall. The department and the State Emergency Medical and Trauma Services Advisory Council will continue to monitor the situation and be prepared to make adjustments as needed in the grants program, regional funding, certification, training and other program

activities.

Preparedness-Multi-Casualty Plans

Additionally, a potential threat to our state and nation requires ongoing coordination between state and local agencies in the development and maintenance of state and local multi-casualty plans, which make up the medical annex of a state or local emergency management plan. Enhancing the integration of cooperative activities between the emergency medical and trauma services system and Colorado's All Hazards regions is vital to the overall preparedness of Colorado.

Data Collection

The ability to collect and analyze information regarding the effectiveness and efficiency of the Colorado emergency medical and trauma services system is vital to its continued effectiveness. Although significant progress has been achieved over the past two years in this program area, there remains much work to be done. This effort has historically been supported through federal grant funds, special project funds, and existing departmental resources. To ensure that the success that has been achieved to date continues, it will be important to continue the resources necessary to maintain these information systems. Only through the development of timely and accurate information can appropriate decisions be made that will ensure that quality care and transportation is available to all residents and visitors throughout Colorado.

Recruitment and Retention

The issue of recruiting and retaining qualified personnel to staff local emergency medical and trauma services systems continues to plague Colorado. Recruitment and retention has been identified as one of the most significant threats to the long-term stability of the prehospital care system by many national organizations and was highlighted by the Institute of Medicine report of 2006. Over the past two years, several ambulance services have been forced to reduce services by becoming "first response" or "quick response" services due to a lack of trained personnel to staff the agency needs. The causes of these problems are multifaceted and include an aging workforce, failing volunteerism, cultural and population changes as well as a host of other societal and economic issues. Mechanisms to more thoroughly understand the issues and develop appropriate interventions should be developed at the state, regional and local levels to ensure that existing agencies are able to continue their service to Colorado communities.

Appendices

State Emergency Medical And Trauma Services Advisory Council

November 2007

Appointed Member	Representing	RETAC
Scott Bourn, R.N.	Officer or employee of a public provider of prehospital care	Mile-High RETAC
Nancy Carrington, R.N.	Trauma nurse coordinator	Northeast Colorado RETAC
Brandon Chambers	Regional council chair	Southern Colorado RETAC
Chris Cribari, M.D.	Board certified surgeon providing trauma care at a Level II Trauma Center	Northeast Colorado RETAC
Sean M. Caffrey	Representative of a government provider of prehospital care	Central Mountains RETAC
Hannah Foley, R.N., N.P.	Registered nurse involved in rural emergency medical and trauma services care	Foothills RETAC
William Hall, M.D.	Board certified emergency physician	Northwest RETAC
Ray Jennings	County emergency manager	Central Mountains RETAC
Linda Joseph	County commissioner, or council member, representing a rural county or city and county	Southern Colorado RETAC
Richard Kinser	Officer or employee of a private provider of prehospital care	Western RETAC
Kathleen Mayer, R.N.	Flight nurse of an emergency medical service air team or unit	Mile-High RETAC
John Nichols, M.D., Ph.D.	Board certified neurosurgeon involved in providing trauma care at a Level I or II Trauma Center	Mile-High RETAC
Daniel J. Noonan	Fire chief of a service that provides prehospital care in a rural area	Southwest RETAC
Larry Reeves	Officer or crew member of a volunteer organization who provides prehospital care	Southeast Colorado RETAC
Kathay Rennels	County commissioner, or council member, representing an urban county or city and county	Northeast Colorado RETAC
William J. Rodman, M.D.	Board certified surgeon providing trauma care at a Level III Trauma Center	Central Mountains RETAC
David Ross, M.D.	Licensed physician who is a prehospital medical director	Plains to Peaks RETAC
Wade Smith, M.D.	Board certified surgeon providing trauma care at a Level I Trauma Center	Mile-High RETAC
Nancy Stuart	County commissioner, or council member, representing a rural county or city and county	Foothills RETAC
Michele Sweeney, M.D.	Member of the general public from an urban area	Southern RETAC
Ralph Vickrey, Jr.	Fire chief of a service that provides prehospital care in an urban area	Mile-High RETAC
Todd Wright	Member of the general public from a rural area	San Luis Valley RETAC
William O. Wagnon	Administrative representative of an urban trauma center	Mile-High RETAC
Vacant	Board certified physician certified in pediatrics or a pediatric subspecialty	
Vacant	Administrative representative of a rural trauma center	

State Emergency Medical And Trauma Services Advisory Council

November 2007

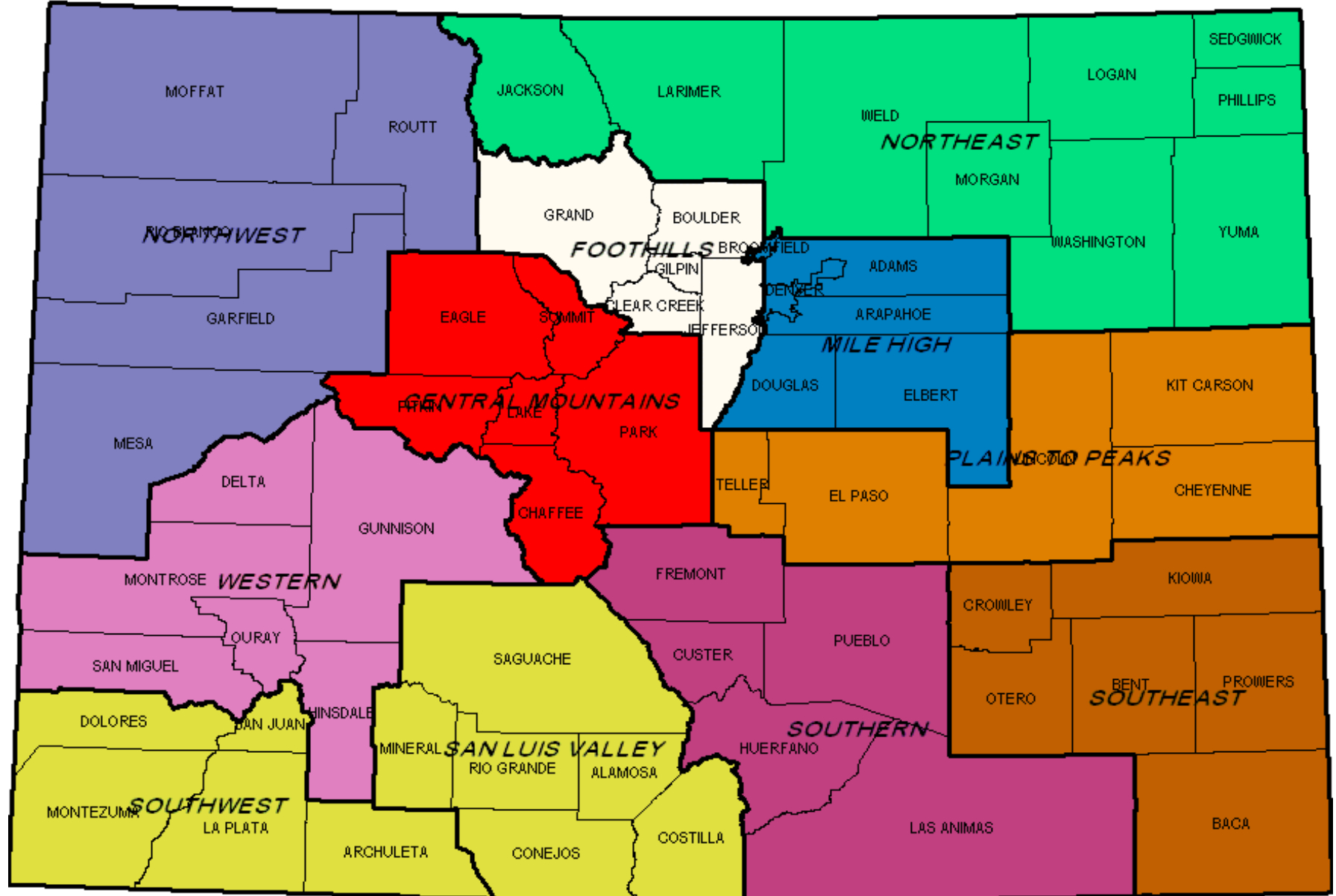
Ex-officio Member	Representing
Michael Carter	Director of the state board for community colleges and occupational education or the director's designee
Glenn Davis	Director of the office of transportation safety in the Department of Transportation or designee
Scott Friend	Representative of the Colorado State Patrol
Zane Laubhan	Member of the Colorado Coroners Association, as selected by the association
Don Krueger	Representative of the County Sheriffs of Colorado
D. Randy Kuykendall	Executive Director of the Department of Public Health and Environment or designee
Ron Lutz	Manager of telecommunication services of the Colorado information technology services in the Department of Personnel, General Support Services, or the manager's designee



Colorado Department
of Public Health
and Environment

Regional Emergency Medical and Trauma Advisory Councils

November 2006



Colorado RETAC Chairperson Contact Information November 2007

Central Mountain RETAC Chairman

John "Chip" Woodland, M.D.
Vail Valley Medical Center
Medical Director
181 West Meadow Dr.
Vail, CO 81657
970-476-8065
woodland@vail.net

Foothills RETAC Chairman

Sue Kirk, RN
Avista Hospital Trauma Coordinator
100 Health Park Drive
Louisville, CO 80027
O: 303-673-1124
suekirk@centura.org

Mile-High RETAC Chairman

Joan Bothner, MD
Emergency Medicine, Children's Hospital
1056 E. 19th Avenue
Denver, CO 80218
O: 303-837-2597
P: 303-540-6035
F: 303-764-8694
bothner.joan@tchden.org

Northeast Colorado RETAC Chairman

Dave Bressler
Weld County Paramedic Services
1121 M. Street
Greeley, CO 80631
O: 970-353-5700
dbressler@co.weld.co.us

Northwest Colorado RETAC Chairman

Chairman, Kris Borchard
Rio Blanco Fire District
PO Box 737
Meeker, CO 81641
O: 970-878-3443 Ext. 10
Kbochard@meekerrescue.com

Plains to Peaks RETAC Chairman

Ted Foth
Kit Carson County EMS
257 15th Street
Burlington, CO 80807
719-346-7878
kccems@ria.net

San Luis Valley RETAC Chairman

Jeff Babcock
3568 County Road 9 South
Alamosa, CO 81101
719-480-1767
slv.hls@amigo.net

Southeast Colorado RETAC Chairman

Rick Hartley
Southeast Colorado Hospital
373 East 10th
Springfield, CO 81073
719-523-4501
rickspgfld@rural-com.com

Southern Colorado RETAC Chairman

Chairman, Brandon Chambers
7022 CO RD KK
Manzanola, Colorado 81058
C: 719-469-5680
scremsinc@aol.com

Southwest RETAC Chairman

Dan Noonan, Chief
Durango Fire and Rescue Authority
142 Sheppard Drive
Durango, CO 81303
970-382-6000
noonandj@ci.durango.co.us

Western RETAC Chairman

Sharon Holbrook
800 South Third Street
Montrose Memorial Hospital
Montrose, CO 81401
C: 970-901-8333
sholbrook@montrosehospital.com

FY08 EMS Provider Grant Public Notice

Please note that this is a public notice only - detailed letters will be mailed to each agency.

SEMTACNum	AgencyName	CatName	AvgScore	StateAmtReq	StateAmtFunded
A-16	Alamosa County Ambulance	Ambulance, Other Vehicle	44.08	\$52,263.20	\$52,263.20
C-25	Bennett Fire Rescue	EMS Equipment	31.79	\$2,313.00	\$0.00
A-09	Bent County Ambulance Service	Ambulance, Other Vehicle	41.53	\$56,822.50	\$56,822.50
B-06	Bent County Ambulance Service	EMS Training	43.30	\$7,800.00	\$7,700.00
A-05	Beulah EMS	Ambulance, Other Vehicle	40.50	\$102,440.70	\$102,440.70
B-03	Beulah EMS	EMS Training	45.71	\$4,283.28	\$4,283.28
A-22	Byers Rescue Squad	Ambulance, Other Vehicle	41.14	\$110,979.00	\$110,979.00
C-20	Byers Rescue Squad	Data Collection	42.00	\$20,025.29	\$20,025.29
D-15	Canon City Fire Protection District	Defibrillation / Cardiac Monitor	22.99	\$9,949.50	\$0.00
B-35	Cascade Fire Protection District	EMS Training	44.20	\$1,171.00	\$1,161.00
C-30	Center Fire Protection District	EMS Equipment	44.03	\$6,943.75	\$6,943.75
A-12	Chaffee County Emergency Medical Services	Ambulance, Other Vehicle	39.53	\$22,526.00	\$22,526.00
A-13	Chaffee County Emergency Medical Services	EMS Equipment	40.23	\$949.20	\$949.20
B-37	Cheyenne County Fire Protection District #1	EMS Equipment	41.50	\$250.00	\$250.00
B-36	Cheyenne County Fire Protection District #1	EMS Training	42.80	\$525.00	\$525.00
C-01	City Of Wray	EMS Equipment	39.14	\$3,476.66	\$3,476.66
A-27	Clear Creek County EMS / Ambulance	Ambulance, Other Vehicle	40.67	\$56,550.00	\$56,550.00
B-40	Colorado Northwestern Community College	EMS Training	40.60	\$22,612.10	\$18,089.68
A-29	Crested Butte Fire Protection District	Ambulance, Other Vehicle	40.70	\$59,088.82	\$59,088.92
D-05	Custer County Ambulance	Defibrillation / Cardiac Monitor	32.49	\$9,900.00	\$0.00
B-04	Custer County Ambulance	EMS Training	42.83	\$4,000.00	\$4,000.00
A-20	Custer County Search and Rescue	Ambulance, Other Vehicle	35.90	\$14,222.50	\$0.00
B-19	Delta Montrose Technical College	EMS Training	44.10	\$24,340.00	\$19,472.00
B-14	Donald Wescott Fire Protection District	EMS Equipment	33.30	\$4,088.75	\$0.00
D-12	Dove Creek Volunteer Ambulance Service	Defibrillation / Cardiac Monitor	35.33	\$16,408.47	\$0.00
C-21	Durango Fire and Rescue Authority	Communications	41.05	\$53,676.65	\$53,676.65
B-22	Eagle River FPD	EMS Equipment	26.40	\$3,750.00	\$0.00
B-43	Elk Creek Fire Protection District	EMS Training	34.00	\$9,185.00	\$0.00
A-34	Evergreen Fire Protection District	Ambulance, Other Vehicle	36.60	\$62,725.00	\$60,050.00
B-12	Fairmount Fire District	EMS Equipment	35.20	\$1,479.35	\$0.00
B-13	Fairmount Fire District	EMS Training	36.30	\$16,600.00	\$0.00
C-27	Federal Heights Fire Department	EMS Equipment	32.64	\$10,300.00	\$0.00
B-07	Florissant Fire Protection District	EMS Training	37.63	\$2,427.00	\$1,632.00

B-08	Florissant Fire Protection District	Other	34.05	\$767.02	\$0.00
A-19	Four Mile Emergency Services, Inc.	Ambulance, Other Vehicle	42.00	\$48,735.29	\$48,735.29
D-25	Gateway UnawEEP Fire Department	Defibrillation / Cardiac Monitor	35.08	\$10,764.00	\$0.00
D-26	Gateway UnawEEP Fire Department	EMS Equipment	41.32	\$2,861.96	\$2,861.96
C-28	Grand County EMS	Communications	37.00	\$17,250.00	\$17,250.00
C-29	Grand County EMS	Data Collection	34.28	\$12,000.00	\$0.00
C-26	Grand Valley Fire Protection District	Communications	35.81	\$5,522.00	\$0.00
A-28	Grand Valley Fire Protection District	Extrication Equipment	35.80	\$29,712.17	\$0.00
A-10	Gunnison Valley Hospital-Emergency Medical Services	Ambulance, Other Vehicle	37.30	\$49,006.00	\$49,006.00
A-11	Gunnison Valley Hospital-Emergency Medical Services	EMS Equipment	36.90	\$1,567.23	\$1,567.23
B-26	Hinsdale County EMS	EMS Equipment	42.80	\$3,481.50	\$3,481.50
B-27	Hinsdale County EMS	EMS Training	46.40	\$4,130.00	\$4,130.00
D-20	Huerfano County Ambulance Service	Defibrillation / Cardiac Monitor	40.97	\$31,178.03	\$20,785.35
B-41	Indian Hills Fire Department	EMS Equipment	35.98	\$11,000.00	\$0.00
B-42	Indian Hills Fire Department	Recruitment / Retention	24.45	\$9,000.00	\$0.00
C-14	Inter-Canyon Fire/Rescue	Data Collection	39.78	\$3,537.50	\$3,537.50
D-08	Jackson 105 Fire Protection District	Defibrillation / Cardiac Monitor	37.86	\$3,810.68	\$3,810.68
D-06	Jamestown Volunteer Fire Department	Defibrillation / Cardiac Monitor	45.61	\$1,069.00	\$1,069.00
B-38	Karval Volunteer Fire Department	EMS Equipment	42.30	\$1,712.50	\$1,712.50
B-39	Karval Volunteer Fire Department	EMS Training	45.70	\$1,800.00	\$1,800.00
D-18	La Junta Rural Ambulance Service	Defibrillation / Cardiac Monitor	39.01	\$24,463.00	\$12,231.50
B-25	Lake County Search and Rescue	EMS Equipment	42.90	\$6,762.40	\$4,299.90
C-22	Lamar Fire and EMS	Data Collection	40.90	\$4,000.00	\$4,000.00
C-23	Lamar Fire and EMS	Other	37.80	\$1,000.00	\$1,000.00
A-39	Leadville-Lake County Fire Resuce	Extrication Equipment	39.20	\$2,672.50	\$2,672.50
A-24	Limon Ambulance Service	Ambulance, Other Vehicle	36.70	\$56,520.50	\$51,510.00
C-24	Limon Ambulance Service	Data Collection	40.92	\$3,138.50	\$3,138.50
B-30	Lincoln Community Hospital Transport Service	EMS Training	40.50	\$10,624.00	\$10,624.00
D-13	Louisville Fire Protection District	Defibrillation / Cardiac Monitor	29.10	\$20,395.00	\$0.00
D-17	Lower Valley Fire Protection District	Defibrillation / Cardiac Monitor	39.65	\$2,475.00	\$2,475.00
D-16	Mancos Fire Protection District	Defibrillation / Cardiac Monitor	37.10	\$21,600.00	\$10,800.00
D-01	Manzanola First Response Unit	Defibrillation / Cardiac Monitor	35.77	\$10,800.00	\$0.00
A-01	Montrose Fire Protection District	Ambulance, Other Vehicle	39.10	\$54,250.00	\$54,250.00
B-32	Morgan Community College	EMS Training	44.55	\$70,382.32	\$56,305.86
B-11	Mountain Communities Fire Protection District	EMS Equipment	40.50	\$1,018.73	\$1,018.73
C-05	Mountain View Fire Protection District	Data Collection	35.28	\$4,967.50	\$0.00

D-11	Nederland Fire Protection District	Defibrillation / Cardiac Monitor	36.43	\$11,250.00	\$11,250.00
C-12	Nederland Fire Protection District	EMS Equipment	30.10	\$6,800.00	\$0.00
C-15	North Central Fire Protection District	Data Collection	35.40	\$1,614.98	\$0.00
B-16	North Central Fire Protection District	Recruitment / Retention	40.60	\$3,002.40	\$3,002.40
A-31	North Fork Ambulance Association	Ambulance, Other Vehicle	39.15	\$33,810.00	\$33,000.00
D-21	North Fork Ambulance Association	Defibrillation / Cardiac Monitor	36.31	\$7,763.00	\$4,657.80
C-19	North Metro Fire Rescue District	Data Collection	34.33	\$15,447.56	\$0.00
B-20	North Metro Fire Rescue District	EMS Training	31.13	\$26,000.00	\$0.00
A-23	North Washington Fire Protection District Amb Enterprise	Ambulance, Other Vehicle	33.56	\$51,885.00	\$0.00
B-01	Northeastern Junior College	EMS Training	42.90	\$27,758.84	\$22,207.07
A-33	Northwest Conejos County Fire Protection District	EMS Equipment	45.50	\$1,230.00	\$1,230.00
A-32	Northwest Conejos County Fire Protection District	Extrication Equipment	43.98	\$3,050.00	\$3,050.00
D-07	Norwood Fire Protection District	Defibrillation / Cardiac Monitor	39.79	\$3,557.50	\$3,557.50
B-05	Norwood Fire Protection District	EMS Training	42.77	\$2,822.50	\$2,822.50
A-04	Nucla Naturita Ambulance Service, Inc.	EMS Equipment	39.08	\$5,353.00	\$5,353.00
A-30	Olathe Fire Protection District - EMS Division	Ambulance, Other Vehicle	40.54	\$52,900.00	\$52,900.00
A-17	Ouray County Emergency Medical Services	Ambulance, Other Vehicle	36.33	\$19,661.50	\$0.00
A-18	Ouray County Emergency Medical Services	EMS Equipment	35.20	\$8,109.90	\$0.00
B-33	Plains to Peaks RETAC	Recruitment / Retention	38.80	\$13,122.00	\$13,122.00
D-22	Plateau Valley Fire Protection District	Defibrillation / Cardiac Monitor	38.45	\$6,821.35	\$6,821.35
A-08	Platte Canyon Fire Protection District	Ambulance, Other Vehicle	38.13	\$20,000.00	\$20,000.00
A-37	Platte Canyon Rescue Service, Inc.	Ambulance, Other Vehicle	35.70	\$62,200.00	\$0.00
B-34	Poudre Canyon Fire Protection District	EMS Training	43.87	\$4,272.00	\$4,272.00
A-38	Poudre Canyon Fire Protection District	Extrication Equipment	36.20	\$20,306.79	\$0.00
A-25	Poudre Valley Hospital Emergency Medical Services	Ambulance, Other Vehicle	34.40	\$53,850.00	\$0.00
A-26	Poudre Valley Hospital Emergency Medical Services	Other	36.63	\$5,004.48	\$0.00
A-35	Rangely Volunteer Ambulance Assoc.	Ambulance, Other Vehicle	42.50	\$63,609.73	\$62,358.23
B-09	Rattlesnake Fire Rescue	EMS Equipment	30.10	\$3,583.45	\$0.00
B-10	Rattlesnake Fire Rescue	EMS Training	38.50	\$7,695.00	\$7,695.00
D-23	Rico Fire Protection District	Defibrillation / Cardiac Monitor	44.92	\$1,596.07	\$1,596.07
D-24	Rico Fire Protection District	EMS Equipment	43.13	\$1,484.50	\$1,484.50
B-28	San Juan Basin Area Vocational Technical School	EMS Equipment	42.20	\$3,354.15	\$3,354.15
B-29	San Juan Basin Area Vocational Technical School	EMS Training	44.30	\$96,672.50	\$77,338.00
C-16	Sedgwick County Ambulance Service	Communications	40.93	\$1,737.50	\$1,737.50
B-17	Sedgwick County Ambulance Service	EMS Training	40.00	\$9,912.50	\$9,912.50
A-07	Sheridan Fire Department	Ambulance, Other Vehicle	35.93	\$63,974.70	\$0.00

D-04	Sheridan Fire Department	Defibrillation / Cardiac Monitor	34.29	\$9,277.91	\$0.00
C-18	Snowmass-Wildcat Fire Protection District	Communications	36.77	\$3,660.50	\$3,660.50
D-03	South Y-W Ambulance Service, Inc.	Defibrillation / Cardiac Monitor	38.19	\$10,863.78	\$10,800.00
B-15	Southeast Colorado RETAC	Recruitment / Retention	39.40	\$5,220.00	\$5,220.00
C-06	Southwest Teller County EMS	Communications	39.29	\$900.00	\$900.00
C-07	Southwest Teller County EMS	EMS Equipment	37.13	\$8,150.00	\$8,150.00
B-31	Springfield EMS Association, Inc.	EMS Training	45.70	\$2,874.00	\$2,874.00
D-14	St. Mary's Hospital EMS Outreach	Defibrillation / Cardiac Monitor	35.72	\$997.50	\$0.00
B-18	St. Mary's Hospital EMS Outreach	EMS Equipment	37.20	\$2,042.33	\$2,042.33
D-09	Steamboat Springs Fire and Rescue	Defibrillation / Cardiac Monitor	37.17	\$10,242.28	\$10,242.28
D-10	Steamboat Springs Fire and Rescue	EMS Equipment	33.44	\$9,427.34	\$0.00
D-02	Sterling Fire/Rescue	Defibrillation / Cardiac Monitor	37.67	\$6,250.00	\$6,250.00
A-21	Strasburg Volunteer Fire Department Inc.	Ambulance, Other Vehicle	35.16	\$73,172.80	\$0.00
B-23	SUGAR LOAF FIRE DEPT.	EMS Equipment	35.60	\$3,387.50	\$0.00
B-24	SUGAR LOAF FIRE DEPT.	EMS Training	39.10	\$1,300.00	\$1,300.00
C-09	Town of Silt Ambulance dba West Care Ambulance	Communications	41.49	\$5,346.00	\$5,346.00
C-10	Town of Silt Ambulance dba West Care Ambulance	EMS Equipment	37.19	\$5,237.83	\$5,237.83
A-14	Tri-Lakes Fire Protection District	Ambulance, Other Vehicle	30.20	\$59,496.78	\$0.00
C-08	Tri-Lakes Fire Protection District	Communications	34.34	\$16,433.33	\$0.00
B-02	Trinidad State Junior College	EMS Training	46.20	\$70,865.00	\$56,692.00
A-15	Upper San Juan Health Services District	Ambulance, Other Vehicle	35.50	\$55,435.48	\$0.00
C-11	Upper San Juan Health Services District	Communications	40.38	\$11,780.68	\$11,780.68
C-02	Ute Mountain Ute Tribal EMS	EMS Equipment	31.13	\$6,161.08	\$0.00
C-17	Ute Pass Regional Ambulance District	Data Collection	39.28	\$11,656.50	\$11,656.50
A-06	Washington County Ambulance Service	Ambulance, Other Vehicle	38.90	\$56,170.00	\$56,170.00
A-36	Weld County Paramedic Services	Ambulance, Other Vehicle	39.15	\$35,420.00	\$35,420.00
C-31	Weld County Paramedic Services	Data Collection	37.33	\$41,700.00	\$41,700.00
					\$1,665,141.52

This is a notice list only. Specific and detailed letters will be sent to each agency.
Please note that if your agency is not funded at this time, you may be eligible for re-award dollars later in the year.
For more information, please contact the Emergency Medical and Trauma Services Section at (303) 692-2987.
Thank you.

**Regional Emergency Medical and Trauma Advisory Councils
Funding Summary November 2007**

RETAC Name	Participating Counties	Funding
Central Mountains RETAC	Chaffee, Eagle, Lake, Park, Pitkin, Summit	\$165,000.00
Foothills RETAC	Boulder, Clear Creek, Gilpin, Grand, Jefferson	\$150,000.00
Mile High RETAC	Adams, Arapahoe, Broomfield, Denver, Douglas, Elbert	\$165,000.00
Northeast RETAC	Jackson, Larimer, Logan, Morgan, Phillips, Sedgewick, Washington, Weld, Yuma	\$210,000.00
Northwest RETAC	Garfield, Mesa, Moffat, Rio Blanco, Routt	\$150,000.00
Plains to Peaks RETAC	Cheyenne, El Paso, Kit Carson, Lincoln, Teller	\$150,000.00
San Luis Valley RETAC	Alamosa, Conejos, Costilla, Mineral, Rio Grande, Saguache	\$165,000.00
Southeast CO RETAC	Baca, Bent, Crowley, Kiowa, Otero, Prowers	\$165,000.00
Southern CO RETAC	Custer, Fremont, Huerfano, Las Animas, Pueblo	\$150,000.00
Southwest RETAC	Archuleta, Dolores, La Plata, Montezuma, San Juan	\$150,000.00
Western RETAC	Delta, Hinsdale, Gunnison, Montrose, Ouray, San Miguel	\$165,000.00

Total RETAC Funding

\$1,785,000.00

Medical Direction Committee

November 2007

State Medical Director (1)

Fred A. Severyn, MD, FACEP – Attending Physician, University Hospital. EMS/LifeLink Medical Director, University of Colorado Health Sciences Center. President, Colorado Chapter of the American College of Emergency Physicians.

Medical Director Positions (4)

Eugene M. Eby, MD, FACEP – Emergency Physician, Emergency Department for Porter, Littleton and Parker Adventist Hospitals. EMS Medical Director, Littleton Fire Rescue. National Association of EMS Physicians. Denver Metro EMS Physicians. American College of Emergency Physicians.

Benji K. Kitagawa, DO – Emergency Physician, Valley View Hospital, Glenwood Springs. Medical Director, City of Yuma EMS, Glenwood Springs Fire. Educational lectures to Western Eagle County Ambulance District. Previously Colorado Plains Medical Center, Ft. Morgan.

Kevin Weber, MD – Emergency Physician, Medical Director and EMS Medical Director, St. Mary Corwin Hospital, Pueblo. Medical Director for AMR, Pueblo City Fire, Pueblo West Fire, Boone VFD, Fowler VFD, Trinidad Ambulance District, Crowley County Ambulance. Pueblo County EMS Council.

John Abbott, DO – Emergency Department Director, Prowers Medical Center. Medical Director, Lamar Ambulance Service, Hasty McClave Ambulance Service. Previous Colorado Physician Advisor of the Year

EMS Provider (4)

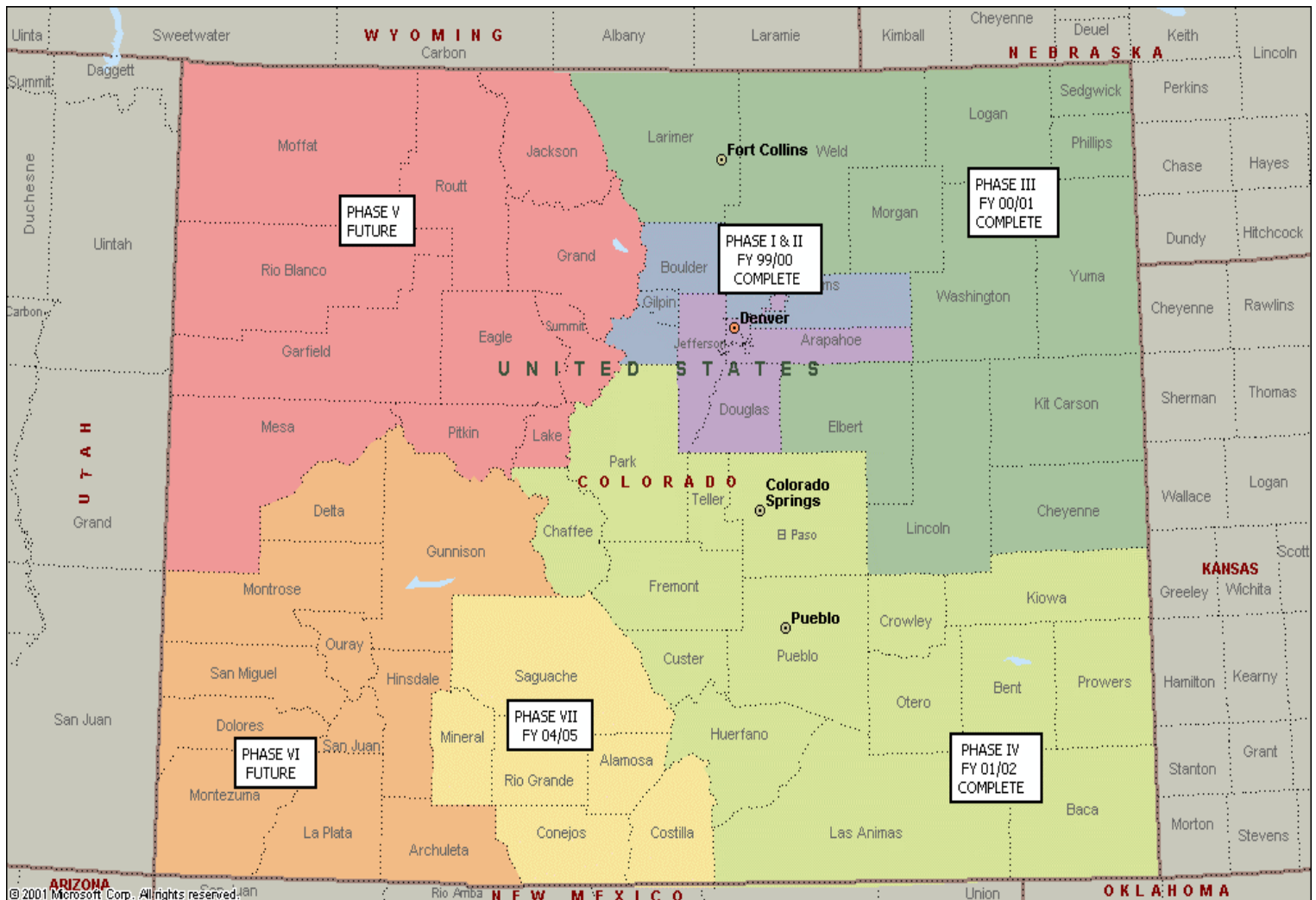
Claudia Applin, EMTP, FFI – EMS/Fire Science Education Director/Dean, San Juan Basin Technical College, Cortez. Lead paramedic Southwest Memorial Hospital. Paramedic/Firefighter Cortez Volunteer Fire Department.

Thomas Candlin, III, EMTP – EMS Coordinator, St. Anthony Prehospital Services. Volunteer Paramedic, Clear Creek Emergency Services. Board Member, Clear Creek County, Foothills RETAC.

Tom Soos, EMTP – Director, The Memorial Hospital EMS, Craig. Chairman, Moffat County EMS Council. Vice Chairperson, Northwest RETAC.

Don Stroup, AAS, NREMTP – Paramedic, Poudre Valley Ambulance Service. Previous Flight Paramedic, fixed wing and helicopter. Critical Care and MICU technician.

Digital Trunked Radio System Phase Implementation Schedule Map As of 12/04 Unchanged





DESIGNATED TRAUMA CENTERS-By Name

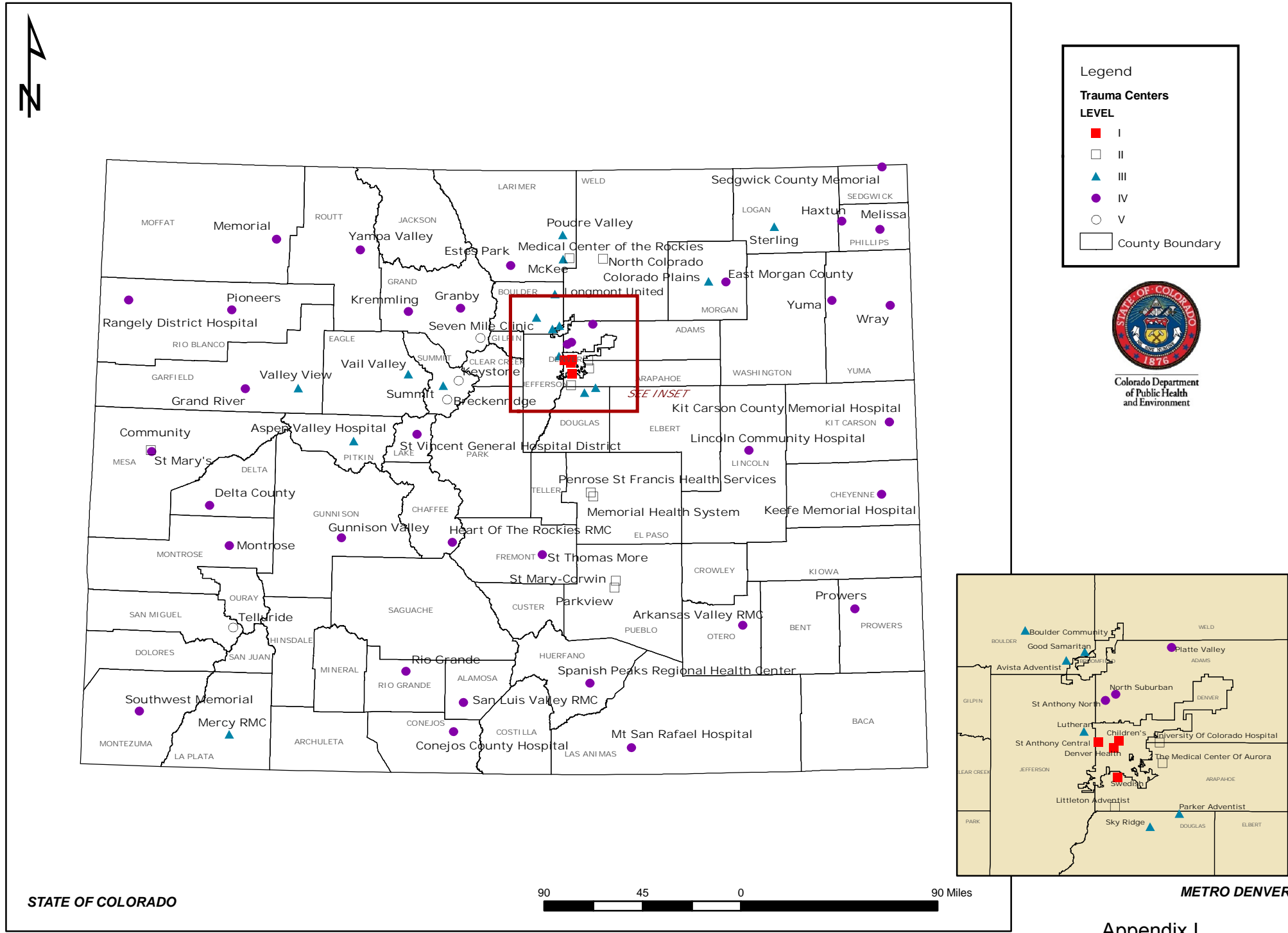
Updated August 2007

Level	Facility Name	City	State	Zip
I	Denver Health Medical Center	Denver	CO	80204
I	St Anthony Central Hospital	Denver	CO	80204
I	Swedish Medical Center	Englewood	CO	80110
I	The Children's Hospital*	Denver	CO	80218
II	Littleton Adventist Hospital	Littleton	CO	80122
II	Medical Center of the Rockies	Loveland	CO	80538
II	Memorial Health System	Colorado Springs	CO	80909
II	North Colorado Medical Center	Greeley	CO	80631
II	Parkview Medical Center	Pueblo	CO	81003
II	Penrose St Francis Health Services	Colorado Springs	CO	80907
II	St Mary-Corwin Medical Center	Pueblo	CO	81004
II	St Mary's Hospital	Grand Junction	CO	81501
II	The Medical Center Of Aurora	Aurora	CO	80012
II	University Of Colorado Hospital	Aurora	CO	80045
III	Aspen Valley Hospital	Aspen	CO	81611
III	Avista Adventist Hospital	Louisville	CO	80027
III	Boulder Community Hospital	Boulder	CO	80301
III	Colorado Plains Medical Center	Fort Morgan	CO	80701
III	Exempla Good Samaritan Medical Center	Lafayette	CO	80026
III	Longmont United Hospital	Longmont	CO	80501
III	Lutheran Medical Center	Wheatridge	CO	80033
III	Mckee Medical Center	Loveland	CO	80538
III	Mercy Regional Medical Center	Durango	CO	81301
III	Parker Adventist Hospital	Parker	CO	80138
III	Poudre Valley Hospital	Fort Collins	CO	80524
III	Sky Ridge Medical Center	Lone Tree	CO	80124
III	Sterling Regional Medcenter	Sterling	CO	80751
III	Summit Medical Center	Frisco	CO	80443
III	Vail Valley Medical Center	Vail	CO	81657
III	Valley View Hospital Association	Glenwood Springs	CO	81601
IV	Arkansas Valley Regional Medical Center	La Junta	CO	81050
IV	Community Hospital	Grand Junction	CO	81502
IV	Conejos County Hospital Corporation	La Jara	CO	81140
IV	Delta County Memorial Hospital	Delta	CO	81416
IV	East Morgan County Hospital	Brush	CO	80723
IV	Estes Park Medical Center	Estes Park	CO	80517
IV	Granby Medical Center	Granby	CO	80446
IV	Grand River Medical Center	Rifle	CO	81650
IV	Gunnison Valley Hospital	Gunnison	CO	81230
IV	Haxtun Hospital District	Haxtun	CO	80731
IV	Heart Of The Rockies Regional Medical Center	Salida	CO	81201
IV	Keefe Memorial Hospital	Cheyenne Wells	CO	80810
IV	Kit Carson County Memorial Hospital	Burlington	CO	80807
IV	Kremmling Memorial Hospital District	Kremmling	CO	80459
IV	Lincoln Community Hospital	Hugo	CO	80821
IV	Melissa Memorial Hospital	Holyoke	CO	80734
IV	Montrose Memorial Hospital	Montrose	CO	81404
IV	Mt San Rafael Hospital	Trinidad	CO	81082

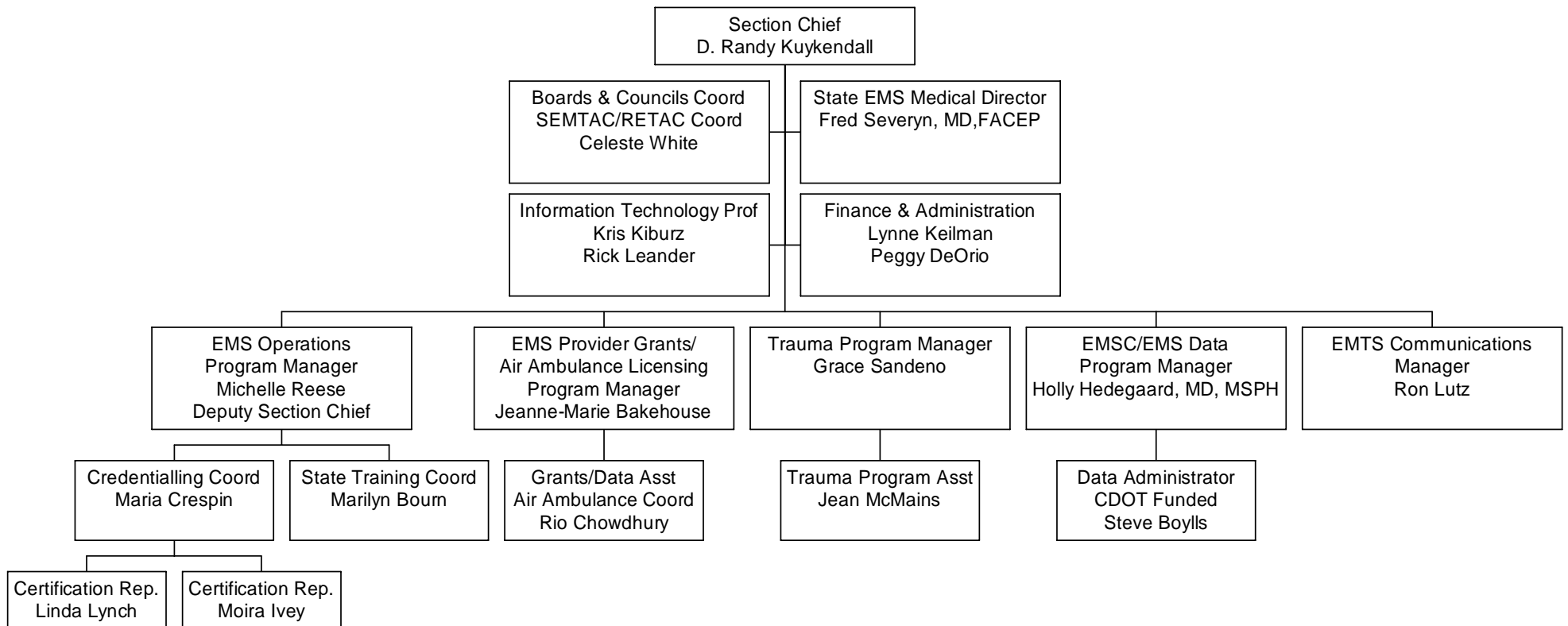
IV	North Suburban Medical Center	Thornton	CO	80229
IV	Pioneers Hospital Of Rio Blanco County	Meeker	CO	81641
IV	Platte Valley Medical Center	Brighton	CO	80601
IV	Prowers Medical Center	Lamar	CO	81047
IV	Rangely District Hospital	Rangely	CO	81648
IV	Rio Grande Hospital	Del Norte	CO	81137
IV	San Luis Valley Regional Medical Center	Alamosa	CO	81101
IV	Sedgwick County Memorial Hospital	Julesburg	CO	80737
IV	Southwest Memorial Hospital	Cortez	CO	81321
IV	Spanish Peaks Regional Health Center	Walsenburg	CO	81089
IV	St Anthony North Hospital	Westminster	CO	80031
IV	St Thomas More Hosp	Canon City	CO	81212
IV	St Vincent General Hospital District	Leadville	CO	80461
IV	The Memorial Hospital	Craig	CO	81625
IV	Wray Community District Hospital	Wray	CO	80758
IV	Yampa Valley Medical Center	Steamboat Springs	CO	80477
IV	Yuma District Hospital	Yuma	CO	80759
V	Breckenridge Medical Center	Breckenridge	CO	80443
V	Keystone Medical Center	Keystone	CO	80435
V	Seven-Mile Medical Clinic	Winter Park	CO	80482
V	Telluride Medical Center	Telluride	CO	81435
Non D	Animas Surgical Hospital	Durango	CO	81301
Non D	Avon Medical Center	Avon	CO	81620
Non D	Basin Clinic	Naturita	CO	81422
Non D	Boulder Community Hospital-Foothills	Boulder	CO	80303
Non D	Centennial Medical Plaza	Englewood	CO	80112
Non D	Colorado Mountain Medical @ Copper Mtn.	Copper Mountain	CO	80443
Non D	Crested Butte Medical Center	Crested Butte	CO	81224
Non D	Exempla St. Josephs Hospital	Denver	CO	80218
Non D	Family Health West Hospital	Fruita	CO	81521
Non D	Mountain Family Health Center	Central City	CO	80427
Non D	National Jewish Medical Center	Denver	CO	80206
Non D	Plains Medical Center	Limon	CO	80828
Non D	Porter Adventist Hospital	Denver	CO	80210
Non D	Presbyterian/St. Lukes Medical Center	Denver	CO	80218
Non D	Rose Medical Center	Denver	CO	80220
Non D	Southeast Colorado Hospital District	Springfield	CO	81073
Non D	Swedish Southwest ER	Littleton	CO	80123
Non D	Uncompaghre Combined Clinic	Norwood	CO	81423
Non D	Weisbrod Memorial County Hospital	Eads	CO	81036

*RPTC (Regional Pediatric Trauma Center)	1
Level I	3
Level II	10
Level III	16
Level IV	35
Level V	4
Total Designated Trauma Centers	69
Total Non-Designated Facilities	19
Total	88

Designated Trauma Centers in Colorado - June 2007

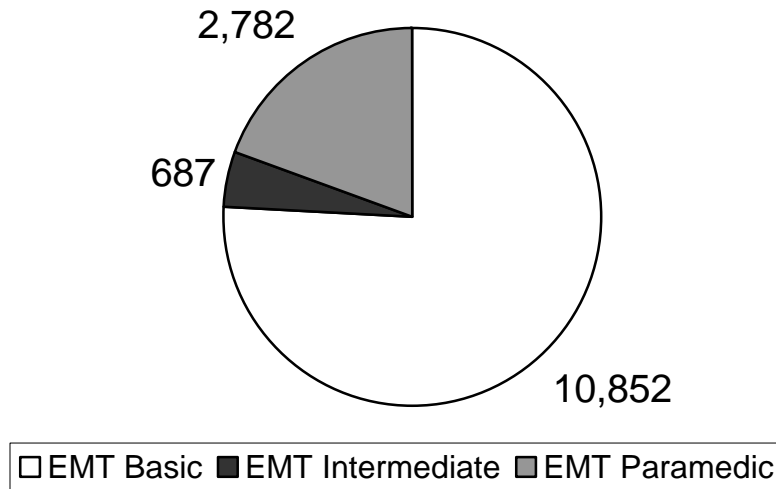


Colorado Department of Public Health and Environment
Emergency Medical and Trauma Services Section
November 2007

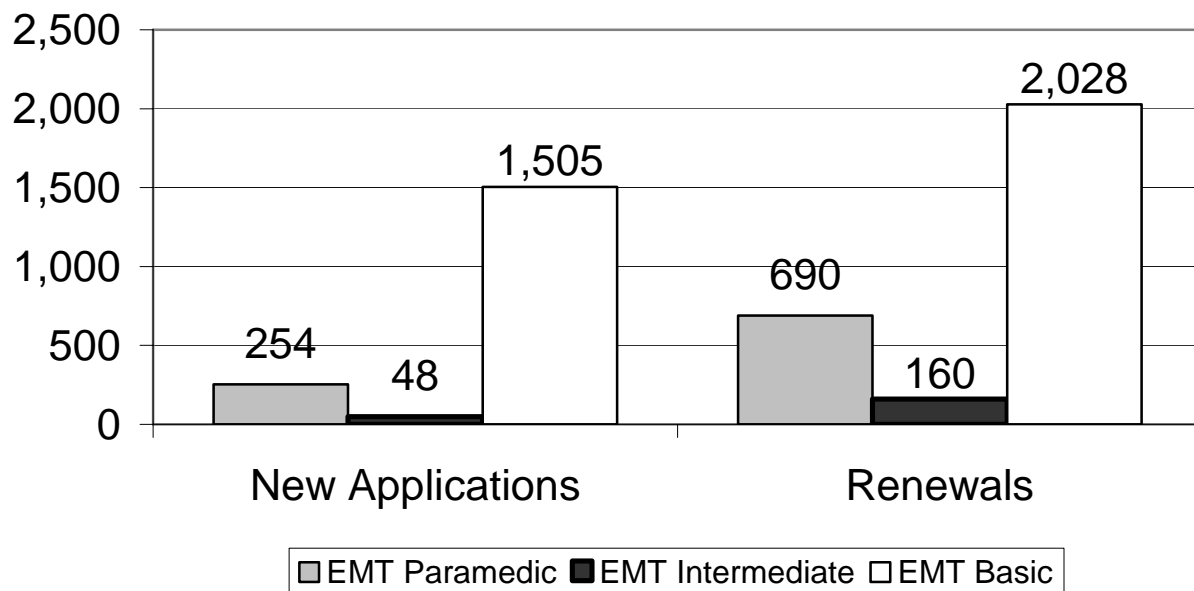


EMS Operations
Statistics/Information

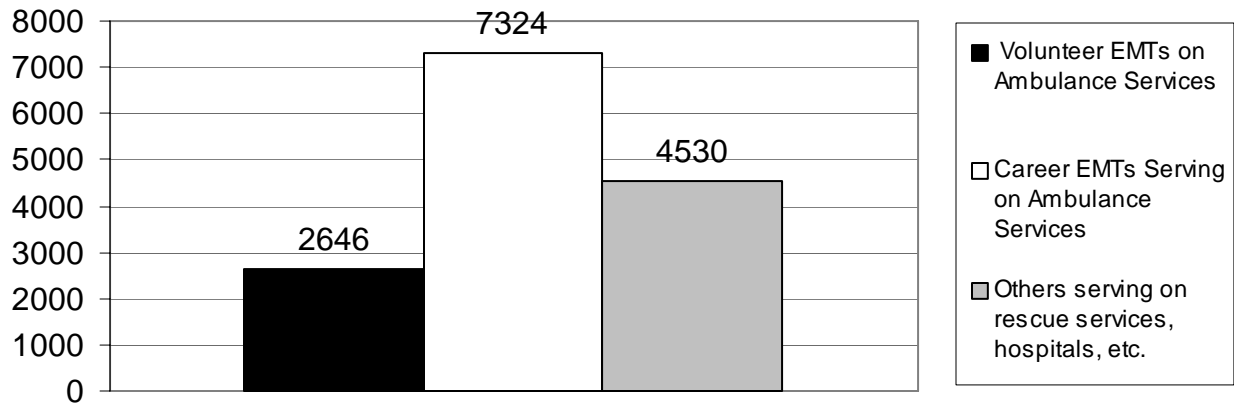
Total Certified EMTs
as of 6/30/07



Applications Processed FY07



EMTs by Service Affiliation



Ground Ambulance Service Categories

