



**COLORADO**

**Health Facilities & Emergency  
Medical Services Division**

Department of Public Health & Environment

---

Emergency Medical and Trauma Services Branch

---

2021

## Annual Legislative Report

---

July 2020 - June 2021

Submitted to the Colorado Legislature

---

[www.coems.info](http://www.coems.info)

# Report to the Legislature Concerning Colorado’s Emergency Medical and Trauma Services System

Report on the expenditure of finances credited to the Emergency Medical Services Account and the quality of the emergency medical and trauma services system pursuant to Colorado Revised Statutes §§ 25-3.5-606, 25-3.5-709, and 25-3.5-210.

This report identifies many of the specific responsibilities of the Colorado Department of Public Health and Environment and provides information regarding progress in ensuring all Coloradans have rapid access to emergency medical care and transportation across the state. Undoubtedly, the work done by the professional EMS and trauma providers is the most valuable resource in the emergency medical and trauma services system. This report is dedicated to the ongoing support of these caregivers.

## Contents

Executive Summary	1
Key Accomplishments in Fiscal Year 2021	3
Section Updates	5
Funding Section	5
Provider grants	5
System improvement funding	5
Year-Round Education Opportunities	6
Emergency Medical and Trauma Services System Consultative Reviews	6
Trauma Section	7
Trauma Regulation	7
Data Section	8
EMS and Trauma Data Collection and Reporting	8
Evaluation of the Trauma System	8
Evaluation of the Emergency Medical Services System	9
Operations Section	9
Certified EMS Providers	9
EMS Education Programs	10
Peer Assistance Program	10
Air Ambulance Licensing	11
Investigation and Enforcement	11
Medical Direction	11
Type II Advisory Boards	12
State Emergency Medical and Trauma Services Advisory Council	12
Emergency Medical Practice Advisory Council	13

Related Activities	13
Communication Systems	13
Injury Prevention	14
Emergency Medical Services for Children	14
Attachment A: Fiscal Year 2022 Funding Awards	16
Attachment B: Designated Trauma Centers	21
Attachment C: EMTS Data Tables	27
Attachment D: Statewide Ketamine Use	36

This report is available online at [www.coems.info](http://www.coems.info)

## Executive Summary

Colorado's emergency medical and trauma services system provides high quality emergency medical and trauma care to the ill and injured 24 hours a day, 365 days a year. 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, today's emergency medical and trauma services systems are full partners in the broader scope of health care across Colorado communities including time-sensitive medical syndromes and healthy community programs. Patient outcomes depend on factors such as:

- Availability of appropriately trained health care providers
- Availability of properly equipped, positioned, and staffed rescue units and ambulances (ground and air)
- Location of trauma centers and other specialized health care facilities capable of treating time-sensitive conditions such as strokes and heart attacks
- Availability of well-equipped hospitals and clinics with well-trained staff members to stabilize patients who are far from tertiary care

The emergency medical and trauma services system also provides care and transportation to patients in non-emergency situations and serves as the “safety net” for many Coloradans who might not have immediate access to other health care services. Emergency medical services (EMS) agencies and trauma facilities are essential partners in community and public health initiatives, resource coordination and emergency management planning.

The Emergency Medical and Trauma Services Branch at the Colorado Department of Public Health and Environment is responsible for reducing morbidity and mortality resulting from sudden illness and injury by overseeing the delivery of emergency medical and trauma services as described above. The branch's regulatory responsibilities are to:

- Certify and license EMS providers
- Register emergency medical responders
- Recognize educational programs that deliver initial EMS provider training and continuing education
- License air ambulance agencies
- Administer and manage grant funding
- Designate hospitals and other health care facilities as trauma centers
- Regulate scopes of practice for EMS providers
- Provide technical assistance

Each year, EMS agencies and trauma centers in Colorado provide quality medical care to over one million patients. Of these patients, approximately 25 percent are trauma (injured) patients, and 75 percent are patients with medical, psychiatric or other conditions. These services are provided by over 200 locally licensed ambulance services - which are staffed by a combination of 19,500 paid and unpaid professional EMS providers - and a network of 83 hospitals designated as “trauma centers”. An additional 42 hospitals and community clinics are “non-designated” participants in the statewide trauma system.

One of the most significant strengths of Colorado’s emergency medical and trauma services system is the involvement and participation of the community’s stakeholders. The State Emergency Medical and Trauma Services Advisory Council is a 32-member “Type II” advisory board with EMS and trauma system experts representing hospitals, public and private EMS agencies, fire service-based EMS and rescue agencies, air ambulance providers and local government officials. The State Emergency Medical and Trauma Services Advisory Council is statutorily required to review and recommend rules for promulgation by the Board of Health, recommend trauma center designation, advise the department on all funding matters related to EMS and trauma, and provide resources dedicated to the care and transportation of the ill and injured. The partnership between the department, the council and the stakeholder community is very productive, and the department enjoys the benefit of this expert advice.

The department also benefits from another “Type II” advisory board established by House Bill 10-1260: the Emergency Medical Practice Advisory Council, and updated this fiscal year by House Bill 21-1251. The Emergency Medical Practice Advisory Council provides the department with expert advice related to the technical scope of care for EMS providers and advises on EMS medical director requirements. The 13 council members represent urban and rural EMS medical directors and providers. The Emergency Medical Practice Advisory Council recommends changes to EMS provider scope of practice rules for promulgation by the department’s chief medical officer and makes recommendations regarding waivers to the scope of practice rules for medical directors.

Colorado’s Regional Emergency Medical and Trauma Services Advisory Councils are equally important to the state’s emergency medical and trauma services system. These councils are created in statute to provide the critical link between the state’s 64 counties and the clinics, hospitals and EMS provider agencies within each region. This system provides localized support for the education, recruitment and retention of personnel, technical assistance to agencies and vital communication between state agencies and local constituents. Regional councils complete 2-year biennial plans that outline goals, programs and initiatives. Regions represent the needs and interests of urban, rural and frontier constituents to the department and the state councils. Representatives from each region continue to meet quarterly with state council and department staff members to help ensure coordination and collaboration between state, regional and local partners.

Emergency Medical and Trauma Services Branch staff members maintain open and effective communication with internal and external customers on a daily basis. They present at a variety of conferences and trainings and represent department interests in external stakeholder groups. A weekly email update is sent to stakeholders and includes hot topics and newly released information as well as upcoming meetings and training events. The branch’s website, located at [coems.info](http://coems.info), provides useful and timely information including rules and regulations, applications, forms and access to the web portal. Additionally, the website allows people to check the current certification status of Colorado EMS providers, upload transport agency patient care reports and submit grant funding applications and quarterly progress reports.

Colorado’s emergency medical and trauma system, and the department’s Emergency Medical and Trauma Services Branch, is predominantly funded by a \$2 fee collected for each motor vehicle registered in Colorado, and this is supplemented by the collection of trauma center designation fees, air ambulance licensure fees and provisional EMS provider certification fees. The department

relies on these funds to monitor and develop emergency medical service agencies and trauma centers; support the continued development of rural, frontier and underdeveloped trauma and emergency medical services systems; and increase the availability of equipment and personnel across the state of Colorado.

The \$2 motor vehicle registration fee is deposited in the EMS Account of the Highway Users Tax Fund (HUTF). In 2010, the fee was increased from \$1 to \$2 per vehicle registered to adjust for inflation and increase funding demands. In fiscal year 2018, a change implemented by the Department of Motor Vehicles reduced the revenue to the EMS Account by \$1.6 million; this revenue reduction is expected to continue indefinitely. During the pandemic, vehicle sales and registrations fell significantly while inflation continued to rise. The purchasing power of the HUTF-EMS funds is currently at a 10-year low.

In fiscal year 2021, applications requested \$1.7 million more than was available and 20 projects could not be funded. Five of the unfunded projects were ambulances to serve communities in rural parts of the state. In fiscal year 2020, requests surpassed awards by \$1.6 million and 29 projects did not receive funds; again, five ambulances to serve rural communities were not funded. Since fiscal year 2016, \$7.5 million grant applications have been unfunded.

## Key Accomplishments in Fiscal Year 2021

Ensuring Colorado's EMS and trauma system was operationally sustained during the COVID19 pandemic was the top priority for the department. A number of emergency public health orders, waivers, and operational modifications were sustained during the fiscal year, including:

- Vaccine administration added to the scope of practice for emergency medical technicians
- Crisis standards of care for EMS

Significant progress was made on recent legislative initiatives.

- Senate Bill 19-052 expanded the scope of practice for EMS providers in clinical settings, and a multi-disciplinary task force drafted rule revisions in 6 CCR 1015-3 Chapter Two. After collaboration with industry stakeholders and the public, and a hearing with the department's Chief Medical Officer, the new rules were effective January 2021.
- Senate Bill 19-242 allowed EMS providers to voluntarily become licensed, rather than certified, with proof of a four-year Bachelor's degree in a field related to the health sciences, or an equivalent field. This required a rule revision in 6 CCR 1015-3 Chapter One. After a collaborative stakeholder process, the new rules were effective in January 2021. By June 2021, 894 EMS provider licenses were issued.
- Senate Bill 19-065 granted authority for the department to contract with a peer assistance program to provide support services and referrals to EMS providers statewide, and to collect funds to support the program through a \$2.55 certification fee. The peer assistance program became operational in early 2020 and the mental health support services were especially critical as EMS providers responded to the COVID-19 pandemic. Although the statutory fee generated \$16,852 in fiscal year 2021, the annual cost of the Peer Assistance Program is approximately \$375,000. In the absence of sufficient statutory funding, combined with the critical importance of the program, the State Emergency Medical and

Trauma Services Advisory Council recommended the department temporarily fund the program from the EMS Account while a sustainable funding mechanism was obtained.

- House Bill 21-1251 addresses the appropriate use of ketamine and other chemical restraints upon a person and prohibits a peace officer from unduly influencing the clinical judgement of EMS personnel with regard to the administration of chemical restraints. The bill also expands the membership of the Emergency Medical Practice Advisory Council by adding one voting member who is a clinical psychologist licensed in good standing in Colorado, recommended by a statewide association of psychiatrists, and appointed by the governor, and one voting member who is an anesthesiologist licensed in good standing in Colorado, recommended by a statewide association of anesthesiologists, and appointed by the governor. Finally, the bill creates a requirement for the department to provide an annual report to the legislature of all ketamine administrations by EMS providers in Colorado, including associated complications, and for the Emergency Medical Practice Advisory Council to report to the legislature the approval of any new chemical restraint and its reasoning in making the recommendation.

This fiscal year, the department distributed \$3.9 million via grants to support, develop and improve Colorado's statewide EMS and trauma system. In fiscal year 2021, \$3,423,610 in provider grants were awarded to provide ambulances and EMTS vehicles, communications, data collection, EMS and trauma equipment, injury prevention, recruitment and retention, and personnel and services across communities in Colorado. An additional \$427,000 was awarded in system improvement grants.

The Colorado Resource for EMS and Trauma Education (CREATE) program continued its success in fiscal year 2021, disbursing over \$132,000 in education grants to help offset tuition, book and fee costs for emergency medical and trauma services education. 115 students were trained using support from these grant funds. Demand for CREATE funding was adversely affected by the global pandemic when a substantial number of courses were canceled or postponed during the fiscal year.

In 2015, the governor signed into law HB 15-1015, making Colorado one of the first states to adopt the Recognition of EMS Personnel Licensure Interstate Compact (REPLICA). During the pandemic response and the 2020 wildfires, EMS personnel from numerous EMS Compact states were granted an immediate privilege to practice in Colorado. Likewise, EMS personnel licensed in Colorado provided supplemental resources to other EMS Compact states. The EMS Compact simplifies the complexities of interstate licensing and certification of EMS providers by allowing immediate recognition of certification in authorized circumstances in participating states, while also providing Colorado access to the National EMS Coordinated Database.



# Section Updates

## Funding Section

The fiscal year 2021 budget from the EMS Account for the emergency medical and trauma services funding program was \$6,129,335, including the statutory allocations of a minimum of \$150,000 for training emergency medical personnel and \$100,000 for emergency grant awards. In fiscal year 2021, grants supporting Colorado’s emergency medical and trauma services system were reduced and limited for the third consecutive fiscal year. Furthermore, when adjusted for inflation, the emergency medical and trauma services grant program is currently at the lowest funding level in the past decade. Reductions in the funding are attributed to two primary factors: a change implemented by the Department of Revenue in fiscal year 2020 that narrowed the types of registrations subject to the \$2 EMS fee and a continued decrease in vehicle registrations processed in fiscal year 2021 due to the global pandemic. Grant funds are essential to the sustainability of Colorado’s emergency medical and trauma services system, especially in Colorado’s rural and frontier communities.

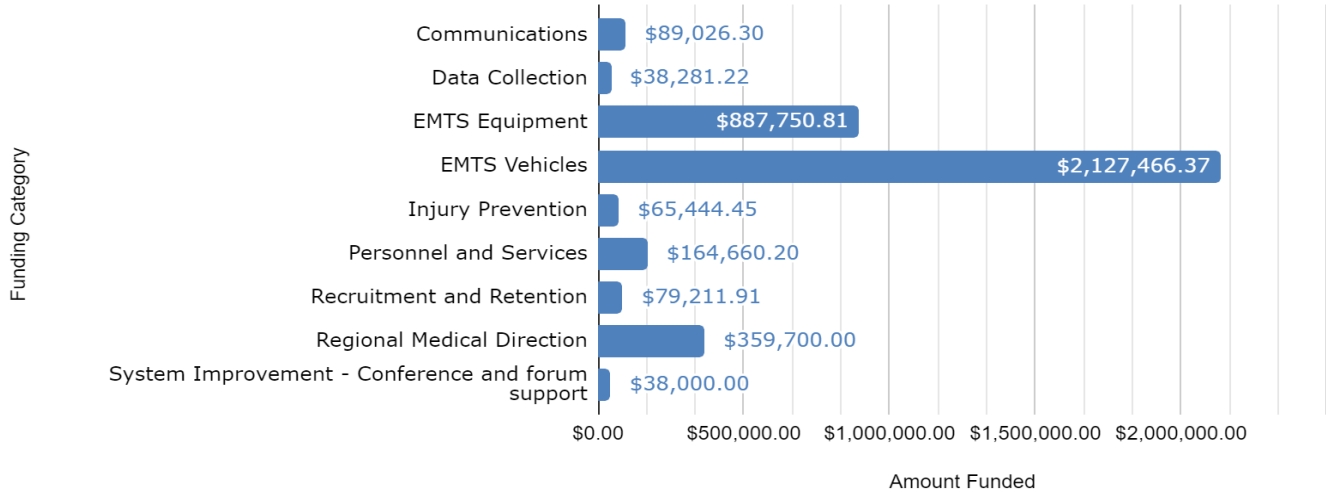
### Provider grants

The funding program maximizes impact on Colorado’s EMS and trauma system by leveraging provider grant state dollars with local matching funds to ensure buy-in and support at the local level. Provider grant categories include ambulances and EMTS vehicles, communications, data collection, EMS and trauma equipment, injury prevention, recruitment and retention and personnel and services. A total of \$3,423,610 was awarded in provider grants following a competitive scoring process that used a 50-point scoring tool. A list of the awards is found in Attachment A.

### System improvement funding

The funding program also provides support for regional and statewide projects designed to enhance the emergency medical and trauma services system in Colorado. System improvement categories include technical assistance, system improvement and conference and forum support. A total of \$427,700 was awarded in system improvement funding. This total includes \$359,700 distributed to 11 regions to continue the development of EMS medical direction on a regional basis. A list of the awards is found in Attachment A.

## Fiscal Year 2022 EMTS Funding Program - Amounts Funded



## Year-Round Education Opportunities

The CREATE program was successfully launched in July 2010 through the Colorado Rural Health Center. The CREATE program was developed to improve access to funding support for educating EMS and trauma providers on a continuing basis throughout each fiscal year, as opposed to the traditional provider grants program that was only open for applications one time per year. The CREATE program was funded at \$400,000 for fiscal year 2021 in the form of education grants to help offset the cost of tuition, books and fees for 115 Colorado EMS and trauma providers who were trained with assistance from these grants. Although demand for CREATE funding was adversely affected by the global pandemic, educational programs had indications of recovery during the final quarters of the fiscal year. A substantial number of courses were canceled or postponed until stringent personal protective measures could be incorporated into the education programs to minimize transmission of COVID-19.

## Emergency Medical and Trauma Services System Consultative Reviews

At the request of local governments, the department conducts consultative reviews. In fiscal year 2021, a review of the emergency medical and trauma services system in Bent County was conducted. The department worked collaboratively with regional and local stakeholders to assemble a team of practicing EMS and trauma professionals from communities across the state to assist the county in analyzing their current emergency medical and trauma services systems and developing strategies for improvement. The department provided the final report to local officials and stakeholders.

## Trauma Section

The trauma system in Colorado was formally authorized in legislation in 1995. Since that time, much effort has gone into three primary and inter-related activities: trauma designation for acute care facilities, trauma system rule development and trauma system assessment.

### Trauma Designation

The Trauma Section's most visible activity is the process of trauma center designation. Every licensed health care facility in Colorado which receives 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 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. Critical access hospitals and community clinics not routinely receiving trauma patients may seek a non-designated registration. See [Attachment B](#) for a list of trauma centers in Colorado.

On June 30, 2021, 83 designated trauma centers were serving the people of Colorado and 42 non-designated facilities were participating in the system. Unfortunately, fiscal year 2021 continued to see a decline in the number of non-designated facilities in Colorado. The decline is continuing as free-standing emergency departments across Colorado are closing due to the financial impact of the Coronavirus pandemic. The number of non-designated facilities decreased from 44 to 42 during the fiscal year.

Community engagement and technical assistance are two of the most important aspects of the Trauma Section's work. Fiscal year 2021 offered both challenges due to the COVID-19 pandemic and opportunities to provide assistance and engage stakeholders across the state:

- Trauma designation reviews resumed in a new hybrid/remote format in February 2021. Many facilities were still responding to the needs of the public health emergency and operating under a one-year designation extension.
- There were 10 designation reviews or re-reviews completed by a team of physicians, nurses and Trauma Section staff members.
- Additionally, staff members provided technical assistance and/or compliance checks for facilities with plans of correction and eight training sessions for trauma nurse coordinators and registry staff. Training reached more than 160 participants.

### Trauma Regulation

Rule development is another primary program function and is necessary to implement the concepts expressed in the emergency medical and trauma system laws. Rules are under constant scrutiny to determine whether they reflect national standards, protect the public's health, are measurable and make sense for both the patient and the regulated community. Non-substantive conforming edits to 6CCR 1015-4 Chapter Three were presented to the Board of Health along with rules pertaining to facility licensing nomenclature as found in 6CCR 1011-1.

## Data Section

### EMS and Trauma Data Collection and Reporting

Comprehensive data systems are essential to effectively plan, implement and evaluate a statewide emergency medical and trauma care system. Critical components include the Colorado Trauma Registry and the Colorado EMS Database, as well as appropriate resources and personnel for efficient data management, analysis and use of the data to evaluate the delivery of patient care. Since January 2007, EMS ambulance agencies have submitted reports on more than 5 million EMS incidents across the state. These data are entered and stored in a software product known as ImageTrend, which is used across various programs within the EMTS branch. In fiscal year 2018 the department contracted with ImageTrend to develop a statewide trauma registry to facilitate improved data collection from all facilities. This system was implemented in fiscal year 2019, and by 2020 all designated trauma facilities were compliant with data submission. In 2022, the department plans to onboard all nondesignated trauma facilities into the system for a wider glimpse of the trauma system across the state. The department continues to validate and analyze both EMS and trauma data for quality improvement across the state.

### Evaluation of the Trauma System

The Colorado Trauma Registry is a database designed to capture information on the care of trauma patients and on the leading causes of injury, hospitalizations and deaths. The data in the Colorado Trauma Registry is used not only to evaluate the effectiveness of the trauma system but also to identify and monitor the impact of injury prevention strategies. Each licensed hospital facility or clinic designated as a trauma center is required to submit a limited set of patient-specific information to the Colorado Trauma Registry. The Colorado Trauma Registry holds hundreds of thousands of records that provide key information on trauma care across the state. In response to requests by trauma stakeholders and in alignment with the National Trauma Data Standards (see [www.ntdsdictionary.org](http://www.ntdsdictionary.org)), developed by the American College of Surgeons, staff members continue to update the Colorado Trauma Registry data elements and response options and provide technical assistance to users to improve the validity of trauma data reporting. In fiscal year 2021, data from the Colorado Trauma Registry were used to evaluate various aspects of the trauma system including:

- Trauma data submission and volume
- Data quality of trauma records
- Trauma incidents by age groups, specific geographic area, Injury Severity Score (ISS), mechanism of injuries
- Pediatric, falls, motor vehicle related injuries
- Site level reports for designation reviews
- Primary causes and procedures
- Inter-facility transfers
- Hospital/ED length of stay
- Snow sport related injuries

## Evaluation of the Emergency Medical Services System

During the previous fiscal year over 700,000 patient care reports were submitted into the Colorado EMS Database using the national standard of NEMSIS, the National EMS Information System (see <https://nemsis.org/>).

The department continues to leverage the Colorado EMS Database to construct robust regional compliance reports, injury summaries, and benchmark reports that examine key aspects of patient care across the state. These reports allow ambulance agencies to retrieve their own benchmark data as well as compare their numbers to their region and the state overall. EMS data continues to be utilized by several stakeholders, and presented to various audiences via conferences, meetings and reports to create a more complete picture of patient care across the state.

In fiscal year 2021, EMS data were used to evaluate various components of the emergency medical services care system, including:

- EMS agency data submission, timeliness, and volume
- EMS events by age groups, specific geographic area, medications administered
- Emergent responses and transports
- EMS billing rates
- Vital signs, procedures (e.g., blood glucose measure on seizure patients)
- Naloxone use and opioid-associated resuscitative emergencies
- Snow sport related emergencies
- Air medical transports
- Cardiac arrest, trauma and stroke events
- Events by destination (e.g., number of events resulting in transport to acute care facilities)
- Primary/secondary impressions
- Common causes of injuries by region
- Ketamine administration

## Operations Section

The department is the state agency responsible for the oversight of EMS initial and continuing education programs and the certification and licensure of EMS providers in Colorado. As of June 2021, there were 19,496 EMS providers certified or licensed in Colorado. During the fiscal year, the department processed over 6,000 applications for registration, licensure, certification or renewal for EMS providers and Emergency Medical Responders.

### Certified EMS Providers

EMS provider certification and license levels include Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), Emergency Medical Technician-Intermediate (EMT-I) and Paramedic. In Colorado, Emergency Medical Responders complete a voluntary registration program with the department.

FY	EMR	EMT	Advanced EMT	EMT-Intermediate	Paramedic*	Total
2020	438	13,382	349	419	4,436	18,586
2021	366 ▼	13,701 ▲	371 ▲	366 ▼	5,058 ▲	19,496 ▲

- Of the 5,058 paramedics in Colorado, 470 earned the Critical Care endorsement, 26 earned the Community Paramedicine endorsement, and 13 paramedics have both the Critical Care and Community Paramedicine endorsements.
- With the planned sunset of the national EMT-Intermediate credentialing exam on December 31, 2019, there is no longer a pathway for initial certification/licensure at the EMT-Intermediate level. However, currently certified/licensed EMT-Intermediates are able to maintain their certification/license by completing continuing education.

### EMS Education Programs

The department provides regulatory oversight for EMS education across the state. In fiscal year 2021, the number of education programs authorized to provide initial EMS education in Colorado increased from 218 to 225. Compared nationally, Colorado consistently outperforms national averages on the National Registry certification examination.

National EMS Certification Examination Pass Rates			
	EMT	Advanced EMT	Paramedic
Colorado Candidates	83%	87%	96%
National Average	78%	73%	85%

(July 1, 2020 - June 30, 2021 cumulative pass rate on national certification examination. Data provided by the National Registry of EMTs.)

### Peer Assistance Program

Colorado's EMS personnel are dedicated to providing high quality emergency medical services, even during the most challenging circumstances. EMS personnel experience a broad range of health and mental health consequences as a result of working on the front line under extreme stress and often in hazardous conditions while managing complicated patient encounters. EMS personnel are at an increased risk for depression, posttraumatic stress symptoms, suicidal ideation, and a host of other functional and relational conditions. A pre-pandemic study conducted by the Substance Abuse and Mental Health Services Administration revealed that EMS personnel reported suicidal ideation *seven times higher than the general population*.

Championed by Senator Leroy Garcia in 2019 to protect the mental wellness of Colorado's EMS personnel, SB 19-065 created the Colorado Peer Assistance Program for EMS providers. The program, available at no cost to all EMS providers in Colorado, offers counseling, access to professional mental health resources, and support services, with the goal of EMS professionals

safely returning to work. The Emergency Medical and Trauma Services Branch administers the Peer Assistance Program and contracts for direct peer assistance services.

As the prolonged COVID-19 pandemic continues to pressure the EMS system and personnel, the EMTS Branch worked to increase program awareness and reduce barriers to access. Increasing awareness and access to the program was accomplished through stakeholder engagement, outreach and education campaigns, and a new program website ([www.path4ems.org](http://www.path4ems.org)) featuring EMS providers from Colorado.

### Air Ambulance Licensing

Colorado is served by 33 licensed air ambulance services, 23 of which have a full two-year license and an additional ten air ambulance services have a one-year out-of-state recognition license. The recognition license allows an agency to initiate 12 medical flights per year in Colorado, with no restrictions on the number of patients transported to Colorado if the flight originates outside of Colorado. The list of current licensed air ambulance services can be found on the Emergency Medical and Trauma Services [Public Portal](#).

### Investigation and Enforcement

The department continues to oversee discipline and enforcement activities for EMS providers, Emergency Medical Responders, licensed air ambulance agencies and EMS education programs. During fiscal year 2021, the department experienced a dramatic increase in consumer complaints, criminal convictions of EMS personnel and air ambulance complaints. The department completed 949 investigations (an increase from 787 in fiscal year 2020) on background check issues and complaints related to EMS personnel and two air ambulance agency complaints.

The Enforcement team also processed over 69 Colorado Open Records Act requests.

### Medical Direction

Medical oversight of EMS practice in Colorado occurs at the local EMS agency level, as legislative requirements state that all EMS providers have a physician medical director in order to provide any direct patient care. Currently, the Emergency Medical Practice Advisory Council and Colorado regional medical directors continue to focus on system quality improvements and to advance clinical EMS therapies and protocols to ensure the patients in Colorado are receiving the safest and most effective care available.

Regional medical direction involves a coordinated effort among Colorado's eleven Regional Emergency Medical and Trauma Services Advisory Councils and was developed to:

- Facilitate communication and cooperation among EMS agency medical directors, allowing them to share ideas, discuss problems and communicate within their peer groups
- Provide resources for agency medical directors to enhance their ability to perform their job functions
- Facilitate improved efficiency in protocol development and delivery of education
- Provide a forum for the resolution of system issues at both local and regional levels

- Create opportunities for continuous quality improvement at both the EMS agency level and regional levels, provide benchmarks and best practices and allow for the monitoring of outcomes to guide the continued provision of quality care

The regional medical direction initiative allows each of the 11 regions within the state to play an integral part in developing medical direction that is consistent with standards across the state and meets local needs. The regional medical directors meet quarterly to share and discuss current local issues as well as best practices in regional medical oversight.

The Regional Medical Direction committee works with the Emergency Medical Practice Advisory Council to drive quality of care for the EMS systems throughout the state of Colorado. Funding is available annually for regional medical direction programs through evaluation and recommendation by the State Emergency Medical and Trauma Services Advisory Council. This process is separate from the annual competitive provider grant process, and as such allows regions to concentrate on meeting program deliverables and outcomes. Each year, funding is based upon performance reviews of the regions’ abilities to meet the previous year’s defined deliverables.

## Type II Advisory Boards

### State Emergency Medical and Trauma Services Advisory Council

The State Emergency Medical and Trauma Services Advisory Council is a 32-member “Type II” advisory board with EMS and trauma system experts representing hospitals, public and private EMS agencies, fire service-based EMS and rescue agencies, air ambulance providers and local government officials. In fiscal year 2021, the State Emergency Medical and Trauma Services Advisory Council conducted regular public meetings each quarter, and held an additional meeting in April 2021. The State Emergency Medical and Trauma Services Advisory Council advised the department on a variety of policy issues during the fiscal year, including reviewing and recommending rules for promulgation by the Board of Health, recommending trauma center designation, advising the department on all funding matters related to EMS and trauma and provide resources dedicated to the care and transportation of the ill and injured, and the designation of trauma centers. In fiscal year 2021, the State Emergency Medical and Trauma Services Advisory Council added the Education committee and maintained all other existing committees. The following State Emergency Medical and Trauma Services Advisory Council committees were operational during fiscal year 2021:

- Injury Prevention Committee
- Statewide Trauma Advisory Committee
- Safety Committee
- Pediatric Care Committee
- Education Committee
- Designation Review Committee
- Public Policy & Finance Committee



## Emergency Medical Practice Advisory Council

The Emergency Medical Practice Advisory Council reviewed and made recommendations on requests for waivers to the EMS practice scope of practice rules by EMS agency medical directors. As of June 30, 2021, the department had 429 active scope of practice waivers: three basic life support waivers, 382 for advanced life support provider levels, and 44 for combination basic and advanced life support provider levels. Subsequent to the passage of House Bill 21-1251, the department suspended all waivers authorizing the use of ketamine by paramedics for excited delirium or extreme agitation.

## Related Activities

### Communication Systems

Public access in the emergency medical services setting is defined as the ability of an individual to secure prompt and appropriate emergency medical care. All counties in the state have E911 telephone services. The existing Colorado digital trunked radio system (DTRS) provides statewide, two-way interoperable communications to state, local, tribal and a limited number of federal government agencies over a shared communication platform. The DTRS in Colorado consists of 251 remote tower sites, serving more than 1,000 agencies and more than 100,000 subscriber units (individual radios) spread across six zones. The DTRS averages nearly 8 million calls per month. Some local agencies provide additional funding to add infrastructure to the overall DTRS. Several new DTRS radio tower sites are under various stages of planning and construction. The emergency medical and trauma services funding program continues to assist with improvement of local communications needs throughout the state. Funding has provided equipment to agencies to enable them to utilize the DTRS and in some cases to keep legacy communication systems operational.

The First Responder Network Authority (FirstNet) is an independent authority within the U.S. Department of Commerce. Chartered in 2012, its mission is to ensure the building, deployment and operation of the nationwide, broadband network that equips first responders to save lives and protect U.S. communities. Public safety spent years advocating for a nationwide broadband network for first responders following the Sept. 11, 2001, terrorist attacks. Major public safety organizations continue to voice their strong support for the FirstNet network today. 'FirstNet Powered by AT&T' continues to work toward building out sites in Colorado to improve needed coverage.

House Bill 18-1325, known as the DTRS Coverage Bill, provided an appropriation of \$2 million dollars in FY18-19 and \$2 million dollars in FY19-20 for the Office of Information Technology, Public Safety Communications Network to work in partnership with local and regional government entities to add additional DTRS sites in areas experiencing critical coverage gaps for public safety radio communications. This program assisted with funding improvements at 10 new DTRS sites to fill known radio signal coverage gaps.

## Injury Prevention

Injury prevention efforts at the state level are coordinated through the Violence and Injury Prevention-Mental Health Promotion Branch in the Prevention Services Division at the department. The branch builds capacity and sustainability at the community, regional and state levels by providing culturally appropriate programming and quality technical assistance and by maintaining diverse community partnerships.

During fiscal year 2021, joint efforts with the Violence and Injury Prevention-Mental Health Promotion Branch included continuation of a joint committee, the Injury Prevention Committee that meets at least quarterly. This dual purpose committee serves to help unify injury prevention efforts across the two branches so that stakeholders have one place to discuss, prioritize and implement prevention activities. Many trauma centers participate in this discussion and use the opportunity to find assistance and resources for the development of their facility-based efforts. Other joint efforts between the Emergency Medical and Trauma Services Branch and the Violence and Injury Prevention Branch included cooperation on implementation of grant activities and cooperation on injury data surveillance.

Funding for the department's injury prevention activities primarily comes through grants and cooperative agreements between the department and federal agencies such as the Centers for Disease Control and Prevention and the Administration for Community Living. Limited state general funds are provided to the Office of Suicide Prevention for its activities and to the Colorado Child Fatality Prevention System.

## Emergency Medical Services for Children

The department is authorized under Colorado Revised Statutes § 25-3.5-204 to establish a program and receive funds to improve the quality of emergency care to pediatric patients throughout the state, including a component to address public awareness of pediatric emergencies and injury prevention. The federal EMS for Children State Partnership Grant is administered in partnership with the Section of Pediatric Emergency Medicine at the University of Colorado School of Medicine. A cooperative agreement with the department and the University of Colorado School of Medicine was established in 2018 to continue the partnership in successfully implementing the grant. This partnership between state institutions leverages the clinical expertise and research capacity of the University of Colorado with the regulatory and program expertise of the department.

The EMS for Children program continues to collaborate extensively with the Children's Hospital Colorado Outreach and Education team to deliver mobile simulation-based training to EMS and hospital providers in communities across the state. The program also continues to support an online education module to help providers better distinguish between accidental and inflicted injury. The module currently provides continuing education courses to EMS providers in Colorado and several other states and is working toward being able to provide continuing medical education credit courses to nurses and physicians.

In fiscal year 2021, the EMS for Children program successfully implemented the Colorado Pediatric Preparedness for the Emergency Room (COPPER) program. The COPPER program is aimed at improving emergency department preparedness in caring for pediatric patients. After extensive stakeholder involvement, the COPPER program was officially launched with six pilot sites on March 30, 2021.

Additionally, a second initiative, the Colorado Pediatric Emergency Care Coordinators (COPECC), was developed and implemented to promote and assist with the implementation of pediatric emergency care coordinators at EMS agencies across the state. The COPECC program provides education and resources related to the role and value of a pediatric emergency care coordinator and also facilitates workshops across the state.

## Attachment A: Fiscal Year 2022 Funding Awards

Organization Name	Project Total	Grantee Match %	Total Amount Requested	Funded Amount (Provider)	Funded Amount (SI)	Score
Adams County FPD	\$51,609.85	50%	\$25,804.93	\$25,804.93		39.6
Alamosa County Ambulance District	\$59,579.71	50%	\$29,789.85	\$29,789.85		36.2
Aurora Fire Department	\$90,981.71	50%	\$45,490.85	\$45,490.85		35.7
Beulah Fire Protection and Ambulance District	\$178,835.00	20%	\$143,488.00	\$143,068.00		43.6
Carbondale Rural FPD	\$35,167.35	50%	\$17,583.67	\$17,583.67		35.4
Cascade FPD	\$26,009.98	50%	\$17,504.00	\$13,004.99		41.0
Central Mountains RETAC	\$32,000.00	10%	\$32,000.00	\$32,000.00		36.2
Central Mountains RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Central Orchard Mesa FPD	\$72,019.03	50%	\$36,009.51	\$36,009.51		40.5
Cheyenne County Ambulance	\$145,288.88	20%	\$118,631.10	\$116,231.10		38.0
Cheyenne County dba Plains to Peaks RETAC	\$30,000.00	0%	\$30,000.00		\$30,000.00	44.6
Cheyenne County dba Plains to Peaks RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
City of Wray EMS	\$89,538.64	50%	\$44,769.32	\$44,769.32		44.0
City of Yuma Ambulance Service	\$61,067.97	50%	\$30,533.98	\$30,533.98		43.1
Clear Creek County EMS	\$192,278.45	50%	\$98,064.16	\$96,139.22		39.3

Attachment A

Crowley County Ambulance Service	\$216,159.00	50%	\$108,079.50	\$108,079.50		35.8
Delta County Ambulance District	\$240,053.91	50%	\$119,913.96	\$120,026.95		40.2
Divide FPD	\$2,890.95	50%	\$2,153.74	\$1,445.47		42.2
Dove Creek Ambulance District	\$103,213.79	50%	\$59,750.00	\$51,606.89		42.0
Eagle County Health Service District	\$270,393.21	50%	\$152,403.10	\$135,196.60		35.9
Eldora Enterprises LLC	\$14,752.94	50%	\$7,376.47	\$7,376.47		30.0
Evergreen FPD	\$228,683.91	50%	\$115,316.95	\$114,341.95		31.6
Foothills RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Four Mile FPD	\$3,005.95	50%	\$1,747.98	\$1,502.97		38.9
Gilpin Ambulance Authority	\$186,009.00	50%	\$93,779.00	\$93,779.00		34.4
Gunnison Valley Hospital	\$232,223.88	50%	\$118,036.94	\$116,111.94		41.4
Keefe Memorial Health Service District	\$13,744.98	50%	\$6,872.49	\$6,872.49		33.7
Lake Dillon FPD	\$95,074.48	50%	\$47,537.24	\$47,537.24		40.4
Lake George FPD	\$34,551.00	50%	\$17,275.50	\$17,275.50		43.0
Las Animas Bent County FPD	\$168,729.00	50%	\$74,287.87	\$74,287.87		46.5
Livermore FPD	\$39,502.80	20%	\$31,602.24	\$31,602.24		38.2
Lower Valley FPD	\$207,255.07	50%	\$103,627.53	\$103,627.53		33.1
Lutheran Hospital Association of the SLV	\$115,769.38	50%	\$70,687.42	\$57,884.69		42.5

Attachment A

Mile-High RETAC	\$38,000.00	0%	\$38,013.80		\$38,000.00	43.9
Mile-High RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Montrose Memorial Hospital, Inc.	\$76,838.00	50%	\$57,146.20	\$44,214.20		40.1
Morgan County Ambulance	\$235,282.97	50%	\$117,827.41	\$117,641.48		42.5
Nederland FPD	\$14,735.60	50%	\$7,367.80	\$7,367.80		36.5
North Central FPD	\$14,899.12	10%	\$13,409.21	\$13,409.21		43.8
North Fork Ambulance HSD	\$143,427.50	Varies	\$80,782.75	\$80,782.75		37.7
North Fork FPD	\$43,898.86	50%	\$21,949.43	\$21,949.43		43.0
North Park Hospital District	\$80,664.86	50%	\$40,332.43	\$40,332.43		42.4
Northeast Colorado RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Northwest RETAC	\$29,700.00	0%	\$29,700.00		\$29,700.00	Approved
Nucla Naturita FPD	\$83,230.00	50%	\$57,837.50	\$41,615.00		40.2
Olathe FPD	\$227,276.91	20%	\$182,581.52	\$181,821.53		38.3
Platte Canyon FPD	\$193,185.00	50%	\$97,517.50	\$96,592.50		38.9
Poudre Canyon FPD	\$222,948.00	50%	\$106,774.00	\$104,509.00		44.2
Rangely Hospital District	\$258,333.91	50%	\$112,411.46	\$112,411.46		31.1
Red, White & Blue FPD	\$67,744.24	50%	\$33,872.12	\$33,872.12		35.9
Rio Blanco FPD	\$43,385.97	50%	\$21,692.98	\$21,692.98		40.8
San Luis Valley RETAC					\$33,000.00	Approved

Attachment A

Silverton San Juan County Ambulance Assoc.	\$33,768.96	50%	\$17,008.29	\$16,884.48		35.4
South Fork FPD	\$145,808.23	50%	\$72,904.11	\$72,904.11		41.9
Southeastern Colorado RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Southern Colorado RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Southern Park County FPD	\$95,052.00	50%	\$47,526.00	\$47,526.00		38.1
Southwest Health System, Inc.	\$201,777.00	50%	\$100,888.50	\$100,888.50		42.8
Southwest RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
Southwest Teller County EMS	\$28,663.50	50%	\$14,331.75	\$14,331.75		42.2
Sugar Loaf FPD	\$236,031.00	50%	\$36,565.00	\$36,565.00		39.0
Thompson Valley HSD	\$191,985.00	50%	\$95,967.50	\$95,967.50		37.9
Town of Center FPD	\$22,260.65	50%	\$11,130.32	\$11,130.32		40.4
Limon Ambulance Service	\$75,837.56	10%	\$71,375.00	\$68,901.80		37.8
Trinidad Ambulance District	\$100,577.46	50%	\$50,288.73	\$50,288.73		34.4
Trinidad Area Health Assoc. dba Mt. San Rafael Hospital	\$73,017.00	50%	\$37,804.50	\$36,508.69		37.9
UCHealth Grandview Hospital	\$0.00	10%	\$49,289.76	\$0.00		31.3
Upper Pine River FPD	\$104,339.41	50%	\$43,547.98	\$41,734.01		40.8
Ute Pass Regional Ambulance Dist.	\$188,795.00	50%	\$94,397.50	\$94,397.50		43.8
West Douglas County FPD	\$249,920.00	50%	\$98,388.50	\$98,388.50		42.5

Attachment A

Western RETAC	\$33,000.00	0%	\$33,000.00		\$33,000.00	Approved
<b>Totals:</b>			Requested	Amount Funded (Provider)	Amount Funded (System Improvement)	
			\$3,957,746.85	\$3,423,609.50	\$427,700.00	



## Attachment B: Designated Trauma Centers

Level	Facility Name
I	Centura Health - St Anthony Hospital
I	Denver Health Medical Center
I	Swedish Medical Center
I	University Of Colorado Health At Memorial Hospital Central
I	University Of Colorado Hospital Authority (Anschutz)
I-RPTC	Children's Hospital Colorado
II	Centura Health - Littleton Adventist Hospital
II	Centura Health - Penrose St Francis Health Services
II	Children's Hospital Colorado - Colorado Springs
II	Foothills Hospital (Boulder Community Foothills Hospital)
II	Good Samaritan Medical Center
II	Lutheran Medical Center
II	Medical Center Of Aurora, The
II	North Colorado Medical Center
II	North Suburban Medical Center
II	Parker Adventist Hospital
II	Parkview Medical Center, Inc
II	Sky Ridge Medical Center
II	St Marys Medical Center
II	Uchealth Medical Center Of The Rockies
III	Aspen Valley Hospital

Attachment B

III	Castle Rock Adventist Hospital
III	Centura Health - Avista Adventist Hospital
III	Centura Health - Porter Adventist Hospital
III	Centura Health - St Francis Medical Center
III	Centura Health - St Mary Corwin Medical Center
III	Colorado Plains Medical Center
III	Community Hospital
III	Longmont United Hospital
III	Longs Peak Hospital
III	Mckee Medical Center
III	Mercy Regional Medical Center
III	Montrose Memorial Hospital
III	Platte Valley Medical Center
III	Saint Joseph Hospital
III	San Luis Valley Health
III	St Anthony North Health Campus
III	St Anthony Summit Medical Center
III	Sterling Regional Medcenter
III	Uchealth Greeley Hospital
III	Uchealth Highlands Ranch Hospital
III	Uchealth Poudre Valley Hospital
III	Uchealth Yampa Valley Medical Center
III	University Of Colorado Health At Memorial Hospital North

Attachment B

III	Vail Health Hospital
III	Valley View Hospital Association
IV	Arkansas Valley Regional Medical Center
IV	Centennial Hospital A Campus Of Tmca (Centennial Medical Plaza)
IV	Centura Health-84th Avenue Neighborhood Health Center
IV	Centura Health-St Thomas More Hospital
IV	Colorado Canyons Hospital And Medical Center
IV	Delta County Memorial Hospital
IV	East Morgan County Hospital
IV	Estes Park Medical Center
IV	Grand River Medical Center
IV	Gunnison Valley Hospital
IV	Haxtun Hospital District
IV	Heart Of The Rockies Regional Medical Center
IV	Keefe Memorial Hospital
IV	Kit Carson County Memorial Hospital
IV	Lincoln Community Hospital
IV	Melissa Memorial Hospital
IV	Memorial Regional Hospital
IV	Middle Park Medical Center-Kremmling
IV	Middle Park Medical Center-Granby
IV	Mt San Rafael Hospital
IV	Pagosa Springs Medical Center

Attachment B

IV	Pioneers Medical Center
IV	Presbyterian St Lukes Medical Center
IV	Rangely District Hospital
IV	Rio Grande Hospital
IV	Rose Medical Center
IV	San Luis Valley Health Conejos County Hospital
IV	Sedgwick County Memorial Hospital
IV	Southwest Memorial Hospital
IV	Spanish Peaks Regional Health Center
IV	Uchealth Pikes Peak Regional Hospital
IV	Wray Community District Hospital
IV	Yuma District Hospital
V	Denver Health Winter Park Clinic (Denver Health East Grand Community Clinic And Emergency Center)
V	St Anthony Breckenridge Community Clinic Emergency Center
V	St Anthony Keystone Medical Clinic
V	Telluride Regional Medical Center
NonD	Animas Surgical Hospital, Llc
NonD	Banner Fort Collins Medical Center
NonD	Banner North Colorado Emergency Care
NonD	Centura Health Emergency & Urgent Care
NonD	Centura Health Emergency And Urgent Care
NonD	Centura Health Emergency & Urgent Care Indian Pks

Attachment B

NonD	Centura Health Emergency & Urgent Care Lakewood
NonD	Centura Health Emergency And Urgent Care-Meridian
NonD	Children's Hospital Colorado At Parker Adventist Hospital
NonD	Children's Hospital Colorado - North Campus
NonD	Children's Hospital Colorado - South Campus
NonD	Community Medical Center Emergency Department
NonD	Complete Care Colorado Springs
NonD	Greeley Emergency Center
NonD	Gunnison Valley Health Mountain Clinic
NonD	North Suburban Medical Center - Northeast Er
NonD	Parkview Emergency Services At Pueblo West
NonD	Prowers Medical Center
NonD	Scl Health Saint Joseph Emergency Department - Aurora
NonD	Scl Health Saint Joseph Emergency Department - Northglenn
NonD	Sky Ridge Medical Center South Parker Er
NonD	Southeast Colorado Hospital
NonD	Southlands Er Parker Adventist Hospital
NonD	Southmoor Emergency & Urgent Care
NonD	St Anthony Copper Mountain Clinic
NonD	St Vincent General Hospital District
NonD	Swedish Medical Center Belmar Er
NonD	Swedish Southwest Er
NonD	Uchealth Broomfield Hospital

Attachment B

NonD	Uchealth Emergency Room - Commerce City
NonD	Uchealth Emergency Room - Thornton
NonD	Uchealth Emergency Room - Aurora Central
NonD	Uchealth Emergency Room - Green Valley Ranch
NonD	Uchealth Emergency Room - Powers
NonD	Uchealth Emergency Room - Woodmen
NonD	Uchealth Emergency Room - Meadowgrass
NonD	Uchealth Emergency Room - Fountain
NonD	Uchealth Emergency Room - Arvada
NonD	Uchealth Grandview Hospital
NonD	Uchealth Harmony Road Er
NonD	Weisbrod Memorial County Hospital
NonD	West Littleton Emergency Room

## Attachment C: EMTS Data Tables

▼ = Decrease from prior period.	▲ = Increase from prior period.	→ = No change from prior period.
---------------------------------	---------------------------------	----------------------------------

EMS Personnel by level in Colorado					
Level	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Registered EMR	382	383	370	366	356 ▼
EMT	13,400	13,556	13,663	13,701	13,771 ▲
Advanced-EMT	352	383	381	371	360 ▼
EMT-Intermediate	399	390	384	366	352 ▼
Paramedic	4,495	4,522	5,015	5,058	5,134 ▲
Total EMS Personnel*	19,098 ▲	19,317 ▲	19,443 ▲	19,496	19,617 ▲

\* Total EMS Personnel excludes registered EMRs

Subset of EMS Personnel With Endorsements or License					
Level	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
<b>EMT</b> Licensed	n/a	n/a	371	501	<b>631 ▲</b>
<b>AEMT</b> Licensed	n/a	n/a	10	21	<b>25 ▲</b>
<b>Paramedic</b> Licensed	n/a	n/a	299	372	<b>425 ▲</b>
<b>Paramedic</b> Critical Care Endorsement	422	430	436	455	<b>470 ▲</b>
<b>Paramedic</b> Community Paramedic Endorsement	22	25	24	26	<b>29 ▲</b>
<b>Paramedic</b> Critical Care + Community Paramedic Endorsements	8	8	14	13	<b>15 ▲</b>

\*Data presented in this table are a subset of the total EMS personnel presented in the table above.



Peer Support Fees Collected					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
<b>Fees Collected</b>	\$4,049.05	\$3,670.15	\$4,925.95	\$4,207.50	\$4,335.00 ▲
<b>Net Program Fees</b>	N/A	N/A	N/A	\$ 33,884.40	\$ 38,219.40

\*The Peer Support Fee is the \$2.55 charge per EMS certification or license issued by the department, created by SB 19-065. Net Program Fees are the total fees collected during the life of the program, less refunds issued. The net program fees include all fee collected from the program's inception on August 3, 2019 through June 30, 2021.

EMS Education Programs					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
<b>Education Programs</b>	220	224	225	225	226 ▲

National EMS Certification Exams: Cumulative Pass Rates (Colorado vs National)							
	National				Colorado		
	2019	2020	2021 YTD		2019	2020	2021 YTD
<b>EMT</b>	81%	78% ▼	78%	<b>EMT</b>	85%	84% ▼	81%
<b>AEMT</b>	78%	73% ▼	71%	<b>AEMT</b>	80%	80% ↔	91%
<b>Paramedic</b>	89%	85% ▼	82%	<b>Paramedic</b>	98%	99% ▲	92%

\*\* Data report provided by NREMT.org; data for the prior 24 months will change as candidates test. Updated 9/24/2021

Attachment C

Air Ambulance Agencies					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q2
Licensed	20	20	21	22	23 ▲
Recognized	10	8	11	11	10 ▼
Total	30 ▼	28 ▼	32 ▲	33 ▲	33 ↔

Exigent Circumstance Air Ambulance Flights					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Approved	1	0	2	0	0 ↔
Denied	0	0	1	0	0 ↔

Scope of Practice Waivers (Active)					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Waivers (BLS)	4	3	3	3	4 ↔
Waivers (ALS)	421	346	382	382	285 ↔
Waivers (BLS + ALS)	45	42	44	44	51 ↔
Total	470 ▲	391 ▼	429 ▲	429	340 ↔

Licensed Ambulance Agency & ePCR Data					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
EMS Agencies Reporting	176	180	195	191 ▼	
EMS Records Submitted	166,458	166,163	163,999	177,507 ▲	

Note, in accordance with data rules, agencies have 60 days to submit data. 2021 (Q2) is the most recent data.

CREATE and Emergency Grants					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
CREATE Grant Awards	\$45,221	\$33,954	\$29,744	\$ 23, 312	\$34,495
Emergency Grants	0	0	0	0	\$5,063

Provider Grants and System Improvement Funding					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Applications Received	-	-	72		-
Funds Requested	-	-	\$4.4M		-
Funds Awarded	\$3.7 M	-	-	\$ 3.9M	-

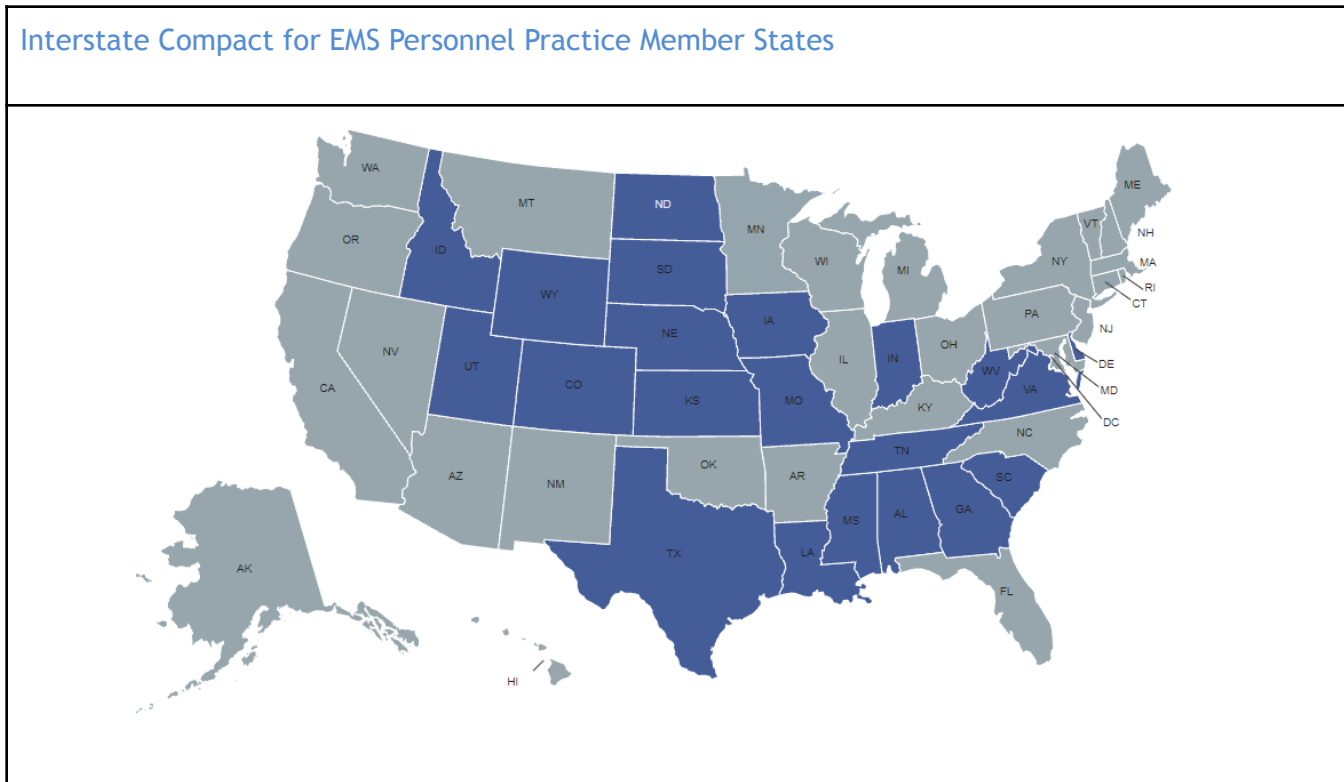
Trauma System Designated Reviews Conducted					
Designation Level	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Level 1	Designation reviews were suspended during this time period due to the COVID-19 public health emergency.		0	0	1
Level 2			2	1	1
Level 3			3	3	3
Level 4			0	0	1
Level 5			0	1	0
Total			5	5	6

Colorado Trauma System Facility Designations							
	Level 1	Level 2	Level 3	Level 4	Level 5	Total Designated	Total Non-designated
Number	6	14	26	33	4	83 →	44 →

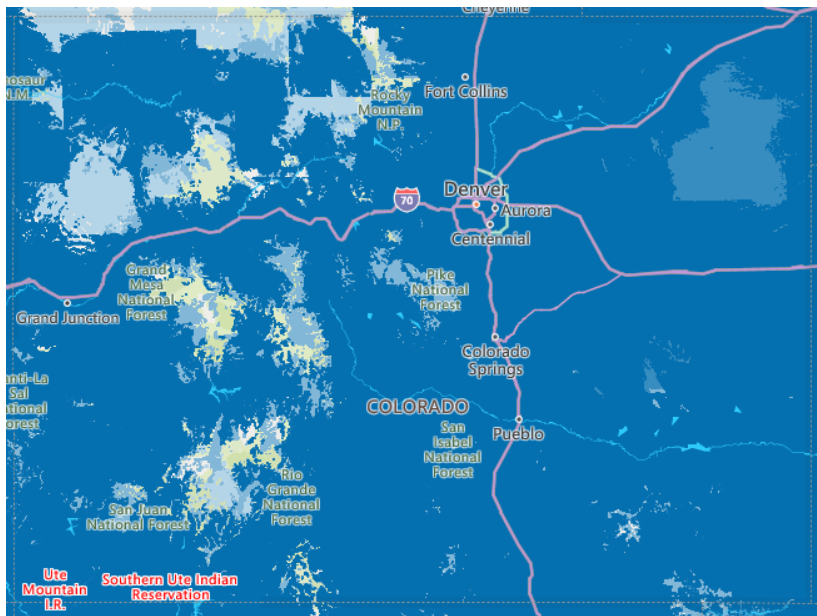
Enforcement: EMS Personnel					
EMS Personnel	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
New Complaints /Investigations & Background Check Reviews	236	288	242	183	170 ▼
Application / Renewal Denial	2	0	0	0	0 ↔
Letter of Admonition	0	0	1	1	2 ▲
Probation/Temp Probation	2	5	3	8	2 ▲
Suspension/Temp Suspension	1	3	5	5	3 ▼
Revocation	0	0	0	2	0 ▲
Relinquishment	0	2	0	2	0 ▲

\* Dismissed/No Action includes complaints and reviews of criminal history for initial applicants, renewals, and FBI/CBI subsequent reports.

Enforcement: Air Ambulance Agencies					
	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
New Complaints / Investigations	0	1	1	2	1 ▼
Closed Complaints/Investigations	0	0	1	0	0 →
Dismissed / No Action	0	0	0	0	0 →
Conditional License	0	0	1	0	0 →
Suspension	0	0	0	0	0 →
Revocation	0	0	0	0	0 →



FirstNet Coverage Map for Colorado



**Legend**

- International Coverage
- LTE With Priority
- LTE Without Priority
- 3G/4G
- 2G
- Tribal Land Borders

Priority on LTE will be available in the first phase of the FirstNet network deployment.

Map will be updated to reflect Band 14 coverage as it is deployed.

Map displays predicted approximate current outdoor wireless coverage. Actual coverage is not guaranteed and is subject to change without notice.

## Attachment D: Statewide Ketamine Use

In accordance with C.R.S. § 25-3.5-210, the Department is providing this report on the statewide use of ketamine by emergency medical service providers and any complications that arise out of such use.

Ketamine (Ketalar) is a medication that has sedative and analgesic properties. Emergency Medical Services (EMS) providers use ketamine for pain management, sedation, and as a component in Rapid Sequence Induction (RSI). Ketamine and RSI are not within the scope of practice of most Colorado EMS providers but can be approved for use by Colorado Paramedics through a scope of practice waiver. Both acts are within scope of practice for Paramedics with Critical Care Endorsement. With the signing of House Bill 21-1251 on July 6, 2021, the Department retired all Ketamine for Extreme Agitation/Excited Delirium waivers. Further, 6 CCR 1015-3, Chapter Two - Rules Pertaining to EMS Practice and Medical Director Oversight were revised to ensure compliance with HB 21-1251. The revisions were reviewed by EMPAC at its Aug. 9, 2021 meeting and adopted by the Department's Chief Medical Officer Oct. 20, 2021.

Although all licensed ambulance agencies are required to submit electronic Patient Care Reports (ePCRs) to the Department within 60 days of patient contact per 6 CCR 1015-3 Chapter 3, some ambulance agencies do not adhere to this requirement and the Department currently lacks the authority to sanction non-compliance because ground ambulance agencies in Colorado are regulated by the counties, not by the Department. Between July 1, 2020 and June 30, 2021, 2,586 ePCRs with one or more ketamine administration(s) were identified in the Department's EMS Data Repository, <sup>1,2,3</sup>. Of those, three percent documented one or more potential medication complication(s). These data do not establish a causal link between the medication and complications or outcomes, <sup>4</sup>. It is important to note that these data were collected prior to the signing of HB 21-1251, and no additional training or guidance was provided on appropriate entry of ePCR data when ketamine was utilized by EMS providers.

To enhance the quality of EMS data submitted to the Department, the Department has developed a data dictionary and training material on accurate ePCR data entry for future reporting. The Department is also working with stakeholders to revise 6 CCR 1015-3 Chapter Three rules related to EMS data to: significantly reduce the lag time of data submission, require data submission compliance for agencies seeking scope of practice waivers, and better align with national EMS data standards.



### Footnotes

- 1) All licensed ambulance agencies are required to submit ePCRs to the Department within 60 days of patient contact. Non-licensed ambulance agencies may also utilize ketamine, and those incidents are not included in this dataset. These data include all ePCRs submitted to the Department with an incident date between 7/1/2020 - 6/30/2021 where ketamine was documented in the 'Medication Given' field. No narrative searches were conducted to retrieve additional information for the purposes of this report. Any instances of ketamine administered prior to EMS care were excluded.
- 2) EPCRs which listed the role of the person administering ketamine as Nurse Practitioner (NP) Registered Nurse (RN), or Physician (MD/DO) and other non-EMS providers were excluded.
- 3) These data were obtained from a live data system, which allows for the submission and alteration of ePCRs by the submitting agency at any time; therefore these data are subject to change. Data retrieved from the Colorado EMS Data Repository on 11/16/2021.
- 4) Data included in the Count of ePCRs with Any Reported Medication Complication(s) were determined using the 'Medications Complication' field associated with ketamine administration. This data field was missing or not documented in 487 ePCRs (19% of all ePCRs examined). No narrative searches or analysis of vitals signs were conducted. The included complications were: altered mental status, bleeding, hypoxia, injury, respiratory distress, vomiting, apnea, bradycardia, bradypnea, extravasation, hypertension, nausea, tachycardia, hypotension, hypoxia, and other.