

Emphasis Area: Emergency Response-Post-Crash Care

Co-Champions: Alyssa Johnson, Trauma System Manager, EMS & Trauma Systems, DPHHS and Shari Graham, EMS System Manager, EMS & Trauma Systems, DPHHS

Objective: Reduction of morbidity and mortality of the Montana motor vehicle crash victim.

Strategy 1 - Access to the Emergency Response System; On Scene Care Training & Education **Purpose:** Public awareness and education for those first on scene, before EMS arrives, can be crucial for survival. Lay bystanders can play a critical role in care, from activating the emergency response system to providing basic care of the injured patient. This requires access to 911 systems and medical advice from dispatch.

Opportunity	Timeline	November Status	Lead(s)	Reference	Resource	Measurement of Success
S1.1:Support Emergency Medical Dispatch (EMD) training for all dispatch centers	Ongoing.	Emergency medical dispatch (EMD) is a service where trained 911 telecommunicators provide instructions for medical care to bystanders prior to EMS arrival. Each Public Service Access Point (PSAP) also called a 911 Center makes the determination of whether or not to offer this service. Most PSAPs fall under the jurisdiction of the county sheriff. EMS TS staff continues to advocate for/and educate communities on the importance of having emergency medical dispatch services available. The EMS TS staff has developed a resource manual & FAQ page for PSAPs interested in adopting EMD. Recommendation that EMD trainers be included in the RMRTS invitation and present training to the Association Public Safety Communication Officers (APSCO).	Kim Burdick & Shari Graham, EMS System Manager- EMS & Trauma Systems (TS)-Department of Public Health and Human Services (DPHHS)	DPHHS EMS Systems	Association of County Public Safety Communication Officials (APSCO) King Co. (Seattle) Training	Continue to promote training for EMD trained dispatch centers.
Continue to Watch: Support bystander/ nonemergency personal training and education, (I.E. Stop the Bleed, First Aid, etc.).	Ongoing.	By standers are the first "First Responders" to most emergencies. Beyond calling 9-1-1, they need to know basic skills in injury recognition and treatment to provide aid until help arrives. Supporting community and individual efforts to train lay persons in these skills is an ongoing effort by local EMS agencies, law enforcement agencies, and schools. Look towards expanding coverage in rural and tribal areas, where many Montanans reside. Bystander CPR and Bystander AED are included as metrics in the new EMS Performance improvement initiative; we will be sending a performance indicator (PI) data report to EMS agencies at least twice a year. Virtual Trauma Coordinator Training held March 2021	Alyssa Johnson & Janet Trethewey	Hartford Consensus Paper FEMA	National Stop the Bleed Organization; American Heart Association (AHA); You are the Help Until Help Arrives	Continue to encourage and support training.
Continue to Watch for the development of the Enhanced 9-1-1 & FirstNet & Next Generation 911 access for first responders by DOA.	Ongoing.	FirstNet is a nationwide wireless broadband network for first responders being built & deployed through a first of its kind public-private partnership between the federal government and AT&T. DOAs role is to ensure <u>AT&T delivers on the terms of its contract and creates a communication network that meets the needs of Montana public safety now and into the future.</u> The First Responder Network Authority team has worked closely with Montana public safety officials since 2014, capturing feedback and translating it into the design of the FirstNet network. During the initial five-year build out FirstNet is focused on: <u>Expanding coverage in rural and tribal areas</u> , where many Montanans reside. Enabling state, local, tribal, and federal agencies to effectively communicate and coordinate along the border, and Increasing capacity during emergencies and natural disasters through the use of deployables.	Michael Sullivan, FirstNet-AT&T		The First Responder Network Authority is the federal entity charged with overseeing the creation and delivery of the FirstNet network.	Research the availability of coverage area, communication coordination along the border, and capacity during emergencies and natural disaster.

Strategy 2 - Safe & Rapid Transport of Crash Victims and Training of Emergency Responders **Purpose:** Well-equipped ambulances with trained staff is mandatory to ensure rapid transport. EMS education and training needs to be on-going, with providers enhancing their skills and knowledge. Communication and quick response to on-scene crash sites by Traffic Incident Management (TIM) teams is priority to secure and clear crash sites to reduce additional crashes and ensure safe travel for the motoring public.

Opportunity	Timeline	November Status	Lead(s)	Reference	Resources	Measurement of Success
S2.1:Support ongoing education and training of emergency care responders.	Annual	Education & training to include but not limited to: (I.E. : Prehospital Trauma Life Support (PTLS)- MDT Grant, EPIC (Excellenct in PreHospital Injury Care-TBI) , Psychological First Aid, Care for Children, among others) through continued annual grant funding.	Shari Graham, EMS System Manager- EMS & TS-DPHHS. Community Integrated Health/Community Paramedicine / EPIC program- DPHHS	DPHHS EMS Systems	DPHHS EMS Systems	Continue to encourage and support training. F
S2.2:Secure EMS equipment and training to properly restrain and care for children (EMS for Children)	Annual	The mission is to strengthen the Montana Pediatric Readiness.Safe ambulance transport should be considered as a standard of care for the EMS system equivalent to maintaining an open airway, adequate ventilation and the maintenance of cardiovascular circulation. Personnel should be trained & evaluated on the correct use of those restraint systems. A weight/age appropriate pediatric restraint device is required in Level I of the MT Prehospital Pediatric Recognition Criteria for the safe transport of children in ambulances. ~20 MT Prehospital Services formally recognized.	Kelly Little, EMSC Coordinator, EMS & TS-DPHHS	DPHHS EMS Systems	DPHHS EMSC	Continue to promote installation of proper pediatric restraints and emergency medical equipment for children.

S2.3:Support and promote MDT Emergency Medical Equipment Grant Program	Annual	The availability of prehospital emergency medical services (equipment and vehicles) can improve the medical outcome for people suffering medical emergencies and may improve the survivability of motorists involved in crashes on Montana roads by providing emergency response to vehicle crash sites.	Spencer Harris, EMS Grant, SHTSS-Montana Department of Transportation (MDT) & Shari Graham, EMS System Manager- EMS & TS-DPHHS	EM Equipment Grant Program- MDT	MCA 61.2.503	Number of grants awarded annually
S2.4: Support and promote Traffic Incident Management Systems (TIMS) Training	Annual	Provide FHWA-developed certified 4-hour Traffic Incident Management Responder Safety Training to all first responders in Montana. Successful TIMS program is dependent on commitment of but limited to MDT, MHP, and DPHHS and other safety partners to continue education, train the trainer courses, and confirmation of training site locations.	FHWA TIMS Coordinator- FHWA; Jerry Prete, TIMS Coordinator- MSU Fire Services; Shari Graham, EMS System Manager- EMS & TS-DPHHS; MDT; MHP; Montana Law Enforcement Academy (MLEA)	FHWA SHRP2 Program; EDC-2, EDC-6	FHWA SHRP2 Program; Every day Counts (EDC)- 2, EDC-6	Training Goal for 2023 is 70%.
To Watch: Promote and improve prehospital notification communication system with facilities .	Ongoing.		Shari Graham, EMS System Manager- EMS & TS-DPHHS			Number of facilities registered: Number of services using available free software:
To Watch: Support and promote Trauma Emergency Response training for Law Enforcement Officers (LEO) & Equip Law Enforcement vehicles with basic trauma kits	Ongoing	Law enforcement officers (LEOs) often arrive at a motor vehicle crashes (MVC) prior to the EMS agency. Officers need to be able to recognize and treat the most critical life-threatening injuries prior to EMS arrival. Process is under research and to be revisited. TEMS Position Statement NTOA and Why Officers Need Advanced Medical Training Police Magazine	Shari Graham, EMS System Manager- EMS & TS-DPHHS	Tactical Emergency Medical Support	Pre-Hospital Trauma Life Support (PHTLS) for First Responders Tactical Emergency Medical Support, https://www.ntoa.org/sections/tems/tems-position-statement/ https://www.policemag.com/342050/why-officers-need-advanced-medical-training#:~:text=Training%20law%20enforcement%20officers%20in,dressing%20to%20stop%20massive%20bleeding	Incorporation of the 8 hour PHTLS-FR course in the Law Enforcement Academy Training Requirements
Strategy 3- Hospital-Based Trauma Care						
Purpose: Optimally, all acute care facilities with emergency departments should be formally prepared and designated to care for injured patients at a level commensurate with their resources, their capabilities, and community's needs. Ongoing education and training of hospital-based emergency care providers is essential to improve patient care and outcomes.						
Opportunity	Timeline	November Status	Lead(s)	Reference	Resources	Measurement of Success
S3.1: Support ongoing education and training of the trauma team.	Annual. Ongoing.	Education and training including but not limited to: Advanced Trauma Life Support (ATLS), Emergency Nurse Pediatric Course (ENPC) and Trauma Education Assessment Management (TEAM) course funded with MDT Grant, among others. F	Alyssa Johnson, DPHHS Trauma Systems	Montana Trauma Registry Annual Report 2022 Montana Trauma System Plan 2019	DPHHS	Continue to encourage and support training.
S3.2: Support and further trauma center designation for all Montana facilities that care for injured persons	Ongoing	Increased number of voluntarily designated trauma centers across the state. Working on developing criteria for Trauma I hospitals.	Alyssa Johnson, DPHHS Trauma Systems	Montana Trauma System Plan 2019	NASEM: A National Trauma Care System; NHTSA; Trauma System Agenda for the Future; American College of Surgeons Committee on Trauma	Increase voluntarily designated trauma centers.
S3.3: Continue to support and promote the Rocky Mountain Rural Trauma Symposium (RMRTS)	Annual	An annual two-day conference offering trauma education for physicians, APCs, nurses and pre-hospital personnel.	DPHHS Trauma Systems		DPHHS	Sustain and increase participant (and vendor) attendance.

WATCH: Support and further Pediatric Ready Recognition for all Montana facilities Ongoing. **Watch:** The mission of the Emergency Medical Services for Children (E.M.S.C.) Program is to reduce child and youth mortality and morbidity caused by severe illness or trauma; by increasing the number of Pediatric Ready Recognized facilities and increasing EMS prehospital pediatric capabilities in Montana. Kelly Little, EMSC-DPHHS DPHHS DPHHS EMSC Increase Pediatric Ready Recognized facilities:

Strategy 4- Integrate Crash, EMS, Trauma and Roadway Surveillance Databases. **Purpose:** Improve the accuracy, completeness, collection, integration, timeliness, uniformity, and accessibility of crash and injury data from various sources. Data on injuries and injury events can be used to guide post-crash response, identify gaps in quality care, and inform injury prevention strategies.

Opportunity	Timeline	November Status	Lead(s)	Reference	Resource	Measurement of Success
S4.1: Continue to utilize and enhance ImageTrend data (EMS patient care records) to track road safety trends and to improve overall EMS system performance.	Annual.	DPHHS has been collecting EMS patient care data using ImageTrend since Jan 2017. With nearly all EMS services in Montana contributing data to the state data repository, the focus has shifted to improving data quality, and utilizing data effectively for surveillance and quality improvement activities. EMS system updated to include emergency personal care records (EPCR). DPHHS has contracted with ImageTrend to complete the NEMSIS 3.5 conversion by October 2023. This change will assist DPHHS in describing injury in Montana. EMS QI report (quarterly) includes a section on MVC patients which tracks whether EMS is documenting patient position in vehicle, use of occupant safety equipment, scene location, and vital signs for all EMS 911 responses to motor vehicle crashes	Hannah Yang, Epidemiologist & Shari Graham, EMS Systems Manager- EMS & TS- DPHHS	2022 EMS Annual Report, 2021 EMS Annual Report, 2022 Trauma Report, 2021 Trauma Report, Montana Trauma System Plan 2019,	NEMSIS (National Emergency Medical Services Information System); NHTSA, Emergency Medical Services Data	<p>To measure data quality: NEMSIS state data submission dashboard metrics.</p> <p>To measure data utilization: Number of data requests filled, number of data reports published.</p>
S4.2: Utilize ESO/Digital Innovations (DI) data (Trauma Registry) to analyze hospital treatment of the patient and implement performance improvement using the data	Annual.	Analyze hospital treatment of the patient and develop and implement program-specific, regional & state-wide performance improvement indicators based on utilizing trauma registry data to drive change. Interruptions of the EMS records being transferred to the trauma facility impact MTR data quality and need to be proactively monitored and addressed. <ul style="list-style-type: none"> • Close monitoring of ED dwell times for trauma patients boarding in the ED can help expose system level problems that need to be addressed in order to improve patient outcomes. • New field triage guidelines for EMS are being introduced in 2023. It will be important to track whether these correlate to injury severity, a strong predictor of patient outcome. • Continued collaboration between EMS agencies and facilities to improve care and minimize mortality of TBI patients using the EPIC-MT guidelines. • Outreach to IHS hospitals (none of which currently submit data) to encourage participation in MTR and associated quality improvement efforts. 	Carol Kussman, DPHHS Trauma Coordinator	Montana Trauma Registry Annual Report 2022, Montana Trauma System Plan 2019	ESO/DI Data Dictionary; American Trauma Society position paper	Program-specific, regional & state-wide performance improvement (PI) implemented.
Watch For: Continue to support and use available Montana Highway Patrol (MHP)-motor vehicle (MV) crash data for analysis to guide injury prevention strategies and emergency care of the patients.	Ongoing	Continue to support and use MHP MV crash data to analyze crash data to guide injury prevention strategies & emergency care of the patients. Data conversation needs to be revisited with MHP. Sheets developed by Hannah Yang. Alcohol: https://dphhs.mt.gov/assets/publichealth/EMSTS/Data/Alcohol_1pager.pdf Unintentional Motor Vehicle Traffic Injuries: https://dphhs.mt.gov/assets/publichealth/EMSTS/Injury/Montana_MVT_SER_2016_2020.pdf Seat Belts: https://dphhs.mt.gov/assets/publichealth/EMSTS/Data/SeatbeltFactsheet.pdf	Mark Keeffe, Data Analyst-SHTSS-MDT & Hannah Yang, Epidemiologist-DPHHS			Annual crash data
Watch For: Utilize Dept. of Labor & Industry data to further understand first responder crash injuries	Ongoing	Develop queries to determine baseline number of emergency response/EMS involved in a motor vehicle crash either <u>on-scene or transport to/from site</u> . To include nature of injury and classification of responder. (Responders to include EMS provider, EMS ambulance, law enforcement (LE) officer, LE vehicle, fire & rescue (FR), FR vehicle, maintenance or public works department, tow truck driver, or hospital staff.)	Epidemiologist-DLI & Hannah Yang, Epidemiologist-DPHHS			Base line data needed to determine risk to emergency responders. i.e., Responder Injuries-in-Transport & On-scene Injuries. Currently, there are no collaboration projects with or using DLI data .

Watch For: Integrate ImageTrend, DI and MHP data sets (via Biospatial platform among others) to provide a full picture of crash injuries in Montana

5+ years. Long-term.

Biospatial ingests statewide EMS data in real time. Trauma registry data is added to the system each quarter. Trauma registry data is being linked with EMS data by EMSTS staff on annual basis. DPHHS utilizes Biospatial and other analysis platforms to look at EMS and Trauma datasets individually. There is no way to access MHP crash data for standalone analyses as MHP is not involved with Biospatial.

Documents on linking motor vehicle crash records with EMS and other health datasets.

NHTSA, Linking Traffic Records Data Systems,
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812056> **CDC, Linking Information for Nonfatal Crash Surveillance (LINCS),**
https://www.cdc.gov/motorvehiclesafety/pdf/linkage/CDC_LINCS_Guide_508c.pdf **National Academies of Sciences, Engineering, and Medicine (NASEM), A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury,**
https://nasemso.org/wp-content/uploads/Data-Linkage-Joint-Statement-Final-Draft-for-Team-Review_V2.pdf

Hannah Yang, Epidemiologist-DPHHS

DPHHS

Resource references are listed under status.

Full integration of all three data sets. *Unable to integrate MHP dataset at this time.

Strategy 5- Provide Statewide Injury Prevention Education to Communities Through A Collaborative Effort

Purpose: Crashes are considered a preventable problem with identifiable risk and protective factors and proven mitigation strategies. Building a statewide education network to promote and support injury prevention.

Opportunity	Timeline	November Status	Lead(s)	Reference	Resource	Measurement of Success
S5.1: Provide guidance, support, coordination, and technical assistance to local and regional injury prevention activities.	Annual	Activities based on valid injury data & evaluation criteria to gauge effectiveness. Establish baseline for number of <u>CHIPs</u> with MVC prevention-focused strategies.	Maureen Ward, Injury Prevention Program Manager, EMS & TS-DPHHS	DPHHS Injury Prevention Program, State Health Improvement Plan (SHIP)-DPHHS		Increase MVC prevention-focused strategies by 20%. (DPHHS goal)
S5.2: Align MDT Comprehensive Highway Safety Plan (CHSP) & DPHHS State Health Improvement Plan (SHIP) strategies.	Annual	Annual review and scheduled progress updates of <u>motor vehicle fatalities & serious injuries</u> (severe) related to the focus areas <u>unrestrained vehicle occupants & impaired driving emphasis area strategies to maintain consistency between the SHIP & the CHSP</u> . Montana Crash data is found under the Annual Meeting at https://www.mdt.gov posted online at Comprehensive Highway Safety Plan Montana Department of Transportation (MDT) (mt.gov) DPHHS & MDT staff are participating team members on the SHIP & the CHSP Emphasis Area groups involved in coordinating, communication, and collaborating on joint activities.	Maureen Ward, Injury Prevention Program Manager, EMS & TS-DPHHS; Pam Langve-Davis, CHSP manager-MDT	Injury Prevention Program-DPHHS, SHIP-DPHHS, CHSP-MDT, SHTSS-MDT	2020 Crash Data, https://www.mdt.mt.gov/visionzero/plans/docs/chsp/2021/B-2021-CHSP-Overview-Final-Langve-Davis.pdf	Coordinated educational outreach efforts based on SHIP & CHSP safety strategies.

Strategy 6- Support Laws, Policy Development and Legislation

Purpose: Effective after-crash response includes policy development and legislation. These may include policy and legislation that enable access to timely care; laws/ policy surrounding crash investigation; and laws that protect first responders and emergency services personal on scene.

Opportunity	Timeline	November Status	Lead(s)	Reference	Resource	Measurement of Success
S6.1: Support activities surrounding policies and regulations that provide for emergency care access, EMS, facility designation and care standards.		EMS agency rules revision.				Increased awareness of EMS & Trauma System needs.
S6.2: Support state law and enhance driver awareness of Montana's Mover Over Law, including tow operators and vehicles.	Ongoing.	*Sustain and support update of MCA & signage posted at state borders and on Interstate routes and other areas. *Develop a baseline to identify and address incidents of injuries and deaths occurring within the area of traffic stops of LE, emergency responders, and the traveling public. <u>The baseline data piece ties into Strategy 4.5. Baseline ties to the measurement of Fatalities & Serious Injuries & break down of emergency responders</u> *Continues to promote and support public awareness campaigns: Move Over Montana FB, MDT web page & FB, etc.	Montana Highway Patrol (MHP), DLI & Hannah Yang, DPHHS & other team members		Epidemiologist- DLI; Move Over Montana FaceBook: MCA 61.8.346; MCA 61-8-803	TP decrease injuries and deaths of emergency responders resulting from roadside strikes.