

Workgroup Summary

Emergency Medical Services

Overarching Goal:

Prepare and invest in Emergency Medical Services (EMS) to meet evolving emergency medical needs and integrate innovative practices to improve overall health, safety, and well-being in local communities.

Issue:

In the 50 years since the origins of the modern EMS framework in the United States, EMS has come a long way. It was once staffed by dedicated volunteers with basic first aid training, driving modified hearses to render care to neighbors when manpower was available. EMS has transformed through the decades into a profession and essential service. Today's EMS agencies are overwhelmingly staffed 24 hours a day, 7 days a week by crews of licensed and trained clinicians with hundreds or even thousands of hours of education and training. These professionals function in ambulances equipped with state-of-the-art equipment with price tags in the hundreds of thousands of dollars, often creating fiscal challenges for EMS agencies. While EMS providers of the past had basic training and focused on rapid transport to an emergency department, emergency medical technicians (EMT) and paramedics of today are healthcare clinicians who provide advanced medical care, with all the education and responsibility that the public expects of healthcare clinicians. The clinicians in our workforce today can provide care far beyond basic bleeding control and CPR. They can administer whole blood products, provide pharmaceutical interventions for countless conditions, and provide treatments at home that were once only available in specialty hospitals. The profession of today shares little resemblance to their predecessors in the 1970s aside from their dedication to helping others in their time of need. As the scope of practice has expanded, EMS now faces numerous issues which federal, state, local, tribal, and territorial governments (SLTT) must work to address to enable EMS clinicians to continue to provide excellent care.

EMS professionals face a changing landscape. Communities are asking EMS agencies to do more, often with less resources, to serve as a safety net for the underprivileged among us. Instead of maintaining a "response posture", where EMS clinicians are only leaving the station to respond to emergency 911 calls, by way of call demand, EMS is now being asked to serve the community in a preventative role as well.

Issue Spotlight: EMS & Opioids

As substance abuse and the opioid epidemic have plagued every corner of the nation, the EMS community has been tasked with ensuring immediate care is provided to those experiencing overdoses. Beyond the administration of lifesaving care, EMS clinicians are being tasked more

Opioids

Opioid responses by the Fire Service and EMS have been increasing for years. Agencies are actively working on improving how they manage these types of situations. Implementing social services as a follow-up to these incidents, connecting patients with community agencies, is one small step to not only mitigate and reduce these types of calls but also to ensure individuals receive the resources to help them regain stability in their lives.

Today, a significant role of Fire and EMS is not only responding to emergencies but also proactively working to prevent them. As first responders, we **accept the responsibility** of safeguarding our communities and taking measures to minimize the occurrence of emergencies.

– Chief Mary Cameli, Mesa Fire/
Medical Department, Mesa, AZ

frequently with providing care to at-risk individuals by assisting with substance use disorder (SUD) treatment medications as patients wait for SUD treatment resources that are limited. This can lead to reductions in overdoses. For example, from 2014 to 2019, providing paramedics and crisis support workers with extra education on substance use disorders and stigma reduction led to a 19% decrease in overdoses in St. Charles County, Missouri (PALF, 2020). Additional contributing factors to increasing demand on the system include EMS responses to the growing behavioral and mental health crisis across the country as well as EMS clinicians serving as the safety net unsheltered persons rely on when primary care is not an option.

Issue Spotlight: Serving the Unhoused with Respect and Dignity

The complexity of administering care and the growing population of unhoused individuals means the demand for EMS will only grow. According to work published by the National Alliance to End Homelessness, “In 2022, counts of individuals (421,392 people) and chronically homeless individuals (127,768) reached record highs in the history of data collection” (NAEH, 2024). Some of the specific issues EMS agencies face when caring for the unhoused include:

- ▶ **Heightened Risk of Fires and Related Injuries:** The reliance on open flames for warmth and cooking due to inadequate shelter and heating options increases the risk of fires, further straining EMS resources.
- ▶ **Access to Basic Needs:** The inability to access proper nutrition and medications complicates the management of medical emergencies.
- ▶ **Episodic Care:** The episodic nature of EMS care may not align with the continuous care required by unhoused individuals, leading to gaps in treatment.
- ▶ **Health Equity:** The lack of housing contributes to health inequity, as unhoused individuals face barriers to healthcare access, including lack of insurance and resources.
- ▶ **Behavioral Health Needs:** Significant unmet medical and behavioral health needs among the unhoused create barriers to accessing care.

Complexities in Care for the Unhoused

The need for emergency responses in hard-to-reach areas, often with limited access to the unhoused, complicates rescue and medical efforts.

– Otto Drozd III, Executive Secretary, Metropolitan Fire Chiefs Association

A recent literature analysis published in the Journal for Academic Emergency Medicine highlights just a few of the unique health challenges EMS agencies face when assisting the unhoused, “Homeless persons pose special challenges for the emergency provider (EP) and defy conventional assumptions about patient responsibility in health care delivery. They suffer a higher burden of chronic illness (e.g., cardiovascular disease, mental illness, hypertension) and infectious disease (e.g., tuberculosis [TB]), are disproportionately vulnerable to violence and injury and are at increased risk of premature death and disability” (Salhi et al., 2018).

Issue Spotlight: Reimbursement from Alternative Treatment Models

The changing landscape of how healthcare systems are developing new and innovative ways to respond to behavioral health or substance abuse care by sending some patients straight to specialized treatment facilities and bypassing already crowded hospital emergency departments is creating challenges for EMS agencies in that they are often unable to collect reimbursement for costs incurred. At present, EMS agencies that perform these services do not receive any payment from insurance companies since Centers for Medicare and Medicaid Services (CMS) does not recognize this as a billing option. This often leaves the burden of payment on patients who are not able to afford the daily cost of living, let alone an ambulance service invoice. This issue affects

all EMS entities but has significantly greater impacts on communities with larger unhoused populations.

EMS agencies are also seeing drastic upticks in non-emergent service requests. This includes increasing demands for lift assists due to falls at residences or assisted living facilities, as well as other call types indicative of an aging population lacking adequate social services to support it. These factors contribute to the evolving role and identity of EMS in 2024 and beyond. New care models have the potential to address these issues.

“Mobile Integrated Healthcare (MIH) is a patient-centered, innovative delivery model offering on-demand, needs-based care and preventive services, delivered in the patient's home or mobile environment” (Roeper et al, 2018). One aspect of MIH is community paramedicine (CP), which utilizes specially trained clinicians to provide advanced care to patients in the field who would otherwise require admission to a healthcare facility.

Data is limited but promising when it comes to cost savings and patient satisfaction in communities that have implemented CP programs. The Emergency Triage, Treat, and Transport program (ET3) was a program through the CMS designed to allow participating EMS agencies to bill Medicare for patients who were treated outside of the hospital. The program was discontinued in 2023 due to poor participation. The small sample of participating agencies did yield some data that showed, on average, TIP saved Medicare around \$500 per patient contact (CMS, 2023). Currently, CMS reimbursement is only authorized for transportation provided by ambulance. The ability to treat a patient in the field without transporting them to the hospital or treating them and transporting them to an alternate destination, such as a rehabilitation facility, mental health treatment facility, or other healthcare institution that doesn't traditionally take patients directly from the field, will almost certainly mean better outcomes for patients and less financial and overcrowding stress on the nation's hospitals.

In addition to cost savings, preliminary data from CP and TIP programs show that patient satisfaction in the programs is very high as well. One of the more established systems in this space is the MedStar Mobile Healthcare system in Ft. Worth, TX. Utilizing tools such as a nurse triage program, patients who contact 911 fifteen or more times in a 90-day period are placed in a High Utilizer Group (HUG) and visited by an MIH team to help manage their care without transporting them to the emergency department every time they call 911. Between 2009 and 2019, it is estimated that this program has “saved \$23 million in healthcare expenditures for an ambulance, ED and admissions (\$29,481 per enrolled patient)” (Zavadsky, 2019). Patient satisfaction reported by Medstar Mobile Health shows “a 36% improvement in their health status, a 96% patient satisfaction rating and 98% of the enrolled patients would recommend the service to others” (Zavadsky, 2019).

As EMS continues to evolve, the culture, community, and identity of the industry are dramatically changing. There is a growing need to recognize EMS for what it is today, a unique and essential public safety and healthcare system that requires recognition as well as funding support, regardless of its systematic design. The support required goes beyond funding and revenue models for sustainability; it extends to ensuring the clinicians that staff these ambulances have the training and equipment they need and, more importantly, the ability to do their jobs while staying safe

Treatment in Place and Transport to Alternate Destinations

Studies have proven that the treatment in place (TIP) and transport to alternate destinations (TAP) not only offer better economic models but also have improved patient satisfaction in these types of programs throughout the world.

– Susan Bailey, MSEM, NRP, Director, Louisiana Department of Health – Bureau of EMS

from violence and other occupational hazards. Without a properly equipped, trained, and cared-for workforce, the EMS community cannot prepare for and meet the demands of tomorrow.

Looking ahead, we can already see new challenges on the horizon – challenges that are better met with preparation today instead of reactive responses tomorrow. These challenges involve the changing scope of practice for EMS clinicians through the national trend of “out-of-hospital” care in addition to the legacy standard of “prehospital” care. The crowding of emergency departments and shortfalls in the healthcare continuum will almost certainly result in an increase of EMS workload. This will require continued advancements in practicing community paramedicine, allowing reimbursement for treatment in place, and the embracement of alternate transport sites as well as a true coordinated care model that values partnerships between EMS and hospitals, public and private clinics, skilled nursing, and long-term care facilities, as well as 911.

Recommendations

Advancing Protocols: While states and territories are responsible for setting their own standards for EMS systems for the public health and healthcare clinician licensure processes, there needs to be support from the federal level in the form of data and research. The federal government must empower federal agencies to conduct research and release reports that state-level medical directors may use to support the expanded scope of practice for EMS clinicians with a particular focus on out-of-hospital opioid treatments and community paramedicine (Mobile Integrated Healthcare).

- ▶ Empower federal agencies to provide research and data to local and state counterparts.
- ▶ Direct federal agencies to focus research on pressing issues including addressing the changing landscape of EMS, the challenges facing the profession, and where EMS is heading.
- ▶ Direct federal agencies to review existing laws and guidance to ensure they are in alignment with the needs of local EMS agencies and make recommendations for improvement.

Empowering EMS to Better Serve the Unhoused: To effectively address these issues, a multifaceted approach is essential. This includes enhancing housing security, providing mental health support, and expanding community outreach education. Such measures are vital for safeguarding the well-being of those experiencing homelessness and ensuring the continued effective service of EMS and fire departments to the entire community.

The current state of homelessness represents a critical public health issue that demands coordinated action and comprehensive policy responses. It is a collective responsibility to ensure the safety and dignity of every individual, requiring collaboration across all levels of government, community organizations, and the public.

- ▶ Direct federal agencies to review existing laws and guidance to better understand how a national approach can address the problem.
- ▶ Provide funding for training for clinicians to better understand the complexities of providing care for those who are unhoused.
- ▶ Develop frameworks rooted in evidence-based strategies to integrate EMS into whole of government solutions to mitigate risks to the unhoused and those without shelter.

Equipping EMS with the Tools to Treat Substance Abuse: EMS has been tasked with care for those individuals experiencing substance abuse addiction. While public health agencies have received significant increases in funding to treat opioid addictions, this money has not carried over to the clinicians most frequently encountering individuals requiring care. EMS must be given the capacity to handle this demand. Beyond funding for the staff to render the necessary care, funding must also be available for advanced training to keep clinicians up to date on best practices. State and local entities must work to update protocols, allowing groundbreaking treatment methods to come into practice and deployment of evidence-based medicine into the field.

- ▶ Support grant programs for agencies sending staff to continuing education courses focused on opioid and addiction treatment.
- ▶ Support EMS agencies and professional organizations working to share best practices for EMS to treat substance abuse issues.
- ▶ Adopt policy changes allowing states to alter prehospital protocols to implement specialized out-of-hospital treatments by qualified clinicians with proper medical director oversight.

Public Education / Healthcare Literacy: Federal, state, and local governments must act to support a generalized public education campaign to inform the nation on when to call 911 and when not to. These campaigns must expand beyond the appropriate use of 911 and include information relating to alternative services available outside of EMS and the hospital systems (988, social services, drug and alcohol services, local-level elderly ombudsmen, etc.). There are growing concerns that certain entities may inappropriately use EMS to address issues that should be handled in other ways. Data supports the analysis that some private skilled nursing facilities will overuse emergency services to augment short staffing in cases involving lift assists and other non-emergency needs. Research has shown that residents of private-equity-owned nursing homes were 11.9% more likely to have a preventable emergency department visit and 8.7% more likely to experience a preventable hospitalization (Braun et al., 2021). The importance of this issue was highlighted by a Biden–Harris Administration Fact Sheet issued in 2022 (White House, 2022). Whenever situations like this occur, it takes the emergency ambulance out of service for significant periods of time, thereby preventing them from being available to address other emergency dispatches. These types of incidents cost taxpayers millions of dollars a year, and advancements in public education on when to use the service can mitigate this issue.

- ▶ Identify mechanisms for agencies to use to address the appropriate use of the 911 system, including nurse-led 911 triage programs.
- ▶ Fund public safety campaigns to educate the public, similar to programs used by NHTSA relating to highway safety.
- ▶ Fund grants to local entities to highlight services such as 988 or county level social work.

Treatment in Place (TIP) and Transport to Alternate Destinations (TAD): Congress and CMS must work together to alter the medical billing codes available to EMS. EMS must be able to seek insurance reimbursement (from government and commercial insurers) for services rendered on the scene when no transport is necessary and for transport to alternate destinations for treatment.

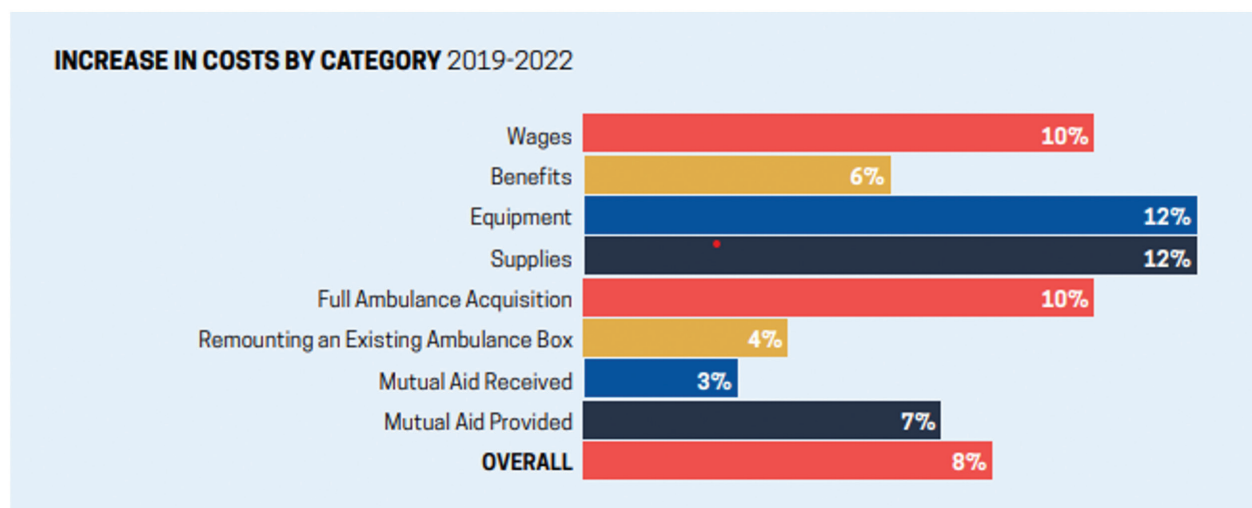
- ▶ Consult with Congress and CMS to conduct a review of existing billing codes that impact EMS.
- ▶ Identify barriers for CMS to update and expand billing procedures allowable to include treatment in place and reimbursement for transport to alternate destinations.
- ▶ Identify actionable steps to reduce the burden on hospitals, freeing up room in the emergency department for critical patients.

Cooperation and Culture: EMS delivery models continue to shift as local governments and health systems continue to integrate them into more aspects of the healthcare continuum. These changes are accompanied by cultural changes. The federal government must work with state, local, tribal, and territorial government counterparts to ensure that, regardless of the model adopted, EMS fulfills its mission of providing essential public health services.

- ▶ Expand the EMS Compact and other programs to build a stronger EMS culture across the country and modernize the workforce through targeted recruitment and retention efforts.

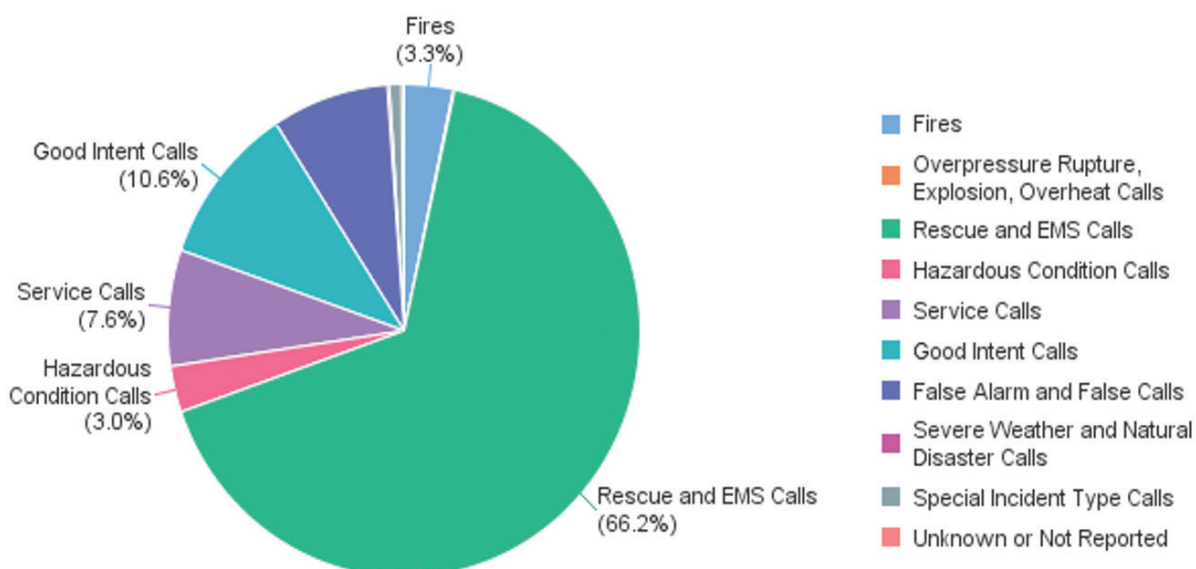
Funding and Sustainability: As communities increasingly turn to EMS for services, there has been a widening gap in revenue and operational costs for agencies across the country. The National Association of Emergency Medical Technicians reports that between 2019 and 2022, EMS agencies

saw a net increase of 8% in overall costs across all categories, with only a 5% average increase in fee for service revenue per transport, with 30% of agencies reported no increase, and 13% reported a decrease in fee for revenue (NAEMT, 2023, p. 2).



<https://www.naemt.org/docs/default-source/ems-data/ems-economic-and-operational-models-survey-02-20-2023-final.pdf>

Incident Type Category Summary



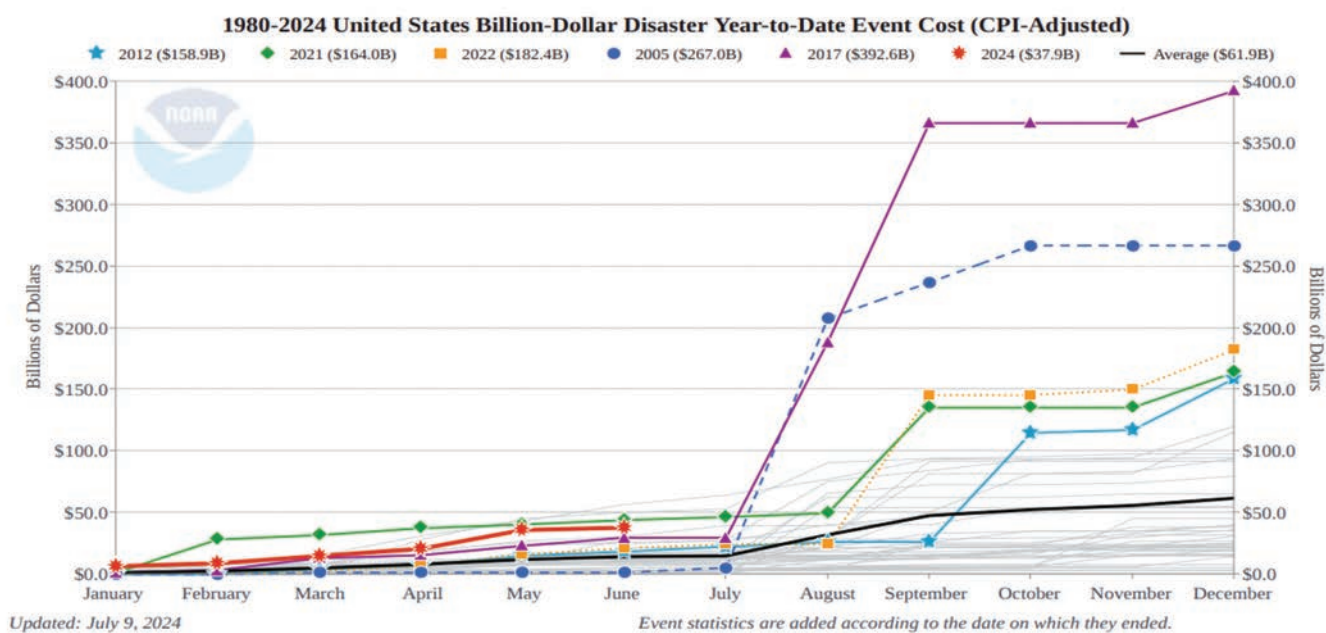
NFRIS Data Reported as of 07/31/2024 1

Additional support through government agencies or alternative billing options must be implemented to keep agencies in service. The threat of funding shortfalls is paramount and becoming ever clearer with the growing presence of “ambulance deserts” across the United States, areas where no EMS agency serves, or response times for emergency calls exceed 25 minutes. Many communities are unaware that they live in these areas until a loved one is in urgent need of life-saving care. Research from the Maine Rural Health Center analyzing ambulance deserts in 41 states found that 4.5 million people lived in ambulance deserts and that eight states had fewer than three ambulances covering every 1,000 square miles of land area (Jonk, 2023). County and municipal planning officials must ensure the limited resources emergency services receive are allocated based on services performed. Data will play a key role in this decision-making. According to the National

Fire Incident Reporting System (NFIRS), fire departments respond to emergency medical type calls more than any other response type. In 2023, data reported as of July 31, 2024, fire departments reported in NFIRS a total of 21,101,413 calls for rescue and EMS services out of 31,867,167 incidents. The rescue and EMS total represents 66.2% of all incidents reported. As data-gathering tools such as the National Emergency Response Information System (NERIS) come online and into service, state, local, tribal, and territorial government officials will be equipped with advanced tools to aid in defensible decision-making. While all public safety services play a vital role in the safeguarding of a community's well-being, it is essential that funding levels meet the evidence-based demands being created. Solutions to address these issues include:

- ▶ Explore new and existing funding streams to state, local, tribal, and territorial entities to ensure adequate funding for EMS agencies in underserved areas.
- ▶ Identify funding shortfalls and potential sources for addressing them.
- ▶ Assist local governments with data for more informed budget and resource decision-making.

Funding for Readiness: In addition to base sustainability needs, there is a growing concern about agencies' abilities to respond to new threats and challenges requiring modern equipment and advanced training for personnel. As the nation (and the world) experience the increasingly deadly impacts of climate change, it is important to recognize that the need for EMS is extending beyond traditional 911 emergencies. EMS agencies are the primary medical response element immediately following mass casualty incidents (MCIs) including those resulting from natural disasters and they must have the ability to operate until federal support or mutual aid compacts can arrive. As data from the Federal Emergency Management Agency and National Oceanic and Atmospheric Administration shows, year after year, the number of "billion-dollar disasters" across the United States increases (NCEI, 2024).



<https://www.ncei.noaa.gov/access/billion>

As the number of these events increases, the ability of the federal government to respond adequately decreases, placing more burden on local entities to meet the community's needs. Areas never previously impacted by natural disaster are experiencing them, and government data states the severity and frequency will only increase from here. No longer is this a question of "if" an event will happen, but rather "when" a community will experience a tornado, hurricane, wildfire, heatwave, earthquake, or straight-line winds causing devastating damage to persons and property. Agencies

must have funding to train staff and maintain a constant state of readiness in the event these occur.

- ▶ Expand access to federal grants for EMS agencies for disaster preparedness.
- ▶ Create new programs specifically designed to meet EMS needs, including stockpiling PPE, medical equipment, and other necessary items for natural disasters and mass casualty events.
- ▶ Review existing training and associated costs to allow EMS clinicians to receive advanced training for disaster response.

EMS Clinician / Responder Safety: CDC and NIOSH data highlight the risks EMS professionals face on any incident. The National Institute for Occupational Safety and Health (NIOSH) reports there were an estimated 16,900 injuries among EMS clinicians requiring emergency department treatment (*Emergency Medical Services Clinician Injury Data: An Overview, 2024*). The work of EMS clinicians is inherently dangerous from the second they start work. The dangers start at the station, including exposure to potentially cancer-causing chemicals. They continue during emergency response using lights and sirens to drive to a patient in need. Upon arriving on scene, EMS clinicians are exposed to dangerous pathogens or viruses, physical or verbal violence from patients, bystanders, families, or others. When operating on roadways; distracted, impaired, or confused drivers kill approximately 50 responders each year. In addition, threats from mass shootings, crowds, hazardous air pollutants (wildfires), and other on-scene threats are increasingly impacting clinician safety. We owe it to our nation's EMS professionals to minimize these threats wherever possible and ensure they are equipped with the proper personal protective equipment (PPE), training, and support to do their jobs to the best of their abilities.

- ▶ Instruct NIOSH to conduct studies expanding in scope beyond current models to fully understand the risks EMS clinicians face on the job.
- ▶ Determine what legal protections exist for injured EMS professionals and assess the need for additional federal safeguards to ensure responder safety, including from violent acts experienced on the job.
- ▶ Expand the traffic incident management systems (TIMS) training and availability to EMS clinicians who are significantly underrepresented in trained TIMS responders.
- ▶ Provide funding opportunities for personal protective equipment crucial to enhancing EMS personnel safety and effectiveness when responding to acts of violence, mass shootings, and active shooter hostile events.
- ▶ Consideration of a systems approach to EMS that prioritizes calls and creates an opportunity to address low-priority and preventable calls to another system besides the 911 response system.
- ▶ Adoption and facilitation of well-being policies that include addressing evidence-based guidelines for fatigue within the profession, such as those issued by the National Association of State EMS Officials (NASEMSO).
- ▶ Fostering an environment where well-being services may be offered to EMS responders with no or limited charge, whether within health insurance programs, risk management programs, or grant offerings.

EMS is a challenging work environment from the work hours to the work environment including periods of no activity truncated by periods of serious injury or illness response or incidents.

– Kraig Kinney, State EMS Director, EMS Division, Indiana Department of Homeland Security

Data Integration:

Data is an essential piece of EMS. From the time a call to 911 is placed, data is paramount. According to reports from NHTSA's 911 Office; "advancements in 911 technology now provide PSAP/ECC staff

Essential Public Health Service Status: The COVID-19 pandemic made it abundantly clear that Emergency Medical Services are, in fact, an essential service, on par with fire departments, police departments, and hospitals. EMS needs recognition on this level to ensure funding is in place, recruitment and retention goals are met, and the sustainability from the last 50 years continues for the next 50 and beyond. At present, communities are not required to provide an EMS service to its residents. Federal and state governments must find creative ways to address this to ensure everyone in the United States has access to an ambulance in the event of a medical emergency.

- ▶ Identify actionable ways to elevate the status of EMS as an essential service.
- ▶ Integrate EMS into community vulnerability assessments.
- ▶ Ensure EMS leadership is integrated into the entirety of the healthcare continuum through rule changes and financial benefits.
- ▶ Research methods to make EMS an appealing career worthy of pursuing.

Accomplishments

- ▶ Successfully brought the necessary EMS stakeholders to the table for the first time, ensuring voices from across the profession, from volunteer to paid, fire department based to third party, rural to urban, and from local to federal have been given a seat and welcomed into the discussion.
- ▶ Identified the most pressing issues impacting the emergency medical services community and the nation and highlighted potential solutions to help create a more equitable and accessible out-of-hospital care system for all we serve.

References:

1. Braun, R. T., Jung, H., Casalino, L. P., Myslinski, Z., & Unruh, M. A. (2021). Association of private equity investment in US nursing homes with the quality and cost of care for Long-Stay residents. *JAMA Health Forum*, 2(11), e213817. <https://doi.org/10.1001/jamahealthforum.2021.3817>
2. CDC, Emergency Medical Services Clinician Injury Data: An Overview. (2024, February 16). Emergency Medical Services. <https://www.cdc.gov/niosh/ems/injury-data/index.html>
3. Jonk, Y., Milkowski, C., Croll, Z., & Pearson, K. (2023). *Ambulance Deserts: Geographic Disparities in the Provision of Ambulance Services* [Chartbook]. University of Southern Maine, Muskie School, Maine Rural Health Research Center. "Ambulance Deserts: Geographic Disparities in the Provision of Ambulance" by Yvonne Jonk PhD, Carly Milkowski MPH et al. (maine.edu)
4. Manatee County Sheriff's Office & The Salvation Army. (2022). EMS' role in addressing homelessness. In Manatee County Community Paramedicine Program [Presentation]. <https://www.mihsummit.org/wp-content/uploads/2022/12/ems-role-in-addressing-homelessness-sonia-shuhart.pdf>
5. National Association of Emergency Medical Technicians (NAEMT). (2023, February 20). 2023 National Survey-EMS Economic and Operational Models Executive Summary. [ems-economic-and-operational-models-survey-02-20-2023-final.pdf](https://naemt.org/ems-economic-and-operational-models-survey-02-20-2023-final.pdf) (naemt.org)
6. National Association of Emergency Medical Technicians (NAEMT). (2016, February 20). Summer 2016 Issue Web. [summer-2016-issue-web.pdf](https://naemt.org/summer-2016-issue-web.pdf) (naemt.org)
7. National Alliance to End Homelessness (NAEH). (2024, January 6). State of Homelessness: 2023 Edition. National Alliance to End Homelessness. <https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness/>
8. 911 Data Path. (2024, February 5). 911 DataPath. 911.gov. [911 DataPath | 911.gov](https://911.gov/911-DataPath/)
9. NOAA National Centers for Environmental Information (NCEI). (2024). U.S. Billion-Dollar Weather and Climate Disasters. <https://www.ncei.noaa.gov/access/billions/>, DOI: 10.25921/stkw-7w73
10. Priority Ambulance Leadership Foundation (PALF). (2020, October 29). *Reinventing EMS response to substance abuse, mental health emergencies*. EMS1. <https://www.ems1.com/mental-health/>

[articles/reinventing-ems-response-to-substance-abuse-mental-health-emergencies-OkqYPJQfgWccx28r/](https://doi.org/10.1111/acem.13358)

11. Salhi, B. A., White, M. H., Pitts, S. R., & Wright, D. W. (2018). Homelessness and Emergency Medicine: A Review of the literature. *Academic Emergency Medicine*, 25(5), 577–593. <https://doi.org/10.1111/acem.13358>
12. Thorndike, A. L., Yetman, H. E., Thorndike, A. N., Jeffrys, M., & Rowe, M. (2022). Unmet health needs and barriers to health care among people experiencing homelessness in San Francisco’s Mission District: a qualitative study. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-13499-w>
13. United Nations, Homelessness and Human Rights. (2024). United Nations Office of Human Rights. Retrieved July 28, 2024, from <https://www.ohchr.org/en/special-procedures/sr-housing/homelessness-and-human-rights>
14. White House. (2022, March 14). FACT SHEET: Protecting seniors by improving safety and quality of care in the nation’s nursing homes. The White House. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/28/fact-sheet-protecting-seniors-and-people-with-disabilities-by-improving-safety-and-quality-of-care-in-the-nations-nursing-homes/>
15. Verzoni, A. (2023, March 3). Invisible No More. National Fire Protection Association. <https://www.nfpa.org/news-blogs-and-articles/nfpa-journal/2023/03/03/homeless>

APPENDIX A:

FEDERAL AGENCIES IDENTIFIED AS EMS PLAYERS WITHIN THE FEDERAL GOVERNMENT

1. 911
2. Administration for Strategic Preparedness and Response (ASPR)
3. Assistant Secretary for Planning and Evaluation (ASPE)
4. Bureau of Indian Affairs (BIA)
5. Centers for Disease Control and Prevention (CDC)
6. Centers for Medicare & Medicaid Services (CMS)
7. Commissioned Corps of the U.S. Public Health Service (USPHS)
8. Department of Defense (DOD)
9. Department of Homeland Security (DHS)
10. Department of Justice/PSOB
11. Department of Labor (DOL)
12. Department of Transportation (DOT)
13. Emergency Medical Services for Children (EMSC)
14. Federal Aviation Administration (FAA)
15. Federal Communications Commission (FCC)
16. Federal Interagency Commission of EMS (FICEMS)
17. Federal Emergency Management Agency (FEMA)
18. Health & Human Services (HHS)
19. Health Resources and Services Administration (HRSA)
20. Indian Health Service (IHS)
21. National EMA Advisory Council (NEMSAC)
22. National Institute of Health (NIH)
23. National Telecommunications and Information Administration (NTIA)
24. NHTSA Office of EMS
25. National Institute for Occupational Safety and Health (NIOSH)/Occupational Safety and Health Administration (OSHA)

26. Park Service
27. Substance Abuse and Mental Health Services Administration (SAMHSA)/988
28. Tribal Nations

APPENDIX B:

NGOS IDENTIFIED AS EMS PLAYERS WITHIN THE FEDERAL GOVERNMENT

1. Academy of International Mobile Healthcare Integration
2. American Academy of Orthopedic Surgeons
3. American Academy of Pediatrics, Committee on Pediatric Emergency Medicine
4. American Academy of Pediatrics, PEPP Steering Committee
5. American Ambulance Association (AAA)
6. American College of Emergency Physicians – Committee on EMS
7. American College of Surgeons, Committee on Trauma
8. American College of Surgeons, EMS Committee
9. American Geriatrics Society
10. American Heart Association
11. American Public Health Association
12. American Red Cross
13. American Society for Testing and Materials
14. America's Health Insurance Plans
15. Association of Air Medical Services
16. Association of Healthcare Emergency Preparedness Professionals
17. Association of Public Safety Communications Officials International
18. Cardiac Arrest Registry to Enhance Survival
19. Coalition Against Bigger Trucks
20. Coalition for National Trauma Research
21. Commission for Accreditation of Ambulance Services
22. Commission on Accreditation of Allied Health Education Programs
23. Commission on Accreditation of Prehospital Continuing Education
24. Committee on Accreditation of Educational Programs for the EMS Professionals
25. Committee on Tactical Combat Casualty Care (CoTCCC)
26. Committee on Tactical Emergency Casualty Care (TECC)
27. Communications Security, Reliability, and Interoperability Council (FCC)
28. DHS Science and Technology Committee - EMS Sub-committee
29. Emergency Services Sector Coalition
30. Healthcare Information and Management Systems Society
31. International Academies of Emergency Dispatch
32. International Association of EMS Chiefs
33. International Association of Fire Chiefs – EMS Section
34. International Association of Fire Fighters
35. International Association of Flight and Critical Care Paramedics
36. International Board of Specialty Certification
37. International Critical Incident Stress Foundation
38. International Public Safety Association
39. International Trauma Life Support
40. Joint National EMS Leadership Forum

41. National Academies of Science, Engineering and Medicine Preparedness Forum
42. National Association for Search and Rescue
43. National Association of EMS Educators
44. National Association of EMS Physicians
45. National Association of State EMS Officials
46. National Collegiate EMS Foundation
47. National Council on Readiness and Preparedness
48. National EMS for Children Innovation and Improvement Center
49. National EMS Management Association
50. National EMS Memorial Service
51. National EMS Museum
52. National EMS Quality Alliance (NEMSQA)
53. National EMS Safety Council
54. National EMS Safety Council
55. National Pediatric Disaster Coalition Executive Committee
56. National Registry of Emergency Medical Technicians
57. National Rural Health Association
58. National Safety Council
59. National Ski Patrol
60. National Stroke Association
61. National Traffic Incident Management Coalition
62. National Volunteer Fire Council – Ems Section
63. Navajo EMS Nation
64. NFPA Technical Committee on Active Shooter
65. NFPA Technical Committee on Ambulances
66. NFPA Technical Committee on Drones
67. NFPA Technical Committee on Emergency Responders Occupational Health (ERHAAA)
68. NFPA Technical Committee on EMS
69. NFPA Technical Committee on HAZMAT
70. NFPA Technical Committee on MIH
71. NFPA Technical Committee on PPE
72. Pan-American Trauma Society
73. Pediatric Emergency Care Coordinator Learning Collaborative Advisory Committee
74. Prehospital Guidelines Consortium
75. Prehospital Pediatric Readiness Steering Committee
76. Public Safety Advisory Committee for FirstNet
77. Public Safety Group Recert Editorial Advisory Board
78. Rural Domestic Preparedness Consortium
79. SAFECOM Emergency Response Council-DHS
80. Special Operations Medical Association
81. State EMS Offices
82. The National EMS Memorial Bike Ride, Inc.
83. Trauma Centers Association of America
84. USFA Cardiovascular; USFA Codes and Standards; USFA Data and Technology; USFA EMS; USFA Firefighter Cancer; USFA Impact of Climate Change Workgroup; USFA Ion Batteries; USFA Mental Health; USFA Recruitment and Retention; USFA Whole of Government