

National EMS Advisory Council **FINAL**

Committee: Integration & Technology

Title: NHTSA Office of Emergency Medical Services as the Central Repository for all EMS Practitioner Safety and Wellness Data

A. Executive Summary

Practitioner safety and wellness is among one of the most pressing concerns for the Emergency Medical Services (EMS) industry. Data regarding EMS injuries and safety is not easily accessible due to being kept in multiple databases, buried deep in websites with poor search capabilities, or in the case of critical issues such as practitioner mental health, nonexistent. The lack of accessibility to this information often results in the inability to properly research and initiate safety enhancements in the workplace based on evidenced based data. Some of the most frequent data sought includes ambulance crash data, environmental injuries, general workplace hazards encountered while performing duties, and, importantly, violence and perpetuated against practitioners while caring for patients.

The impact of mental health on practitioners has also become a significant concern. As our profession matures, it has become evident that not only major incidents of significance, but routine stressors of normal job duties of the practitioners exact a significant toll on practitioners. The long-term effects of post-traumatic stress disorder and repetitive exposure to high levels of stress have become evident on practitioner's mental health. However, reliable evidence-based data showing the exact impact and trends are not currently available or accessible to stakeholders in a meaningful way. Further, there are also no standard guidelines for reporting mental health events and impacts on personnel. All EMS stakeholders need ready access to this information to make evidenced-based, data-driven decisions to increase the wellness of practitioners and ensure we have a health workforce.

B. Recommended Actions/Strategies:

National Highway Traffic Safety Administration Recommendation 1:

The NEMSAC recommends that NHTSA should collect data from all federal agencies regarding pertinent EMS data, or identify such repositories that exists and identify them as such within NHTSA. This data should be obtained from the spectrum of Federal agencies and national entities that track this information. Additionally, the data should be housed in one location within the NHTSA Office of EMS website making it easily accessible to all stakeholders.

Recommendation 2:

The NEMSAC recommends that NHTSA expands its current practice of providing static ambulance crash data on a limited scope of information, into a robust system of data element points that can be queried multiple ways by stakeholders.

- This data must be updated on an annual basis.
- Should include Response Mode to the Scene (NEMSIS eResponse.23, and eResponse.24), or if not involved on an active event.
- Other pertinent NEMSIS vehicle data (dVehicle.04 - Vehicle Type, dVehicle.10 - Vehicle Model Year, dVehicle.11 - Year Miles/Kilometers Hours Accrued, dVehicle.12 - Annual Vehicle Hours, eResponse.05 - Type of Service Requested), should be collected
- Other vehicle manufacturer information such as Chassis Manufacturer, Chassis Year, Box Manufacturer, Box Year, Use Type (Type I, II, III, or special use), and any information pertaining to tracking remounted ambulance. Air Ambulance safety data must also be taken into consideration.
- Explore opportunities for communication with the manufacture of the inadequate or defective equipment to resolve or replace any vehicle deficiencies.

Recommendation 3:

The NEMSAC recommends that NHTSA work with other industry professionals that are currently capturing episodic events, such as E.V.E.N.T¹, and Firefighter Near Miss², and others to collect the information in a useable format which can be queried and data provided to users to assist in making evidence-based data driven decisions regarding the safety of our professionals.

Recommendation 4:

The NEMSAC recommends that NHTSA work with stakeholders already collecting data regarding violence against practitioners, such as CARVNC³ and others, to create a more robust active data set that can be utilized to track incidents and educate leaders on the scope of the problem.

Recommendation 5:

The NEMSAC recommends that the NHTSA Office of EMS work with other engaged stakeholders such as the Code Green Campaign⁴ and state initiatives like the South Carolina F.A.S.T⁵ team to create a meaningful data base to collect mental health and wellness information. Our profession is currently facing a crisis due to a shortage of practitioners moving into our workforce. It cannot afford to lose personnel to injuries or mental illness.

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Consistent with goal five of its Strategic Plan calling for the measurement of occupational injuries, illnesses, and deaths in the workforce, it is the NEMSAC recommendation that FICEMS support the effort to make NHTSA a repository of all EMS safety and wellness data.

C. Scope and Definition

In facts that you cannot find on the NHTSA Office of EMS website, NIOSH reports that practitioners have higher rates of work-related injuries than the general workforce and three times the lost workday rate of all private-industry workers⁶. Other studies have reported that EMS experiences higher rates of missed time than other public safety professions⁷. Over 25% of those that are injured in EMS had more than one injury per year⁸. There is no research to suggest that the frequency and nature of injuries and illness are limited to any particular segment of EMS. This is a problem that all rural, urban, private, volunteer, and government run systems face. The lack of collection of any standardized data regarding violence against personnel during the course of duty, responder mental health, suicide, or other occupational hazards suggest the state of EMS safety and wellness is in even more peril. Consistent with EMS Agenda 2050⁹, examining the nature and patterns of injury, illness, and mental health through the collection and publication of data may help to identify preventive health measures to improve EMS safety and wellness⁷.

D. Analysis

Practitioner mental health wellness and safety is one of the most important issues that has arisen over the past decade in EMS. EMS leaders are in a struggle to find valid and pertinent information to make evidenced based data driven decisions to take care of the practitioners that take care of patients.

The occupational injury and wellness profile of EMS professional is not well described⁴. It is the responsibility of multiple government agencies at the federal level to track and publish morbidity and mortality data regarding paramedicine. The Occupational Safety and Health Administration investigates and levies actions against employers and the Bureau of Labor Statistics reports information regarding injury and illness in the industry. This information is challenging to locate and access by even the most seasoned of EMS safety researcher. The search engines for these databases are very difficult to use and frequently do not allow for detailed queries. Most EMS data is obscure within several layers of a variety of federal databases, most that are not interfaced with each other. In the Strategy for a National EMS Culture of Safety¹⁰ the National Highway Traffic Safety Administration (NHTSA), the Health Resources and Services Administration's (HRSA), EMS for Children (EMSC) Program, and the American College of Emergency Physicians (ACEP) assessment regarding workplace

safety data was:

“Currently, data that could help build an understanding of these issues may be housed in many different places, and is not reported uniformly.”, and “Improved data accessibility can enable meaningful use of that data to better understand issues, support recommendations and provide appropriate conclusions.”

Some professional groups have recognized the need to study work place safety practices and culture¹. Some have developed or supported voluntary reporting systems to document incidents to highlight events that threatened practitioner or patient safety². These sites largely are supported by anonymous reporting with the intent to share incident details and offer information in a “lessons learned” format to users⁴. Some entities have recognized the lack of data of available regarding violence against EMS practitioners. Some states such as North Carolina have invested in a reporting system that allows for either anonymous reporting, or identified reporting of incidents against practitioners so that outcomes can be tracked³.

Currently there is no national EMS database that studies the effects of psychological stressors that result from the occupation and their impact on EMS practitioners.

E. Strategic Vision

It is the vision of this recommendation that NHTSA will collect, aggregate, and publish through its website all injury, safety and wellness data that is amassed by other Federal agencies. Further, it will work with partner stakeholders to develop relevant data regarding mental health to describe and track the wellness of providers.

The Vision for this repository is the data housed and published by the NHTSA Office of EMS will be used by any EMS stakeholders for the purpose of developing better equipment, training and programs to increase the safety and wellness of the workforce.

F. Strategic Goals

Goal One:

Within One year, NHTSA will work with other federal agencies and national entities to gather, aggregate, and publish the data currently collected about EMS industry injuries, illnesses, and safety. Ambulance crash data should be published during this period. The data will be published on the NHTSA Office of EMS website and compiled in such a manner that it is easily searchable. Data should be updated as often as possible. NHTSA is respectfully requested to report back to NEMSAC on the acceptance and progress of the stated goal set forth.

Goal Two:

Within Three years, NHTSA will have worked with other interested stakeholders to have methods in place to collect reportable near miss and lessoned learned data. NHTSA will also have a functional dataset to track assaults and violent encounters

against practitioners during the course of duty. NHTSA is respectfully requested to report back to NEMSAC on the acceptance and progress of the stated goal set forth.

Goal Three:

Within Five years, NHTSA will have worked with partner entities to create a dynamic data set to describe the state of mental health and wellness in the EMS workforce. This dataset should be able to describe common stressors, triggers, and the impact of PTSD on practitioners. It should also highlight the existing programs in place to address mental health and their effectiveness. NHTSA is respectfully requested to report back to NEMSAC on the acceptance and progress of the stated goal set forth.

Reference Material:

A. Crosswalk with other standards documents or past recommendations

- EMS Agenda 2050, 2019
- The Role of Leadership in EMS Workplace Safety Culture, December 2011
- Strategy for a National EMS Culture of Safety, 2013
- NEMSAC Recommendation: Mental Health and Wellness for the EMS Provide and their partners in Public Safety, December 2016
- NEMSAC Recommendation: Mitigation of Direct Violence against EMS Professionals, August 2019
- Mitigation of Direct Violence against EMS Professionals, September 2019

B. Citations

1. E.V.E.N.T. Practitioner Near Miss Event. (n.d.). Retrieved from <http://event.clirems.org/Near-Miss-Event>. Accessed February 2019
2. Protect the next shift. (n.d.). Retrieved from <http://www.firefighternearmiss.com/>. Accessed Feb 2019.
3. Consortium Against Responder Violence. (n.d.). Retrieved from <https://www.carvnc.com/>. Accessed February 2019.
4. The Code Green Campaign. Retrieved from <https://codegreencampaign.org/>. Accessed July 2019.
5. Graham, P. (2014, August 20). Firefighters Assistance and Support Team - FAST. Retrieved from <https://scfirefighters.org/firefighters-assistance-and-support-team-fast/>. Accessed July 2019.
6. Mazen ES, Kue R, McNeil C, et al. A descriptive analysis of occupational health exposures in an urban emergency medical services system: 2007–2009. *Prehosp Emerg Care*. 2011;15(4):506–510.
7. Joe Suyama, Jon C. Rittenberger, P. Daniel Patterson & David Hostler (2009) Comparison of Public Safety Provider Injury Rates, *Prehospital Emergency Care*, 13:4, 451-455, DOI: 10.1080/10903120903144908
8. Paul T. Hoga, MD, Lloyd Ellis, MD. Evaluation of the injury profile of personnel in a busy urban EMS system, *The American Journal of Emergency Medicine*: Volume 8, Issue 4, July 1990, Pages 308-311.
9. EMS Agenda 2050 Technical Expert Panel. (2019, January). *EMS Agenda 2050: A People-Centered Vision for the Future of Emergency Medical Services* (Report No. DOT HS 812 664). Washington, DC: National Highway Traffic Safety Administration.
10. United States. National Highway Traffic Safety Administration. *Strategy for a National EMS Culture of Safety*, Washington, DC: National Highway Traffic Safety Administration. October 3rd 2013.