



National EMS Advisory Council

November 3, 2022

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Dear Mr. Srinivasan,

The National Emergency Medical Services Advisory Council (NEMSAC) would like to offer the following advice specific to the “post-crash care” component of the National Roadway Safety Strategy (NRSS) in response to the seven specific questions you posed in your letter to our group dated May 31, 2022.

To develop this advice, these questions were shared with the membership of NEMSAC. Responses were discussed, collated, and summarized by an ad-hoc subcommittee and presented as a draft letter for the full NEMSAC to review at our meeting in early August. Between August and mid-October the draft letter was shared with EMS stakeholders nationwide, as NEMSAC observed a period of public comment. Input from the public comment was collected and used to further amend an additional draft of the document. The updated version of our response letter was presented to the NEMSAC at its November 2-3, 2022 meeting. By unanimous vote, this response letter was finalized, and we now respectfully submit the consensus-driven responses below for your consideration:

1) How can NHTSA better support collaboration and partnerships among highway safety offices, EMS offices, and other stakeholders to improve post-crash care?

- Utilize federal discretionary funding to encourage state highway safety offices to invest in development of regional EMS, 911 and healthcare quality collaboratives to include all stakeholders with the objective of sharing data, quality metric development, quality metric monitoring, and development and deployment of tailored regional quality improvement initiatives related to post crash care.
- Ensure adequate NHTSA Office of EMS (OEMS) staff representation in all Federal Highway Administration (FHWA) initiatives related to post-crash care (to include Traffic Incident Management (TIM) and Every Day

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Counts) for the purposes of promoting inclusion and involvement of state highway safety offices, state EMS offices, and other relevant stakeholders.

- Improve communications between relevant stakeholders through frequent and regular group updates (newsletter, website, social media, etc.) that, at a minimum, increase awareness of the interrelationship between EMS, trauma systems, and NHTSA/state highway safety priorities.
- State, regional, tribal and territorial trauma systems, as relevant stakeholders, should be prioritized in messaging throughout NHTSA to include regional operations and program delivery

2) What post-crash care activities can NHTSA support to improve patient outcomes?

- Utilize federal discretionary funding to encourage state highway safety offices to invest in a campaign to educate stakeholders, including NHTSA Regional Operations, the Governor’s Highway Safety Association (GHSA), and state offices of highway safety about the newly revised National Trauma Field Triage Guidelines and their relevance to improved outcomes during post-crash care and encourage statewide adoption.
- Utilize federal discretionary funding to encourage state highway safety offices to invest in a campaign to educate stakeholders, including NHTSA Regional Operations, GHSA, and state offices of highway safety about the newly revised National EMS Model Clinical Guidelines and their relevance to improved outcomes during post-crash care and encourage statewide adoption.
- Encourage state, tribal and territorial governments to provide funding for Stop the Bleed (STB) educational initiatives.
- Encourage state, tribal and territorial governments to require STB equipment in all emergency-responder vehicles.
- Encourage manufacturers to voluntarily equip new vehicles with easily accessible bleeding control kits. If first aid kits are already provided, those kits should include, at least, basic bleeding control equipment.
- Encourage the adoption of Emergency Medical Dispatch (EMD) more widely so that all calls to 911 receive evidence-based pre-arrival instructions.

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- Actively educate NHTSA Regional Operations, GHSA, and state offices of highway safety about the relevance of EMD for all calls to 911 and the value of receiving evidence-based pre-arrival instructions.
 - Fund further development and encourage participation in the firefighter/EMS community for training that promotes a safe continuum of medical care during the extrication of the limited-access patient entrapped in vehicular wreckage. This next generation program would teach participants how to safely provide care before, during, and after the disentanglement procedures related to patient extrication.
 - Develop and fund education focusing on identification of high-voltage components and emergency disconnect systems to minimize dangers to emergency responders during patient extrication from electric vehicles (EV's) and hybrids.
 - NHTSA should work with the FHWA to improve access and incentivize participation in Traffic Incident Management (TIM) training for all emergency responders.
 - Foster the development or improvement of state-wide continuous quality improvement programs (CQIP) for medical care provided by EMS clinicians. CQIPs should improve communication and feedback loops between all relevant stakeholders including but not limited to state highway safety offices, state EMS offices, 911 authorities, hospitals and other definitive care transport destinations.
 - Encourage development and maintenance of liaison relationships or coalitions among EMS agencies and hospitals at the local, regional, and state levels to improve communication and collaboration between these community resources.
- 3) **What post-crash activities can NHTSA support to reduce disparities in care provided to patients?**
- Encourage state, tribal and territorial governments to acknowledge and fund EMS as an essential service, supporting the widespread availability of EMS nationwide. This concept is outlined in the NEMSAC advisory entitled “EMS Star of Rights”.
 - Encourage state, tribal and territorial governments to regard EMS practitioners as health care clinicians who provide emergency medical care, interventions, **AND** transportation—not transportation alone.

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- Utilize federal discretionary funding to encourage state highway safety offices to invest in efforts to address EMS workforce shortages that currently challenge underserved regions.
- Utilize federal discretionary funding to encourage state highway safety offices to invest in injury prevention initiatives in underserved regions and consider ways to include EMS and 911 in their implementation.
- Provide funding for pediatric readiness and disaster response initiatives in EMS to support the improved post-crash care of injured children.

4) What outreach could be conducted to improve on-scene safety and traffic incident training for EMS clinicians?

- Continue to encourage state-wide implementation of “move over” laws by federally funding a higher profile, next generation of this endeavor intended to reach a broader audience.
- Enhance incident notification systems to warn on-coming drivers of approaching roadway hazards including:
 - “Amber Alert” style driver notifications
 - Text push to affected areas
 - GPS-based warning systems
 - Improved roadway traffic alert/incident notification systems
 - Improved/expanded traffic camera monitoring
 - Improved integration of available and future incident notification system technologies with 911 centers throughout the nation.
- Support development of novel approaches to scene management training, such as virtual reality simulation.
- Develop and widely distribute guidelines for the appropriate use of Highway Emergency Response Units that specialize in blocking traffic (blocker vehicles) at crash scenes.
- Fund education and widespread distribution of existing standards pertaining to appropriate protective gear/attire that should be worn by emergency responders at roadway incidents. Emphasis should be placed on the use of this equipment by all emergency responders at all roadway incidents. Develop funding sources for acquisition of appropriate protective gear/attire for emergency responders. Work environments that demand simultaneous use of high-visibility attire and personal protective equipment should be factored into equipment acquisitions.

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- Fund research into strategies and technologies to increase visibility of emergency vehicles and emergency providers at roadway incidents and support widespread implementation.
- Fund a new and separate public service announcement (PSA) campaign to specifically address the issue of emergency responder safety at crash scenes, as the move-over campaign has not been 100% effective in preventing emergency responder roadway deaths.

5) What applied research and data quality improvements can NHTSA support to improve NEMSIS?

- Actively educate NHTSA Regional Operations, GHSA, and state offices of highway safety about Bipartisan Infrastructure Law Section 11111 which explicitly lists, for the first time ever, the National EMS Information System or “NEMSIS” as a core highway safety database utilizing actionable examples of how state NEMSIS databases can be analyzed for state highway safety evaluation and improvement. Consider the new NHTSA OEMS “Post-Crash Care by the Numbers” as an example.
- Encourage state, tribal, and territorial EMS offices to adopt the latest version of the NEMSIS standards and provide federal funding to support this important national data collection effort.
- Support linkage of EMS data (NEMSIS) with other related healthcare data sources to provide longitudinal de-identified databases to enhance crash injury epidemiology.
- Support efforts to link EMS and trauma databases with other relevant registries such as crash, traffic safety, and law enforcement data; demographic data sets; CAD data sets; and fatality data to create longitudinal databases for epidemiological study. Severe, non-fatal injury data should also be included.
- Support local, regional, and national data collection efforts related to post-crash care of injured patients at all hospitals, not just trauma centers.
- Encourage recruitment of EMS data managers and provide additional training to support ongoing patient care and EMS operational data management efforts.
- Support and strengthen the National EMS Quality Alliance (NEMSQA).

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6) EMS response times are a potential contributor to post-crash outcomes. How can NHTSA, in collaboration with FICEMS, support improved response times and the delivery of EMS throughout the nation?

- Support the development and widespread adoption of emerging technologies that would reliably capture precise geolocation data following vehicle crashes and provide direct access to 911/NG911 systems in order to improve emergency response in different settings.
- Utilize federal discretionary funding to encourage state highway safety offices to invest in the migration to Next Generation 911 (NG911) which will facilitate the integration of Advanced Automatic Collision Notification (AACN) into local emergency response systems. Automated crash data should be made available to 911/dispatch centers and should inform resources required for appropriate response. AACN data should also be made available to EMD telecommunicators and emergency responders. Efforts should be made for interoperability throughout the continuum of patient care so AACN data can be transferred between all clinical data systems.
- Utilize federal discretionary funding to encourage state highway safety offices to invest in efforts to make NG911 and Emergency Medical Dispatch (EMD) available in every state, territory, and on tribal lands.
- Support the creation of a national inventory that stores information about the type, location, and quantity of all post-crash care resources (ambulance services, helicopter EMS, trauma centers, etc.) and use information to perform a crossmatch comparison to the US Interstate and US highway system to quantify disparities in post-crash care capability by roadway segment and state.
- Encourage efforts to improve EMS provider availability and EMS service efficiency by supporting initiatives to decrease time spent by EMS in hospital emergency departments during the patient transfer-of-care process.
- Support further study related to the role of air ambulance services as an adjunct to ground ambulance services, especially in rural regions with documented response time delays.

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7) What activities can NHTSA support to improve incident recognition, incident geo-location (including statewide Next Generation 911 compliant GIS mapping), and transition to Next Generation 911?

- Utilize federal discretionary funding to encourage state highway safety offices to invest in and coordinate the national transition to NG911.
- Support standardization and interoperability of vehicle-based crash notification systems and NG911.
- Support integration of crowd sourced data and other applications data into the NG911 system for crash notification and geo-location.
- Address cybersecurity concerns related to 911 centers and national emergency communication infrastructure.
- Continue to support the implementation of NG911 call routing based on the location of the caller device, including usable vertical (z-axis) and the most accurate location data. This will require continuous NG911 GIS mapping that interconnects with surrounding jurisdictions and may be utilized to improve mapping for response and crash analysis.

The NEMSAC would like to thank you for including NEMSAC representatives and the national EMS community in NRSS implementation and for taking our collective experiences in providing post-crash care into consideration. We hope that you find these responses helpful as you continue to work toward achieving the Secretary's goal of zero deaths and serious injuries on our nation's roadways.

Sincerely,

Mary Ahlers
Chair, National Emergency Medical Services Advisory Council

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