Strategy for a National EMS Culture of Safety (SUMMARY ONLY)

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This is a summary of the document “Strategy for a National EMS Culture of Safety.” The complete document is available at www.emscultureofsafty.org.
I. Summary

Emergency medical services (EMS) is a critical component of the nation’s healthcare system. In the U.S., EMS personnel respond to an estimated 37 million calls per year. EMS is also an integral component of the nation’s disaster response system. In recent years, cultural and operational safety advances have been broadly implemented in many healthcare settings, as well as aviation and other high-consequence fields. Yet, too often, the very emergency medical system that people count on for help unintentionally risks or even causes preventable harm to three related groups: EMS personnel, patients and members of the community.

Risk of Harm to EMS Personnel: Regardless of their location or the type of system in which they work, EMS personnel are expected (and often expect themselves) to do their work under difficult, unpredictable and rapidly changing circumstances. They may work long hours, in harsh environments, with limited information, assistance, supervision and resources to accomplish their mission. In the course of their work, they may be exposed to risks such as infectious organisms, emotional stress, fatigue, physical violence, occupational injury, vehicle crashes, and personal liability. They are more than 2-1/2 times likelier than the average worker to be killed on the job, and their transportation-related injury rate is five times higher than average.

Risk of Harm to Patients: In 1999, the Institute of Medicine report To Err Is Human called the attention of the public and the medical community to the topic of preventable adverse medical events. Since then, the nation’s healthcare system has moved toward a culture of safety in many inpatient and outpatient settings. But these concepts and practices have yet to be widely embraced in the EMS community.

Risk of Harm to Members of the Community: EMS risks causing harm to the public. An example of this is the interaction between an ambulance responding to an emergency event and the general motoring public.

An Urgent Problem of Unknown Scope

It is difficult to measure the extent of harm caused to each of these three groups, and thus to create tailored solutions and measure their effect. Because reporting requirements and mechanisms are incomplete at best, reliable data are sparse and capacity for research is limited. Concerns over privacy laws, tort liability, trade secrets and potential public embarrassment hamper sharing of information that could be used to understand risks and identify system-level opportunities for improvement. A lack of standardization complicates efforts to aggregate and assess even available data. Because of these and related factors, EMS is severely limited in its ability to support policy initiatives, funding requests, quality improvement or even many day-to-day operational decisions on scientifically defensible, data-driven information.
A further complication involves the general approach to risk in EMS. An adverse event in EMS is defined as “a harmful or potentially harmful event during the continuum of EMS care that potentially preventable and thus independent of the progression of the patient’s condition”\(^5\) (emphasis added). But EMS has more typically targeted the event that causes harm than circumstances that increase risk of harm. Many of the metrics related to safety in EMS are, accordingly, related to actual events rather than risk. More robust data that supports sophisticated analysis is needed to take a step back from the harmful event itself and focus on the risky environment that promoted it.

Given the limitations in data, it is challenging to make an evidence-based, scientifically defensible argument supporting the need for improvements in EMS safety. Regardless of these factors, however, it is the consensus of the EMS community—expressed through the more than 20 stakeholder groups contributing to this project, and by the general EMS community via open meetings and a public comment process—that it would be unacceptable and irresponsible to withhold action until some unknown future point when an ironclad case can be made for improving safety in EMS.

EMS safety is a problem that demands to be solved. This Strategy is intended to shift the status quo and chart a new course that will support a culture of safety in EMS. The almost 1 million EMS professionals in the U.S.—and the hundreds of millions of citizens who expect and deserve functional, efficient, professional emergency medical services to be there for every emergency and every disaster—are all depending on efforts to create a safer EMS system.

**Strategy Background**

This Strategy stems from a 2009 recommendation by the National Emergency Medical Services Advisory Council (NEMSAC) for the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) to create a strategy for building a culture of safety in EMS. NEMSAC is a Federal advisory committee of EMS representatives and consumers that provides advice and recommendations to the Secretary of Transportation and to the Federal Interagency Committee on Emergency Medical Services (FICEMS) on matters relating to EMS.

**Process:** The Strategy was developed in a three-year, iterative process to allow for collaboration and input from a broad group of stakeholders both inside and outside the EMS community. The Strategy has been guided by a Steering Committee of experts representing a broad variety of EMS constituencies. The process also included public review and comment.

**Scope and Intended Audience:** The Strategy is a vision-oriented effort on a national scale. It does not attempt to serve as a substitute for the work of qualified researchers, scientists and technical experts. Rather, it is an effort to further that work by supporting, enhancing or creating channels for its advancement, standardization, practical application and widespread adoption.

The Strategy was commissioned as a high-level document. It is intended to guide decision-makers on the priorities, concerns and commitment of EMS stakeholders. The Strategy is not intended as a practical safety manual, nor is it designed for everyday use by EMS provider...
agencies. As such, it does not address highly detailed factors or make specific recommendations about operations, vehicles, equipment, medical procedures, etc.

This document is intended primarily for EMS leaders and organizations that are in a position to directly or indirectly support development of a culture of safety. The document is written broadly to include stakeholders both inside and outside EMS. While several EMS stakeholder organizations have created specific definitions of what EMS encompasses, the Steering Committee recognizes that emergency medical services is in a time of rapid evolution and that the existing definitions may well not capture what EMS evolves into over the next 10 to 15 years. Regardless of what needs EMS fills within the healthcare continuum and the community, safety must be a core value and be integrated into every aspect of EMS in the future.

The Strategy is intended to be well connected to science, best practices and trends both within and outside EMS, across healthcare and business. This intent is limited by the previously detailed realities limiting scientific support. Indeed, a significant benefit to the promulgation of the Strategy itself is the potential to spur research, data systems and reporting that are currently lacking. Accordingly, the Strategy incorporates a combination of proven concepts and promising ideas.

**The Strategy’s Six Core Elements**

This Strategy consists of six essential elements for advancing a culture of safety in EMS. These elements are described in greater depth beginning on page 34 of the full Strategy document.

**Just Culture:** The Strategy envisions a Culture of Safety within EMS that embodies values similar to those of a school of thought known as Just Culture. Widely adopted throughout healthcare, aviation and a growing number of other fields, Just Culture is an open-source, non-proprietary approach that embodies fairness and promotes accountability. It describes an organizational environment that encourages individuals to report mistakes, allowing a structured assessment that includes the risks that led to the error. By focusing on risk rather than negative outcomes, by addressing system factors, and by holding both systems and individuals accountable, factors that have or could lead to future errors can be modified in a collaborative way, without blaming or punishing.

Just Culture is not a substitute for a comprehensive safety management system. Its inclusion as a key element in this Strategy is intended as an important, appealing and achievable first step toward broader cultural change.

More information about the role of Just Culture in an EMS culture of safety appears beginning on page 37 of the full Strategy document.

**Coordinated Support and Resources:** Broadly advancing EMS safety in the most consistent and expedient way requires support, coordination, monitoring of progress, and sharing of centralized information and related resources to the EMS community.
This Strategy envisions a centralized function to provide this guidance, encompassing representation from a broad spectrum of stakeholder groups. This function would be advisory and guiding, rather than one of oversight, regulation or enforcement authority.

More information about the role of coordinated support and resources in an EMS culture of safety appears beginning on page 40 of the full Strategy document.

**EMS Safety Data System**: There is an urgent need to better understand the scope, frequency and nature of EMS responder injuries, adverse medical events and adverse events involving the community. Currently, data that could help build an understanding of these issues may be housed in many different places, and is not reported uniformly.

Improved data accessibility can enable meaningful use of that data to better understand issues, support recommendations and provide appropriate conclusions. As a first key step toward data-driven policy and decision-making, an EMS Safety Data System is envisioned, not as a new database, but as a national, robust, well-designed, secure data system linking and communicating with existing data systems to encompass key information about EMS safety. This Safety Data System would be made available for researchers and policy-makers, as well as use by national stakeholder organizations and individual EMS provider agencies.

More information about the role of an EMS safety data system in an EMS culture of safety appears beginning on page 44 of the full Strategy document.

**EMS Education Initiatives**: EMS education (both initial programs and continuing education) represents a crucial opportunity for delivering both responder safety and patient safety information, changing attitudes, and creating a national culture of safety in EMS. The Strategy envisions delivering education to both leaders and practitioners at all levels.

The Strategy includes a significant evolution of the EMS education process, in which the values and practical elements of a culture of safety are **fully integrated into each component of EMS education**. Under this model, awareness of the safety of responders, patients and the public would become a pervasive consideration.

More information about the role of EMS education in an EMS culture of safety appears beginning on page 48 of the full Strategy document.

**EMS Safety Standards**: The promotion of standards in EMS can enhance safety for EMS responders, patients and members of the public whom EMS encounters in the course of its work. High priority should be given to standards that support safety not only from an operational or technical viewpoint, but from a cultural perspective as well. Standards should be selected or developed following an evidence-based approach whenever possible—that is, one based on literature/evidence, data and
consensus.

More information about the role of EMS safety standards in an EMS culture of safety appears beginning on page 51 of this document.

**Requirements for Reporting and Investigation:** To successfully implement a culture of safety in EMS that improves safety for responders, patients and members of the public, mandates to report standardized data by all EMS provider agencies are needed to support the creation and population of the national EMS safety data system.

Steps for developing reporting and investigation requirements may include determining what data types are necessary and useful; describing what data is already be available or mandated; learning from those with hands-on experience; exploring options for an authorized investigative body; and identifying best practices.

More information about the role of reporting and investigation requirements in an EMS culture of safety appears beginning on page 53 of the full Strategy document.

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