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INVITED COMMENTARY

INVITED COMMENTARY: ACCIDENTAL DEATH AND DISABILITY: THE NEGLECTED DISEASE OF MODERN SOCIETY

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People have been helping their friends and strangers in need of medical care for centuries. Organized systems of care go back to the times of Napoleon's surgeon, Dominique-Jean Larrey, who developed the ambulance volantes ("Flying ambulances"). (1) In the United States, the Civil War saw the development by Dr. Jonathan Letterman of organized care of wounded in the field, transporting them from the field in ambulances to field hospitals.(2) Since the start of the 20th century, motorized vehicles and air ambulances have been used increasingly to care for those injured. The military medics, throughout World War I, World War II, the Korean War and the Vietnam war have demonstrated significant improvements in morbidity and mortality.

In spite of improvement in military care, similar advancements in the civilian response to injuries were limited. The publication of Accidental Death and Disability: The Neglected Disease of Modern Society by the National Academy of Sciences National Research Council in 1966 was prompted by those improvements in military care and a desire to translate those capabilities into the civilian community. This document was really the first time that we looked as a nation at care of the injured outside of the military setting. Although it focused on victims of motor vehicle crashes, the report also addressed injuries from other mechanisms, including the industrial setting. In addition to serving as a seminal document leading to improvements in EMS, the paper

also addressed systems of care issues, including care in emergency rooms (as limited as that care may have been); care in other areas of the hospital, including intensive care units, communications, funding and research needs; as well as training and education in both the pre-hospital and hospital environments. The paper also proposed equal status of police, fire and EMS in the community. This white paper, combined with other events, led directly to legislation establishing the Department of Transportation and the precursor agency to the National Highway Traffic Safety Administration (NHTSA) Office of EMS, tasked with issues such as educational resources and vehicle standards. The DOT has been steadfast in its support for EMS since that time.

Almost 40 years after the publication of the white paper, the National Academies revisited the critical issues presented in the white paper leading to the publication of three volumes addressing emergency care: Emergency Medical Services: At the Crossroads(3), Hospital-Based Emergency Care: At the Breaking Point(4), and Emergency Care for Children: Growing Pains.(5) These detailed reports described improvements in care which had occurred subsequent to the publication of the white paper but also reinforced issues that still needed to be addressed. The white paper was also instrumental in focusing discussions for multiple landmark national EMS documents supported by NHTSA and their federal partners, including the 1996 EMS Agenda for the Future and the EMS Agenda 2050 two decades later.

Emergency care activities have continued to improve over subsequent years, but we still have significant issues to address. Most recently, the DOT published the National Roadway Safety Strategy.(6) Using the Haddon Matrix as a model, this report identifies five goals leading to a society with zero preventable deaths, particularly for motor vehicle crashes. Those five pillars are: safer people, safer roads, safer vehicles, safer speeds and post-crash care. Including post-crash care is a visible recognition of the importance of what we do and offers potential grant funding sources for EMS.

It is important to understand that the recommendations in the white paper and subsequent reports depend on the entirety of the community to address these issues at local, state, regional and federal levels. In addition to the DOT, a number of federal executive branch agencies are critical to advancing these issues. Those agencies include several within the Department of Health and Human Services, especially the Administration for Strategic Preparedness and Response with its focus on preparedness and disaster issues; the Health Resources and Services Administration's Maternal Child Health Bureau, which houses the federal EMS for Children program; the Office of Rural Health Policy and its EMS flex grants; and the Centers for Medicare and Medicaid Services. The Department of Homeland Security (including the US Fire Administration within FEMA) provides great support for the fire-based EMS community, with many resources also available and relevant to non-fire-based EMS. Multiple other federal agencies house operational EMS programs that interface on a regular basis with civilian EMS agencies

While the white paper helped pave the way for modern EMS systems in communities across the nation, its focus on motor vehicle crashes has led to many misconceptions in EMS. For one, many throughout the EMS community wrongly assume that the reason

EMS is reimbursed as a transportation benefit—rather than actual medical care—stems from the white paper and subsequent creation of DOT and NHTSA. This is a myth. The white paper makes clear that its authors saw EMS not only as a means of rapid transportation, but also medical care. The inclusion of EMS at DOT and NHTSA was because that care, along with transport, is a vital piece of reducing death and disability from motor vehicle crashes. The white paper also explicitly stated that an EMS system must be capable of responding to all types of medical emergencies, not just traffic-related incidents or traumatic injuries—a belief that guides the thinking of DOT and the NHTSA Office of EMS to this day.

The basis for the transportation-based EMS reimbursement model does, in fact, date back to the same time period—but only because the legislation that created Medicare and Medicaid passed only a year prior to the white paper's publication. The authorities given to CMS's predecessor agency by Congress in the late 1960s meant Congress and CMS had the power to change federal health insurance reimbursement policy, in this case reimbursement based on patient transportation. That the model looks similar more than half a century later is a reflection of neither CMS nor Congress seeing a need to update it. Modernizing those policies to recognize the high-quality, evidence based medical care provided by EMS clinicians will require that the entire EMS community work in cooperation with both CMS and Congress to get those authorities updated. The EMS community must initiate that action and act with one voice.

As we all know, the pandemic has placed great stress on our nation's healthcare system, in the pre-hospital and hospital environment, as well as our public health system. It's incumbent on us all to revisit the white paper, as its systems approach and its recommendations still serve as a foundation for advancing EMS. It's not only a reminder of where we came from and what we have accomplished since its publication, but also a reminder of what we need to continue to do moving forward.

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