

History of EMS

Where We've Been and Where We're Going

From the start, Emergency Medical Services (EMS) has defied simple explanation. Its mission – to save life or injured people in emergency situations – seems simple enough. But EMS, and its unique history in both medicine and public safety, is much more complex. It was born in the United States of several influential parents – cardiology, resuscitation science and military medicine – and it continues to cross the boundaries of numerous disciplines, including healthcare, medical transportation, public health and homeland security.

Trauma and Tragedy

To understand where EMS is today, it is necessary to look back on its recent history, which, it might be said, began 40 years ago, with the publication of the National Academy of Sciences (NAS) paper titled “Accidental Injury: the Neglected Diseases of Modern Society.”

That paper reported that in 1965, 52 million accidental injuries killed 107,000 Americans, temporarily disabled more than 10 million and permanently impaired 400,000 more at a cost of approximately \$18 billion. The paper concluded that “the neglected epidemic of modern society” and “the nation’s most important environmental health problem” were “accidental injuries.”

The NAS recommended several solutions, including the establishment of standards for ambulance design and construction, emergency medical equipment and supplies, and training and supervision of ambulance personnel. The report also called for local “ways and means of providing ambulance services... [in coordination with] health departments, hospitals, traffic authorities and communication services.”

Congress responded to the NAS paper by enacting the National Highway Safety Act of 1966, which mandated the newly formed Department of Transportation (DOT) to establish minimum standards for provision of care to highway accident victims. It also empowered DOT to penalize states up to 10% of their federal highway funds if they did not comply with the standards.

DOT and the National Highway Traffic Safety Administration (NHTSA), a DOT agency, took the federal role in the creation and funding of EMS systems in the ensuing years, providing more than \$48 million from 1966 to 1973, creating national standard curricula for EMT-Basics, Intermediates and Paramedics, and defining the necessary components of an EMS system.

Science of the Heart

Although accidental injuries were the impetus for federal support of EMS and trauma systems in the 1960s, modern emergency medical services also developed out of simultaneous advances in both cardiology and resuscitation science, led by Johns Hopkins University in Maryland, the University of Pittsburgh in Pennsylvania and the University of Belfast in Ireland. Among the early interventions advanced by researchers at these institutions were mouth-to-mouth breathing, chest compressions and defibrillation.

Emergency physicians, then practicing a new medical specialty, recognized that these cardiac interventions could save more lives if they were brought out of the hospital into the ambulance. At the same time, medics returning from Vietnam recognized that lives could be saved by using trauma treatments once reserved for the hospital and bringing them to the field, thus reinforcing the notion that EMS is, in essence, an extension of in-hospital emergency medicine.

As a part of the larger healthcare system, EMS programs began to take shape in the federal government's Department of Health and Human Services (HHS). Notable among these is the Health Resources Services Administration in 1982, which is home to the federal Office of Trauma-EMS, the Emergency Medical Services for Children and the Office of Rural Health Policy. Medicare and Medicaid, established in 1965 to help pay for ambulance transport, also are part of HHS.

Funding Priorities

The funding mechanism for EMS system development changed drastically in 1981 when the Omnibus Budget Reconciliation Act of 1981 ceased funding under the federal EMS Systems Act of 1973, and consolidated funding into state preventive health and health services block grants. This change put the onus on the state to fund EMS systems based on state and local priorities and led to a great variety in the way EMS is delivered from state to state.

Allowing states to control and direct EMS system development continues to this day, and many sources of EMS grant money are disseminated through state EMS offices. On a federal level, ambulance reimbursement continues to be supported by the National Ambulance Fee Schedule, published in 2002, while NHTSA's role retains its oversight role in provider curricula and EMS system development.

EMS' Changing Role

While EMS originally was conceived to respond to accidental death and injury and cardiac conditions out of hospital, its role has expanded to become the primary safety net for Americans who are un- or under-insured, who suffer from under-treated chronic illness, and who are living on the streets. Public health authorities also expect EMS to assist in prevention activities and the promotion and implementation of community-based health promotion programs.

Manmade and natural disasters in recent years also have changed the role of EMS, which today is expected to provide immediate emergency medical response and patient transport to large numbers of affected patients following a disaster. In fact, the role of EMS on the nation's public safety front line has led to spirited debate about the role of EMS in the new federal Department of Homeland Security.

In the end, EMS defies simple explanation, both historically and today. EMS is out-of-hospital patient care and ambulance transport. EMS is an extension of emergency medicine, and an arm of public health. EMS is prevention. EMS is first response and public safety. In fact, EMS plays all of these roles, making it worthy of the moniker: America's front line of health care.

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