



# WHAT IS EMS?

EMS is a vital component of healthcare, public health and public safety. On any given day, in almost every community in our nation, EMS responds to calls for help, 24/7.

EMS saves lives from heart attacks, strokes and drowning; treats injuries due to motor vehicle collisions, shootings, stabbings and other violence; and provides care for the myriad of other illnesses and injuries that occur daily in the United States. When the big incidents hit – whether natural (tornadoes, floods, hurricanes, pandemics) or man-made (terrorist attacks, explosions, active shooters) – EMS provides medical care and helps communities pick up the pieces.

The public counts on EMS to help them in their worst, most harrowing moments. Yet few understand exactly what medical services EMS provides, how EMS fits into the wider healthcare system, or how EMS is staffed, funded and delivered.

The National Association of Emergency Technicians (NAEMT) is pleased to present this brief introduction to EMS. The goal is to help elected officials, their staff and key stakeholders better understand EMS and how it functions throughout the United States, to inform legislative and policy decision-making.

21,283

*Estimated number of EMS agencies nationwide<sup>1</sup>*

81,295

*Number of EMS vehicles, including ambulances, helicopters and other aircraft, quick response vehicles, rescue vehicles, fire trucks and all-terrain vehicles*

37 million

*Number of calls EMS responds to annually*

826,000

*Number of EMTs and paramedics nationwide*

8,459

*Number of EMS medical directors (physicians who provide oversight to EMS agencies)*



<sup>1</sup>National EMS Assessment, 2011. The National EMS Assessment, led by researchers at University of North Carolina at Chapel Hill, incorporates data from the National Association of State EMS Officials 2011 EMS Industry Snapshot; Emergency Medical Services for Children Program 2010–2011 report; the 2007 Indian Health Services Tribal EMS Pediatric Assessment and the National EMS Database.



# EMS 101: Delivery of Services

## SERVICE DELIVERY

### WHAT IS AN EMS SYSTEM?

EMS systems are highly complex, integrated structures with multiple components, each with their own mission, working together to collectively benefit patients in need. EMS systems include dispatch, first responders, fire departments, ambulance agencies, hospital emergency departments, and state EMS offices. Yet, while the makeup of EMS systems varies from one locale to another, one priority that remains constant is the need for all of the components within a system to function cohesively for the patient throughout the continuum of emergency care.

Each state and territory in the United States has a lead EMS agency. These agencies are usually a part of the state health department, but in some states they are part of a multidisciplinary state public safety department, or are an independent state agency. State EMS agencies are responsible for the overall planning, coordination, and regulation of the EMS system within the state as well as licensing local EMS agencies and personnel.

### WHAT TYPES OF AGENCIES PROVIDE EMS?

EMS can be provided by public agencies or private companies. Public EMS agencies include fire departments, or city or county EMS departments. There are also many private ambulance services, both for-profit and nonprofit. EMS agencies can be paid services, or staffed by volunteers. Some ambulance services combine both volunteer and paid staff to meet community need.

Private ambulance companies are often contracted by a city or county government to provide EMS. Hospitals also operate ambulance services, and may also be contracted by local government to provide services in a particular region. There is also an additional model called a public utility – a hybrid arrangement involving both a public entity and a private company.

There are many types of arrangements in which public and private entities collaborate on providing EMS. One common example is for a fire department to serve as first responders, meaning firefighter-EMTs or firefighter-paramedics arrive on scene first, often in a fire truck. Then, if the patient needs transport to a hospital, a private company's ambulance, staffed by its EMTs or paramedics, arrives.

### WHY ARE THERE SO MANY TYPES OF DELIVERY MODELS FOR EMS?

How a community provides EMS is decided at the local level, based on resources (such as the tax base) and needs. It's up to a local community if they want to support a paid service, volunteer or a hybrid paid/volunteer service; or if they want to contract with a private ambulance service to augment public services.



Formed in 1975 and more than 60,000 members strong, the National Association of Emergency Medical Technicians (NAEMT) is the only national association representing the professional interests of all emergency and mobile healthcare practitioners, including emergency medical technicians, advanced emergency medical technicians, emergency medical responders, paramedics, advanced practice paramedics, critical care paramedics, flight paramedics, community paramedics, and mobile integrated healthcare practitioners. NAEMT members work in all sectors of EMS, including government agencies, fire departments, hospital-based ambulance services, private companies, industrial and special operations settings, and in the military.

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# EMS 101: Staffing and Finances

## STAFFING

### WHO PROVIDES EMS?

EMS personnel include Emergency Medical Responders (EMRs), Emergency Medical Technicians (EMTs), Advanced EMTs (AEMTs), paramedics, nurses, and EMS medical directors.

Emergency personnel provide prehospital and out-of-hospital emergent, urgent or preventive medical care that may include assessment, treatment and transport by ground ambulance or air medical services.

### WHAT MEDICAL SKILLS DOES AN EMT PERFORM?

Specifics are decided at the state and local level. But generally, EMTs can perform CPR, artificial ventilations, oxygen administration, basic airway management, defibrillation using an AED, spinal immobilization, monitoring of vital signs and bandaging/splinting. They also may administer nitroglycerin, glucose, epinephrine and albuterol.

### WHAT MEDICAL SKILLS DOES A PARAMEDIC PERFORM?

A paramedic has extensive training in patient assessment and participates in a variety of clinical experiences during training. He or she can perform all of the skills performed by an EMT, plus advanced airway management such as endotracheal intubation, electrocardiographs (ECGs), insertion of intravenous lines, administration of numerous emergency medications, and assessment of ECG tracings and defibrillation.

### WHAT IS THE ROLE OF AN EMS MEDICAL DIRECTOR?

EMS practitioners work under protocols approved by a physician medical director, who oversees the care of EMS patients.

## FINANCES

### HOW IS EMS PAID FOR?

EMS is paid for through local taxes/municipal budgets and by billing insurance companies, Medicare and Medicaid for transporting patients. Public EMS agencies typically receive taxpayer support to fund operations and pay staff. Volunteer organizations may also receive some tax support. Private ambulance companies typically receive no or minimal taxpayer support. Instead, private companies mostly rely on billing insurance, Medicare, and Medicaid for transports.

### WHAT CAN EMS BILL FOR?

This may come as a surprise. **EMS may only bill for transporting patients, not providing patient care.**

On any given day, EMS personnel may restart a heart due to cardiac arrest; resuscitate a person after a near-drowning or stop severe bleeding to save a life. EMS may administer medications to relieve pain, halt a drug overdose or stop an asthma attack; clear an airway to allow a person with severe injuries to breathe; splint a compound fracture or revive a diabetic with hypoglycemia.

**Yet EMS is not reimbursed for providing patient care.** EMS is considered a transportation provider, not a healthcare provider, by the Centers for Medicare and Medicaid (CMS), and private insurers, which often follow the lead of CMS. **EMS is reimbursed only for transporting a patient and mileage.** If EMS provides medical care on scene but does not transport a patient, they are not reimbursed for the response.

# EMS Stands for Emergency Medical Services – Yet EMS Does So Much More

Responding to emergencies is a very important part of what EMS does for communities. But, EMS does more than respond to emergencies.

**When a member of the public calls 911 for help, laws in every state require EMS to respond. EMS is also obligated to take that person to an emergency department if the person wishes to go.**

People call 911 for all sorts of reasons – though many calls aren't for medical emergencies. Common situations encountered by EMS professionals include responding to calls from homeless or indigent people, or those having a mental health or substance abuse crisis. EMS often responds to calls for help from elderly people who are struggling to care for themselves, or who have fallen and need help getting back into a chair or bed.

Every region has a few people who knowingly misuse EMS services, calling again and again for reasons that are clearly not medical emergencies. But many others call EMS because they don't know where else to turn. They're having trouble managing chronic diseases such as diabetes, hypertension or congestive heart failure and are both sick and scared; they've been recently discharged from the hospital and are experiencing an exacerbation of their condition; or they don't know how to access more appropriate healthcare.

**“While much of health reform emphasizes avoiding emergency department visits, EMS remains paradoxically incentivized to transport any and all patients who call 911 to the emergency department. Despite several previous pilot projects that were found to be either cost effective or cost saving, innovative out-of-hospital care models will not become widespread without EMS reimbursement policy reform.”**

*Journal of the American Medical Association (JAMA), Feb. 13, 2013 editorial*



## IS THERE AN ALTERNATIVE TO TAKING PEOPLE TO THE EMERGENCY DEPARTMENT?

In the vast majority of communities, no. Laws regarding what EMS can and cannot do are written at the state level, and nearly every state requires that EMS transport patients only to an emergency department.

Even if patients would be better served by social services, mental health services, substance abuse treatment or seeing a primary care physician, EMS must take them to a hospital ED.

To provide the help that patients really need, about 250 EMS agencies around the country have developed a new service model called mobile integrated healthcare or community paramedicine. Mobile integrated healthcare and community paramedicine programs focus on preventing emergency department visits. Designed to be patient-centered and cost-effective, these programs include:

- EMTs, paramedics or community paramedics visiting patients in their home to help with chronic disease management and education, or post-hospital discharge follow-up, to prevent hospital admissions or readmissions, and to improve patients' experience of care.
- Navigating patients to destinations such as primary care, urgent care, mental health or substance abuse

treatment centers instead of emergency departments to avoid costly, unnecessary hospital visits.

- Providing telephone advice or other assistance to non-urgent 911 callers instead of sending an ambulance crew.

**“Mobile integrated health care and community paramedicine programs aim to address critical problems in local delivery systems, such as insufficient primary and chronic care resources, overburdened EDs, and costly, fragmented emergency and urgent care networks.”**

*New England Journal of Medicine (NEJM), March 24, 2016*

## BARRIERS TO MOBILE INTEGRATED HEALTHCARE AND COMMUNITY PARAMEDICINE

There are many hurdles to implementing these programs, including state laws that prohibit EMS from engaging in activities other than strictly emergency response. Another major barrier is funding.

As stated earlier, EMS only receives reimbursement for transport and mileage. Preventing emergency department visits by following up with patients, assisting with disease management in the home, educating patients about self-care or connecting them with alternative and less expensive destinations than the hospital, isn't billable.

EMS is making some progress. EMS advocates have had success in changing state laws in a few states to allow for mobile integrated healthcare and community paramedicine. Some innovative EMS agencies have also developed contractual arrangements with insurers, home health agencies, hospice organizations, and Medicaid managed care organizations to reimburse EMS for providing those types of services. But support at the federal level to fund and evaluate mobile integrated healthcare and community paramedicine is badly needed for these innovations to become widespread.