



WHAT IS EMS?

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

EMS saves lives from heart attacks and strokes; treats injuries due to motor vehicle collisions, shootings, stabbings and other violence; and provides care for the many other illnesses and injuries that occur daily in the United States. In addition, EMS provides care for chronic illnesses and preventive care through community paramedicine and mobile integrated healthcare programs.

When communities are destabilized during mass casualty incidents – whether natural disasters (tornadoes, floods, hurricanes, pandemics) or man-made (terrorist attacks, explosions, active shooters) – EMS is the community lifeline that renders medical care and comforts the sick and frightened. As the COVID-19 pandemic has demonstrated, EMS practitioners serve as front-line medical responders during public health crises.

The National Association of Emergency Medical Technicians (NAEMT) is pleased to present this brief introduction to EMS. This guide explains:

- The range of services EMS provides to the community – from 911 response to community paramedicine, disaster response and other services such as contact tracing and immunizations to address urgent public health issues.
- The basics of EMS operations, staffing, delivery, and regulations.
- EMS funding and reimbursement, and how this affects the EMS workforce, patients and communities.

We urge elected officials, their staff and key stakeholders to use this guide to better understand EMS and how it functions throughout the United States, and to inform legislative and policy decision-making.

1.05 million

Number of licensed EMS professionals nationwide¹

622,902

Emergency Medical Technicians (EMTs)

268,420

Paramedics

19,520

Estimated number of EMS agencies nationwide

87,781

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

42.6 million

Total number of EMS responses annually

30.9 million

Total number of transports

¹Source: National EMS Assessment 2020



EMS Operations

What is an EMS system?

EMS systems have multiple components that work together to benefit patients and communities. EMS systems include:

- Emergency communications centers (dispatch)
- Fire departments/first responders
- Ambulance services (ground and air medical)
- Hospital emergency departments (adult and pediatric)
- Trauma centers
- Other specialty care centers, such as burn, cardiac, pediatric and stroke centers
- State EMS offices

All of the components within the EMS system must function cohesively to best serve the patient throughout the continuum of emergency care.

How is EMS regulated?

EMS is regulated by state law. Each state and U.S. territory has a lead EMS agency, often part of the state health department, known as the state EMS office. State EMS offices are responsible for licensing EMS agencies and personnel, and for the overall coordination and regulation of EMS in the state.

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. EMS laws in many states prohibit EMS from taking patients to any facility other than the hospital. However, these rules were relaxed during the COVID-19 public health emergency, when the Centers for Medicare & Medicaid Services (CMS) encouraged taking patients to alternative destinations.



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 agencies. Private ambulance services can be for-profit or nonprofit. Some private ambulance services are part of hospital systems.

Public and private EMS entities often work together to provide patient care. City or county governments may contract with a private ambulance company to provide EMS in a given area. One common arrangement is for fire department EMTs or paramedics to serve as first responders. If the patient needs transport to a hospital, a private ambulance service, staffed by EMTs and/or paramedics, is then dispatched to provide continued medical care and transport.

Local governments may also contract with a hospital-based EMS service to provide 911 medical response in a particular region. There is also an additional EMS model called a public utility – a hybrid arrangement involving both a public entity and a private, nonprofit company.

EMS agencies can be staffed by paid professionals, volunteers, or a combination. Volunteer agencies are most often found in rural areas, although there are volunteer agencies in suburban and urban areas as well.

Rural areas with smaller populations

are more likely to lack a sufficient tax base or volume of 911 calls to support paid EMS personnel. Many volunteer EMS agencies struggle to find enough volunteers to meet community needs. So some ambulance services combine both volunteer and paid staff to serve their community.

The various ways of providing EMS – public, private, hospital based, volunteer, paid, and so on – are known as “EMS delivery models.”

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 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 resources.

EMS Workforce & Staffing

Who provides EMS?

EMS personnel include emergency medical responders (EMRs), emergency medical technicians (EMTs), advanced EMTs (AEMTs), and paramedics.

EMRs receive a minimum of about 40 to 60 hours of initial education. EMTs receive approximately 150 to 260 hours of initial education, while advanced EMTs receive 400 to 500 hours.

Paramedics are required to have significantly more education, a minimum of 1,500 hours, often through a two-year college program. Many paramedics began their careers as EMTs, and after gaining on-the-job experience completed additional education requirements to become a paramedic.

Paramedics may also earn specialty certifications such as flight paramedic, critical care paramedic or community paramedic. These paramedics may care for critically ill patients being transported in medical aircraft, or by ground ambulance between facilities, such as from an emergency department to a burn hospital, or may provide post-acute patient care.

What is a Basic Life Support (BLS) versus an Advanced Life Support (ALS) ambulance?

Ambulance crews are divided into two categories: Basic Life Support (BLS) or Advanced Life Support (ALS).

BLS ambulances are usually staffed by EMTs. ALS ambulances must be staffed by at least one paramedic. ALS ambulance crews can perform more medical interventions than BLS crews, which are more limited in scope of practice.

How are EMTs and paramedics licensed?

State EMS offices license EMS personnel. To become licensed, almost all states and U.S. territories require EMTs and paramedics to pass a national certification test, offered by the National Registry of Emergency Medical Technicians (NREMT). To maintain licensure, EMTs and paramedics are required to fulfill continuing education requirements every two years.

What is the role of an EMS medical director?

Every EMS agency has an EMS medical director, often a board-certified emergency physician who provides medical oversight to EMS agencies, develops patient care protocols, and leads clinical performance.

What medical services do EMTs perform?

Generally, EMTs perform CPR, artificial ventilations, oxygen administration, basic airway management, defibrillation using an AED, spinal stabilization and/or immobilization, monitoring of vital signs and bandaging/splinting, and assisting with childbirth. EMTs can administer glucose to restore a hypoglycemic diabetic patient's blood sugar to normal levels, epinephrine for anaphylactic reactions, sublingual nitroglycerin for chest pain, albuterol to treat asthmatic patients, and naloxone for opioid overdoses. Advanced EMTs can perform additional services, such as giving IV fluids and immunizations. There is some variation depending on individual state laws, and what the agency's EMS medical director authorizes at the local level.

The National Highway Traffic Safety Administration (NHTSA) publishes the



National EMS Scope of Practice Model, which recommends the parameters of services that may be provided by individuals within the EMS credentialed level. The scope of practice document is used as a guide by states and EMS medical directors.

What medical skills does a paramedic perform?

A paramedic can perform all of the skills performed by EMTs and advanced EMTs, plus life-saving airway procedures including: endotracheal intubation, chest decompression, cricothyrotomy and direct laryngoscopy. Paramedics can also interpret 12-lead electrocardiographs (ECGs), perform manual defibrillation, maintain an infusion of blood or blood products, give thrombolytics (clot-dissolving medications), and monitor central lines.

EMS Finances

How is EMS funded?

There are two main sources of revenue for EMS: local taxes/municipal budgets and reimbursements from Medicare, Medicaid and commercial insurers.

Public EMS agencies typically receive taxpayer support to help fund operations and pay staff, as well as billing a fee-for-service to patients, insurers, Medicare, and Medicaid. Volunteer organizations may also receive some tax support. Private ambulance companies typically receive little to no taxpayer support but instead rely on fee-for-service billing.

What services can EMS bill for?

This may come as a surprise. **In most cases, EMS is reimbursed for transporting patients to a hospital,**

not for providing medical care.

On any given day, EMS may restart a heart due to cardiac arrest; resuscitate a child after a near-drowning; stop severe bleeding from a gunshot wound; or come to the aid of a patient in respiratory distress because of COVID-19.

EMS may administer medications to relieve pain; reverse a drug overdose; stop an asthma attack; open an airway to allow a person with severe injuries to breathe; or splint a compound fracture to relieve severe pain.

Yet EMS is not paid for providing medical care. EMS is classified by CMS and private insurance companies as a *transportation* provider, not a healthcare provider. The fee-for-service that EMS is reimbursed for is a fee for transporting a patient to the hospital (either Basic Life Support or Advanced Life Support), plus a fee for mileage.

There are a few exceptions. Some commercial insurers have started to pay EMS for some out-of-hospital patient care services, and a handful of states now allow EMS reimbursement for providing some patient care services to Medicaid recipients. But, these exceptions are minimal.

So even though EMS may save your life by stopping your bleeding or helping you breathe when you're gasping for breath, EMS is technically paid for driving you to the hospital.

Generally, if EMS provides care on scene but does not transport a patient to the hospital, **they are not reimbursed for the response.**

Responses without transports happen often. Of the 42.6 million EMS responses that occurred in 2018, only 30.9 million resulted in transports, according to data from state EMS offices. That means over 11 million responses were uncompensated.

Wait...what? EMS is reimbursed only as a transportation provider?

Yes. And the unfairness of this was made painfully clear during the COVID-19 pandemic. In hard-hit areas, public health directives and the U.S. Centers for Disease Control and Prevention advised EMS to treat suspected COVID-19 patients at home, and avoid transport to emergency departments, unless the patient was in acute respiratory distress.

Even as scores of EMS practitioners fell ill and died as a result of contracting the virus on the job, often after spending extended periods of time providing breathing treatments and other supportive care in the homes of COVID-19 patients, EMS agencies were still not compensated for the care.

"Since the beginning of the COVID-19 pandemic...first responders have triaged, resuscitated, and transported thousands of people affected by coronavirus disease 2019 (COVID-19). The American people owe a debt of gratitude for the heroic work they have done."

JAMA Cardiology, June 19, 2020

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

EMS is a community lifeline that provides pre-hospital and out-of-hospital emergent, urgent and preventive medical care that may include assessment, treatment and transport by ground ambulance or air medical services.

Research has shown that many people call 911 for a range of medical, psychological and social issues for which they need treatment and support, but not necessarily emergency care.

EMS is often called to help people with chronic illnesses, such as congestive heart failure, diabetes and asthma, who lack primary care and instead rely on the emergency medical system. Others are elderly, frail, isolated and lacking social support, and they call 911 because they don't know where else to turn. Substance abuse and mental health crises are other common reasons for EMS dispatch.

To better serve communities and patients, EMS agencies in over 30 states offer programs known as community paramedicine or mobile integrated healthcare. Designed to assess, treat and navigate patients to the most appropriate, cost-effective, sources of care, EMS partners with other healthcare or social services organizations – such as hospitals, hospices, home health and behavioral health – to provide services such as:

- ✓ Home visits to assist patients with chronic disease management or post-hospital discharge follow-up to prevent unnecessary hospital admissions or readmissions.
- ✓ Transporting patients to "alternative destinations" such as clinics, mental health or substance abuse treatment centers best suited to meet their needs.
- ✓ Connecting patients with social services and other community-based services to ensure they have basic needs met, such as food, prescriptions filled and other support, to prevent misuse of 911.
- ✓ Providing a nurse advice line for people who call 911 for non-urgent matters, instead of dispatching an ambulance crew.
- ✓ Using telemedicine to connect patients in their home with physicians at other locations.
- ✓ Providing treatment in place, such as for COVID-19 patients, to conserve resources such as ambulances, PPE, and hospital beds and avoid unnecessary, costly hospital visits for patients who can be cared for safely at home.

Studies show these programs can be effective in improving patient well-being and curbing costs. But sustaining them is a challenge. Only a few states allow payment for services such as transport to alternative

destinations. Some EMS agencies have been successful in contracting with payers, including private insurers and Medicaid managed care organizations, to provide these services. But these are individual arrangements and are not widespread.

In 2019, CMS announced the Emergency Triage, Treat and Transport (ET3) Model, a five-year pilot project that enables select ambulance services to receive payment for transport to alternative destinations and for facilitating telehealth consultations. ET3 is slated to launch in January 2021. While this is a step in the right direction, ET3 still emphasizes the transport function of EMS versus reimbursement for the treatment in place that EMS provides countless times each day across the United States.



Deploying EMS for COVID-19 Testing, Contact Tracing, Vaccinations

As the country continues to fight the virus, fully utilizing the skills and qualifications of EMS personnel is more vital than ever.

EMTs and paramedics have stepped up to serve as contact tracers and to conduct COVID-19 testing, and have helped to fill labor shortages in nursing homes, emergency departments, even as school nurses. EMS professionals are also qualified and ready to help with mass immunizations.

EMS is, and will be, a cornerstone of the response to the current public health crisis, and those in the future. Reimbursement must reflect the full depth and breadth of services EMS provides, for the health and safety of the EMS workforce, and for the benefit of our nation's communities.