



As the complexity of healthcare needs in emergencies rise, EMS teams must step in to fill the gap.

# **Prologue**

At the heart of emergency transport is a community of paramedics and EMTs: dedicated professionals who often act as the first line of defense in saving lives.

The MASA® team both supports this community, and is built by the community.

This MASA Insights report explores the current state of emergency transportation services through the lens of working paramedics who also serve as employees here at MASA.

By centering on their perspectives, we aim to provide a clearer understanding of the challenges facing the industry, as well as potential insights to improve service delivery and support for emergency medical teams.

#### Emergency medical services (EMS) are a vital

part of modern healthcare, playing a key role in saving lives and delivering immediate care in critical situations. The efficiency of emergency transportation — from ambulance response times to the quality of care provided enroute — is crucial in shaping patient outcomes. Yet, in discussions about healthcare, prehospital care typically operates behind the scenes and its expanding role is not fully recognized.

In this white paper, we explore the state of emergency medical services through direct insights from paramedics: the professionals who navigate the complexities of emergency care on a daily basis. By interviewing emergency service providers, we aim to shed light on the realities of working in the field, the obstacles they encounter, and the evolving demands of the medical system.

Through these interviews and public sources, we uncover key themes such as the effects of the expanding responsibilities of EMS teams, the need for ever-advancing resources and comprehensive training, and the impact of longer response and travel times. We also examine the systemic challenges patients face when making the critical decision to seek emergency care.

The state of emergency transportation is not just about ambulances reaching their destinations on time; it's about ensuring paramedics are equipped, supported, and able to deliver the best care possible under often high-pressure circumstances. This white paper offers a deeper understanding of these dynamics and the necessary steps to enhance its future.



The challenges faced by EMS teams are often overlooked in discussions about healthcare.

### **Contributors**



#### **Jaran Floyd**

Jaran Floyd is a lieutenant and paramedic with nearly 20 years of experience in fire and emergency medical services. Jaran has taken on various leadership roles, holding certifications as a Master Structure Firefighter, Instructor II, and Officer II. In addition to his paramedic expertise, Jaran brings specializations in areas such as Swiftwater Rescue, Vehicle Extrication, and Ambulance Strike Team Leader. A member of the Fire Department Honor Guard and Special Operations Unit Medic, Jaran also serves as a Field Training Preceptor, mentoring and shaping the next generation of fire and EMS professionals, and as a Senior Sales Director at MASA.



#### **Will Winters**

Will Winters has been a licensed paramedic for more than 20 years. His work experience includes both urban and rural EMS, and working as a flight paramedic. In addition to clinical work, Will directed and managed a county EMS service and led business development for an air medical company. Will currently serves as Vice President of Broker and Strategic Partnerships at MASA. His varied experiences in the healthcare system have shaped his perspective, allowing him to navigate the intersection of patient care, operations, and innovation with a sense of empathy and a commitment to improving outcomes for all.



#### Ken Euler

Ken Euler is a former lieutenant and paramedic, with more than 20 years serving communities. Active on emergency response and life-saving medical care teams, Ken has specialized knowledge and certifications ranging from Swiftwater Rescue to brain injury trauma stabilization. Ken is Vice President of Group Benefits Sales at MASA and remains involved in his local first responder programs today, where he makes it his mission to use his experience to enhance safety, advance training, and create vital communities.

# The growing role of emergency service providers

It's no longer accurate to think of emergency medical services as simply transport during a crisis. Care begins the moment a 911 call is made — and long-term outcomes are often dependent on the care administered by paramedics during transport.

This is in part because the healthcare landscape has seen a recent shift: A growing number of hospitals face closures across the country. As a result, patients often need to travel longer distances to reach care. This increased drive time has had a notable impact on paramedics, who are now spending more time on the road with patients, and providing even more comprehensive care during these crucial moments.<sup>1</sup>

Here's a closer look at what now happens when emergency services are called — including EMS's expanding role behind the scenes in the healthcare system, and its growing influence on a patient's long-term health and recovery.

#### Hospital closures are on the rise

Data from the American Hospital Association shows that over 100 hospitals closed over a four year span.<sup>2</sup> Even though the problem spans the country, the impact of these closings is particularly acute in rural communities. The Center for Healthcare Quality and Payment Reform notes, "The majority of the communities they serve are at least a half-hour drive from the nearest alternative hospital, and many communities have no alternate sources of health care."<sup>3</sup>

#### Paramedics' roles growing at every turn

In an emergency, the path a patient takes is shaped by a complex series of decisions. Even before an ambulance arrives, crucial choices are made — from choosing the transport type to knowing which treatment options are available onboard. With more decisions, actions, and options for care taking place during lengthier transport times, the role of administering medical procedures enroute is increasingly important.

How do these critical decisions get made? Once on site, a medic becomes the first to establish a care plan, helping guide the patient's journey through the emergency care system and on to optimal long-term results. Perhaps the patient experienced a cardiac episode, a stroke, a fall or other medical event. A care plan includes the assessment of that condition and an outline of the necessary medical interventions. As interventions are underway, EMS providers work to ensure that every decision is documented, communicated, and handed over to the hospital team.

Operating within what is essentially a mini-ER on wheels, EMS providers must now be prepared to administer an array of medical interventions and procedures. "Paramedics responding to a 911 call may provide the same level of patient care as those paramedics in an emergency room," says Floyd.

In addition to performing ever advancing procedures and documentation, EMS providers are trained to provide the most positive outcome. The goal is to deliver optimal long-term results in the face of several possible root causes. "EMS providers make the best judgment for the long term with the information we have at the time," Floyd says.

<sup>1:</sup> American Hospital Association, "Fast Facts on U.S. Hospitals: Infographic," 2023

<sup>2:</sup> American Hospital Association, "Fast Facts on U.S. Hospitals," 2024

<sup>3:</sup> Center for Healthcare Quality and Payment Reform, "Problems and Solutions for Rural Hospitals," 2023

## What interventions take place in an ambulance?

Though care varies depending on the available transport options and the patient's needs, ambulances can provide basic care or advanced care. "In an ambulance, you'll find all sorts of care like EKGs, IVs, medications, chest tubes, and more," says Winters. It can range from something as simple as putting a patient on oxygen, to something as invasive as inserting chest tubes.

#### Determining where to go next

Ultimately, EMS teams must determine the most appropriate destination for patients and transport them there. However, transfers have become more common than patients may realize. "Depending on the severity of the situation, the paramedic might have to decide to go to one medical facility for immediate care and then transfer the patient to another facility at a later time for longer-term care," says Winters. Additionally, hospitals that are on diversion — meaning, they are unable to take additional patients — won't take new ambulance arrivals, even if they're the closest to the scene of the emergency.

"In an ideal world, we want to take patients to the closest appropriate medical facility for definitive care," says Floyd. In this way, EMS teams work to ensure remaining medical issues are set up for success after the initial emergent health event. One thing that hasn't changed as EMS providers face a growing web of choices: "Early intervention is key."

# New advancements in prehospital technologies

As the number of critical activities in transport have increased, the technology on vehicles has advanced to keep up. Many technologies that were once limited to hospitals are now available in a transport setting — and in some cases, these quickly advancing technologies have become the standard of care.

While these recent innovations have improved patient outcomes, they come at a cost. The introduction of advanced equipment and the necessary training or credentialing to use it effectively places a strain on emergency service providers. It may be critical for both patients and providers to understand these factors. They influence the decisions made during emergency transport and can help explain why ambulance bills may be higher than expected.

#### How much have costs risen?

Emergency medical transportation costs rose faster than medical inflation rates over four years ending in 2023. Even though utilization trends remain consistent, the actual billed amounts increased 32% across the four years.<sup>5</sup>

#### Bringing advanced care to the streets

Everything from equipment and medication to the ambulance itself may carry increased costs based on the ever-improving nature of the industry. "Ambulances may need the latest and greatest tech, including defibrillators, ventilators, IV pumps, cardiac monitors," says Euler. Not carrying updated tech on board an ambulance can be a detriment to the patient and a liability for EMS — which could result in fines for the provider.

<sup>4:</sup> Minnesota School of Public Health, "Rural hospital closures strain community ambulance services," 2021 5: MASA analysis, private database of U.S. 2022 claims data, 2024; U.S. Labor Department's Bureau of Labor Statistics, Health Care Inflation, 2024

Case in point: In some areas, ambulance units may be required to have "whole blood" in stock, which must be refrigerated, and expires after a certain time. While whole blood isn't new, programs that introduce it to ambulances represent a recent development in prehospital care. This resuscitation capability is an example of a life-saving advancement that drives improved outcomes at scale — with the capability to save 50 to 75 patients per ambulance. But with a \$40,000-\$70,000 price tag annually, whole blood is a contributing factor in the increase of EMS costs.

In other cases, innovations serve not only to save lives on the spot, but to improve downstream care. For example, new dispatch solutions can record a care plan along with all EMS interventions in real time — automatically marking the start of oxygen, an intravenous line, or similar, and monitoring its progress; then transferring the data to the hospital destination for transparency and continuum.

To take advantage of such breakthroughs in care, EMS providers need mandatory, ongoing training. "It's not just about getting new equipment — providers must meet the qualifications of using new and advanced equipment," says Euler. "This may lead to significant and hidden costs."

#### How billing is impacted

Traditional health insurance plans often don't account for the real-time decisions that EMS providers are making for their patients. "As responders, the patient's care and well-being is our priority," says Euler. Treatments and services administered in emergency medical transit are provided in the best interest of the patient and in response to the information available to the emergency responder at that time. Care cannot be preapproved in an emergency — and with ambulance care modalities changing regularly, traditional health insurers may deny coverage for care not deemed medically necessary in a retrospective review of the patient care.

# The impacts on emergency workers' health

The challenges facing EMS providers are growing more complex as hospital closures have become increasingly common — and highly equipped ambulance technology steps in to fill the gap.

Hospital closures not only extend travel times for ambulances but also place additional strain on an already overburdened system: a cycle of stress, longer shifts, and heightened pressure on EMS teams. On top of this, a national shortage of EMS providers is exacerbating the situation.<sup>8</sup>

As emergency medical teams are forced to navigate more demanding workloads for longer time periods at a higher cost, the well-being of staff is put to the test.

#### An overwhelmed system

By nature, if a hospital closes, that puts stress on the entire system," says Winters. When an ambulance needs to leave the local vicinity to transport a patient to an appropriate hospital, that's one fewer ambulance available to run the next 911 call in the area, which then puts more stress on the acting EMS team. "Driving to the site, assessing the situation, caring for the patient, dropping them off, driving back, restocking the ambulance as needed — that all makes for a long ride," Winters says. This ripple effect may exacerbate the challenges faced by EMS personnel, increasing both workload and stress.

Despite these growing pressures, the mission of emergency medical services remains unchanged, even as the healthcare landscape continues to shift. "We want to make sure that the patient is being transported where they need to be transported," says Floyd. "We want to reduce the length of their hospital stay and mitigate the long-term effects of whatever they're going through."

<sup>6:</sup> Clinics in Laboratory Medicine, Volume 41, Issue 4, "Whole Blood Transfusion Past, Present, and Future," 2023

<sup>7:</sup> Journal of the American College of Emergency Physicians Open, "Implementation of a prehospital whole blood program: Lessons learned," 2024

<sup>8:</sup> HMP Global, "Navigating the Maze of EMS Funding, Staffing Shortages, and the 'Essential' Label in America," 2023

#### A shortage of providers

In recent years, there has been a growing scarcity of paramedics and EMTs. According to an article published by the National Library of Medicine, "A national shortage of Emergency Medical Service providers is a critical issue," and researchers have identified contributing factors such as difficult working conditions, low wages, and burnout.<sup>9</sup>

#### How big is the shortage of EMS workers?

A study by the American Ambulance Association on employee turnover revealed that 39% of part-time EMT positions and 55% of part-time paramedic positions remained unfilled partly due to a lack of qualified candidates. A federal study projected a need for 40,000 more full-time emergency medical personnel by 2030.<sup>10</sup>

While these systemic causes of the shortage have been identified, the impact on EMS providers themselves has been less addressed. As the National Library of Medicine article notes, "The impact of EMS providers' social needs and social risks has yet to be thoroughly explored."

Interviews conducted for this paper highlight the connection between the increasing complexity of EMS work and the rising levels of stress among providers. "You have to be actively assessing and reassessing your patient and considering additional care options you might not have had to think about. That's additional workload," Winters adds. "It mentally and physically impacts the crews."

# Patients fear seeking emergency care

As the cost of equipping an ambulance steadily rises over longer drive times, it contributes to a growing financial burden on patients. This added expense may push many individuals to reconsider a call to 911. Also faced with higher premiums, deductibles, and out-of-pocket expenses, many individuals are finding it increasingly difficult to manage their medical expenses. As a result, patients are not only facing higher medical bills but are also becoming more aware of the financial implications of seeking care in an emergency.<sup>11</sup>

Additionally, there may be a lack of understanding about when emergency transport is truly necessary. Many people are reluctant to make a critical 911 call in a situation that requires immediate medical attention, opting instead for an alternative form of care or transport.<sup>11</sup>

## How concerned are Americans about the cost of an ambulance?

According to a 2024 YouGov survey, 23% of Americans say that during a medical emergency in which they needed immediate transportation they purposely did not call an ambulance due to the cost.<sup>11</sup>

#### Refusals come with consequences

Cost concerns sometimes lead to patients' outright refusals for the care recommended by EMS professionals, potentially resulting in worse health outcomes. EMS providers are regularly put in positions in which they are struggling to educate patients while respecting their choices.

<sup>9:</sup> American Ambulance Association, "Congressional Letter on the EMS Workforce Shortage," 2021
10: National Association of Emergency Medical Technicians (NAEMT), "States Strive to Reverse Shortage of Paramedics, EMTs," 2023
11: YouGov, "One-quarter of Americans didn't call an ambulance during a medical emergency for fear of costs," 2024

"If someone is opting to take third-party transportation, patient health outcomes do have the potential to deteriorate since they're not getting the first line of service," says Euler. This is especially crucial in time-sensitive emergencies. Euler explains that the first 10 minutes following an injury are so critical, they're known as the "platinum ten" rule: The patient should have bedside care within 10 minutes. If a patient opts for third-party transport versus an ambulance, receiving care within those crucial first 10 minutes is much less likely to happen.

Even patients under extreme duress may opt to take ridesharing services or taxis as opposed to an ambulance that has already arrived on site. Floyd says, "we do the best job we can of talking them out of that decision. But we do have refusal paperwork if they choose to go that route."

While composing this paper, several anecdotes arose from paramedics about patients who refused transport service out of fear of the bill. "They know the risks," Winters says. "The risks are explained to them very well, but they're concerned about the bill."

### Conclusion

The roles of EMS providers are shifting from first responders to more active emergency caregivers over the course of longer ambulance rides. As a result, many EMS providers may take on more of the roles typically reserved for their peers in the emergency room.

Costs may rise, in general, as a result of hospital closures, and EMS providers are forced to keep up with ever-changing technology and training. From outfitting ambulances with the latest technology to carrying whole blood to treat hemorrhaging, everything has a cost — including learning how to use new equipment.

Meanwhile, day-to-day occupational pressure on EMS providers is high, and the impact on providers' social well-being has yet to be fully investigated. Patients are feeling the pinch, too. Knowing that costs for emergency care have risen dramatically, many patients refuse ambulance rides or EMS care even when the situation is dire.

One thing is clear: Balancing the need for advanced training, technology, and patient education with the realities of financial constraints and social pressures is essential. How can we help accomplish this balance — as benefits professionals, HR leaders, and policy influencers? These three guiding principles have emerged in the support of EMS communities:

- Understand how systemic changes in the healthcare system may impact patients and medical teams on the frontlines during an emergency
- 2. Ensure EMS teams and others in behind-thescenes medical roles receive visibility, fair funding, and services to support their wellbeing and long-term sustainability
- **3.** Educate the employees we serve on what may occur in an emergency and the true stakes involved when an ambulance is not called

These three actions lay the groundwork for ensuring the effectiveness and long-term sustainability of emergency care. By addressing the key challenges that EMS providers face and implementing strategic solutions, we can help improve patient outcomes. In doing so, we may contribute to the ongoing health and wellbeing of the American workforce, ensuring the frontline of their care remains an increasingly more vital component of the healthcare system for years to come.



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#### **Disclosures**

MASA provides secondary coverage plan for emergency transport services. The contents of this white paper are for informational purposes only and do not constitute an advertisement or any offer to provide coverage.

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