New Mo. law offers free first responders and thei

The true cost of a 911 cal EMS economics

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Legislation and Funding

The 'One Big Beautiful Bill Act': What EMS leaders must know now

From shrinking Medicaid rolls to rural hospital closures, this 870-page bill could shake EMS to its core. These 7 key takeaways will help your agency prepare.

July 22, 2025 11:27 AM • Matt Zavadsky, MS-HSA, EMT, PWW Advisory Group (PWWAG)

Julio Cortez/AP

lvisory Group

as the potential to cause a seismic shift in how prehospital care is funded and delivered. On July 15, the partnership with EMS Management and Consultants (EMS|MC), conducted a national webinar highlighting seven key aspects of the 870-page law that are likely to impact EMS in some way or other.

While the Act's broader goals are aimed at deficit reduction and structural Medicaid reform, its cascading impact on EMS agencies — particularly already walking the tightrope of financial sustainability — requires urgent attention and coordinated action by EMS agency leaders and advocacy

groups.

Here's a summary of the bill's most critical provisions that have the potential to impact EMS agencies and recommended specific, strategic action steps EMS leaders should take to prepare for what could be the most disruptive fiscal environment in EMS history.

| **Get your copy:** What paramedics want in 2025: From chronic burnout and staffing gaps to a lack of meaningful leadership engagement, personnel are sounding the alarm — and offering a roadmap for change

1. Medicaid changes: A tectonic shift in payer mix

The OBBBA includes significant changes to Medicaid eligibility and cost-sharing that could drastically reduce Medicaid beneficiaries and increase the uninsured population:

- Work requirements (Dec. 31, 2026)
- Eligibility restrictions for immigrants (Oct. 1, 2026)
- More frequent re-determinations and reduced retroactive coverage (Oct. 1, 2026 and Jan. 1, 2027, respectively)
- Mandatory co-pays for adults Medicaid beneficiaries covered through Medicaid expansion (Oct. 1, 2028)

These provisions are expected to push many current beneficiaries out of Medicaid, likely shifting EMS patient populations from insured to uninsured. With Medicaid already a significant payer for ambulance services in many communities, the result could be substantial revenue reductions.

Action steps:

- Conduct detailed payer mix and economic impact modeling
- Partner with state officials and community organizations to forecast coverage loss
- Improve real-time eligibility verification systems and field documentation
- Advocate for state reimbursement and alternative funding strategies
- Explore evidence-based, patient-centric system delivery changes that reduce costs and increase efficiencies

2. Potential threats to Medicaid supplemental payment programs

Several provisions in the OBBBA could severely restrict the funding mechanisms states use to bolster Medicaid payments to EMS agencies and other healthcare providers:

- (effective immediately)
- no more than the Medicare rates (2028)
- Tax threshold from 6% to 3.5% (2028-2032)

Programs that are designed to provide supplemental payments to providers, like Ground Emergency Medical Transportation (GEMT) programs, could see drastic revenue reductions — an especially critical issue for agencies in states where GEMT funding is integral to operational stability. New

programs approved locally but not submitted to CMS for approval as of the OBBBA's effective date will likely not be authorized.

Action steps:

- Evaluate your state's impact of provider tax reductions
- Educate policymakers on how reduced payments threaten service delivery
- Explore evidence-based, patient-centric system delivery changes that reduce costs and increase efficiencies

3. Commercial insurance market disruption and exchange enrollment limits

Provisions in the OBBBA also aim to scale back Affordable Care Act (ACA) Exchange enrollment through shorter windows for enrollment, eliminating auto-enrollment features and reductions in premium subsidies. This could result in many patients currently covered by commercial insurance through enrollment in ACA exchanges becoming uninsured or utilizing Medicaid, further altering the financial landscape for EMS.

Action steps:

- Collaborate with municipalities and think tanks to assess impact
- Incorporate expected payer changes into your financial planning models

4. Hospital clo[illegible]

With overall Medicaid and hospital reimbursement facing cuts, safety-net hospitals — especially in rural and underserved urban areas — may reduce services or close entirely. EMS agencies may experience:

- Longer transport times
- Increased interfacility transfer volume (IFTs)
- Higher ambulance patient offload times (APOT)
- Surge in low-acuity 911 calls due to loss of access to basic primary care

Action steps:

- Develop APOT mitigation protocols

 e (TIP), telehealth, and mobile integrated health (MIH) models

-collect payments, and formalize payer contracts

cramento reinvented patient offload times

5. Medicare rei[illegible]

The act *may* trigger the Statutory Pay-As-You-Go (S-PAYGO) Act of 2010, leading to an up-to-4% across-the-board cut to Medicare reimbursement — potentially hitting EMS agencies already reeling from the Medicaid changes in the act. This is in flux, and Congress has the authority to waive implementation of PAYGO cuts for specific laws, and they have done so in the past. Stay tuned!

Action steps:

- Engage in federal advocacy for a waiver of the S-PAYGO rule
- Model and plan for potential Medicare cuts

6. EMS as employers: HR and tax changes on the horizon

The OBBBA also introduces employer-impacting provisions that require EMS leaders to coordinate with HR and finance departments:

- Overtime pay tax deductions (significant benefit for most employees who are not statutorily exempt from overtime, but it's not a "raise")
- Expanded dependent care flexible spending accounts (FSA)
- Permanent paid family medical leave and employer-provided childcare credits
- Student loan assistance exclusion extended
- Tighter I-9 enforcement

While many of these provisions may offer benefits or cost-savings to agencies and their employees, they also require careful implementation and management to avoid compliance issues or staff dissatisfaction.

7. A silver lining? Rural health transformation grants

A promising provision is the $50 billion Rural Health Transformation Program (2026-2030). While primarily aimed at hospitals, EMS agencies may find opportunities in partnerships for infrastructure and care coordination grants, and other sustainability programs, especially in rural communities.

Action steps:

- Collaborate with your rural hospitals now to ensure a seat at the table
- Partner with rural hospitals to secure participation and grant funding
- Collaborate with state officials to ensure EMS inclusion in grant design

Conclusion: The clock is ticking — plan for change NOW!

ıre already considering special sessions to respond to the far-reaching effects of the OBBBA. EMS leaders makers, as well as state and national advocacy associations, to stay informed on how the legislative provisions ncy leaders should also model impacts of dramatic reimbursement changes; educate policymakers; and options for system delivery changes that enhance economic sustainability and operational effectiveness.

The future of EMS as we know it may depend on the actions we take today to prepare for tomorrow.

EMS Management

The true cost of a 911 call: Breaking down EMS economics

With shifting legislation and rising costs, EMS leaders must master the art of financial transparency. This guide demystifies ambulance funding models, cost drivers and how to make the numbers make sense.

July 22, 2025 12:10 PM · Matt Zavadsky, MS-HSA, EMT

Additional resources

Any questions, please reach out to us at info@pwwag.com. We are here to help. We can assist EMS agencies with modeling the impact of many of these changes and the impact they will have on your revenue cycle and operations, and assist in evaluating the overall impact of the OBBBA on your EMS or mobile healthcare agency.

- PWW|AG Webinar recording and handouts: "What the 'One Big Beautiful Bill Act' may mean for EMS" (Passcode: 4q5n#gmu)
- Full Text of H.R. 1
- Table of potential EMS Impacts by PWW|AG and NAEMT
- Healthcare provisions
- Paragon report: Addressing Medicaid money laundering

t (OMB) Letter May 2025 Stating Potential S-PAYGO Trigger

Potentially No S-PAYGO Trigger

About the authors

Steve Wirth

As 911 Behavioral Health Calls Surge, Baltimore Diverts Fewer to Crisis Teams, Data Shows

July 17, 2025 By Tribune Content Agency 8 MIN READ SHARE TO:

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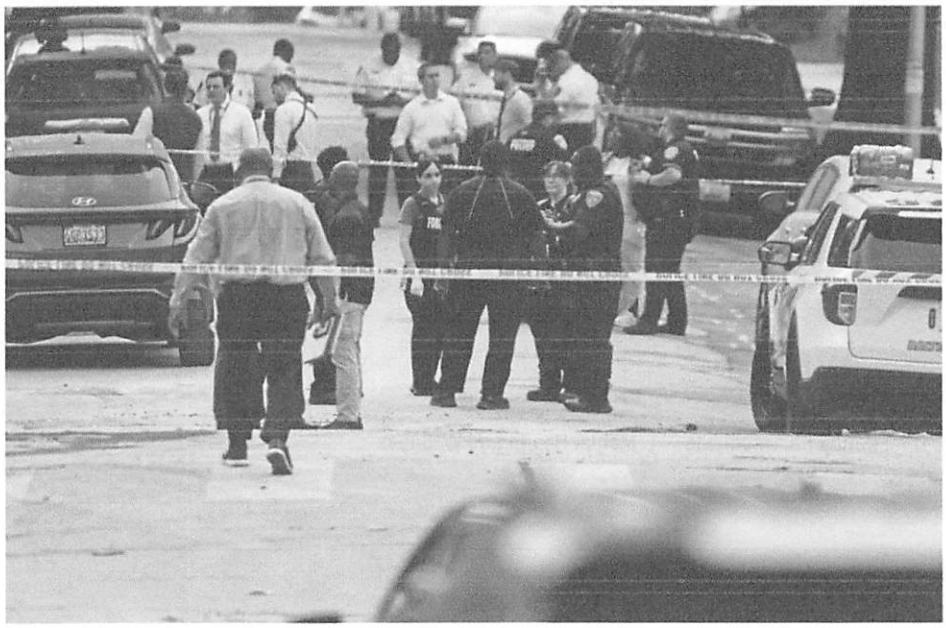


Investigators are on the scene after Baltimore Police fatally shot a 70-year-old woman in the 2700 block of Mosher Street on Wednesday. The woman reportedly lunged at them with a knife during a mental health call inside a residence. It is the second police involved shooting in West Baltimore in a little more than a week. (Kim Hairston/Staff)

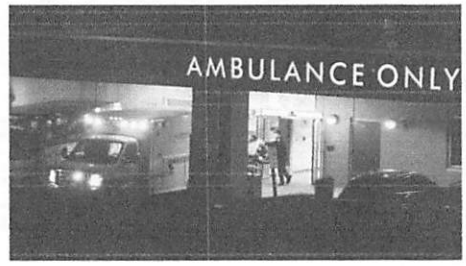
Mathew Schumer – Baltimore Sun
(TNS)

In an analysis of 911 data, The Baltimore Sun found that, while behavioral health calls in Baltimore surged in the past two years, the number of those calls diverted to mental health services dropped more than 50%, leaving police officers to respond to situations they might be ill-prepared to handle.

In June alone, at least two Baltimore residents thought to be experiencing mental health episodes died during encounters with city police officers. Police Commissioner Richard Worley said his department was investigating why a crisis response team wasn't called in at least one of those situations.

"Police officers are police officers," Worley said during a news conference earlier this month. "We give them the training we can give them to deal with this, but … behavioral health is a medical issue that we have to address, and people that aren't police officers have to help us address this."

911 diversion data reviewed by The Sun shows the number of annual calls referred for behavioral health diversions dipped below 500 in 2023 to around 450, and then to just over 325 in 2024. As of the first week of May, there have been 105 in 2025.



PA County Wrestles with Emergency Response Shortages Following Hospital Closure

6 MIN READ

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wary of sending civilian mental health specialists into potentially life-threatening situations in the field, Midgette said.

What can be done?

Baltimore City Council Chair Zeke Cohen took to X in June to call for a hearing to examine the city's behavioral crisis response system after multiple incidents last month ended in fatal police encounters for individuals who appeared to be in crisis.

An unidentified man experiencing a mental health crisis in June approached police, who restrained him and called for medics. When emergency responders failed to arrive at the scene, officers took the man to a nearby hospital, where he was pronounced dead.

The next day, police fatally shot Pytorcarcha Brooks, 70, after she attacked officers responding to her West Baltimore home to perform a wellness check.

"This last week demonstrates that we have a long way to go, and that some of the systems that have been developed may have atrophied," Cohen told The Sun at the time. "It is critically important … to make sure that the systems continue to work."

Asked about the steep decline in 911 diversions since 2023, Cohen said "that kind of precipitous drop" warrants investigation.

- Study Questions If Behavioral Health Calls Are a Burden on EMS
- Mobile Integrated Healthcare Program Changing How EMS Responds to Behavioral-Health Crises
- Evaluation and Management of Psychiatric Emergencies
- In Mental Health Crises, a 911 Call Now Brings a Mixed Team of Helpers — And Maybe No Cops
- Mental Health Crisis Teams Aren't Just for Cities Anymore

Ray Kelly, a community advocate and vice chair of the Baltimore City Administrative Charging Committee, told The Sun that he sees the decline as an indication of poor judgment at the 911 call center.

He said that operators often regard police as the more convenient way to handle calls.

"[It would benefit Baltimoreans] to eliminate the city's reliance on law enforcement," Kelly said.

The mayor's office, which shepherded the diversion program, has not directly addressed the slowdown in the city's behavioral health crisis response in the last two years. Despite outlining a plan to issue semiannual reports on the program, none have been published since the first update in the fall of 2022.

Both the mayor's office and 911 communications center did not respond to requests for comment.

At the news conference this month, Commissioner Worley said that he believes there is a "nationwide crisis" of behavioral health emergencies, adding that "unfortunately, too many of [behavioral health crisis calls] end up with use of force."

In the wake of Gray's death, the Baltimore Police Department set a goal of training officers to respond to mental health crises by de-escalating and reducing unnecessary use of force, according to a report published by the consent decree monitoring team.

The report states that BPD has made some progress in adding members to the department's Crisis Intervention Team, but remains behind its assigned target of having at least 30% of police officers in Baltimore trained in crisis intervention.

BPD Spokesperson Lindsey Eldridge said that 273 sworn officers have received training — roughly 13% of the force — up from less than 10% in 2024, according to the report.

In January 2022, there were 55 diversions, compared with only 17 in January 2025.

"[We shouldn't] put officers in these unrealistic situations where you're asking them to swing between social workers and responding with potentially deadly force," said Greg Midgette, an associate professor of criminology and criminal justice at the University of Maryland and a researcher at RAND. "It's really hard on the most capable, cool-headed person."

Establishing diversions in Baltimore

After Freddie Gray's death from injuries sustained in police custody in 2015, Baltimore's consent decree with the U.S. Department of Justice ordered the city to deploy a more effective behavioral health diversion program.

Soon after Mayor Brandon Scott took office in 2020, he introduced a plan to fill gaps in the city's behavioral health system in accordance with the consent decree.

A major element was the establishment of a 911 diversion program, in partnership with Behavioral Health System Baltimore and Baltimore Crisis Response, Inc. — two area nonprofits specializing in mental health intervention.

Under the program, 911 operators were instructed to redirect calls to a line operated by mental health professionals when the caller or subject of the call is exhibiting severe emotional distress or disorientation, posing a risk to themselves or others.

These experts would either handle the situation themselves or partner with the police or fire responders in more severe cases. Diversions weren't available for some types of behavioral health calls, including those from juveniles or second-party callers.

Scott estimated at the time that around 1,000 calls each year could be diverted by the program, though in its first year of operation there were about 500.

Claiming the program was still a work in progress, Scott began efforts to expand it with a $1.5 million allocation of city funds and additional $2 million in federal funding secured by U.S. Sen. Chris Van Hollen, a Democrat.

In March 2023, the city announced an expansion that included diversion services for juveniles and second-party callers, as well as plans for mobile crisis teams of mental health professionals ready for dispatch.

In the first quarter of 2024, the system implemented these changes.

But around the same time, the number of 911 behavioral health diversions began to drop.

Decline in diversions

Both Baltimore Crisis Response, Inc. and Behavioral Health System Baltimore declined to comment on the decrease in diversions.

However, Johnathan Davis, the CEO of Baltimore Crisis Response, Inc., told The Sun that the organization currently has about 100 counselors manning its helpline, down from 170 in May 2021, when the city's pilot program launched.

Since then, Baltimore Crisis Response, Inc. also has taken on additional responsibilities as the operator of the Central Maryland 988 Helpline, which was established in July 2022 to streamline the process of providing support for those in a mental health crisis.

Midgette, who co-authored a 2024 study of diversion programs and how they could apply to Baltimore, said he identified multiple cities that rolled out behavioral health diversion programs, only to abandon plans to expand them.

He said some planned expansions of diversion operations were derailed by risk-averse public officials, according to interviews Midgette conducted for his study. These officials were

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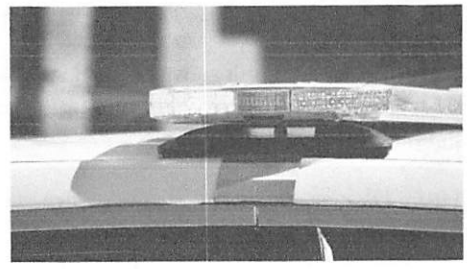

CT 2-Year-Old in Critical Condition After Near Drowning in Pool

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She added that all officer trainees receive 24 hours of behavioral health training while at the police academy, plus an additional eight hours every year.

However, Midgette said that even maximum expectations of officers' behavioral health training falls short of the expertise needed to handle behavioral health crises.

In cities with mental health specialists to handle nonviolent behavioral health crisis calls and assist with escalated calls, Midgette found that officers had more time to focus on crime prevention and other initiatives.

Behavioral health calls that were handled only by mental health specialists have saved police units in Baltimore more than 400 hours, and firefighters nearly 800 hours since the diversion program was launched, according to a dashboard maintained by the Mayor's office.

That dashboard was removed in early July for review.

Have a news tip? Contact Mathew Schumer at mschumer@baltsun.com, 443-890-7423 and on X as @mnmschumer.

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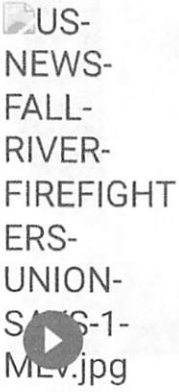


Union: 'Lives would've been saved' at fatal Mass. assisted living fire with more staffing

Fatal Incident

'Bring ladders, all units': Radio calls reveal urgent rescue efforts during deadly Mass. assisted living fire

Nine residents at Gabriel House were killed and more than 30 were injured as crews including 30 off-duty personnel, fought through chaos

July 16, 2025 08:04 AM

An investigator takes measurements Monday, July 14, 2025, near an entrance to the Gabriel House assisted living facility following a fire that started late Sunday in Fall River, Mass. (AP Photo/Steven Senne)

Steven Senne/AP

By Charlie McKenna
masslive.com

FALL RIVER, Mass. — When first responders arrived at the Gabriel House in Fall River Sunday night, there was no way to be prepared for what they saw.

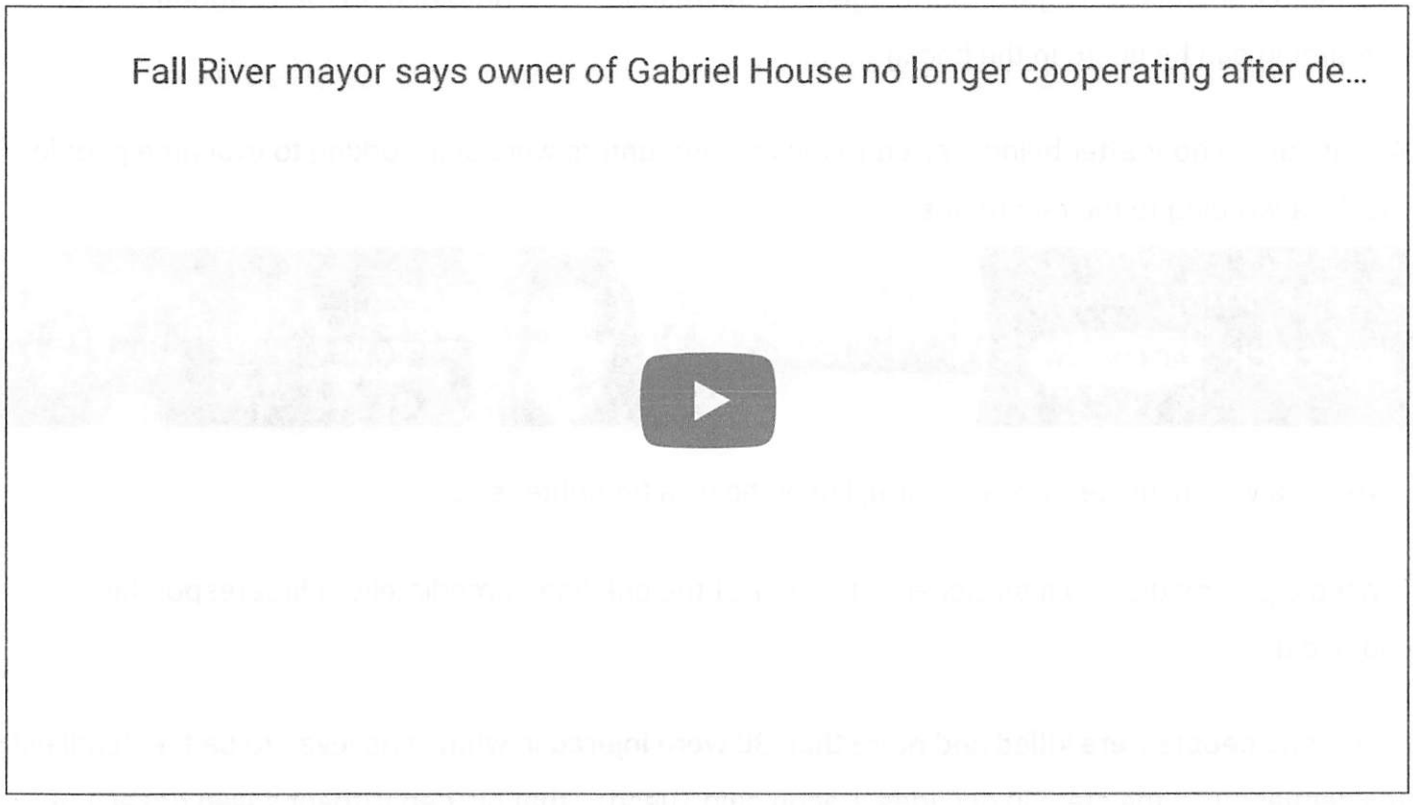
The **assisted living facility was engulfed in flames**, and many of its residents were screaming out their windows, pleading for help. Quickly, first responders ca
reveal.

"Bring ladders, all units," a first responder radioed, accordin
broadcastify.com around 9:44 p.m. "It's completely up in fla

First responders went to the scene around 9:40 p.m. Police
worked quickly to break down doors and carry out residents who couldn't walk, according to **the union representing the city's firefighters**.

| COMMAND READY: Incident command training, tech and tools

Still, it's not clear when exactly the fire broke out or when the fire department arrived at the scene. Fire Chief Jeffrey Bacon said the department was notified of the flames by a box alarm in the building around 9:30 p.m. on Sunday.



The department also received a 911 call reporting the fire.

"Complainant is screaming that there is fire and alarms sou
figure out exactly what's going on, but it's going to be for Ga

First responders who made their way into the building found
floors and called for more personnel to help with rescues.

"I need bodies and ladders. Get in front of the building," a first responder said.

Later, firefighters at the scene informed a dispatcher that they needed a recall, which prompted numerous off-duty firefighters from across the city to come to the scene and assist in rescue efforts.

"We need a fresh crew," a firefighter said, adding there were still people trapped on one side of the building who needed to be rescued.

The radio transmissions grew more urgent as the rescue effort unfolded. In many, shouting and screaming can be heard in the background.

About half an hour after being alerted to the fire, firefighters were still working to evacuate people inside, according to the recordings.

"I've got a victim inside, severely burnt, I need help," a firefighter said.

"I need a paramedic and a stretcher to the rear of the building immediately," a first responder radioed after 10 p.m.

In all, **nine people were killed and more than 30 were injured** in what is believed to be the deadliest residential fire in the state in decades. Bacon said Tuesday that his department saved dozens of lives.

Five alarms were struck during the response to the fire, drav
scene, 30 of whom were off-duty, officials said. Firefighters
cover fire stations in the city while crews were at the scene.

Trending

Violence Against First Responders

Calif. firefighter/paramedic seriously injured after being attacked during medical call

July 15, 2025 08:14 AM

Fire-based EMS

Ind. fire department targets non-emergent EMS calls from care facilities with new fee structure

July 16, 2025 10:46 AM · Sarah Roebuck

Firefighter Death

La. volunteer firefighter killed, another injured in crash while responding to call

July 16, 2025 10:57 AM · Sarah Roebuck

Wildfire and Wildland-Urban Interface

Fires across western Colo. force evacuations, challenge crews with steep terrain

July 15, 2025 09:48 AM

It was not immediately clear what sparked the fire. About 70 people lived at the facility.

An investigation into the origin and cause was ongoing and would likely take several days, a spokesman for the Department of Fire Services said. Making such a determination is more difficult when a building is extensively damaged, as the Gabriel House was.

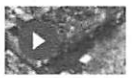
Investigators have confirmed the fire does not appear suspicious.

While there were sprinklers in the building, it's not known if they were working properly at the time of the fire, which is another part of the investigation.

Many of the firefighters who responded to the scene Sunda
time Wednesday morning.

"They worked themselves harder than they should've had to

—



Baltimore FFs follow 'Code X' rule for safety at 4-alarm blaze

'This is a travesty': Fire service leaders react to NFA training cancellations

How to put out an electrical fire in 5 steps

Fire-based EMS

Colo. whole blood program sees 'Rosie' outcomes for patients

The Colorado Springs Fire Department worked closely with the UCHealth hospital system to get the life-saving program off the ground

February 24, 2025 11:34 AM

Photo/Colorado Springs Fire Department

By Randy Royal

When Chelsea began having contractions late one evening last August, the first emotion she experienced was excitement for the impending arrival of baby No. 3. But soon, Chelsea began to worry that something was wrong. Her contractions were different from those she had experienced with her previous two pregnancies, and the pain was more intense, sharp and tearing.

Then she felt fluid. She first thought it was her water breaking but quickly realized she was bleeding vaginally. Chelsea tried different positions and techniques to try to slow the flow of blood, and reached out to her midwife. Chelsea sent a picture of the blood loss to the midwife, who told Chelsea to immediately call 911.

When the crew of Colorado Springs Fire Department (CSFD) Engine 11 – three EMTs and one paramedic – arrived on scene, they were taken aback at the amount of blood they found. Their first impression was that Chelsea was in critical and dire condition, and that both she and her unborn baby were on the verge of losing their lives.

An on-duty medical officer, Lt. Aaron McConnellogue, was contacted by the crew and quickly en route with potentially life-saving blood. Upon his arrival, McConnellogue also recognized the seriousness of the situation. Chelsea was pale and anxious, asking if she and her baby were going to die.

Without delay, whole blood was administered to Chelsea as she was being loaded into the ambulance, and care continued en route. Critical notifications were provided to the hospital during transport.

Upon arrival at UCH Memorial Hospital, Chelsea bypassed the emergency room and was taken directly to labor and delivery, where emergency care was continued, including the provision of additional blood. She then underwent an emergency C-section.

Chelsea was soon elated to hold her newborn daughter, Rosie.

The attending doctors shared that Chelsea had lost at least one-third of her blood volume, and that neither she nor her baby would have survived if they had not received blood in the field. They were amazed and thankful for the wonderful outcome in what could have been a tragic event. Chelsea was humbled and reflective when she learned that the blood that saved her would not have been available only a few months earlier.

In this episode of Behind the Springs hear more about the state's first Whole Blood Program and a first hand account of not one but two lives being saved at the same time from our new program. (Website linked in shared article)

80 3 9

CSFD's whole blood program

CSFD began its whole blood program in May 2024. It was the culmination of a year-and-a-half-long effort that involved researching existing programs, developing policies and procedures, obtaining state medical waivers and getting the equipment needed to ensure the program's success.

The teamwork among CSFD's medical division staff, its physician adviser group and the UCHealth (UCH) nonprofit hospital system was key to getting this program off the ground. UCH provided the blood bank and support to enable a consistent supply of blood for the program, and the UCHealth Memorial Hospital Foundation generously provided the additional funding needed to purchase equipment to properly store, transport, reheat and transfuse the whole blood in the field. This was truly a community effort, and many community philanthropists embraced the vision and donated to the cause.

How it works

CSFD's whole blood program equipment includes cooling and warming units, which keep the blood at 36 degrees while in the medical lieutenants' vehicles. The unit can be safely warmed to 100 degrees in about six seconds when a transfusion is needed. Ultrasounds are used in certain cases to determine active blood loss. In the near future, every heavy apparatus will carry ultrasounds so crews can quickly make that determination.

Photo/Colorado Springs Fire Department

The blood is obtained through a partnership with the UCHealth blood bank, which replenishes our stock after each call. The blood itself is whole blood, meaning it includes red and white blood cells, plasma and platelets. Low titer Type O blood ("universal donor blood") has low levels of antibodies, making it safe to transfuse to a patient with any blood type.

Patients receive blood from the initial crew on scene and one of our medical lieutenants, who oversee our paramedics in the field. These lieutenants carry the blood and needed equipment and are a 24-hour mobile resource. They monitor the radio and respond when a call has a potential need for blood. Also, if a crew arrives on scene and determines that their patient could benefit from a blood transfusion, they can call and request a medical lieutenant. Transport is never delayed waiting for blood to arrive. If an ambulance is on scene, the patient will be loaded and head to the hospital. If necessary, the medical lieutenant will rendezvous with the ambulance en route, jump in the rig, and provide blood. Our goal is to further expand access to this needed treatment in the future.

Why it matters

Dr. Matt Angelidis, co-chief CSFD medical director with Dr. Stein Bronsky, said, "Hemorrhagic shock – bleeding to death – is the leading cause of death for people age of 45 and under, and we know that upward of 40% of these patients could survive with immediate blood transfusion in the field. First responders bringing blood to the scene of an injury will save lives. I have sat in too many after-action reviews where firefighters and first responders tearfully ask what they could have done differently, knowing if they could have transfused blood the outcome might have been different."

Some additional facts that motivated CSFD and UCH to move forward with this project:

- Uncontrollable hemorrhage is the No. 1 most preventable cause of death in the U.S.
- There is a 20-fold increase in survival benefit when blood is given in less than 34 minutes.
- In Colorado Springs, one patient bleeds out every 48 hours.
- There is a three-fold increase in long-term survivability in the first 30 days post incident.

Additionally, the American College of Surgeons held a **press conference** last fall to emphasize the positive impact of more whole blood availability in the field. It was reported there that the mortality rate for hemorrhagic shock is 70%, and with the ability to provide this treatment in the field, at least 10,000 more lives could be saved each year.

Seeing these benefits, CSFD sought to bring the program to fruition with the steadfast efforts of our physicians, medical division staff and community collaborators. And the work has paid off. In our experience, a wide range of patients have benefitted from the whole blood program, including those in hemorrhagic shock from shootings, stabbings, traffic accidents with and without ejection, falls and various other multi-system trauma situations. Patients with GI bleeds and labor and delivery complications, like Chelsea, have also benefitted from the program.

Paying it forward

An initial step in getting the CSFD program off the ground involved reaching out to the San Antoino Fire Department in Texas, which began its whole blood program in 2018, to learn from their experience. This included a site visit, where our staff met with San Antonio's staff and medical directors, and attended an academy that provided further training. Staff from our UCHealth blood provider, Vitalant, also attended. This was invaluable to our success and is reflective of the benefit of collaborating with our fire and EMS partners.

When we initiated our program, there were a few others providing similar care, including Palm Beach, Florida; Howard County, Virginia; and Orange County, California. Others have since come on board, including Washington, D.C.; Canton, Massachusetts; and Crawfordsville, Indiana. It should be noted that the Canton and Crawfordsville agencies are smaller than the others listed, underscoring that these programs benefit all communities. In fact, the American College of Surgeons said these programs are even more essential in smaller and more rural communities.

Impact in Colorado Springs and beyond

This treatment regime has been used by the military since 1917, but fewer than 2% of departments, including fire, EMS and flight programs, currently carry whole blood. Raising that percentage should become a priority across the nation.

Photo/Colorado Springs Fire Department

Here in Colorado Springs, we are elated at the success of this program and the positive impact it is having on the public safety of our community, the lives already saved and those that will be saved in the future. As of the last data drawn, we have provided 72 units of whole blood in the field to 63 patients. Forty-three of them were able to walk out of the hospital. This is an additional save rate of about 68% based on survival rates for these types of incidents. We also have seen a 60% increase in 30-day survival. Another benefit: The UCHealth blood bank has had to dispose of fewer units of blood each month – from 13 to 20 units wasted each month to 6 or 7 since the program started.

What's Stopping EMS Agencies From Adopting Prehospital Blood Transfusions?

January 28, 2025 Curated By Dan Landrigan

Why some EMS agencies cannot use prehospital blood while treati...

Medical studies have shown that administering whole blood before patients reach the emergency room significantly improves survival odds. Despite this evidence, most EMS agencies do not carry blood.

For patients experiencing severe blood loss, their chance of survival diminishes with every minute they go without a transfusion.

Despite the success EMS providers have shown using whole blood in the field, financial and logistical challenges prevent broader adoption, KY3 reports. Whole blood must be kept cold and then warmed before administration. In addition, the care is not not widely reimbursed.

Diane Calmus, Vice President of Government Affairs with America's Blood Centers, told KY3, Medicare, Medicaid, and private insurers currently only reimburse for blood transfusions administered in hospitals.

However, Medicare is reportedly considering expanding coverage for medically necessary whole blood transfusions in the field. Medicaid decisions about funding would need to be made at the state level.

Visit KY3 for more.

- Scott County IN EMS Now Offering Blood Transfusions in the Field
- Prehospital Blood Transfusion Initiative Coalition Being Formed
- With Trauma Deaths On the Rise, EMS Is Developing Prehospital Blood Transfusion Programs to Improve Survival and Recovery Rates
- Whole Blood Transfusion Program Launched in Two CO Counties
- Whole Blood in the Field: The Next Frontier of 'What's Actually Impossible?'
- American College of Surgeons Supports Prehospital Blood Programs

Emergency Medical Care News Headlines Whole Blood

MUST VIEW

Cliffside Park (NJ) EMT Destroyed 2 Months Worth of Patient Medical Records, Prosecutor Says

Admin/Leadership Legal Issues News

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Seven Dead, 19 Injured in Philadelphia Air Ambulance Crash

Major Incidents News Air Ambulance Crash

EMS EMT Paramedic Pennsylvania

The entire process that started in late 2023 would take nearly six months to complete. While DPEMS does not have nearly the run volume as EMS agencies in many of the larger metropolitan cities in Louisiana, they can now offer their patients' blood and plasma, something those agencies cannot.

DPEMS medical director Dr. Patrick McGauly stated, "We are a smaller service, and we may only get the opportunity to administer blood a few times each year, who knows; but, for those few patients, there is no doubt that we are giving them a better chance of survival than we ever have before."

With more agencies and medical directors across the country trying to implement a blood program at their own service, the hope is that, in the near future, the aspect of every ground EMS service carrying blood in some capacity will be the standard and not the rarity it is today.

ABOUT THE AUTHOR

Brent Crawford is a nationally registered paramedic and the training officer for DeSoto Parish EMS in Louisiana. He also serves on the Louisiana EMS Task Force and is a commissioned member of the Louisiana Emergency Response Network (LERN). He possesses a Master of Public Administration degree from the University of Louisiana at Monroe and a Bachelor of Science degree in Unified Public Safety Administration from Northwestern State University.

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2. Dr. Jon Krohmer, Kate Elkins. Healthcare Resilience Task Force: EMS/911. 2020. Retrieved From: https://www.ems.gov/assets/COVID-19_EMS_911_Briefing.pdf
3. Levy MJ, Garfinkel EM, May R, Cohn E, Tillett Z, Wend C, Sikorksi RA, Troncoso R Jr, Jenkins JL, Chizmar TP, Margolis AM. Implementation of a prehospital whole

multiple blood banks in their area and even a few outside of the state.

What started as a hypothetical in 2019 would regain traction in late 2023 and eventually become a reality on May 13, 2024. That is the day Desoto Parish EMS would become only the second ground EMS agency in Louisiana to carry blood products.

THE FIRST BLOOD TRANSFUSION

While other EMS services in more urban areas may transfuse blood products several times a month, it would be nearly four months after activating their blood program before DPEMS would transfuse their first unit of blood and plasma.

On September 30, 2024, at 2:32 a.m., DPEMS would respond to an MVC rollover at high speeds, with patient ejection. Upon arriving on the scene and locating the patient, it was estimated they had been thrown 15-20 yards from their vehicle.

The patient had several life-threatening injuries, including obvious bilateral femur fractures, one of which was an open fracture. The patient was rapidly loaded into the ambulance and transport was initiated to the level-1 trauma center, nearly 20 minutes away.

Despite the patient's injuries, they were initially assigned a GCS-15. During transport, the patient began to show signs of clinical deterioration. The patient had a drop in their GCS, became pale, and tachycardiac. Due to fear of internal bleeding, the decision was made to transfuse blood and plasma.

Following the transfusion, and many other life-saving interventions taken by the DPEMS crew that morning, the patient's status had greatly improved upon arriving at the trauma center.

Following multiple surgeries and several days in the hospital, the patient was discharged back home. Without the ability to transfuse blood products, there is little doubt this patient may have had a devastating outcome.

LONG PROCESS

Their guidelines (protocols) allow their paramedics to have a level of autonomy not commonly seen in EMS. The agency is constantly looking for new and innovative ways to treat their patients whether that is a new medication, new device, or procedure, or in this case, carrying blood products.

Even with all the advancements DPEMS has made since its inception in 2001, in 2019, carrying blood seemed improbable. However, now that the idea had been proposed, Miller and his team began investigating what the criteria would be for a ground EMS service to carry blood.

A SUDDEN STOP

Unbeknownst to them, the entire process would soon be shelved for the next several years. By the end of 2019 and early 2020, the country and the world would come to a screeching halt due to a global pandemic.

COVID put everything on hold. Every EMS agency in the country was now concerned about supply chain issues, staffing, fuel shortages, and all the unknowns that came with the pandemic. DPEMS was no different. The agency was no longer focused on creating a blood program but instead shifted its focus and began concentrating on how to keep their service operational while also limiting exposure and maintaining the high standards of patient care they had set for themselves. Carrying blood would not be even mentioned again until late 2023.

A NEW START

Unlike in 2019, by 2023, dozens of EMS agencies across the country were now carrying blood products including an agency in Louisiana. This would make Miller's second proposal for DPEMS to develop a blood program much easier. Even with all the data from the field surrounding positive outcomes with early blood transfusion, being able to pull that information from an agency in the same state was an invaluable resource.

Just like in 2019, Miller would once again make DPEMS carrying blood products his top priority. He collected the data, crunched the numbers, and spent countless hours talking to

International Prehospital Medicine Institute Literature Review, January 2025

Airway & Respiratory Cardiac & Resuscitation Emergency Medical Care Emergency Trauma Care Exclusives Patient Care EMS EMT Paramedic Research

complications of a new product as well as the necessary training and education involved with transfusing blood.

Thus, there are varying degrees of its adoption by agencies and states as well. Whatever the reason, the data is out there, and there is no denying that those EMS programs that can transfuse blood in the field are giving their patients a better chance of survival than those who do not.

BLOOD IN LOUISIANA

Until recently, Louisiana was one of those states that did not have a ground EMS agency carrying blood products. This changed in October 2021 when New Orleans EMS would set the new standard for ground EMS programs in the state by incorporating the transfusion of blood products into their service.

Undoubtedly, New Orleans EMS was not the first ground service in Louisiana to see the need and benefits of carrying blood products, but they were the first agency that took the initiative to go out and make carrying blood a priority and reality.

It would be nearly three more years before another EMS ground service in Louisiana, Desoto Parish EMS (DPEMS), would take that same initiative and make carrying blood products their top priority.

DESOTO PARISH EMS

In the summer of 2019, DPEMS Supervisor Gordon Miller first proposed the concept of carrying blood products. Miller's initial proposal, while generating interest and support from the agency's medical director and administration, also came with questions and an inherent set of new risks for the agency.

For a mostly rural EMS agency, DPEMS is a clinically advanced and proactive ground agency. They were the first and still the only ground service in north Louisiana that has rapid sequence intubation (RSI) capabilities, which they implemented in 2012.

NH Reports Overdose Deaths Are Finally Declining. What's Working?

News News Feed Patient Care Headlines

New Hampshire Overdose

According to Dr. James R Stubbs, a transfusion specialist at the Mayo Clinic, "as large blood volume replacement with crystalloid has been found to cause more harm than good, it's fallen out of favor."[1]

Nearly all current data suggest that whole blood administration if transfused early, can greatly increase outcomes for patients who have suffered significant blood loss. This begs the question, "If this practice can be such a significant difference-maker in saving a life, particularly in the field, then why are more ground EMS programs not carrying blood?"

PUBLIC MISCONCEPTION

The public has a common misconception that most ambulances carry blood products. If they knew how far this was from the truth and how many painstaking hours go into developing a blood program, it would probably surprise the majority of them.

According to data provided by the Healthcare Resilience Task Force, "there are more than 23,000 licensed EMS agencies in the United States," as of 2020.[2] Of those licensed agencies, only 121 are reported to be carrying blood products as of September 2023, according to the National Institute of Health (NIH).[3]

Some data suggests that the number has increased mildly since last reported. However, today less than one percent of ground EMS agencies in this country are carrying blood.

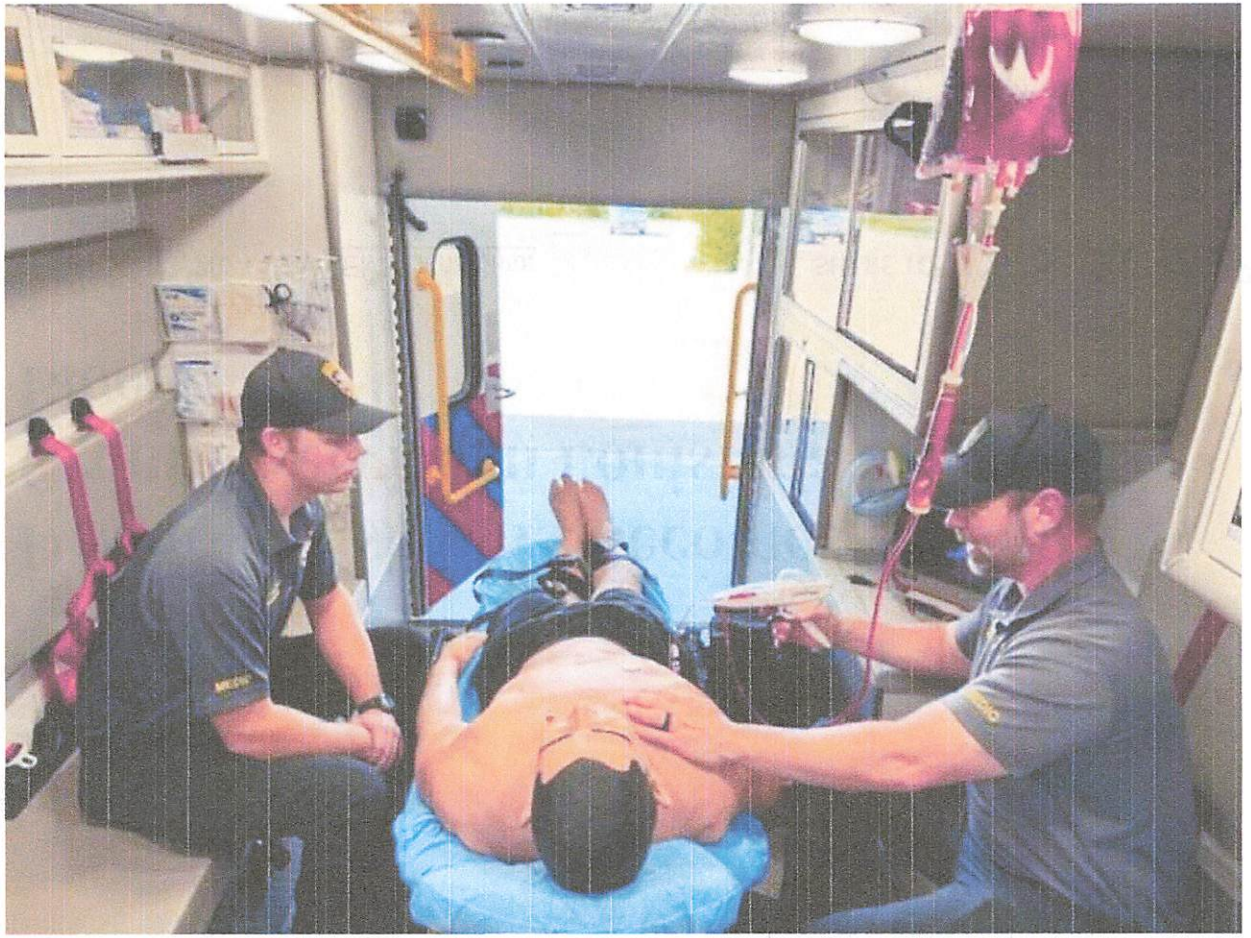
According to Dr. Peter Antevy, "Numerous studies have shown that giving whole blood on scene can be beneficial, decreasing prehospital and early-hospital mortality by 48%, but, with very few exceptions, civilian patients have to wait until they arrive at the hospital to start receiving blood transfusions."[4]

WHY NOT CARRY BLOOD?

Even with that knowledge, there can be a multitude of reasons why an agency would choose not to carry blood products. Some of the main challenges are a limited blood supply, associated costs, the agency's medical director or administration not wanting the

EMScapades: New Year's Resolution

EMS Training EMT Training Exclusives Paramedic Training EMS EMScapades EMT Paramedic



DPEMS Supervisor Gordon Miller provides blood transfusion training to paramedic Jonathan Craig. (Photo/Brent Crawford)

By Brent Crawford, MPA, NRP

For a patient suffering from exsanguinating hemorrhage, there is no substitute for blood. While this has been widely known for decades, most ground EMS programs have either not had the capability to carry blood products or entirely elected not to carry them at all.

Until recently most EMS programs have relied primarily on crystalloid fluids for their patients who required volume resuscitation. The obvious clinical issue with this practice is that crystalloids cannot transport oxygen.

Desoto Parish EMS Becomes Second Ground Service in Louisiana to Carry Blood

December 23, 2024 By JEMS Contributor

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Most States Don't Consider EMS an 'Essential Service'

Without the designation, state governments aren't required to provide or fund EMS.

By Nada Hassanein
Source Stateline.org (TNS)

Sep. 11—When someone with a medical emergency calls 911, they expect an ambulance to show up.

But sometimes, there simply isn't one available.

Most states don't declare emergency medical services (EMS) to be an "essential service," meaning the state government isn't required to provide or fund them.

Now, though, a growing number of states are taking interest in recognizing ambulance services as essential — a long-awaited move for EMS agencies and professionals in the field, who say they hope to see more states follow through. Experts say the momentum might be driven by the pandemic, a decline in volunteerism and the rural health care shortage.

EMS professionals have been advocating for essential designation and more sustainable funding "for longer than I've been around — longer than I've been a paramedic," said Mark McCulloch, 42, who is deputy chief of emergency medical services for West Des Moines, Iowa, and who has been a paramedic for more than two decades.

Currently, 13 states and the District of Columbia have passed laws designating or allowing local governments to deem EMS as an essential service, according to the National Conference of State Legislatures, a think tank that has been tracking legislation around the issue.

Those include Connecticut, Hawaii, Indiana, Iowa, Louisiana, Maine, Nebraska, Nevada, Oregon, Pennsylvania, South Carolina, Virginia and West Virginia.

And at least two states — Massachusetts and New York — have pending legislation.

Idaho passed a resolution in March requiring the state's health department to draft legislation for next year's legislative session.

Meanwhile, lawmakers in Wyoming this summer rejected a bill that would have deemed EMS essential, according to local media.

"States have the authority to determine which services are essential, required to be provided to all citizens," said Kelsie George, a policy specialist with the National Conference of State Legislatures' health program.

Among those states deeming EMS as essential services, laws vary widely in how they provide funding. They might provide money to EMS services, establish minimum requirements for the agencies or offer guidance on organizing and paying for EMS services at the local level, George said.

The lack of EMS services is acute in rural America, where EMS agencies and rural hospitals continue to shutter at record rates, meaning longer distances to life-saving care.

"The fact that people expect it, but yet it's not listed as an essential service in many states, and it's not supported as such really, is where that dissonance

occurs," said longtime paramedic Brenden Hayden, chairperson of the National EMS Advisory Council, a governmental advisory group within the U.S. Department of Transportation.

More financial support

There isn't a sole federal agency dedicated to overseeing or funding EMS, with multiple agencies handling different regulations, and some federal dollars in the form of grants and highway safety funds from the Department of Transportation. Medicaid and Medicare offer some reimbursements, but EMS advocates argue it isn't nearly enough.

"It forces it as a state question, because the federal government has not taken on the authority to require it," said Dia Gainor, executive director for the National Association of State EMS Officials and a former Idaho state EMS director. "It's the prerogative of the state to make the choice" to mandate and fund EMS.

In states that don't provide funding, EMS agencies often must rely on Medicaid and Medicare reimbursements and money they get from local governments.

Many of the latter don't have the budgets to pay EMS workers, forcing poorer communities to turn to volunteers. But the firefighter and EMS volunteer pool is shrinking nationally as the volunteer force ages and fewer young people sign up.

Overhead for EMS agencies is expensive: A basic new ambulance can cost $200,000 to $300,000. Then there are the medicine and equipment costs, as well as staff wages and farther driving distances to medical centers in rural areas.

The fact that people expect it, but yet it's not listed as an essential service in many states, and it's not supported as such really, is where that dissonance occurs. — Paramedic Brenden Hayden, chairperson of the National EMS Advisory Council

By contrast, police departments are supported and receive funds from the U.S. Department of Justice along with local tax dollars, and fire departments are supported by the U.S. Fire Administration, although many underserved areas also rely on volunteer firefighters to fill gaps.

"We need more if we're going to save this industry and [if] we're going to be available to treat patients," Hayden said. "EMS in general represents a rounding error in the federal budget."

What's more, reimbursements only occur if a patient is taken to an emergency room. Agencies may not receive compensation if they stabilize a patient without transporting them to a hospital.

Gary Wingrove, president of the Paramedic Foundation, an advocacy group, has co-authored studies on the lack of ambulance service and on ambulance costs in rural areas. The former Minnesota EMS state director argues that reimbursements should be adjusted on a cost-based basis, like critical-access medical centers that serve high rates of uninsured patients and underresourced communities.

A rural crisis

About 4.5 million people across the United States live in an "ambulance desert," and more than half of those are residents of rural counties, according to a recent national study by the Maine Rural Health Research Center and the Rural Health Research & Policy Centers. The researchers define an ambulance desert as a community 25 minutes or more from an ambulance station.

Some regions are more underserved than others: States in the South and the West have the most rural residents living in ambulance deserts, according to the researchers, who studied 41 states using data from 2021 and last year.

EMS director of the Rosebud Sioux Tribe in South Dakota. South Dakota Democratic state Rep. Eric Emery, a paramedic, is the EMS director of the Rosebud Sioux Tribe Reservation. He is advocating for better support for EMS in his state. Courtesy of Rosebud Sioux Tribe Communications Department

In South Dakota, the Rosebud Sioux Reservation covers a 1,900-square-mile area in the south-central part of the state.

State Rep. Eric Emery, a Democrat, is a paramedic and EMS director of the tribe's sole ambulance station, providing services to 11,400 residents.

Emery and his colleagues respond to a variety of critical calls, from heart attacks to overdoses. They also provide care that people living on the reservation would otherwise get in the doctor's office — if it didn't take the whole day to travel to one. Those services might include taking blood pressure measurements, checking vital signs or making sure that a diabetic patient is taking their medicine properly.

Nevertheless, South Dakota is one of 37 states that doesn't designate emergency medical services as essential, so the state isn't required to provide or fund them.

While he and his staff are paid, remote parts of the reservation are often served by their respective county volunteer EMS agencies. It would simply take Emery's crew too long — up to an hour — to arrive to a call.

"Something I wanted to tackle this year is to really look into making EMS an essential service here in South Dakota," Emery said. "Being from such a conservative state that's very conservative when it comes to their pocketbook, I know that's probably going to be a really hard hill to climb."

Ultimately, Wingrove said, officials need to value a profession that relies on volunteers to fill funding and staffing gaps.

"We're looking for volunteers to make decisions about whether you live or die," he said.

"Somehow, we have placed ourselves in a situation where the people that actually make those decisions are just not valued in the way they should be valued," he said. "They're not valued in the city budget, the county budget, the state budget, the federal budget system. They're just not valued at all."

FIREHOUSE

EMS

Trained IA Civilians to Provide EMS Care to Neighbors

Volunteers in three rural counties will receive training and gear to help others until responders arrive.

Firehouse.com News

When someone calls 9-1-1 in certain rural Iowa counties, the first person to show up may be a neighbor not an EMT on an ambulance or a firefighter.

Three of the most rural counties have been selected to participate in a new program -- Iowa United First Aid -- that will get trained volunteers to emergencies to provide medical treatment until an EMT arrives.

"If there's an emergency, there's an expectation that help is coming quickly. Rural EMS can be a challenge, however. Average ambulance response time is 25 to 30 minutes in some areas," Lt. Gov. Adam Gregg said recently.

Volunteers in Calhoun, Cass and Van Buren counties will resceive receive approximately 10 hours of medical training including CPR, how to use an AED as well as how to control severe bleeding, according to The Messenger.

They will be provided with a jump bag containing various medical equipment.

Using technology, dispatchers will send alerts to trained volunteers who are closest to the emergency. But officials don't expect people to be on-call 'round the clock either.

"Dispatch won't send an alert to every volunteer for every emergency. Also, volunteers won't be sent to every emergency, such as a domestic violence case or hazmat situation," Gregg said adding that the state's Good Samaritan law will protect them from liability.

The civilian response corps is not being formed to replace EMTs, paramedics or ambulance services.

Gregg said the sole intent of the program is to get medical help to people quickly.

"There are lots of situations where minutes matter, whether someone is bleeding from a farm accident, suffering a heart attack or stroke, or facing an opioid overdose. These things happen every day throughout our state," he said.

A Calhoun County supervisor, Scott Jacobs said of the program: "Rural Iowa is known for its tight-knit communities where people work together to solve challenges."

EMS Management

The true cost of a 911 call: Breaking down EMS economics

osts, EMS leaders must master the art of financial transparency. This guide demystifies ambulance funding models, cost drivers and how to make

y, MS-HSA, EMT

(Image ChatGPT)

As EMS systems and ambulance agencies enter one of the most tumultuous times in our young industry, it is crucial that we articulate the economics of EMS delivery in a transparent and consistent manner, using proper terminology.

| More: eBook: How to fund community paramedicine

Current events that will likely alter the EMS economic model include:

- Patient protection/balance billing legislation

tential to dramatically change Medicare and Medicaid reimbursement and Ground Emergency Medical Transport (GEMT) programs

Ambulance service is a critical link in the healthcare chain, not only representing the first point of contact for patients in emergencies, but also moving patients throughout the healthcare system. Behind the medical care delivered by EMS personnel lies a complex financial ecosystem that keeps these lifesaving resources serving local communities and health systems.

This article explores the financial dynamics of ambulance services, including revenue models, cost structures, and tips to effectively communicate the economic challenges we face in a dynamically changing healthcare and regulatory landscape.

Direct costs and cost drivers

There are three primary drivers of direct costs in ambulance service delivery:

- **Response time.** Shorter response time goals mean more available ambulances will be needed to meet that goal. Longer response time goals mean less ambulances are needed. This is the definition of the "cost of readiness." According to the recent Medicare Ground Ambulance Data Collection System (GADCS) report, labor (including wages and benefits) represents 69% of the cost of ambulance service delivery, so it makes sense that the more resources deployed in the system, the higher the cost.
- **Staffing level.** Advanced Life Support (ALS) ambulances cost more to operate than Basic Life Support (BLS) ambulances due to wages, equipment and medication expenses. Wage expenses are compounded by overtime and pay incentives that may be necessary to meet staffing goals for ALS units.
- **Resource deployment model.** EMS responses generally increase during the day and decrease overnight. Static or fixed deployment models, where the same number of ambulances are staffed 24/7, lead to either a potential shortage of ambulances during peak demand times, or an overabundance of resources during lower response volume periods. Staffing the number of 24/7 units based on peak demand times leads to underutilized resources and higher costs.

Other direct costs that should be included in the cost-of-service delivery include capital depreciation and operational expenses — medical supplies, fuel, maintenance, repairs and any costs associated with technology (e.g., software, cellular connectivity, etc.).

What Paramedics Want

Quantifying the gap between expenses and revenue for EMS services

Takeaways from the First CMS Data Collection Report on Ambulance Services to enhance service levels and reduce costs of service delivery

February 17, 2025 10:31 AM · PWW Advisory Group (PWWAG)

:ch services, medical direction/quality management, administration and facilities. Some of these costs could be shared with other non-ambulance delivery
n of those costs is important. For example, if an ambulance is housed at a station that also houses fire trucks and police cars, the facility cost for the percentage
the station should be counted as a cost for ambulance services.

An often-overlooked cost in ambulance service delivery is the cost of uncompensated care. Uncompensated represents the financial burden of providing services without receiving payment, either due to charity care or bad debt. While it's not a direct expense like employee salaries, it reduces the revenue an ambulance provider can collect, impacting financial stability and ability to provide services.

Explaining EMS costs

Explaining ambulance service delivery costs to laypersons is an art and a science. Stating an annual total expense number may not adequately communicate the cost-of-service delivery. There are several ways you can make costs more understandable:

- Cost per response (responses/total expenses)
- Cost per transport (transports/total expenses)
- Cost per patient contact (patient contacts/total expenses)
- Cost per unit hour (staffed unit hours/total expenses)

It may be beneficial for agencies to start tracking costs and revenue on a per-patient-contact basis, as innovative agencies are engaging in effective treatment in place models that reduce the actual number of transports, making the per-transport metric perhaps less relevant. Each of these metrics, tracked over time, can be very useful in explaining service delivery costs to stakeholders.

The price of service delivery: EMS funding

anaging your revenue cycle

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plaining revenue

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most recent PWW|AG EMS Financial Index Report revealed that while
paring costs for service delivery to the revenue received, ambulance ag

costs, FFS revenue should be broken down on a per response, per pati

- Net revenue per response (responses/total FFS net revenue)
- Net revenue per transport (transports/total FFS net revenue)
- Net revenue per patient contact (patient contacts/total FFS net reven
- Net revenue per unit hour (staffed unit hours/total FFS net revenue)

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Legislation and Funding

The 'One Big Beautiful Bill Act': What EMS leaders must know now

From shrinking Medicaid rolls to rural hospital closures, this 870-page bill could shake EMS to its core. These 7 key takeaways will help your agency prepare.

July 22, 2025 11:27 AM · Steve Wirth

EMS Grants

Show me the money: How EMS can tap into opioid funding

7 must-do steps for hurricane disaster preparation

5 must-do tips for tornado preparation

4 key steps communities take for drought survival

6 crucial tips for surviving heatwaves at home

4 critical tips for sheltering during winter storms

5 must-do actions for surviving an earthquake

4 steps to disaster safety for seniors in emergencies

Why you need a car emergency kit (and what to pack)

article was originally posted in June 2020. It has been updated with new information.

aster Management EMS Training and Education Mass Casualty Incidents

Greg Friese, MS, NRP

eg Friese, MS, NRP, is the Lexipol Editorial Director, leading the efforts of the editorial team on Police1, FireRescue1, Corrections1 and EMS1. Greg served as the EMS1 editor-in-chief for five years. He has a bachelor's degree m the University of Wisconsin-Madison and a master's degree from the University of Idaho. He is an educator, author, national registry paramedic since 2005, and a long-distance runner. Greg was a 2010 recipient of the IS 10 Award for innovation. He is also a three-time Jesse H. Neal award winner, the most prestigious award in specialized journalism, and the 2018 and 2020 Eddie Award winner for best Column/Blog. Connect with Greg on kedIn.

:e delivery, based on desired service level, exceeds the FFS revenue that is
ice leaders should do all they can to maximize FFS revenue to reduce tax
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he cost of service delivery) and do not currently allow patient balance
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- 7 must-do steps for hurricane disaster preparation
- 5 must-do tips for tornado preparation
- 4 key steps communities take for drought survival
- 6 crucial tips for surviving heatwaves at home
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Disaster Management EMS Training and Education Mass Casualty Incidents

Greg Friese, MS, NRP

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3. Prepare a disaster supply kit of water, food, medicine, clothing, bedding, communication devices, and other necessities.

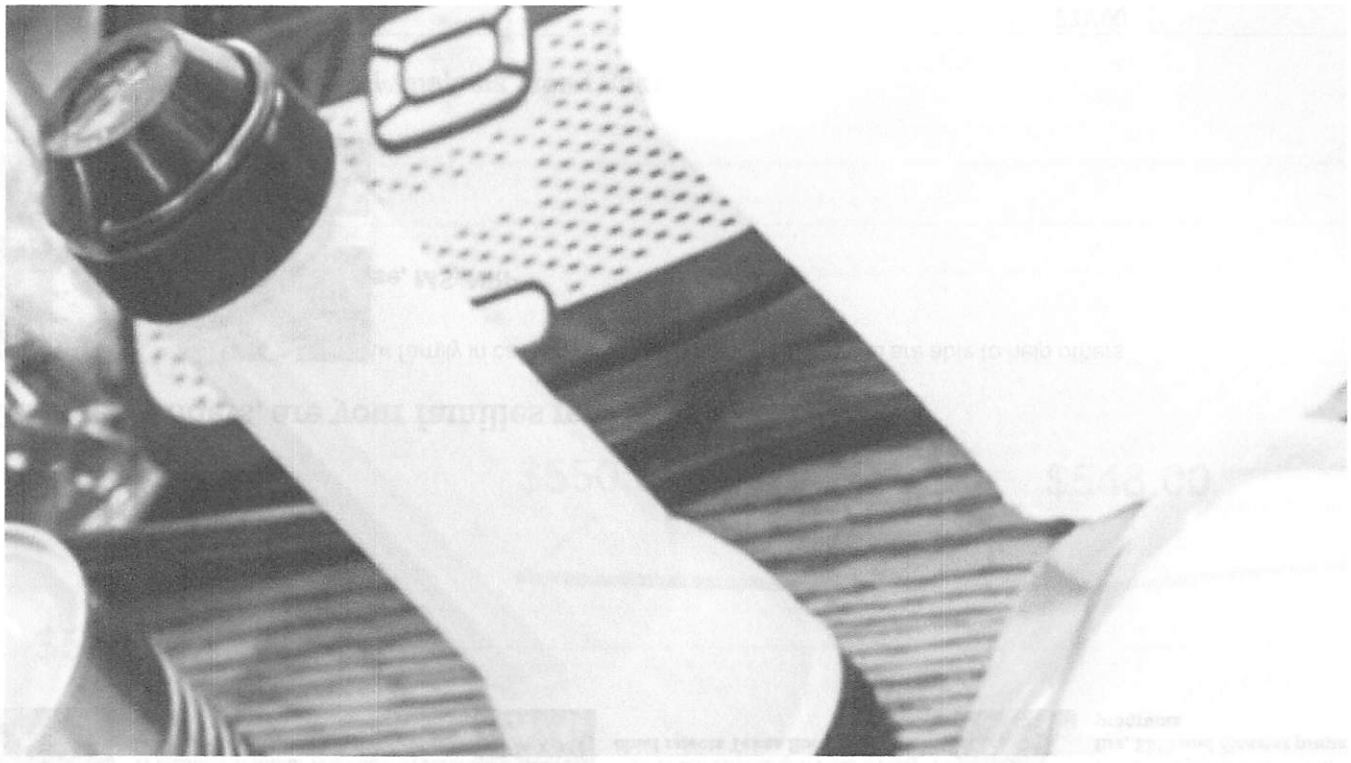
Include these items recommended by Ready.gov in your disaster supply kit:

- Face masks for everyone ages 2 and above, soap, hand sanitizer and disinfecting wipes
- A 3-day supply of non-perishable food (don't forget a manual can opener)
- Water (one gallon per person per day for at least three days)
- Battery-powered or hand-crank radio
- Flashlight
- First aid kit
- Extra batteries
- Whistle (to signal for help)
- Moist towelettes, garbage bags and plastic ties (for personal sanitation)
- Wrench or pliers (to turn off utilities)
- Local maps
- Cell phone with chargers and a backup battery
- Prescription and non-prescription medications

eeds (consider infants, pets, and important documents you may need) and find more information on family preparedness for disasters by visiting Ready.gov.

aredness kit checklist to keep with your supplies? Fill out the form below to download a printable checklist.

- 7 must-do steps for flood disaster preparation
- 5 wildfire safety steps everyone should know



Prepare a "Disaster Supply Kit" of water, food, medicine, clothing, bedding, communication devices, and other necessities.

Photo/Ready.gov

In case of a severe weather disaster, my village's fire department has a back-up generator used for power, mutual-aid agreements with surrounding communities, plans to distribute fire apparatus around the village, and the practice of activating members to stand by at the station.

If our community's roads, power lines, homes and commercial structures are badly damaged by severe weather, the department is ready to assist with clearing debris and making our community safe for its citizens. All this planning is contingent on individual responders actually being able to leave their homes, businesses and families. To that end, the fire department has offered training to help our families prepare for a natural disaster.

nd food, I will be able to serve the needs of my neighbors.

prepare your family, so you can deploy with your department during a prolonged natural disaster response:

ily prepare mentally, emotionally and physically for your absence once you are deployed for 12 hours, 24 hours or longer. View this family disaster planning

Cross.

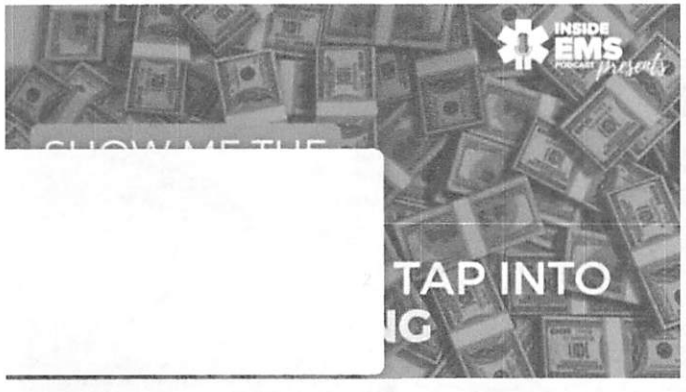
2. Pre-determine several meeting locations with your family if your home is destroyed while you are away or separated. My family has planned several rendezvous points in our neighborhood, our community, and our general region.

Legislation and Funding

The 'One Big Beautiful Bill Act': What EMS leaders must know now

From shrinking Medicaid rolls to rural hospital closures, this 870-page bill could shake EMS to its core. These 7 key takeaways will help your agency prepare.

July 22, 2025 11:27 AM · Steve Wirth



EMS Grants

Show me the money: How EMS can tap into opioid funding

Managing your revenue cycle

Effective ambulance billing is complicated, and heavily dependent on technology and computer interfaces. As such, many ambulance agencies have made the strategic decision to outsource their billing to companies that have the wherewithal to invest in technology and personnel training to help assure ambulance claims are appropriately processed and paid.

The companies can also develop statistical analysis and reports that can help monitor the revenue cycle and recommend policies and procedures to maximize FFS reimbursement. It is important to note that outsourcing your billing function does not relieve your responsibility to vigorously monitor the billing agency's performance and regulatory compliance.

Explaining revenue

Just like costs, explaining revenue data can be complex and breaking down revenue to explainable metrics for laypersons is essential. There is often a misunderstanding between total billed charges (gross revenue) and the actual cash received (net revenue). It is important for agencies and their stakeholders to know both data metrics. While both metrics are important, the actual dollars received is more meaningful, as those are the amounts that are used to offset the cost-of-service delivery.

The most recent PWWIAG EMS Financial Index Report revealed that while the national average base fee billed charge for an ALS emergency call is $1,330, the actual amount collected is $513. When comparing costs for service delivery to the revenue received, ambulance agencies should be using their amounts collected, not billed charges.

Like costs, FFS revenue should be broken down on a per response, per patient contact, and per transport basis to help paint the revenue picture:

- Net revenue per response (responses/total FFS net revenue)
- Net revenue per transport (transports/total FFS net revenue)
- Net revenue per patient contact (patient contacts/total FFS net revenue)
- Net revenue per unit hour (staffed unit hours/total FFS net revenue)

ıu should complete this same analysis for the tax revenue component of your funding.

nic picture together

Once you've collected your costs, fees for service and any subsidy revenue, you can now create simple tables and charts that paint the economic picture of your service delivery model. These metrics should be tracked and reported at lease monthly, to identify any trends or outliers.

We are in very turbulent financial times for EMS and ambulance service delivery, and our profession needs to be able to express complex financial data in terms that the public, elected officials and regulators can understand. We also need to be consistent with how we are tracking and reporting these complex analyses.

Elected and appointed officials, and the public, have a limited understanding of what it takes to provide effective EMS and ambulance delivery. Too often, we are perceived as simply a "ride to the hospital," when the true value of service delivery is getting the right resource to the right patient, at the right time and in the right setting. Using transparent, consistent and digestible tools to educate our stakeholders may help them understand that the ride to the hospital is the *least* expensive part of what we do.

We hope this will assist agencies with developing and reporting their economic situations to effectively guide public policy decisions. If you need any assistance developing financial reports like these for your agency, please feel free to let us know.

Helpful resources:

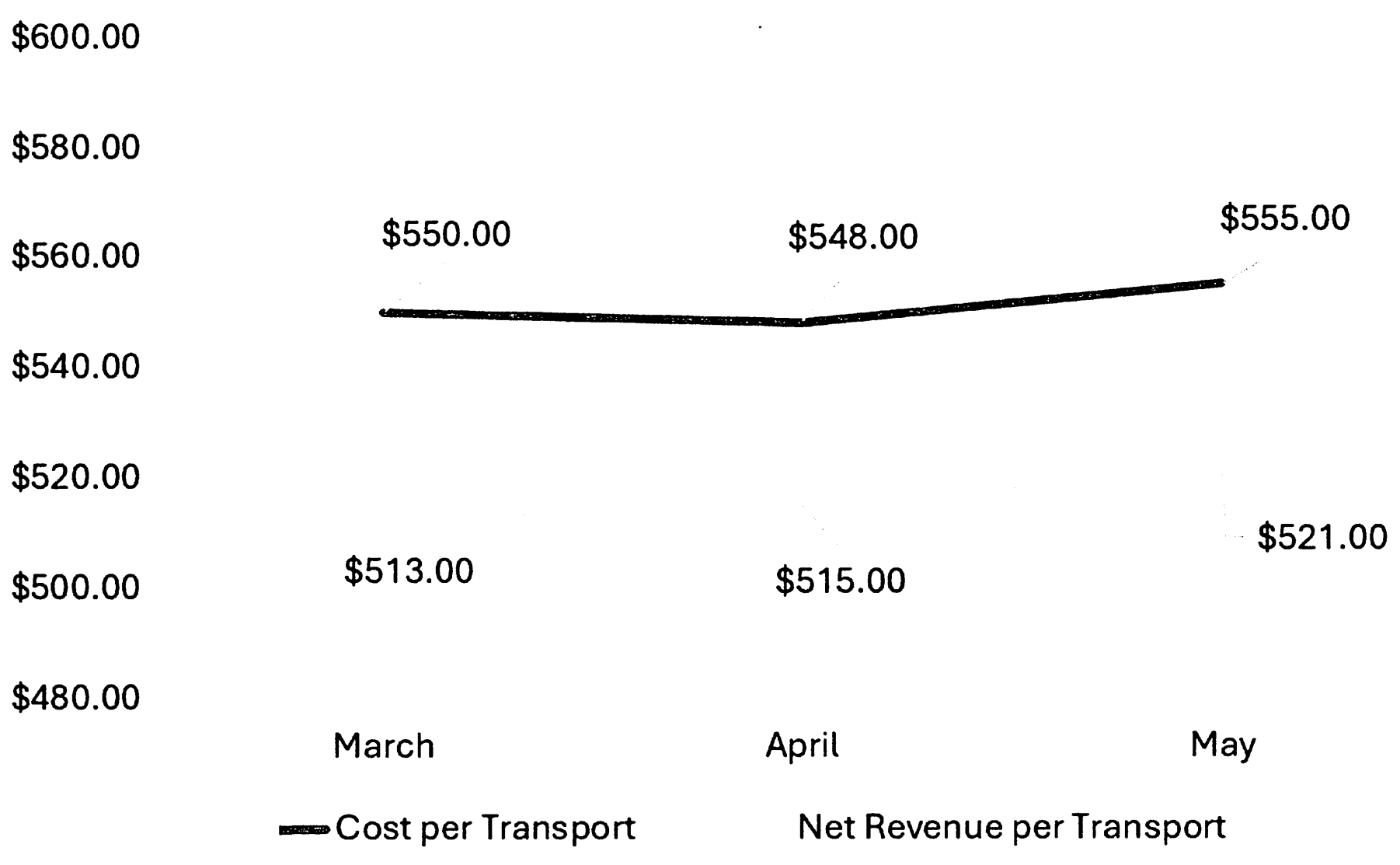
- Pulse of EMS Finance: Summer Webinar Series
- PWWAG webinar on medicare ground ambulance data collection survey report
- Rethinking emergency medical services: Applying evidence and data to redesign response models for a resilient and sustainable future
- NAEMT National Survey on EMS Economics EMS Economic and Operational Models
- PWW EMS Law Ambulance Billing Related Forms
- Revenue Cycle Management 101: A Preliminary Guide to EMS Billing

Table 1: Example Financial Analysis Table

Acme Ambulance Service	March	April	May
Staffed unit hours	12,249	12,051	12,266
Responses	4,287	4,218	4,293
Patient contacts	3,858	3,796	3,864
Transports	3,215	3,164	3,220
Net revenue	$1,649,423	$1,629,203	$1,677,490
Expenses	$1,768,388	$1,733,598	$1,786,961
Operating income	-$118,964	-$104,396	-$109,472
Tax subsidy	$118,964	$104,396	$109,472
Cost per unit hour	$144.38	$143.85	$145.69
Net revenue per staffed unit hour	$134.66	$135.19	$136.76
Income per staffed unit hour	-$9.71	-$8.66	-$8.93
Tax subsidy per staffed unit hour	$9.71	$8.66	$8.93
Cost per response	$412.50	$411.00	$416.25
Net revenue per response	$384.75	$386.25	$390.75
nse	-$27.75	-$24.75	-$25.50
	$27.75	$24.75	$25.50
	$458.33	$456.67	$462.50
	$427.50	$429.17	$434.17
it contact	-$30.83	-$27.50	-$28.33
ontact	$30.83	$27.50	$28.33
Cost per transport	$550.00	$548.00	$555.00
Net revenue per transport	$513.00	$515.00	$521.00
Operating income (loss) per transport	-$37.00	-$33.00	-$34.00

Tax subsidy required per transport	$37.00	$33.00	$34.00

Figure 1: Example Financial Analysis Trend Chart



11 stabbed in Mich. Walmart; bystand help subdue suspect

'I can't see anything we did wrong': FE chief rejects Texas flood response crit

FEMA proposes $1B in grant cuts impa fire, EMS and disaster preparedness programs

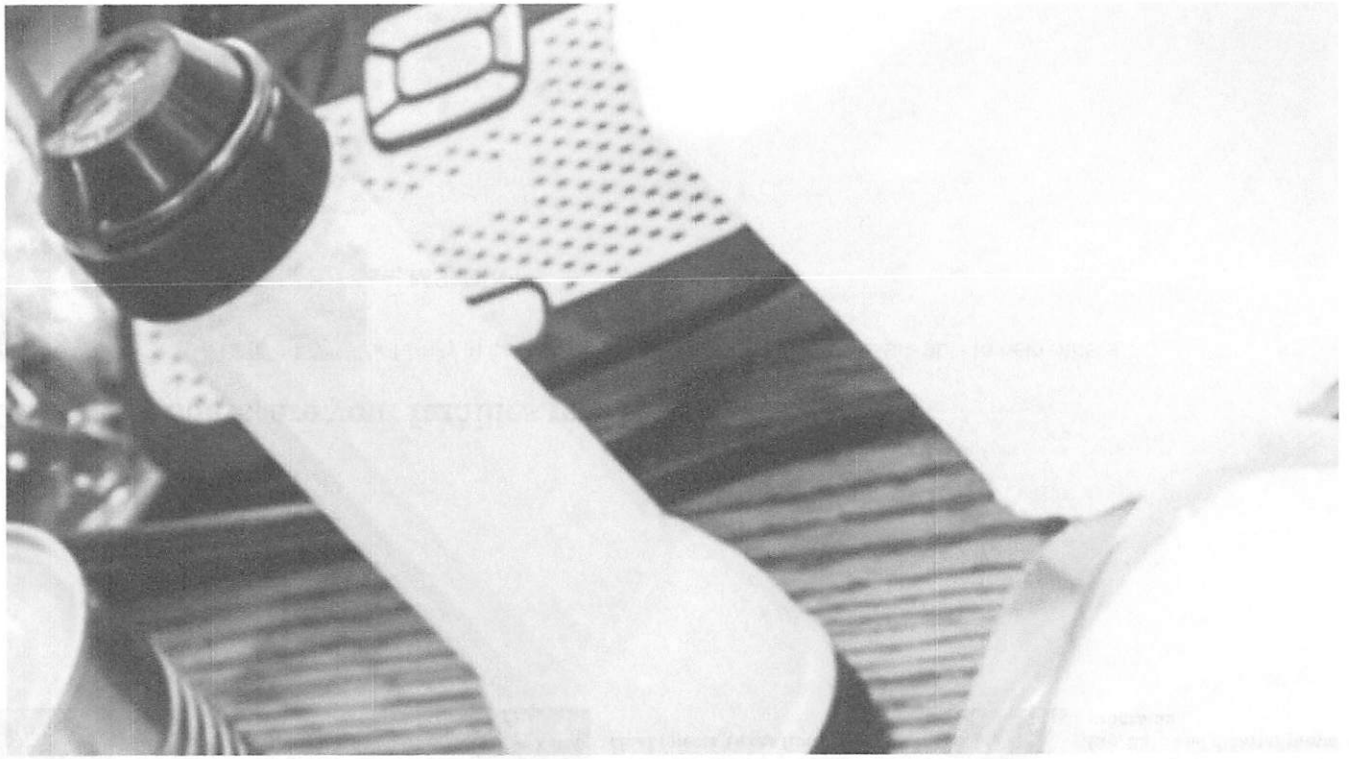
SCCAD is building a culture of excelle airway care

Mass Casualty Incidents

First responders, are your families ready for a disaster?

ur family in case of a natural disaster, so that you are able to help others

se, MS, NRP



Prepare a "Disaster Supply Kit" of water, food, medicine, clothing, bedding, communication devices, and other necessities

Photo/Ready.gov

In case of a severe weather disaster, my village's fire department has a back-up generator used for power, mutual-aid agreements with surrounding communities, plans to distribute fire apparatus around the village, and the practice of activating members to stand by at the station.

If our community's roads, power lines, homes and commercial structures are badly damaged by severe weather, the department is ready to assist with clearing debris and making our community safe for its citizens. All this planning is contingent on individual responders actually being able to leave their homes, businesses and families. To that end, the fire department has offered training to help our families prepare for a natural disaster.

nd food, I will be able to serve the needs of my neighbors.

prepare your family, so you can deploy with your department during a prolonged natural disaster response:

ıily prepare mentally, emotionally and physically for your absence once you are deployed for 12 hours, 24 hours or longer. View this family disaster planning
Cross.

2. Pre-determine several meeting locations with your family if your home is destroyed while you are away or separated. My family has planned several rendezvous points in our neighborhood, our community, and our general region.

Baltimore Mayor Proposes Ambulance Fee Hike, Other Changes to Close $85M Deficit

April 2, 2025 By Tribune Content Agency 4 MIN READ SHARE TO:

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Mayor Brandon Scott holds a news conference at City Hall the day after winning his second term as Mayor. (Staff)

Carson Swick – Baltimore Sun

Baltimore Mayor Brandon Scott unveiled Wednesday his $4.6 billion budget plan to close the city's $85 million deficit for the upcoming 2026 fiscal year.

The mayor's proposal seeks to fill the gap between revenues and expenditures by increasing fees on landfill use, emergency medical services transports and ride-sharing/taxi trips while cutting costs across city agencies. The proposal does not increase property taxes, which the mayor has sought to alleviate for homeowners by enacting a 2% city sales tax on top of Maryland's 6% sales tax.

Specific changes

Scott's largest projected money generator will come from doubling the city's landfill tipping fee from $67.50 to $135 per ton of waste, a move expected to produce nearly $9 million in revenue. The move comes as city officials also seek to increase fines for littering, illegal dumping and other waste-related delivery charges by about 15% this fall, which could draw $6.5 million in additional revenue.

In the wake of widespread criticism and the death of two workers last year, Scott's budget calls for an additional $5.2 million to be allocated to the Baltimore Department of Public Works' solid waste division to pay for contracted trash collectors this summer and hire 15 new trash crews by next spring.

Scott also expects his plan to raise the cost of ambulance rides by 20% for non-Medicaid recipients to generate $5.5 million, as well as his proposed 52% increase of the city's taxi tax — from $0.25 to $0.38 per ride — to generate nearly $2 million.

And to deal with the issue of widespread overtime pay driving seven-figure deficits at multiple city agencies in fiscal 2024, Scott's budget would add more non-sworn officers to the Baltimore Police Department as it faces a shortage of patrol officers. The proposal calls for nine new civilian positions, which could save about $1.1 million.

Funding assistance impacts

Scott's proposed budget accounts for much less assistance from the federal and Maryland state governments — a shift the mayor attributes to the efforts of President Donald Trump and his allies to consolidate federal funding and $3 billion deficit in Annapolis, respectively.

"This year's budget outlook is filled with both opportunities and challenges, exacerbated by uncertainty at the federal level and a significant state deficit being addressed in Annapolis," Scott said in a statement. "Even in the face of challenging economic circumstances, my Administration is committed to investing in our young people and older adults, improving our core service delivery, and continuing the historic progress we have made on public safety.

The mayor's proposal assumes the city will receive about $200 million in federal funding but does not consider potential lost income tax revenue from city residents who were laid off from their jobs with the federal government. City officials said about 12,000 federal employees live and work in Baltimore — though many more commute to other locations or work from home in the city — meaning about $3 million to $5 million worth of income tax revenue could be in jeopardy should the Trump administration pursue further cuts.

Additional federal funding is expected to go toward transportation and highway projects in accordance with the city's long-term capital budget, though officials say it's far from certain

At the state level, Scott's budget follows for about $16.6 million in state costs to be passed onto the city. The move parallels similar measures taken by multiple counties as the state's deficit has led to a shortage of resources being allocated locally.

Next steps

Scott's proposal will be reviewed by the Baltimore Board of Estimates and the Baltimore City Council, the latter of which must pass a budget by June 26 as required by the city charter. Fiscal year 2026 begins July 1.

Residents are invited to weigh in on the budget proposal at two "taxpayer's nights." The first such event will be held April 23, and the council will begin holding a series of budget hearings in May.

Have a news tip? Contact Carson Swick at cswick@baltsun.com.

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TX Legislature Considers Rural EMS Funding Bill

April 2, 2025 By Dan Landrigan 1 MIN READ SHARE TO:

Lawmakers hear public testimony on rural EMS and compost bills

The Texas Legislature is weighing a proposal to establish a grant program for rural EMS providers.

The program would make EMS providers in rural counties, defined as counties with fewer than 69,000 residents, eligible for up to $300,000 for ambulance purchases. with funds going directly to local governments without administrative fees, KBTX reports.

Supporters argue that current funding models are insufficient to maintain EMS services, citing aging volunteer forces and population shifts to urban areas.

Modeled after a similar program for rural law enforcement, the bill remains in committee but is expected to advance to the full House of Representatives for debate in the coming days.

- Achieving More with Less: Innovative Approaches to Fire Department Funding
- Reenvisioning EMS Funding: Toward a Sustainable Financial Model
- MN Lawmakers Propose Solutions to Address EMS Funding Shortages

Visit KBTX for more.

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go Our decades-long strugg seatbelt culture drives fc

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Legislation and Funding

Idaho county growth stretches EMS thin as first responders struggle to with call volume

Funding gaps, rising costs and blocked attempts to exit urban renewal districts have left Ada County first responders struggling to meet response-time goals

June 13, 2025 06:15 AM

Ada County Paramedics Chief Shawn Rayne, shown here talking about a hangar that collapsed in 2024, said the service has struggled with a rise in emergency calls.

Sarah A. Miller/TNS

By Nick Rosenberger
The Idaho Statesman

ADA COUNTY, Idaho — You're not alone if you've been feeling growing pains in the Boise area.

The region could look, feel and even smell a little different as the smoke clears from the explosive growth the region saw during the COVID-19 pandemic. Though the pace has slowed, the regional growth spurt has left scars and questions over how to adapt.

Funding for ambulance services is tricky.

According to Rayne, only about 30% of Ada County Paramedics funding comes from taxes, while most of the rest of the funding comes from insurance payments for expenses like transporting people by ambulance.

There's a wrinkle in that funding formula: about 60% of their patients are on Medicare and Medicaid, which requires Ada County Paramedics to write off a sizable chunk of the cost.

High inflation has also put a dent in the service's budget, Rayne said. A few years ago, an ambulance cost about $190,000. Today, that same ambulance costs about $360,000.

"It's not simple like we raise our rates to account for our needs," Rayne said.

Part of the difficulty, Rayne said, is how staffing for the service works. Personnel work several 24-hour shifts through the week then are off for four days — meaning the service generally needs to hire eight-person units at one time to fully staff an ambulance, rather than just adding one or two new employees here or there.

After several years, that time to bring on more units may be here.

On Monday, Rayne put forth a budget to the Ada County Board of Commissioners for $22.3 million to bring on five paramedics, seven EMTs and four advanced EMTs. The new personnel would staff a station near Owyhee High School in Meridian and run a new "intermediate life support response unit."

"This is the first year that we've really been able to look at adding personnel," Rayne said.

Even if Ada County grants that budget, Rayne said, the service would still lag behind the nationally recognized goal of responding to an emergency within 8 minutes and 59 seconds 90% of the time by almost 2½ minutes. To meet that goal, Ada County Paramedics would need another 24 employees.

Trending

Line-of-Duty Death (LODD)

N.C. firefighter killed, 2 injured in training accident

June 16, 2025 10:07 AM

Wildfire and Wildland-Urban Interface

Wind-driven brush fire causes evacuations on Maui, near 2023 wildfire tragedy

June 17, 2025 09:08 AM

Technical Rescue

San Antonio flooding death toll reaches 13 with over 70 rescues

June 16, 2025 08:59 AM

Social Media

Who's the real chief of comedy? Fla. police and fire leaders face off in dad joke duel

June 16, 2025 04:17 PM · Sarah Roebuck

SD EMS Staffing Shortages Threaten Emergency Response Systems

February 13, 2025 Curated By Dan Landrigan

EMS struggling with growing staffing shortage

South Dakota emergency medical services (EMS) providers are not immune to the staffing shortage plaguing agencies across the United States, KOTA reports.

According to the National Association of EMTs, applications for EMS positions have dropped by an average of 13% compared to 2019. And with volunteerism on the wane, in rural areas like Keystone, communities are transitioning to paid EMS models to keep EMS alive.

Meanwhile, the debate over who should pay for EMS services continues. Most states do not classify EMS as an essential service. That means governments are not required to provide or fund EMS operations.

In South Dakota, House Bill 1219 was introduced to designate EMS as an essential service, but it did not outline funding mechanisms, which led to its demise.

Another tactic being employed to combat the staffing shortage is the creation of more training programs, like the one at Western Dakota Tech.

Marquis Trujillo, co-director of the Western Dakota Tech paramedic training program, told KOTA training programs may be able to gradually erode the staffing shortage:

"If I can take the training and experience that I learned and pass that on to a few more EMTs, and they take that and pass it on, it kind of becomes like a growing tree," he told the station.

- SD House Committee Kills Bill Defining EMS as Essential Service
- New FirstNet Cell Sites in the Black Hills Support First Responders
- Conducting and Evaluating a High School EMT Course
- South Dakota Set to Join the EMS Compact on July 1

Visit KOTA for more.

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NY EMS Provider Announces It Won't Respond to Lift-Assist Calls

February 11, 2025 Curated By Dan Landrigan

EMS agencies react to TLC Emergency Service' decision to no long...

TLC Emergency Services in Cortland will no longer respond to non-emergency lift-assist calls.

TLC Emergency Services made the announcement in January that while they will continue responding to injury-related calls, they lack the staffing and ambulances to handle lift assist calls that do not require an ambulance, WBNG reports.

Now, EMS officials in both Cortland and Tompkins counties have expressed concerns over the impact of this policy change, which they fear could lead to increased risks for patients. Daniel Tier, president of Dryden Ambulance, warned that delayed responses could worsen injuries in cases where something that looks like a simple fall actually involves a more serious injury.

John Till, Cortland County Deputy EMS Coordinator, also raised concerns about the strain on neighboring ambulance agencies, which are increasingly being called upon to assist.

- Upstate NY Weighs New Ambulance; Will It Help or Hurt?
- 11 Kids Injured as School Bus Flips Onto Side in Staten Island (NY) Crash
- Bethel (NY) Constable Dies in EMS Building
- Tonawanda (NY) Begins Hiring for Ambulance Corps But Launch Is Delayed From Initial Target Date

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Optimizing EMS and Reducing Ambulance Patient Offload Time: Part 1

February 11, 2025 By Daniel R. Gerard, MS, RN, NREMT-P

Photo/Shutterstock

THIS IS HOW EMS CAN BE OPTIMIZED THROUGH MEDICAL OPERATIONS COORDINATION CENTERS, HEALTHCARE COALITIONS AND PERFORMANCESTAT.

The textbook, "Emergency Medical Services Systems Development: Lessons Learned from the United States of America for Developing Countries,"[1] describes Emergency Medical Services (EMS) as a comprehensive system designed to coordinate personnel, facilities, and equipment for delivering timely health and safety services to individuals experiencing sudden illness or injury.

At its core, EMS is structured to provide rapid and effective care that minimizes preventable mortality and long-term morbidity. Early identification and treatment of stroke reduces injury and necrosis of the brain, improving functional and cognitive outcomes. Effective management of bleeding, treating hypoxia, and administration of blood reduces end-organ damage (e.g., kidney failure) and complications such as motor, neuronal, and cerebral damage in major trauma patients.

The EMS system encompasses four primary components: facilitating access to emergency care, providing immediate care in the community, ensuring continuity of care en route, and in a hospital-based (any hospital MICU in NJ) or rural service delivery model, continuing to assist with delivering care upon arrival at a healthcare facility.

While the term "EMS" often refers to the ambulance service that responds directly to emergency scenes, stabilizes patients, and transports them to definitive care, the broader "EMS System" includes an integrated network of public safety and healthcare services.

This system comprises prehospital response and transport, definitive and specialty care facilities, community education, prevention efforts, and structured medical oversight. Additionally, it incorporates a framework for emergency access, coordination with collaborative organizations, educational programs, and financial and resource management.

Embedded within the larger Emergency Health Services (EHS) System, EMS is part of a public health model that addresses urgent needs beyond emergency response alone. The EHS System spans disaster response, public health crises, mental health impacts, and community-wide threats such as infectious disease outbreaks. As a crucial subset of public

Buffalo (NY) Weighs Nurse Navigator Program to Improve Ambulance Response

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EMS Operations News Georgia Headlines Stolen Ambulance

health, EMS contributes both as a safety net and as a key component of the healthcare delivery system.

The primary purpose of an EMS System is to provide around-the-clock, high-quality emergency response to meet the community's needs. Central to this mission is a focus on providing emergency medical care for victims of sudden illness or severe injury, including those in life-threatening conditions like cardiac or respiratory arrest, diabetic crises, trauma, and other critical states.

To support this, the EMS System should engage in educating the public on how and when to access services and setting clear expectations for care delivery. Where resources allow, EMS may also extend its mission to address a broader array of urgent health needs, enhancing its role within the larger public health and safety landscape.[1]

In recent years, the role of EMS has expanded far beyond the traditional model of prehospital care and rapid patient transport to emergency departments. EMS plays a critical role as the bridge between the community and the healthcare system, providing high-quality care in situ for patients who do not require the depth and breadth of emergency department services.

EMS is an integral component of the healthcare system, often serving as the initial point of contact for individuals experiencing medical emergencies and increasingly complex health crises. As healthcare delivery systems continue to evolve, EMS's role as the vital link between community-based responses with hospital and healthcare infrastructure cannot be underestimated.

However, one significant issue that has challenged EMS and healthcare systems nationwide is Ambulance Patient Offload Time (APOT), commonly referred to as hospital turnaround time. This issue, which occurs when EMS crews are delayed in transferring care of their patients to emergency department staff, represents a bottleneck within both the EMS and healthcare systems.

APOT has become a pressing concern, affecting not only the immediate availability of ambulances for new emergencies but also the efficiency and operational sustainability of the healthcare system at large.

The factors contributing to prolonged APOT are complex and multifaceted, often encompassing systemic inefficiencies, resource limitations, and fluctuating demand within the healthcare system. Emergency departments (EDs) are frequently overwhelmed, driven by rising patient volumes, resource limitations, and a lack of inpatient capacity.

Consequently, this strain on ED resources creates a ripple effect, ultimately forcing EMS providers to wait extended periods before they can transfer patient care—a delay that hinders their capacity to respond to other emergencies in the community.

The implications of prolonged APOT are profound. For EMS systems, these delays reduce ambulance availability, impede response times, and strain financial and human resources. Paramedics and EMTs, already operating in high-stress environments, experience additional stress from extended wait times and the challenges of providing ongoing care while they wait.

In the broader healthcare context, delayed patient offloads further exacerbate emergency department crowding, which can lead to a diminished quality of care, increased patient risk, and potentially adverse outcomes.

In this report, we will examine the scope of the APOT issue, exploring contributing factors and the cascading effects on both EMS and healthcare systems. We will also consider potential strategies and innovations that have been proposed to alleviate these delays, ranging from policy interventions to operational changes and technological advancements.

Optimizing EMS and Reducing Ambulance Patient Offload Time: Part 2

EMS Operations Exclusives

Ground Ambulance Operations Ambulance Data

EMS EMT Paramedic

FDNY Dispatch System Under Scrutiny After Bronx Man Dies Waiting 19 Minutes for Ambulance

EMS Operations News FDNY Headlines

Response Times

Through this comprehensive analysis, we aim to provide a detailed understanding of APOT and underscore the importance of addressing this challenge to ensure the resilience and effectiveness of our EMS and healthcare systems.

Contributing factors to Ambulance Patient Offload Time (APOT) delays and their cascading effects on EMS and healthcare systems stem from structural inefficiencies, resource shortages, and evolving demand patterns.

Each factor not only prolongs APOT but also reverberates across the entire healthcare and EMS ecosystem, hampering quality of care, operational efficiency, and patient outcomes. Analyzing these causes reveals underlying system vulnerabilities that require a strategic, multifaceted approach to address.

1. Emergency Department Overcrowding and Throughput

At the heart of APOT issues is emergency department (ED) overcrowding. Many hospitals operate with limited inpatient capacity, especially during peak demand hours, often forcing EDs to retain patients longer than intended due to insufficient downstream capacity.

This lack of "throughput," or the hospital's ability to move patients efficiently from the ED to inpatient beds, creates a backlog that spills over to EMS. Paramedics may find themselves waiting with patients in hallways, lobbies, or ambulances, unable to transfer them into an already overwhelmed ED. Not only does this increase APOT, but it also impacts the EMS system's operational efficiency, leading to delays in responding to subsequent emergencies.

A critical analysis suggests that one remedy may lie in addressing upstream bottlenecks through hospital-based solutions like streamlined admissions protocols. for example, in systems that have currently established healthcare information exchanges (HIE) once a patient is entered into an electronic healthcare record by EMS in the field, they could be registered into the destination ED.

Currently, most EMS systems look at HIE's as a one-way data exchange to find out the admission diagnosis for quality improvement. for example, but it can be utilized effectively by the hospital as well to register patients, dedicated triage/treatment teams where patients who have low-acuity needs are immediately identified, treated and discharged; or improved patient flow management.

For example, discharge planning teams to move patients off the floor quicker, staging patients in a discharge area so that their room can be cleaned and prepped faster for ED admissions, and utilizing teams of environmental services staff more effectively to turn beds around faster. Initiatives such as utilizing observation units,[2–4] increasing ED staffing during peak times, utilizing facility and interfacility strike teams, and implementing rapid discharge procedures for appropriate patients could mitigate the impact of ED bottlenecks on APOT.

However, these solutions require significant hospital commitment and resource investment, which are often hindered by financial and logistical constraints (e.g., poor reimbursement to better pay and hire staff, inability to attract people to work in rural areas, contractual or regulatory staffing levels; etc.), particularly for under-resourced or rural healthcare facilities.

Examination of all facets of a hospital's operations is crucial. Is there a backup caused by the ability to discharge patients from the ED or the floor?[5–6] If it is in the ED, what needs to be accomplished to improve ED discharges, fast track low-acuity patients, and a dedicated discharge team are two solutions. If there is a problem on the floor, ask why. Do we need an improved process for discharging patients? Do we have enough environmental service staff and ancillary staff to turn rooms around?

2. Staffing Shortages in Both EMS and ED

Staffing shortages compound the APOT crisis on both ends of the system. Emergency departments nationwide face shortages of physicians, nurses, and support staff, making it difficult to accommodate the growing volume of patients arriving by ambulance.

When understaffed EDs struggle to manage patient flow, the result is longer waiting periods for EMS handoffs. On the EMS side, the increase in call volume coupled with extended APOT means fewer available resources to respond to new calls, leaving EMS agencies stretched thin and their personnel at risk of burnout.

What can be done to improve ED staffing shortages? Cross-training staff from other units to assist with low acuity patients, RNs/LPNs/CNAs from intermediate care units, RNs and LPNs from same-day surgery/outpatient clinics/home care services have the capabilities and capacities to flex up for an hour or two to help manage surges.

Re-imagine staffing, for example, splitting an eight-, ten-, or 12-hour shift in half so that staff members may be utilized during the busiest times of the day. For example, a staff member works 4 hours of an eight-hour shift, has a 4-hour unpaid break, and comes back to finish their final 4 hours. Shifting resources from one facility to another, for example, moving environmental services staff between facilities to improve hospital bed turnaround times.

Addressing these shortages is challenging due to high turnover rates, low compensation in many EMS roles, and lengthy training requirements for healthcare professionals. Solutions could include improving workforce incentives, fostering pathways for career advancement, and securing better funding for EMS and healthcare staffing.

Yet, while such initiatives may attract more professionals to the field in the long term, the immediate impact on APOT remains limited without broader systemic changes to resource allocation and workforce management. We need to overcome certain issues within the profession, where current models of EMS care, especially in the for-profit arena, have led to running services "lean" in order to optimize revenue, with depressed wages and benefits schemas that are sorely lacking when we look at certain parts of the public safety sector the fact that EMS is looked down upon.

EMS is an honorable profession, and regardless of the patch, all members need to be treated with respect. If we begin to elevate the position within the eyes of the public safety sector, we will attract more people who will want to stay.

3. Rising Demand and Population Health Dynamics

An aging population, increasing rates of chronic illness, and a higher volume of behavioral health emergencies drive greater EMS and ED utilization, further straining resources. The rising incidence of chronic conditions like heart disease, diabetes, and respiratory illnesses has led to a surge in 911 calls and subsequent EMS transports, many of which end up in already crowded EDs. Behavioral health cases are particularly problematic, as EDs often lack the necessary resources to triage and manage these patients effectively, resulting in prolonged ED stays and extended APOT.

The solution to this issue may require a shift toward more community-based care models, such as mobile integrated healthcare (MIH) programs or community paramedicine, which can manage non-urgent or chronic cases outside of the hospital setting. Such initiatives, while promising, face barriers such as regulatory limitations, funding challenges, and the need for specialized training (Again, this all sounds good, but the recently implemented large Center for Medicare and Medicaid Services ET3 initiative to demonstrate the utility of MIH and thereby a federal funding stream to sustain it recently fell apart.

Why, and what does that mean for the future of such initiatives?

Additionally, broader population health interventions aimed at preventing chronic disease and reducing behavioral health crises could decrease EMS utilization over time, though these solutions require a significant, coordinated effort between healthcare providers, public health organizations, and policymakers (Are there any initiatives or other 'significant coordinated efforts' that might be going on in this regard).

Hospital LACE scores (Length of stay of the index admission; Acuity of the admission: Was this patient admitted through the ED or an elective admission? Comorbidities, incorporating the Charlson Comorbidity Index; Emergency department visits within the last six months), would identify patients most at risk prior to hospital or ED discharge.

This would provide improved focus on those patients wherever they end up post-discharge. Having MIH or EMS providers complete a PEAT scale (Physical Environment Assessment Tool) will help identify patients at the most risk of making a request for EMS in the future. Clinical pathways could be developed to reduce the risk of a 9-1-1 response and EMS transport. In California, one MIH program reduced hospital readmissions by almost 75% by using PEAT scores to help identify high-risk patients.[7]

4. Insufficient EMS Funding and Reimbursement Structures

The economic structure of EMS funding, particularly fee-for-service reimbursement models, can exacerbate APOT issues. EMS agencies are often compensated only for patient transports, creating a disincentive for alternative treatment or triage options on the scene.

This model limits the ability of EMS to provide non-transport care, even when transporting patients to the ED may not be necessary. As a result, EMS transports more patients to EDs than might be clinically required, increasing ED volume and contributing to APOT.

A transition to value-based reimbursement, in which EMS agencies are compensated for patient outcomes and not merely transport, could incentivize EMS providers to adopt alternative care pathways. Initiatives that reimburse for treat-and-refer programs, telehealth consultations, or transport to non-ED facilities could reduce unnecessary ED visits and ease APOT.

However, the widespread adoption of value-based models is constrained by complex regulatory requirements, varying state policies, and the need for CMS and private insurers to adjust their reimbursement structures. Insurance companies take their lead from CMS, and until CMS allows for EMS to be reimbursed for value-based care as opposed to just paying the cost of transport, insurance companies will continue to be reticent about adopting this payment model.

Cascading Effects on EMS and Healthcare Systems

The ramifications of prolonged APOT extend well beyond the confines of the emergency department and EMS, creating a ripple effect across the healthcare and public safety ecosystems. For EMS, extended APOT results in increased response times, reduced unit availability, and decreased capacity to respond to emergencies. This delay in response not only jeopardizes patient outcomes but also places communities at heightened risk during high-demand periods, such as natural disasters or public health emergencies.

On the healthcare system side, prolonged APOT contributes to ED crowding, adversely affecting care quality and patient satisfaction. Overcrowded EDs are more likely to experience medication errors, longer patient wait times, and strained staff resources, all of which can lead to suboptimal care.

The compounded effect can even result in hospital-acquired complications, increased healthcare costs, and an overall decline in public trust in healthcare systems. Additionally, delayed offloads and ED congestion have negative implications for staff mental health, with both EMS and ED professionals facing heightened stress, frustration, and burnout—factors that exacerbate workforce shortages and turnover, creating a vicious cycle.

Approach to Problem Solving

The problem of APOT is emblematic of broader systemic issues that require a coordinated, multi-level response. Short-term solutions, such as improving ED processes, staffing, and EMS reimbursement models, must be implemented alongside long-term strategies aimed at

expanding community-based care, enhancing population health, and shifting funding structures.

Addressing APOT is critical not only for the effective operation of EMS but also for the sustainability of healthcare delivery as a whole. Only through a collaborative effort among EMS agencies, healthcare providers, policymakers, and public health organizations can we begin to mitigate the impact of APOT and ensure that EMS and ED resources are optimized for both current and future needs.

In Part 2 of this article, we will examine potential solutions to this complex issue.

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CAREERS & EDUCATION

Walla Walla, WA, City Increases Ambulance Rate to Fund New EMTs, Medics

The EMS staffing level hasn't changed since 1996 while ambulance and fire calls in Walla Walla have increased 55 percent.

By Kate Smith
Source Walla Walla Union-Bulletin, Wash. (TNS)

Nov. 24—With the exception of the two grant-funded community paramedics hired in 2021 and 2022, it has been 28 years since the Walla Walla Fire Department has added a paramedic or EMT position.

The department's staffing for emergency medical response has not changed since its last position was added in 1996, though calls for fire and ambulance have increased in that time by 55%.

"Quite frankly, the calls for service are outpacing our capacity," Fire Chief John Knowles told the City Council at a study session earlier this year. "This is work we cannot turn away or plan for."

In April, Knowles made the case for six new paramedics or EMTs for the department to help respond to the city's rising number of calls and ease workload-related stress and fatigue in the department.

"More hands doing the work (makes it) easier on everybody," he said.

He recommended the city apply for a Staffing for Adequate Fire and Emergency Response, or SAFER, grant to finance the positions for three years, reapply after that term and take a look at long-term financing options as the city grows.

The city applied and was notified in September that it did not get the grant from the Federal Emergency Management Agency.

In budgeting for the next biennium, the city considered ambulance utility rates as a source of additional revenue. The Walla Walla City Council ultimately approved an increase to the monthly ambulance utility fee to fund up to three new full-time positions.

In 2025, Walla Walla residents will pay an additional $3 per month, or $36 each year, to fund the hiring of three additional paramedics or EMTs to staff the city's ambulances. The total for the year will come to $120.

The change raises the monthly rate for residents from $7 to $10 in 2025, $12 in 2027 and $14 in 2029.

The original proposal, an increase to $9, would have kept the department's budget healthy, but the increase to $10 also provides the WWFD with funding for those needed positions, Finance Director Liz Moeller said at the Wednesday, Nov. 20, meeting.

City Manager Elizabeth Chamberlain said the stepped approach was discussed at a Finance Committee meeting on Monday, Nov. 18. The future increases sustain the health of the fund and the positions, she said.

"I think we've brought forward a kind of incremental increase approach that is continuing to deliver the service that our residents are expecting, plus adding some additional (full-time equivalent workers) that we do need for the long term," she said.

Knowles said at Wednesday's meeting that the funding will help maintain a healthy ambulance fund and take a bite out of his team's workload.

"This is the only way we're going to do it," he told the council. "We don't have any other way to do it."

Moeller said the ambulance utility rate was established in 2022 and was first collected in 2023. Though it was set at a flat monthly rate of $7, the initial financial study showed the rate would need to be $12.65 to sustain the fund.

It was always the city's intention to come back and adjust it, she said.

Several members of the City Council who spoke at Wednesday's meeting commented on the predictability of the increases.

Council member Rick Eskil said the raise feels painful alongside other increases to utility rates and property taxes discussed this year, but he supported it.

"Even though I find it incredibly painful that we've got to go $10, $12, $14, it does make more sense to make sure that we have enough money to continue to keep the firefighters that we hire on the job," Eskil said.

Council member Monte Willis said the incremental approach will allow for better planning and stability for the fire department, "in terms of those funds and how you hire, how you look at retention, how you basically plan for the whole organization."

Council member Steve Moss said the predictability factor is important for the city and for the public, so residents know what the rates will be.

He also said it's important that those who are hired are highly skilled and compensated appropriately.

"We don't want to be somebody else's training ground for them to move on," Moss said.

Knowles said in April that the last staffing study for the WWFD was in 1994, when the department, the only transport service in the Walla Walla Valley, saw 4,897 calls.

The department had 7,064 calls in 2016, before College Place and Walla Walla County District No. 4 established their own transport services. The number of calls to Walla Walla dropped to 6,456 in 2019 after those services started running.

By 2023, the WWFD was up to 7,599 calls for the year.

Knowles said that number would be higher without the community paramedics, who respond to those who would otherwise frequently use emergency services.

San Jose (CA) Implements Fees for 911 Medical Calls

March 26, 2025 By Dan Landrigan

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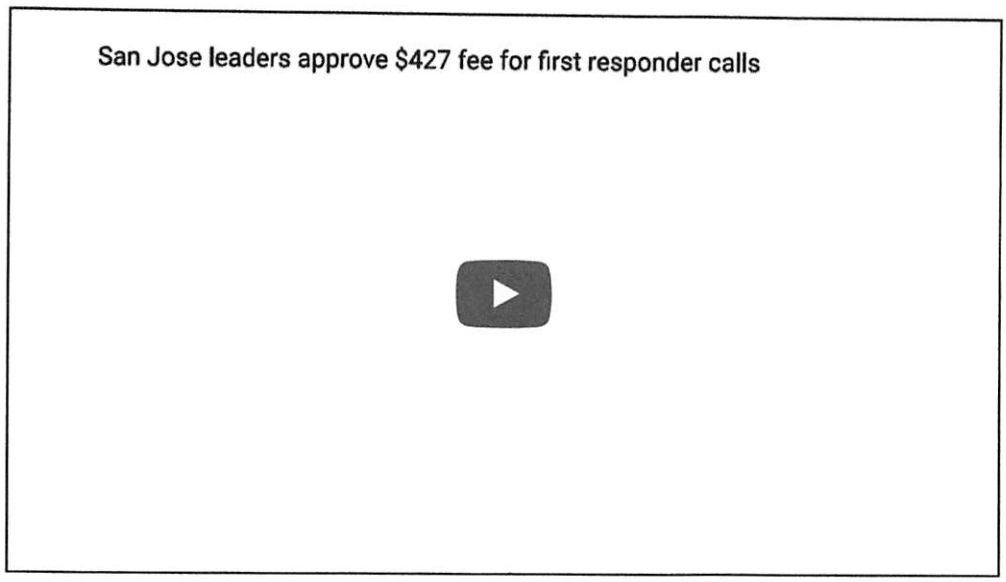

The San Jose City Council gave initial approval to a plan that will charge residents a first responder fee when they call 911 for medical emergencies.

The fee, set at $427 per call, will help cover the costs of emergency medical services provided by the fire department. It's expected to generate $4 million in annual revenue, KPIX reports.

While the plan has sparked concern, officials stress that in most cases, insurance—rather than residents themselves—will cover the cost. The city also will not send unpaid fees to collections and they will not impact credit scores.

San Jose firefighters respond to an average of 186 medical emergency calls per day—amounting to nearly 68,000 calls per year, putting a strain on the fire department's budget..

San Jose is not the first Bay Area city to introduce such a fee. Similar charges exist in:

- San Francisco – $567 per call
- Napa – $338 per call
- Vallejo – $561 per call
- Alameda – $393 per call

The final details of San Jose's plan are expected to be finalized this summer, with the fee set to take effect on January 1, 2026.

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What Is the Next Step in EMS?

June 5, 2025 By Garry Pomerleau 5 MIN READ SHARE TO:

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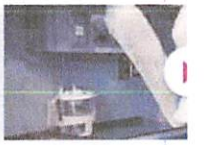
There comes a time when you need to pivot, move forward and look in a different direction. Yet many in EMS and public safety don't have the confidence to do so, and many times, it takes years to find the resources or get so fed up with the situation and just outright quit.

DO WE GIV



We sell our profession in the light of the only thing out there or as a new start for many, but do we give students or those new to EMS a fighting chance of survival tools? Whether it's poor safety training or well-being training for all the critical staff is essential.

Still, the little or fun information gets blown over and passed along to anyone who knows little about it. We hope that the newbies catch on and don't die. I remember vividly teaching a class where one of my co-instructors said she had no time to teach life skills, and it was the employer's job to do the lifting, moving and well-being stuff.

She needed more time to teach important things like saving lives. I stood in disbelief, but years later, I saw where the profession stood on making a better tomorrow for anyone entering the field and the beat went on, and I fought a very uphill battle.

WE'VE ALWAYS DONE IT THIS WAY

Paramedic

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There comes a time when you need to pivot and look in a different direction. Many in EMS and public safety lack the confidence to do so; it often takes years to find the resources, or they quit out of frustration.

Our profession is often sold as the only option or a new start, but do we truly equip students or newcomers with survival tools? Poor safety and well-being training are overlooked, while crucial life skills are left to chance.

I recall a colleague dismissing the importance of teaching practical skills, claiming it was the employer's responsibility. This attitude highlights the profession's shortcomings in preparing new entrants for the realities of the field, leading to an ongoing uphill battle.

RESISTANCE TO CHANGE IS EXHAUSTING

And even today, when we are trying to move in a better direction, the age-old saying still stifles us, "We've always done it this way."

Anyone who tries to change that mentality is almost certainly shot down or pushed to the side because no one wants to examine the fear of change, and just as bad is we kind of change just enough to say that good and then when we have any issues any true resistance we can easily jump and say, see it didn't do it. And that is where we appear to be, and it's exhausting.

What's Next? Where do we take employee wellness and safety along with building a resilient workplace and workforce that wants to master the practice and become a true practitioner of care the future and takes skill scope to the ne

STOP TEARING PEOPLE DOWN

We must begin to challenge traditional practices and the attitudes of medical directors who undermine paramedics rather than appreciating their potential and contributions. I have experienced firsthand a medical board review process designed to be a losing situation for the candidate, with participants admitting they felt they were justified in using confusing and irrelevant questions to degrade the medic.

This approach fails to recognize the candidate's abilities, focusing only on their shortcomings and fears, perpetuating the belief that this method has always worked.

However, one must question the efficacy of such practices. Did these methods truly benefit the organization? Were follow-ups conducted to assess the long-term impact on the employees? Did these individuals remain with the organization for an extended period, and were they genuinely satisfied?

Boasting about confusing or grilling a candidate under the guise of positive action is misleading and does not serve anyone, least of all the patients cared for by these clinicians.

BUILD A BETTER FUTURE NOW

When hiring, focus should be placed on the trainability, personality, honesty, integrity, and accountability of the new hire rather than subjecting them to unnecessary stress. It is crucial to provide learning opportunities, instilling knowledge and confidence rather than distrust and intimidation.

Establishing clear policies and expectations for professionalism while offering mentorship and grace for mistakes can significantly contribute to developing highly skilled medics and better human beings.

Encourage employees to balance their work life with personal time away from the job, acknowledging the high number of significant incidents encountered by public safety/EMS professionals annually compared to the average person.

The responsibility now lies with us to shape the future. Will we continue to impose long hours and harsh conditions, provide inadequate pay, and lack leadership while maintaining managers who strictly enforce protocols until employees break?

Public safety has the highest suicide rate, and it is crucial to address the underlying causes of this issue. We must strive to retain staff by fostering a supportive and understanding environment.

It's a tough road, but it has to start somewhere, and once we start, we can ill afford to stop when the going gets tough or rough. Are you willing to stand up and take the lead?

Editor's Note: This commentary reflects the opinion of the author and does not necessarily reflect the opinions of JEMS.

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EMS after 40

June 17, 2025

By Pavel Aubuchon-Mendoza, AAS, NREMT-P

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"You kids get off my lawn!"

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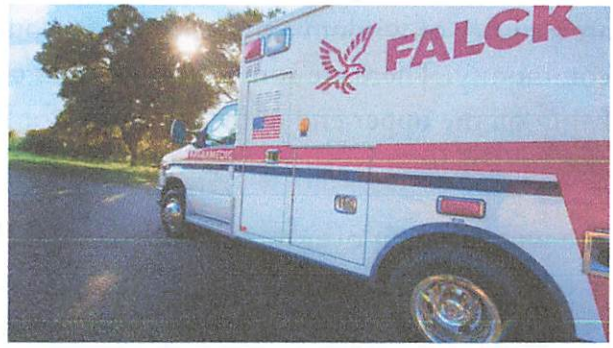

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Congratulations! You are in the prime of your career. You've beat the 5–6-year career average for EMS and are a source of wisdom and leadership in your community. There are some hardships that come with being on the upper end of the age range for EMS, as well as benefits.

We will be going over some of the pluses and minuses of being in EMS as a middle-aged adult. This article is going to presume that you have been working in EMS for some time. While new paramedics in their 40s are wonderful and frequently very interesting people, they are not the majority.

PHYSICAL

Public safety is generally thought of as a young person's game. There are significant risks of injury both from uncontrollable factors (assaults, accidents) and factors that you can mitigate (lifting injuries).

The older you are in EMS, the more effort you're going to need to put in off duty. There's simply no graceful way to get a large slippery person out of a bathtub. Strength, flexibility, and mobility are all key to preventing injury and ensuring longevity in your career.

Many Americans, including EMS providers, have weak core and glute muscles from sedentary habits like sitting in ambulances or at desks. Strengthening these areas can greatly improve your stability and reduce injury risk—especially falls, one of our most frequent call types.

I'll fully admit here, this is a pot-meet-kettle or glass-houses situation. That is to say, I'm a lot better at giving advice on this topic than taking it. Personally, yoga has been hugely beneficial for flexibility and mobility, but I fully understand it's not for everyone.

Your best bet is to find something you actually enjoy and do it regularly. In addition to yoga or mobility work, incorporating functional strength training is crucial.

Exercises focusing on core and glute strength, such as deadlifts, dead bugs, squats, and core-stabilizing moves, will significantly improve your performance and reduce injuries.

Transverse-plane exercises, like woodchops, are especially valuable in EMS because they mimic the dynamic, twisting motions common in our work. Shoulder injuries are also quite common, which can be addressed by push / pull exercises such as rows, push-ups and shoulder presses.

If you're unsure where to start or struggling to stay consistent, consider a few sessions with a qualified personal trainer to learn correct form and establish safe habits. Your body will thank you, especially if you plan on being in the field beyond 40.

MENTAL

If you are in the field in your 40s, one of two things has probably happened. Either you've got really good coping mechanisms, or you've cobbled together a lot of very unhealthy methods of not thinking about your problems.

If you're drinking after every shift, balance that out with energy drinks and tobacco, and answer the question "Are you okay?" with "It doesn't matter, I'm dead inside anyway," then I have bad news for you.

You can just shove your emotions down and hide in the bottom of a bottle until you retire, and in fact that was the recommended method for decades in public safety.

As the fire service discovered, this leads to a shockingly high mortality rate within a few years of retirement. Pulling away the support system and structure of the job leaves you with just addiction and untreated crippling depression.

We've learned as a profession that it is far better to take care of your mental health as you go. This has led to

Regardless of your official capacity, you are a role model in your agency and have a hand in shaping the culture there. Just by virtue of existing as an "older" provider, people will be inclined to listen to you.

Use this time to advocate for physical and mental health, what you have been learning, and experiences you have had. Resist the temptation to complain at length about the latest indignities from the company / union / county / etc. Above all, take care of yourself. You're of no use to your community or your coworkers if you aren't in good working order.

The author would like to thank Stevie Aubuchon-Mendoza, NASM, CPT, SFS, for her invaluable contributions to this article.

Editor's Note: This commentary reflects the opinion of the author and does not necessarily reflect the opinions of JEMS.

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N.Y. county approves $4.7M EMS stabilization plan

Ulster County has approved a funding plan boosting ambulance services, offering targeted support, performance incentives and EMS oversight

May 22, 2025 11:29 AM

Press Conference: Ulster County Unveils EMS Coordinated Coverage Plan

By Brian Hubert

Daily Freeman

KINGSTON, N.Y. — Ulster County emergency medical service agencies will receive $4.7 million in county funding under a regional ambulance plan approved by County Executive Jen Metzger and the County Legislature.

Lawmakers voted unanimously to approve the EMS Stabilization and Enhancement Plan at Tuesday's Legislature meeting and Ulster County Executive Jen Metzger signed off on the plan on Wednesday.

Metzger's office said the plan will provide targeted financial support, performance-based incentives, and new oversight measures to strengthen EMS delivery in communities across the county.

Metzger's office said the plan will provide $2 million to support existing EMS services in municipalities that meet performance standards and $2.7 million to contract with Advanced Life Support anchor agencies utilizing the county's Municipal Ambulance Service Operating Certificate (Muni-Con), approved by the state Department of Health on May 15 . Under the plan, the county will partner with local EMS agencies and municipalities to provide emergency response by entering into contracts with advanced life support providers and overseeing billing and EMS provider service, officials added.

Metzger's office added that this approach will help local governments streamline EMS contract administration with a goal of reducing the burden on municipal staff while providing more efficient emergency services for residents.

Metzger's office said the $2 million appropriation will provide financial assistance to municipalities with existing EMS contracts for operating certificates with a goal of improving "response reliability and system performance."

Officials said they will tie the funding eligibility to a performance-based model requiring a 95% response rate, while leaving an opening for agencies below this threshold who meet a phased benchmark over 12 months.

"This approach ensures communities can steadily build capacity while remaining eligible for support," Metzger's office said.

The funding may be used to improve staffing, enhance response times and invest in upgrades such

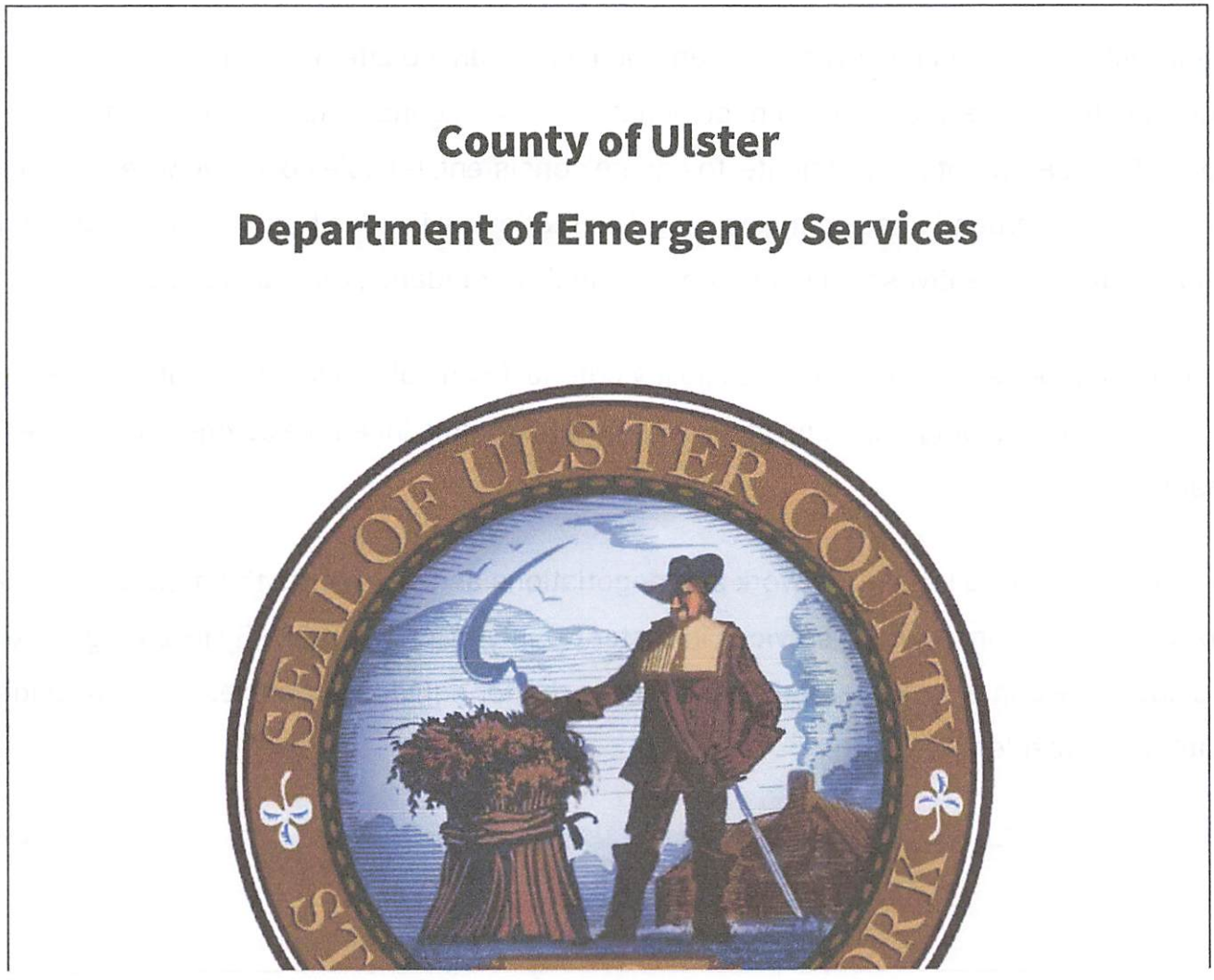
as equipment, station expenses, transport vehicles and financial education for EMS providers, officials said.

The county will put $2.7 million towards strengthening Advanced Life Support response across Ulster County through partnerships with "designated anchor agencies under the County's Ambulance Service Operating Certificate, to ensure consistent, reliable coverage wherever service gaps or increased demand arise," officials said. The model will include both readiness funding and performance-based incentives tied to response reliability standards, officials added.

New compliance measures will include eligibility criteria, financial disclosure requirements and performance-based funding mechanisms like Critical Response Incentive payments, Metzger's office said.

"This plan is a result of a lot of hard work and negotiations and represents the most comprehensive path toward fully responsive EMS services in Ulster County," Metzger said. "By investing in existing EMS providers, we can ensure faster response times, better-equipped agencies, and a stronger safety net for all residents."

[SCRIBD]



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Jason Kovacs, R-town-of- Ulster, who sponsored the resolution, said the approval of this plan represents a major milestone for public safety in Ulster County and will allow the county to move beyond a patchwork system. He called the plan the most "comprehensive EMS reform and funding initiative Ulster County has ever undertaken."

"This is not just another resolution, it is a historic step forward in how Ulster County supports, coordinates and sustains life-saving emergency medical services," Kovacs said during Tuesday's meeting.

Kovacs said this plan comes after more than a year of listening to EMS providers, both volunteer and professional, along with municipal leaders across the towns and villages in the county. Lawmakers heard again and again about staffing shortages, coverage gaps, long response times,

and financial fragility for too many local EMS agencies, he added.

"These are not abstract challenges; these are real-life problems with real-life consequences and they require real action," Kovacs said. "This legislation represents the culmination of long and at times challenging negotiations with a broad coalition of stakeholders."

"This plan is about action, about making sure that when someone calls for help, trained EMS providers arrive quickly and fully prepared," said Everett Erichsen, director of the Ulster County Department of Emergency Services, in an announcement after Tuesday's vote.

Gina Hansut, R-Lloyd, chair of the Law Enforcement and Public Safety Committee, said in a statement that what used to work for ambulance service is no longer sufficient. "Taking many factors into account for the framework of municipalities' needs, we can now better provide ALS and BLS services across our county," Hansut added. "I feel we will be a model for the state, and I'm proud of the work many have done to keep our residents safe and get them services in a more timely manner."

The county's Department of Emergency Services will oversee the implementation in collaboration with local EMS providers, municipalities and community partners.

Lawmakers also voted Tuesday without discussion to approve a contract with New Paltz Rescue Squad to provide supplemental EMS service in the town of Gardiner starting on June 1 . Metzger announced the first-of-its-kind partnership between the county and New Paltz Rescue in March.

Metzger also unveiled EMS Stabilization and Enhancement Plan in March with a goal of helping fill the "gaps" in county emergency services coverage and moving Ulster County closer to a countywide network of regional EMS districts.

Metzger said at the time that while roughly 65% of the emergency services calls in Ulster County require an advanced life support response, more than half of the municipalities lack advanced life support services. Additionally, she said, over 30 agencies in the county respond to less than 70% of the basic life support service calls they receive. The situation is most acute in the southern portion of the county, she said.

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Cleveland EMS receives $19M windfall from old ambulance bills

After years of declining EMS revenue, Cleveland's decision to outsource ambulance billing in 2025 is paying off, with collections rebounding

May 23, 2025 10:35 AM

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By Sean McDonnell
cleveland.com

CLEVELAND — Cleveland received an influx of unexpected cash from past due ambulance bills, giving it up to $19 million to spend on a wide array of needs, including returning money to projects that were left unfunded to pay for repairs at Rocket Mortgage FieldHouse and Progressive Field.

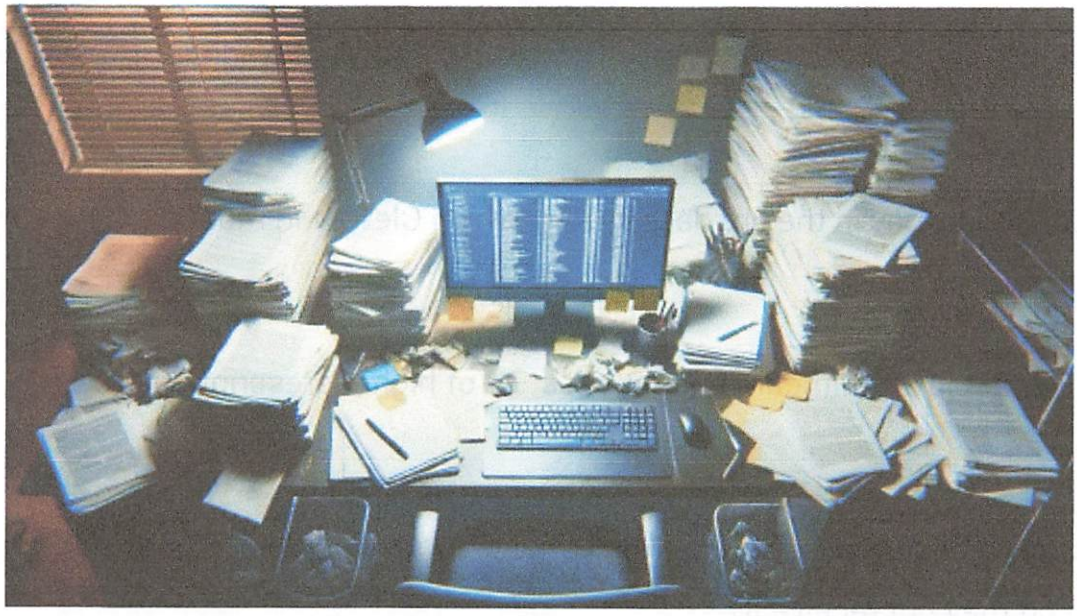
Cleveland budgeted for $16 million of EMS revenue in 2025, but the city has already received $22 million and now believes it will get $35 million by the end of the year, Finance Director Paul Barrett told Cleveland City Council.

The money comes after Cleveland started outsourcing billing for emergency medical services in 2025. For years, City Hall had its own division that collected fees for services like ambulance rides. But revenue lagged as the department was plagued by vacancies.

Cleveland went from collecting $16.8 million in 2021 to $4.1 million in 2024. This was despite Cleveland substantially raising billing rates for ambulance services in July 2022.

Quick Med Claims, hired by Cleveland to handle billing going forward, has also been trying to collect money from past years. How much Cleveland is still owed from old bills is hard to measure. Not all EMS bills are collectable because circumstances get worked out with hospitals and insurance companies, a city spokesperson explained previously.

Council passed legislation to take $18.7 million from these EMS revenues to divvy up for other needs across the city.



Billing and Administration

Mixing business and billing: EMS documentation impact on billing and reimbursement

Ambulance services cannot afford to feed the billing department incomplete, inaccurate or misrepresented information

October 03, 2024 03:12 PM • Page, Wolfberg & Wirth

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That includes returning $5 million to the minority business credit enhancement program, meant to include more minority-owned, female-owned and Cleveland-based contractors in development projects.

Back in December Gateway, the nonprofit that serves as the landlord for the Cavs and Guardians on behalf of the city and county, needed a $40 million bailout to pay for repairs.

Cleveland sent Gateway $20 million, taking $5 million from the general fund, $5 million for the minority-business program and $10 million that was borrowed for future construction projects.

Using the EMS revenue, Cleveland also set aside:

- $1.22 million for Quick Med Claims, who earned more compensation since they exceeded expectations on EMS revenue
- $500,000 to hire five full-time prosecutors. They'll work the evening shift, part of Cleveland's commitment to not hold uncharged suspects for long periods in the county jail.

- $800,000 for increased EMS pay, since the paramedics and EMTs union won higher salaries in arbitration
- $3.1 million for promotional backpay in the fire department, which Cleveland must do after a court order
- $5 million increases to Cleveland's healthcare budget because of higher prescription drug prices
- $418,000 for two programs in Community Development, though both would need final approval from council (and may not receive it)
- $470,000 to hire seven employees across various departments
- $2.2 million diverted from the Neighborhood Equity Funds during budget negotiations

Trending

EMS Heroes

Paramedic, police officer hailed for chemical-covered kitten rescue

May 25, 2025 02:07 AM · EMS1 Staff

Stop The Bleed

Ill. airport brings first responders together for Stop the Bleed training

May 24, 2025 12:00 PM

911 and Dispatch

Quick-thinking Ill. dispatcher helps save newborn's life

May 24, 2025 08:00 AM

7 ways to recognize your EMS agency performers

Cleveland EMS receives $19M windfall old ambulance bills

Legal Issues

Iowa family sues city, first responders, EMS and medical directors after drug error

Relatives of James Foster Jr. filed a federal lawsuit alleging wrongful death and medical malpractice after a Sioux City paramedic injected him with the wrong drug, leading to his death

May 20, 2025 10:31 AM

By Nick Hytrek

Sioux City Journal

SIOUX CITY, Iowa — The parents and children of a man who died after a Sioux City paramedic mistakenly administered the wrong medication to him has filed a federal lawsuit against the city, police and fire departments and numerous police officers and emergency responders.

The lawsuit includes claims of medical malpractice wrongful death, excessive force and deliberate indifference to medical need. The lawsuit also cites numerous instances of liability on behalf of the city and supervisors to properly train and supervise its employees and negligence in hiring.

Legal Issues

Involuntary manslaughter charge: Former Iowa medic administered incorrect drug

The former Sioux City Fire Rescue paramedic realized she had given the patient rocuronium when she went to administer a second dose of ketamine

January 21, 2025 10:11 AM

James Foster Jr., 26, died Aug. 20, 2023, two days after Sioux City paramedic Deanna LaMere injected him with rocuronium, a powerful paralytic drug, instead of ketamine to sedate Foster during a medical assistance call in the 2700 block of Third Street.

His parents and the mother of his children, on their behalf, are seeking a judgment in U.S. District Court in Sioux City to compensate them for Foster's lost earnings, emotional distress and pain and suffering, punitive damages and all damages allowable under Iowa law for wrongful death.

"All defendants in this situation had the opportunity to do the right thing and abide by Mr. Foster's constitutional rights, and not a single one of them chose to do so. As a result, Mr. Foster died at the age of 26, leaving two young children and a loving family behind. This lawsuit is the unfortunate result of Mr. Foster's avoidable death," West Des Moines attorney Erin Jordan, who is representing the family with Katie Naset, said in an emailed statement.

Named as defendants are the city, Sioux City Police Department, Sioux City Fire Rescue, police Sgt. Alan Schmeckpeper and officers Carolina Ochoa and Donette Sassman, LaMere, rescue personnel Drake Carnahan, Dustin Johnson, Brandon DeRocher and Jordan Reinders , EMS director Jim Haden and Dr. Randall Wood, Sioux City Fire Rescue's medical director.

"The City of Sioux City intends to vigorously defend against the allegations in the lawsuit and will respond specifically to the allegations by its filings with the court," said Gregory Lederer, a Cedar Rapids, Iowa, attorney who is representing the city.

Filed Friday, the lawsuit said Ochoa was dispatched to a call of a person in the street and at 3:53 a.m. arrived in the 2700 block of Third Street, where she observed Foster sitting or lying near the curb. He told her he had hurt his arm, and Ochoa radioed for medical assistance.

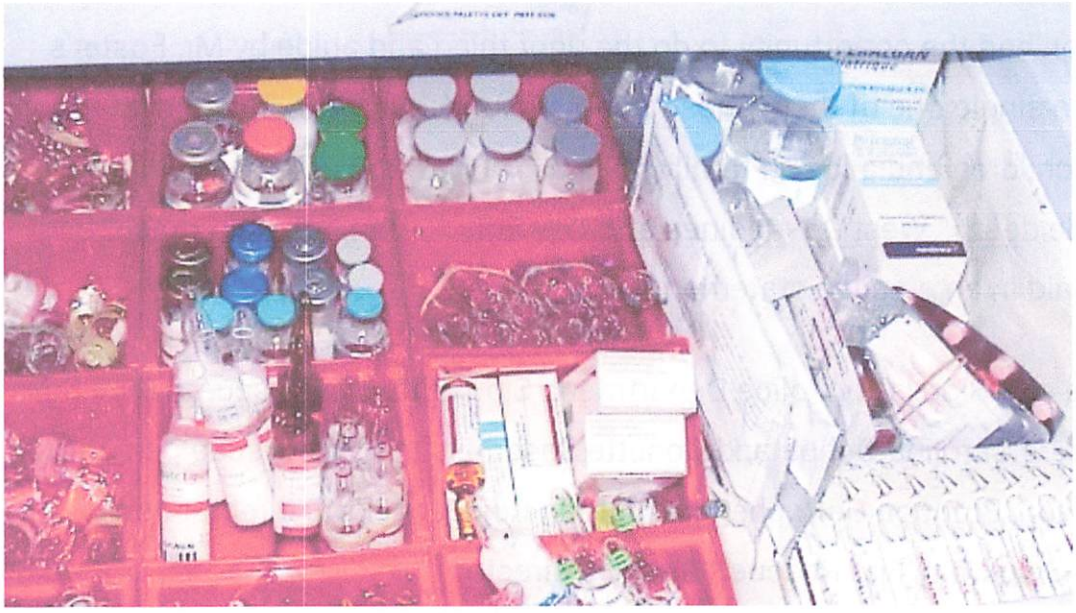
When Ochoa attempted to help Foster up, he reacted in fright, moving away from her. After Sgt. Schmeckpeper, officer Sassman and the ambulance arrived, Foster continued to act fearful, retreating from them and beginning to cry as they tried to help him stand.

LaMere asked Foster if he had taken drugs or was schizophrenic. After attempts to get Foster to stand failed, LaMere decided to inject him with ketamine, an incapacitating drug, though he'd never posed a threat, instead acting disoriented and fearful when approached, the lawsuit said.

"There was no medical indication for an injection and Mr. Foster had still not been assessed in any way at this time," the lawsuit said.

LaMere administered the injection while police and EMTs held Foster down. LaMere then discovered she'd instead injected Foster with rocuronium, a paralytic medication that caused him to become paralyzed and unable to breathe.

Foster was soon gasping for air, saying, "I can't breathe," and asking, "Am I gonna die?"



Ambulance Disposable Supplies

5 ways to eliminate dosing errors

Remain consistent once you've established the patient's weight, ensure you know what's in your containers and practice dosing calculations to prevent medication administration errors

January 23, 2025 10:02 AM • Tim Nowak, AAS, BS, NRP, CCEMTP, SPO, MPO, CADS

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The lawsuit said LaMere and Schmeckpeper in incident reports said Foster began kicking and swinging at personnel after he was injected, but that was not seen on police body cameras.

According to the lawsuit, LaMere hadn't had her partner verify the drug before administering it and didn't tell anyone she'd given him the wrong drug when he began showing signs of respiratory distress. Knowing she'd given Foster the wrong medication, LaMere failed to take steps to protect his airway or intubate him before he became paralyzed.

The lawsuit said body camera footage showed none of the officers or EMTs mentioned his respiratory distress. Instead, Foster was handcuffed, strapped onto a gurney and put in the ambulance. On the way to MercyOne Siouxland Medical Center, Foster went into cardiac arrest, his heart stopping on one occasion. In a call ahead to the hospital, LaMere told staff members she'd injected him with ketamine, not admitting her mistake until they were at the hospital.

According to the lawsuit, LaMere had made mistakes that injured patients in circumstances similar to Foster's before.

LaMere was arrested in January and charged with involuntary manslaughter. She has pleaded not guilty. There is no trial date, but a pretrial conference is scheduled in July.

Is It Time for Midlevel Providers to Staff EMS Vehicles?

May 14, 2025 By John K. Murphy JD, MS, PA-C, EFO

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Mobile Integrated Health and Community Paramedicine

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Paramedic The JEMS Report

Emergency Medical Services (EMS) are a crucial component of healthcare, providing lifesaving interventions in prehospital settings. Traditionally, EMS has been staffed by emergency medical technicians (EMTs) and paramedics, who operate under established protocols.

However, with increasing patient acuity, a growing demand for advanced prehospital care, and workforce shortages, there is a debate about whether midlevel providers, such as nurse practitioners (NPs) and physician assistants (PAs), should be incorporated into EMS teams.

Early in my fire and EMS career, I was a licensed physician's assistant working in a local health medical organization (HMO) and as a firefighter/paramedic for the fire department. Many community members worked for the state, and their health care coverage was provided by the same HMO I worked for. I probably saw many of those community members at one time or another, either in the field or in the clinic.

JEMS: Ambulance Crew Configuration: Are Two Paramedics Better Than One?

Introducing Body-Worn Cameras to Your EMS Agency

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Admin/Leadership Commentary EMS Operations Exclusives Ground Ambulance Operations Legal Issues EMS EMT Louisiana Paramedic

With permission from the program's medical director and my preceptor, I began treating mid- to low-acuity patients in their homes, calling in for prescriptions and making appointments. Of course, that did not involve trauma, cardiac arrest, or extremely ill or injured patients, which were treated and transported to the local hospital.

It was not a statistically studied part of our program with numbers and other data, it just seemed like the sensible thing to do.

An advanced health care provider in the field who is versatile and can provide all levels of care in the field or home, from emergent to urgent to routine, makes sense. The patients seemed to like it, as did the ER, as their patient flow was more regulated, and it eliminated the patients of low acuity.

I did not see every patient as we had three paramedic units, and I worked a 24-hour shift. Remember the first paramedic programs in Ireland and the United States had physicians supporting newly minted providers riding the ambulances and developing programs.[1]

During that early era in the 1970s, the idea of a PA providing care to EMS patients did not catch on, and when I went to work in another system, that program died as there were no replacements providing that versatile level of care.

EVOLUTION OF THE DELIVERY SYSTEM

EMS has evolved significantly from its origins in the White Paper in 1966 from a basic funeral home transport service to a sophisticated system that delivers critical prehospital care. The scope of practice for EMTs and Paramedics has expanded, yet there remain gaps in the level of care that can be provided in the field.

Patients with complex medical conditions, the elderly, and those with chronic illnesses often require more comprehensive interventions that exceed the training of standard EMS personnel. Response times and hospital overcrowding have also increased interest in out-of-hospital treatment models. Incorporating midlevel providers into EMS could bridge care gaps, reducing unnecessary hospital transport and alleviating emergency department congestion.[2]

THE ACTUAL ROLE OF MIDLEVEL PROVIDERS

Midlevel providers, including NPs and PAs, possess advanced clinical training that enables them to diagnose, prescribe medications, and perform procedures beyond the scope of paramedics. Integrating these providers into EMS could improve patient outcomes through enhanced assessment, expanded treatment options, and the ability to determine whether hospital transport is necessary.[3]

JEMS: Adapting to Survive EMS Workplace Shortages, Part I

Potential roles for midlevel providers in EMS include:

Mobile Integrated Healthcare (MIH): Providing acute and chronic disease management in the field.

Community Paramedicine: Offering preventative care and follow-ups to reduce hospital readmissions.

Triage and Treatment: Reducing emergency department burden by treating minor conditions on-site.

Disaster and Mass Casualty Response: Bringing advanced medical capabilities to the frontlines during disasters.

ADDITIONAL BENEFITS BASED ON MY EXPERIENCES

Improved Patient Outcomes—Midlevel providers on EMS vehicles could lead to better patient outcomes due to their ability to conduct thorough assessments and initiate advanced treatments. Studies have demonstrated that early interventions by highly trained providers can significantly improve survival rates for conditions such as stroke, sepsis, and cardiac events.

Reduced Healthcare Costs—Avoiding unnecessary emergency department visits is a major cost-saving factor. Midlevel providers can manage lower-acuity cases in the field, potentially reducing hospital admissions and associated expenses.

Addressing EMS Workforce Shortages—Unfortunately, it has become too evident that many EMS agencies are facing staffing shortages due to burnout, low wages, and high turnover rates. Integrating midlevel providers could supplement traditional EMS personnel, ensuring adequate coverage and reducing strain on existing staff. Many services do not have the proper revenue to pay their staff a livable wage, resulting in turnover and attrition. The rate of reimbursement may alter the landscape with the use of midlevels.

JEMS: Combatting the EMS Shortage with Data

Enhancing Rural and Underserved Area Coverage—Rural and underserved regions often struggle with limited access to healthcare. In my state, underserved areas deficient in paramedic level of service have enhanced the abilities of the EMT provider to include intubation, some limited medications, and other paramedic level of care not currently available. Midlevel providers in EMS could serve as a vital resource in these areas by delivering on-site treatment and making informed transport decisions, ultimately improving healthcare access for underserved populations.

Utilizing Telemedicine and other technology—With the improvement of technology, midlevel providers can use this technology to communicate directly with the patient's provider or if they have none, to a referral center to make an appointment for follow-up care. Certainly, there is a cost to implementing new and improved technology, there may be an offset with fees and other financial resources to cover these costs.

CHALLENGES AND BARRIERS—OPPORTUNITIES

Regulatory and Scope of Practice Issues—One of the primary obstacles to integrating midlevel providers into EMS is navigating scope of practice regulations, which vary by state and agency. Many states do not have clear guidelines on the role of NPs and PAs in prehospital settings, requiring legislative changes to facilitate their inclusion. If I want to practice in another state, numerous regulations do not include reciprocity, allowing me to practice elsewhere.

Training and Certification Requirements—Although midlevel providers have extensive medical training, they may not be familiar with EMS-specific protocols, field operations, and prehospital decision-making. Specialized EMS training programs and certifications would be necessary to ensure competency in this environment. A tremendous reserve of former military medical providers is available and seeking jobs.

Military Medics and Corpsmen—The current system of transitioning from military to civilian practice is a significant barrier for many of these highly skilled individuals to participate in a mid-level program without additional training. The older MEDEX programs created that bridge, but now the academic requirements overshadow the experience obtained by military medics and corpsmen. We should restore this bridge program to recognize their experiences and training and transition these individuals into civilian practice.

JEMS: Evolving EMS Deployment Paradigms

Cost and Reimbursement Challenges—Funding remains a critical challenge. While midlevel providers could reduce long-term healthcare costs, their salaries are significantly higher than those of traditional EMS personnel. Additionally, reimbursement models need to be adapted to support non-transport treatment provided by mid-level healthcare providers. Reimbursements are all over the place, creating a shortfall for pre-hospital EMS services.

Role Replacement Fears—A model emphasizing teamwork and shared responsibilities must be developed to address this, ensuring that midlevel providers complement rather than replace existing personnel. This is evident by early resistance from the nursing profession against pre-hospital providers with less training who are doing more medicine in the field. We have moved beyond that attitude, but the push may come from existing paramedics and EMTs facing a challenge from midlevel's.

LOOKING AT A FEW EXISTING MODELS

Several EMS systems have already explored integrating midlevel providers with promising results:

- **Houston Fire Department's ETHAN Project:** This program utilizes telemedicine with NPs and PAs to assess low-acuity 911 calls, significantly decreasing unnecessary emergency department visits.[4]
- **Minnesota's Community Paramedicine Program:** Midlevel providers work alongside Paramedics to deliver home-based care, reducing hospital readmissions.[3]
- **The Role of the Paramedic Practitioner in the UK:** The 'Paramedic Practitioner' role has developed against a background of change in primary care service provision, apparently resulting in an increasing utilization of emergency ambulance services.[5]

POLICY AND FUTURE DIRECTIONS—THOUGHTS

For successful integration of midlevel providers into EMS, policymakers must:

1. **Standardize Scope of Practice Regulations:** Establish clear, nationwide guidelines for midlevel provider roles in EMS.
2. **Develop EMS-Specific Training Programs:** Create specialized curricula to prepare midlevel providers for the unique challenges of prehospital care.
3. **Military Resources:** We must look at the availability of highly trained individuals from the military that are already trained with a little additional training, such as the original MEDEX programs, can have these individuals serving their communities.
4. **Revise Reimbursement Models:** Implement payment structures that support field-based treatment by midlevel providers.
5. **Promote Collaborative EMS Models:** Foster teamwork between midlevel providers and traditional EMS personnel to ensure seamless integration.
6. **Pilot Programs and Research:** Encourage further studies to evaluate patient outcomes, cost-effectiveness, and operational feasibility.

JEMS: Are Staffing Levels Seeming Pulseless? Let's Review the Hs and Ts

CONCLUSION

There are many midlevel providers working in a clinical setting that can be utilized to accomplish success in this new and emerging field. There are differences in the licensing requirements in many states as it pertains to medical practices and the organizations that need to get on board to support these programs, such as the AMA, the National Commission on Certification of Physicians Assistants, American Association of Nurse practitioners, American Nurses Association and other similar organizations must come together to make this program successful.

In my experience, the increasing complexity of prehospital care, EMS workforce shortages, and the need for cost-effective healthcare solutions make a strong case for incorporating midlevel providers into EMS systems.

While there are regulatory, financial, and operational challenges, the potential benefits—improved patient outcomes, reduced healthcare costs, and enhanced service delivery—suggest that this model warrants serious consideration. There is a large pool of providers that can be utilized in your EMS community with appropriate training, policy adaptations, and collaborative efforts, midlevel providers could play a transformative role in the future of EMS.

Editor's Note: This commentary reflects the opinion of the author and does not necessarily reflect the opinions of JEMS.

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Commentary EMS Operations Exclusives Ground Ambulance Operations Mobile Integrated Health and Community Paramedicine EMS EMT Paramedic Staffing

MUST VIEW

TACTICAL MEDICAL EQUIPMENT

In general, the medical equipment that is carried by the tactical medic can be broken down into the following areas:

1 **PERSONAL PROTECTIVE EQUIPMENT**

Gloves, mask, eye protection

2 **PATIENT ASSESSMENT TOOLS**

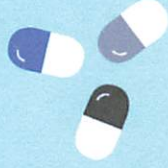
Stethoscope, blood pressure cuff, micro pulse oximeter, thermometer, CO2 monitor

3 **TRAUMA SUPPLIES**

Hemostatic dressings, regular dressings, bandage wraps, heavy-duty 1" and 2" tape, open chest injury seals, tourniquets

4 **AIRWAY/BREATHING MANAGEMENT**

Oral and nasal airways, pocket mask, manual suction device, collapsible bag valve mask, chest decompression supplies, endotracheal intubation or supraglottic airways



5 **ROUTINE MEDICINES**
FOR TEAM MEMBERS

Ibuprofen, Pepto-Bismol, allergy medications, sunscreen, insect repellant, poison ivy/oak protection

6 **ROUTINE MATERIALS FOR MINOR TRAUMA**

Adhesive bandages, 1" and 2" breathable and non-breathable tape, tweezers, forceps, small scissors, wound/eye irrigation supplies, topical antibiotic ointment

7 **ORTHO/SPORTS MEDICINE**

SAM splints, cold packs, compression wraps

8 **ALS/PRESCRIPTION DRUGS**
FOR ADVANCED LIFE SUPPORT AUTHORIZED TEAMS

Aspirin, nitroglycerin, albuterol (Proventil), ondansetron (Zofran) and ketorolac tromethamine (Toradol)

9 **PATIENT TRANSPORT SYSTEM**

EMS1

Training Day: Chest seals, tourniquets trauma dressings

What is 'Stop the Bleed?'

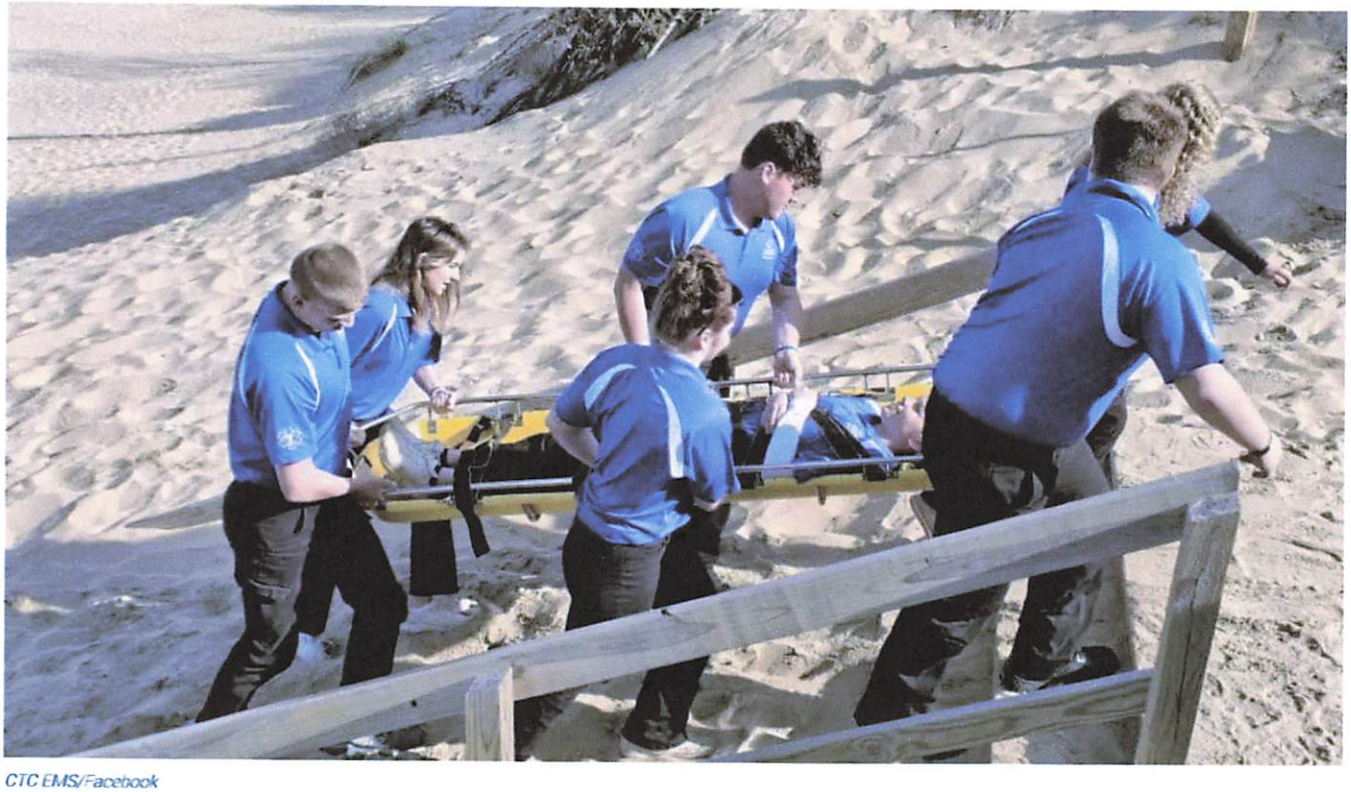
What does it mean to do it right?

EMS Training and Education

Mich. students finish EMS training with multiple scenarios

Careerline Tech Center EMS students put their training to the test during rescue simulations that double as real-world prep and a potential path to employment

May 17, 2025 08:00 AM



CTC EMS/Facebook

By Carter Frye
Grand Haven Tribune

WEST OLIVE, Mich. — Careerline Tech Center emergency medical services (EMS) students gathered at Kirk Park on Wednesday to take part in realistic training exercises.

Responding to simulated real-world scenarios at the park serves as the course's annual Capstone project, giving students a chance to practice the skills they've been learning in the classroom over the last year.

The class split into teams and rotated through multiple situations that included responding to a grill explosion, tending to a cardiac arrest patient, carrying a patient with chest pain up a stairway, and conducting a beach rescue.

Students partnered with Grand Haven Township Fire Rescue, Trinity NOCH/EMS and multiple program alumni to complete the training.

Kim Schrader, a full-time EMS instructor and certified emergency medical technician (EMT), has been with the program for the past 18 years and taught it for the past 12 years.

"For some of them, this is almost a job interview," she said. "They're able to meet these folks and find out what it's like. If they start talking, we've actually had people who got hired from their experience. We use a phrase at Tech called social capital. They're building social capital today."

Alumnus Kevin Roon, a full-time EMT with Life EMS in Grand Rapids, volunteered at the event for the second straight year after graduating in 2023.

"This is super helpful, especially having the other alums come in with the way that (Schrader) has the class set up," he said. "It's amazing for students."

Taking the class can serve as a chance for students to see what the field is really like before they graduate, Schrader said.

"It's a neat opportunity for kids to try before they buy," she explained. "Some kids come back and go, 'That was the best thing ever,' while some kids come back and say, 'Boy, I don't need to do that.' We'd rather have them find it out now, especially when there's no cost to them to be in our program. Other than their uniform shirt, we cover all costs and actually pay for their first attempt at the National Registry."

Some of the students took the EMS course to prepare themselves for the National Registry of Emergency Medical Technicians (NREMT) exam. Successful completion of the exam allows students to obtain their (EMT) license or their Emergency Medical Responder (EMR) license.

Schrader said that a few students will take their tests in the next two weeks.

"They will be working on an ambulance within the next month or so," she said. "So, it's really exciting."

Zeeland East High School senior Drayden Fitchett says he was inspired to join the class by the people in his life who he looks up to in the EMS field.

"I originally wanted to go into the fire side of things full time," he said, "but through this class I've really learned a lot about the medical field. I just love everything about it."

Fitchett is set to join Life EMS as an EMT and the Zeeland Fire Department part-time when he turns 18 later this year.

"It's been the greatest experience of my life," Fitchett said. "My favorite part of the class is going out and doing real-world things, helping real-world people. It just gives you a different look at life. You show up on people's worst days and help them, and that's just something that really hits home to me."

Other students are planning to use the EMS course as a resume-booster for similar endeavors, such as medical school or roles within public safety.

Trending

EMS Management

Study finds Pa. county EMS at breaking point amid funding, staffing crisis

May 19, 2025 10:07 AM

Community Awareness

From supervision to CPR: 10 essential drowning prevention tips

May 19, 2025 03:28 PM · Leila Merrill

Legal Issues

Iowa family sues city, first responders, EMS and medical directors after drug error

May 20, 2025 10:31 AM

Disaster Management

At least 28 dead as tornadoes, storms strike 3 states

May 19, 2025 09:16 AM

After completing the public safety and security course at the Careerline Tech Center last year, Grand Haven High School senior Camden Nelson opted into the EMS class to round out his skills.

"I love Tech Center, so I wanted to find a way to continue to go to Tech Center," he said. "And with the goal of becoming a police officer, EMS would be a great program. I got lucky that I've been able to go to Tech for two years to build up my resume and skills."

Nelson has received an offer to join the Kent County Sheriff's Office as a police cadet. He will start at there in September after completing infantry school at Fort Benning this summer. Now that he has completed the EMS course, Nelson says he is planning to test for his EMT license and potentially work part-time as a technician or firefighter as well.

After the training exercises, which ran from 8:30 a.m. to noon, the group held an awards ceremony to cap off the year. Schrader handed out encouraging prizes, such as the Hot Tamale award for a student who has "been on fire" lately.

"It's fun," Schrader said. "We have kids that say, 'I haven't had an award since elementary school.' And if I get to some of their open houses, I'll see those awards on the board. I think it's just important for all of them to recognize that they bring something to the team. Some are naturally born leaders, some need some extra coaching, and some are really good team players."

Some members of the class are also fresh off a first-place victory at the fourth annual InterTech EMS Competition , which took place at the Life EMS Innovation & Education Centre in Grand Rapids on April 28. CTC students have taken first place every year since its inception in 2021.

The EMS class is one of 30 courses that span eight career pathways at the Tech Center. Students spend half the day learning at the facility while earning elective credit at their respective schools.

They are also eligible to earn scholarships. At an awards ceremony last week, Tech Center students earned almost $300,000, according to Schrader.

Although many of the classes at the Tech Center are open to high school juniors and seniors, the EMS course is only for seniors because of the licensure upon completion. Their classroom at the Tech Center headquarters includes an ambulance simulator and an area to pull vehicles in for

exercises. Schrader said that they plan to add a Fire Rescue course to the class list next year.

EMS Training and Education | EMT, EMS, Paramedic Jobs and Careers | Recruitment & Retention

MOST POPULAR

Ambulance Crew Configuration: Are Two Paramedics Better Than One?

By David Shotwell, JD, MICP
Mark A. Merlin, DO, EMT-P, FACEP
Vincent D. Robbins, FACPE, FACHE

October 8, 2018

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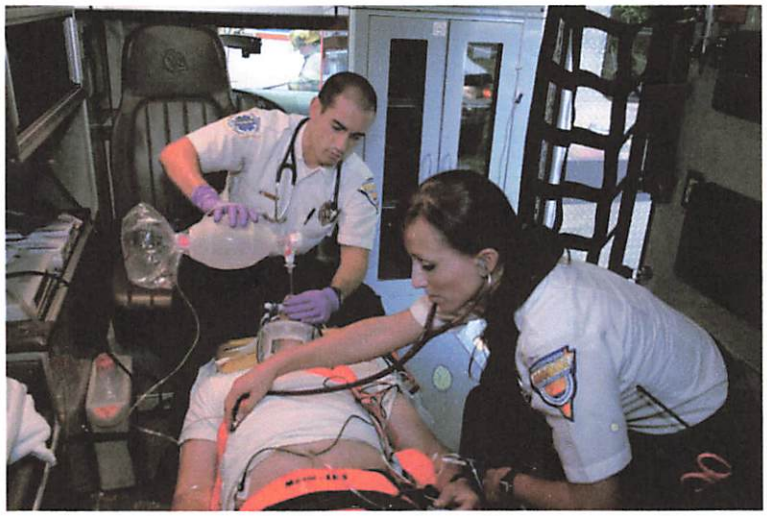

The appropriate complement of ambulance crews has long been debated in the United States. From the very beginning of modern day EMS, circa 1966, we've failed to agree on the most efficacious number of crew members who should staff an ambulance, as well as their appropriate combined scope of practice.[1,2]

Numerous models exist around the country, differing in both the number of practitioners that compose a crew, and the levels of training each possesses.[3] Levels of EMS practitioners have been well-defined through state regulations and national standards. Published

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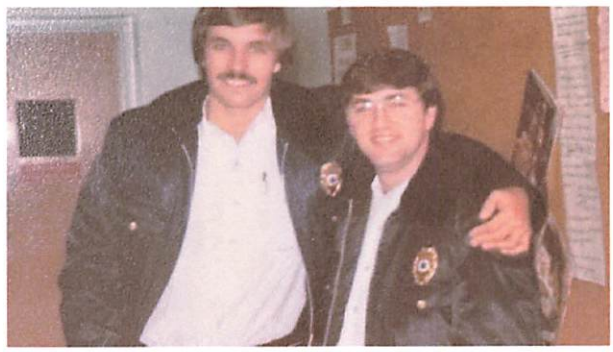

Was It Really a Half Century? What a Ride–But Not a 50-Mile Bike Ride!

6 MIN READ

Commentary EMS Operations Ground Ambulance Operations EMS EMT Paramedic Pennsylvania

reports have concluded the essential nature of EMS, the improved patient outcomes which result from such services and their positive economic impact upon our society. However, there's no consensus on the best complement of practitioners necessary for EMS systems to function at an optimal level.[4–8]

Although most agree that basic life Support (BLS) and advanced life support (ALS) services should be available to every community and every patient, this isn't necessarily the case nationwide.[3]

Neither is the organizational structure, design of the delivery systems for these two EMS tiers, or how they interact with each other.[9]

Some communities utilize all ALS ambulances in a single-tier system, sending these units to all requests for EMS. Others use separate response ALS units (with partial, or all ALS crews, which may or may not be vehicles with the ability to transport patients) and BLS ambulances, dispatched together and converging on the scene to treat a subpopulation of all EMS patients considered as the most seriously ill or injured.

In these systems, BLS ambulances are sent without ALS units on cases considered less serious or non-life-threatening. Even other systems use first response, non-transport units staffed with ALS practitioners and separate ambulances with ALS, or partial ALS, crews.[2–4]

One standard that does appear ubiquitous, is that it's assumed a minimum of two crew members are necessary to staff the EMS unit that transports a patient to definitive care. This is the case regardless of the level of EMS provided or the individual crew members' individual scopes of practice; it's based on the simple logic that during transport to a hospital, one member would need to operate the vehicle, while the other needs to attend the patient providing ongoing care.[2] Little has been written regarding the need for more than one provider to attend to serious or critical cases in the patient compartment.

It appears this will remain the case for the foreseeable future, at least until technology permits autonomously functioning ambulances to be operated without a human driver. However, the optimal training or certification level, and the scope of practice, for each of these two crew members has remained debatable.

However, when we focus more specifically on the crew configuration for ALS services operating in a multitiered EMS system, it's not axiomatic that the crew needs to be staffed by more than one person. And, when the ALS unit also transports the patient, so that at least two crew members are needed, it's not self-evident that all personnel need to be ALS practitioners.

When determining the most appropriate complement of ALS crews, serious consideration should be given to five key factors that may significantly influence patient outcomes and system viability:

1. *ALS practitioner proficiency*: The first consideration is whether the proficiency of a practitioner's skill performance improves with increasing experience and patient contact volume. This is especially important to asses regarding critical skills less often used and more difficult to perform, such as endotracheal intubation, IV insertion, rapid sequence intubation or cricothyrotomy.
2. *Treatment time*: The second consideration is the impact of the number of ALS providers composing the crew has regarding treatment time at the scene, thereby affecting transport to definitive care, and any resulting impact on the morbidity and mortality of patients.
3. *Error rates:* The third consideration to assess is whether the number of ALS providers treating a patient in the field affects the errors committed by those practitioners in the assessment of patients, medications administered or skills performed.
4. *Practitioner shortage:* Reports are now commonplace regarding the shortage of paramedics in the country. Modifying ALS crew configuration could expand or contract the labor

pool and impact a system's ability to fully staff necessary units.

5. *Financial sustainability of the EMS system*: Because EMS systems use an intense amount of human resources, the cost of which compose a majority of the annual operating expenses for most systems, crew complement is an important consideration for the long-term financial viability of EMS. Does the ALS crew complement substantially affect the cost of operations?

Taking these considerations into account, this article examines the fundamental question: Is an ALS ambulance crew complement of two practitioners, one certified/licensed to the level of emergency medical technician—basic (BLS Provider) and the other to paramedic (ALS provider), adequate to result in acceptable patient outcomes? Further, is this model equal to, worse than or superior to a crew complement of two paramedics?

THE CURRENT LITERATURE

A search on best models of ambulance crew configurations yields little in terms of original research trials. Most likely this is because of the difficulty in studying patients who received two ALS providers vs. one ALS provider during the same acute medical condition.

Several publications exist outside of the U.S., with vastly different EMS systems, which makes comparisons of various numbers of ALS providers extremely challenging.

In 1999, the Canadian OPALS study demonstrated no benefit of ALS over BLS for cardiac arrest.[10] However, that was based on a BLS system with early defibrillation and significant bystander CPR.

Similarly, in a 2003 *USA Today* survey of 50 major cities, the lowest number of paramedics per capita had the highest cardiac arrest survival rates.[11]

Additionally, worse outcomes are associated with trauma provided by ALS, which is most likely due to additional procedures performed by ALS and increased scene times. One study found that provider skills for intubation is based on frequency of the skill performed and its association with cardiac arrest survival.[12,13] Based on increased utilization and success of CPAP as well as the deprioritization of intubation during cardiac arrest, the overall utilization of intubation is decreasing, yet the need for paramedic expertise in intubation remains the same.

A study conducted with the Mississippi Department of Health evaluated the volume-outcome relationship of paramedics.[14] This 14-year study estimated the relationship between experience accumulation and performance of paramedics who responded to approximately 175,000 general trauma calls. A greater volume of paramedic experience was significantly related to reduced total prehospital time and time on scene. The authors concluded that retention of skills is accomplished by increased volume.

A 2010 study of 10,298 out-of-hospital cardiac arrests evaluated whether more paramedics (three or more vs. two paramedics) resulted in improved outcomes. No difference was found in survival to discharge, and return of spontaneous circulation wasn't associated with a greater number of paramedics.[15]

A similar paper evaluated two paramedic vs. single paramedic crews in simulated cardiac arrest scenarios. They found that additional paramedics on the crews resulted in more errors than with single paramedic crews.[16]

An unpublished thesis paper in 2006, a three-year retrospective review of the Wake County EMS System, compared a two paramedic crew vs. a one paramedic crew. During the years studies, half of Wake County had one paramedic per crew and half of their system had two ALS providers per crew. Inclusion criteria were cardiac arrests, respiratory emergencies, cardiac emergencies and traumas that required emergent

transport utilizing lights and sirens. No statistically significant difference was found regarding scene times, intubation success and first-pass success. Not surprisingly, the two paramedic crews had a high rate of statistically significant IV success (0.89 vs. 0.87; p=0.04), but not first attempt success.[17]

An Australian study evaluated scene time difference in 1,537 prehospital cases with all-paramedic crews vs. mixed crews. All-paramedic crews had a statistically significant longer scene time than mixed crews (16.92 min. vs. 15.95 min.; p=0.002). There were no differences in procedure failure rates including intubation and intravenous insertion.[18]

Researchers in Columbus, Ohio, retrospectively studied ambulance staffing models in a metropolitan, fire-based EMS system. Paramedic-basic (PB) crews were compared with paramedic-paramedic (PP) crews. There were no differences between PB vs. PP crews in times to ALS interventions, time to IV insertion, IV success rates and protocol violation rates. PP crews did have shorter median scene times than PB crews (p=0.01).[19]

In 2017, Santa Cruz, Calif., reported a complete change of their EMS system from a dual paramedic crew configuration system to a single paramedic crew configuration.[20]

LEGAL CONSIDERATIONS

A review of state statutes and regulations show the majority of states require only a single paramedic on the crew that will staff an ALS ambulance. Two states, New Jersey[21] and Delaware,[22] mandate two paramedics staff an ALS unit, but don't require the ALS unit be capable of transporting patients.[21,22]

Massachusetts, Wisconsin and Utah laws require the assignment of two paramedics to a response, but don't require the paramedics to be on the same unit.[23–25]

Among the states requiring only a single paramedic ALS unit, regulations for non-paramedic crew

members vary. For example, South Dakota and West Virginia regulations allow an ALS ambulance to operate with a paramedic and a driver meeting requirements established by the Department of Health.[26,27] Oklahoma regulations are similar, specifying the driver must be certified as an emergency medical responder.[28]

Other states and territories, such as Oregon, Virginia and Washington D.C., specify that an ALS ambulance must have a paramedic and another crew member certified at or above the EMT-basic level.[29–31]

Arizona varies the requirement for the crew member depending on whether the ambulance crew services a rural or wilderness area and also considers recent census data.[32]

A review by the New Jersey state legislature's Office of Legislative Services in 2013, determined the following:

- "A majority of states require staffing [of ALS units] by two EMTs" but "do not specify whether both" must be capable of performing paramedic skills."
- "Several other states require ALS ambulances to be staffed by only one certified emergency medical responder–i.e., one paramedic or one EMT.
- "In summary, "it does not appear that any other state [except New Jersey] requires ALS vehicles to be staffed by a minimum of two paramedics"
- Local governments and agencies typically have latitude to impose staffing requirements that exceed the state requirements and may staff ambulances with two or more paramedics.

FINANCIAL CONSIDERATIONS & IMPACT OF ALS CREW CONFIGURATION

A basic analysis of the financial impact on an EMS system can be done concerning the complement of ALS crews. Based on several fundamental assumptions,

annual expense calculations can be performed to determine the operating costs of the crew complement configurations considered in this article.

The following assumptions are based on general industry knowledge about operating expenses and common elements present in most organizations. Some variance exists, depending on the organizational design, corporate structure and deployment models that are employed throughout the country.

One of the most widely variable costs are those associated with benefits provided to staff by the employer. These include health plan benefits, paid time off, uniform allowances, tuition reimbursement, retirement plans, payroll taxes and others.[33,34] However, a general assumption can be used based on average experience reported by the U.S. Department of Labor.[34]

For the purpose of this analysis, operating and capital costs, other than personnel expenses, weren't included, since crew complement does not necessarily affect them.

The assumptions used for this analysis included the following:

- The calculations are based on one full-time ALS unit;
- A full-time unit is defined as one unit operating 24/7/365;
- The average wage used for a paramedic is $23.50 per hour;[33]
- The average wage used for an EMT-basic is $18.48 per hour;[33]
- Overtime is calculated at 10% of total annual hours (876 hours annually);
- Overtime wages are calculated at time and a half ($35.25 per hour for paramedics and $27.72 per hour for EMT-basics); and
- The cost of benefits is calculated at 46.5% of base wages, or 31.7% of total compensation.[34]

Table 1: Financial impact of ALS crew configurations

ELEMENT	1 ALS CREW	1 ALS / 1 BLS CREW	2 ALS CREW
Salary	$ 205,860	$ 367,745	$ 411,720
Overtime	$ 30,879	$ 55,162	$ 61,758
Benefits	$ 110,084	$ 196,652	$ 220,168
Total Annual Practitioner Cost	**$ 346,823**	**$ 619,559**	**$ 693,646**

Get the data • Created with Datawrapper

This brief analysis shows that an ALS crew complement of one ALS practitioner with one BLS provider is 10% less expensive annually than a two ALS crew member team. In addition, a single ALS practitioner crew is 44% less expensive than a two-member crew composed of one ALS provider and one BLS member. In a system of 10 ALS units with two paramedic providersm this equates to a savings of approximately $750,000 per year to the healthcare system.

CONCLUSION

Understanding ideal crew configuration is vital to maintain EMS systems. There's a lack of evidence demonstrating the need for a second ALS provider on a general ALS response. Implications of overstaffing may result in more patient care errors and draining of financial resources which could be spent on additional state-of-the-art medical equipment or number of units resulting in better system performance and patient care.

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Figure 1: Patient Selection Flow Diagram. Exclusions (*) Include patients below the age of 15, cases with no recorded scene time, and cases with no recorded crew configuration

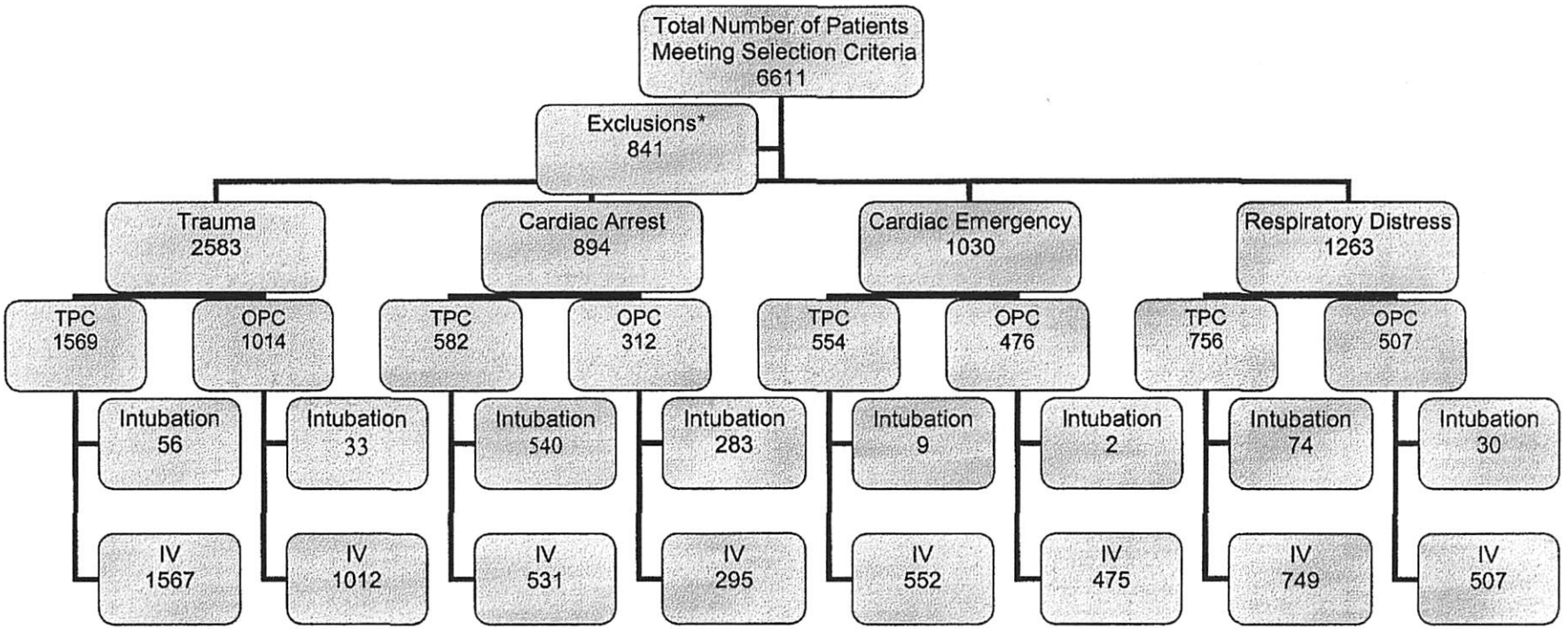

Table 1: Patient demographics

	Two Paramedic Crews	Single Paramedic Crews
Trauma	1569	1014
Average Age (years)	36.1	37.4
% Male		
Cardiac Arrest	582	312
Average Age (years)	63.5	63.9
% Male		
Cardiac Emergency	554	476
Average Age (Years)	63.3	63.8
% Male		
Respiratory Distress	756	507
Average Age (Years)	68.5	68.1
% Male		

Table 2: Relationship of Paramedic Crew Configuration and Scene Times in Patients Who Received at Least One Procedure, Stratified by Clinical Scenario.

	Two Paramedic Crew Scene Time (Minutes)	Single Paramedic Crew Scene Time (Minutes)	Mean Difference (Minutes)	P- value	95% Confidence Interval of Difference
Trauma	14.6	15.2	0.6	0.06	-0.01 to 1.1
Cardiac Arrest	24.9	25.3	0.4	0.53	-0.9 to 1.7
Cardiac Emergency	18.0	18.0	0.0	0.99	-0.8 to 0.8
Respiratory Distress	18.8	17.3	1.5	<0.001	0.8 to 2.2

**NOTE: This only provides information on calls in which a clinical procedure was performed (i.e. intubation, IV, or both).

Table 3: Comparison of intubation and IV placement in all patients who received a procedure by ambulance crew configuration. (* Note: These groups are not mutually exclusive, i.e. a patient could have received an IV, an intubation, or both).

	Two Paramedic Crews	Single Paramedic Crews	P Value
Number of Patients	3461	2309	
Intubations			
Total Attempts	649	348	
Mean Attempts (Per Patient)	1.5	1.5	0.90
Range Minimum Maximum	1 9	1 6	
Eventual Success Rate	0.89	0.86	0.23
First Attempt Success Rate	0.63	0.59	0.12
IV Placement			
Total Attempts	3399	2289	0.65
Mean Attempts (Per Patient)	1.5	1.5	
Range Minimum Maximum	1 10	1 15	
Eventual Success Rate	0.89	0.87	0.04
First Attempt Success Rate	0.71	0.69	0.24

Table 3: Comparison of intubation or IV placement in trauma patients who received a procdure by ambulance crew configuration. (* Note: These groups are not mutually exclusive, i.e. a patient could have received an intubation, an IV, or both).

	Two Paramedic Crews	Single Paramedic Crews	P Value
Number of Patients	1569	1014	
Intubations			
Total Attempts	56	33	
Mean Attempts (Per Patient Attempt)	1.4	1.5	0.48
Range Minimum Maximum	1 6	1 3	
Eventual Success Rate	0.79	0.70	0.32
First Attempt Success Rate	0.61	0.55	0.66
IV Placement			
Total Attempts	1567	1012	
Mean Attempts (Per Patient)	1.5	1.6	0.17
Range Minimum Maximum	1 7	1 7	
Eventual Success Rate	0.93	0.92	0.11
First Attempt Success Rate	0.77	0.77	0.93

Table 4: Comparison of intubation and IV placement in cardiac arrest patients who received a procedure by ambulance crew configuration. (* Note: These groups are not mutually exclusive, i.e. a patient could have received an IV, an intubation, or both).

	Two Paramedic Crews	Single Paramedic Crews	P Value
Number of Patients	582	312	
Intubations			
Total Attempts	540	283	
Mean Attempts (Per Patient Attempt)	1.6	1.6	0.98
Range Minimum Maximum	1 9	1 6	
Eventual Success Rate	0.92	0.89	0.11
First Attempt Success Rate	0.65	0.59	0.11
IV Placement			
Total Attempts	531	295	
Mean Attempts (Per Patient)	1.8	1.7	0.46
Range Minimum Maximum	1 15	1 10	
Eventual Success Rate	0.89	0.88	0.87
First Attempt Success Rate	0.64	0.61	0.45

Table 5: Comparison of intubation or IV placement in cardiac emergency patients who received a procedure by ambulance crew configuration. (* Note: These groups are not mutually exclusive, i.e. a patient could have received an IV, an intubation, or both).

	Two Paramedic Crews	Single Paramedic Crews	P Value
Number of Patients	554	476	
Intubations			
Total Attempts	9	2	
Mean Attempts (Per Patient Attempt)	1.8	3	0.60
Range Minimum Maximum	1 3	2 4	
Eventual Success Rate	0.78	0.50	1.0
First Attempt Success Rate	0.44	0.00	1.0
IV Placement			
Total Attempts	552	475	
Mean Attempts (Per Patient Attempt)	1.5	1.5	0.08
Median Attempts			
Range Minimum Maximum	1 6	1 7	
Eventual Success Rate	0.91	0.87	0.03
First Attempt Success Rate	0.74	0.68	0.03

Table 6: Comparison of intubation and IV placement in respiratory distress patients who received a procedure by ambulance crew configuration. (* Note: These groups are not mutually exclusive, i.e. a patient could have received an IV, an intubation, or both).

	Two Paramedic Crews	Single Paramedic Crews	P Value
Number of Patients	756	507	
Intubations			
Total Attempts	74	30	
Mean Attempts (Per Patient)	1.3	1.4	0.52
Range Minimum Maximum	1 4	1 3	
Eventual Success Rate	0.74	0.83	0.32
First Attempt Success Rate	0.64	0.67	0.76
IV Placement			
Total Attempts	749	507	
Mean Attempts (Per Patient)	1.5	1.5	0.52
Range Minimum Maximum	1 9	1 5	
Eventual Success Rate	0.79	0.79	0.88
First Attempt Success Rate	0.59	0.58	0.99

Table 7: Comparison of intubation and IV placement in all patients who received a procedure by ambulance crew configuration. (* Note: These groups are not mutually exclusive, i.e. a patient could have received an IV, an intubation, or both).

	Two Paramedic Crews	Single Paramedic Crews	P Value
Number of Patients	3461	2309	
Intubations			
Total Attempts	649	348	
Mean Attempts (Per Patient)	1.5	1.5	0.90
Range Minimum Maximum	1 9	1 6	
Eventual Success Rate	0.89	0.86	0.23
First Attempt Success Rate	0.63	0.59	0.12
IV Placement			
Total Attempts	3399	2289	0.65
Mean Attempts (Per Patient)	1.5	1.5	
Range Minimum Maximum	1 10	1 15	
Eventual Success Rate	0.89	0.87	0.04
First Attempt Success Rate	0.71	0.69	0.24