ImageTrend

ImageTrend 2026 EMS Insights Report

National Trends Shaping Frontline Care

Table of Contents

Executive Summary

This *2026 EMS Insights Report* examines national patterns in prehospital care using data from ImageTrend Collaborate™, a large, de-identified dataset representing EMS activations across the country. The goal of this report is to help EMS leaders, clinicians, and researchers benchmark performance, identify areas of risk, and support informed operational and clinical decisions.

This year's report includes an expanded focus on prehospital blood transfusion, reflecting growing adoption and interest in early hemorrhage intervention. Alongside this addition, several key areas continue to shape EMS delivery, including behavioral health demand, trauma care variation, and ongoing workforce pressures.

Findings highlight ongoing demand related to behavioral health incidents, reinforcing the need for adaptable response models and strong community partnerships. In trauma care, variation in pain assessment and treatment points to opportunities for improving consistency in both documentation and care delivery. Workforce data continues to reflect persistent staffing pressures, underscoring the importance of visibility into system performance and resource needs.

Together, these insights provide a national perspective while emphasizing the importance of local context. Differences in protocols, documentation practices, and patient populations all influence how data should be interpreted and applied.

As you explore this report, we encourage you to use these findings to ask targeted questions, identify opportunities for improvement, and support ongoing efforts to strengthen patient care and system performance.

Morgan K. Anderson
Director of Research, ImageTrend

Introduction

Authored by:
Macall Leslie Salewon, MPH | Data Analyst, ImageTrend
Jonathan R. Powell, PhD, NRP | Epidemiologist, ImageTrend
Morgan K. Anderson, MPH, FAEMS | Research Manager, ImageTrend

National EMS data from 2023 to 2025 points to several clear shifts in prehospital care, both in what clinicians are encountering in the field and how care is being delivered. Across the country, agencies are navigating rising clinical complexity, evolving treatment approaches, and ongoing workforce pressure, all while working to maintain consistency in documentation and decision-making.

Key Trends in Prehospital Care

Prehospital blood administration is expanding and evolving

Between 2023 and 2025, the share of prehospital blood transfusions delivered by ground units doubled from 5% to 10%. This signals a meaningful shift in frontline trauma care and introduces new complexity in documentation, training, and protocol standardization.

Behavioral health demand continues to grow and strain EMS systems

Health-related responses increased from 9.8% in 2023 to 11.7% in 2025. Persistent growth reinforces the need for alternative response models, stronger community partnerships, and improved identification in the field.

Trauma-related incidents are increasing as a share of EMS workload

Injury-related responses rose from 17.9% in 2023 to 18.6% in 2025, representing more than 2.3 million incidents in 2025. EMS agencies are managing rising trauma volume alongside increasing clinical complexity, requiring greater preparedness and consistency in care delivery.

Pain remains under-treated despite frequent assessment

While 72% of transported trauma patients had a documented pain score, only 18% received pain medication. This gap highlights a persistent disconnect between assessment and treatment and points to opportunities for protocol review and quality improvement.

Low-acuity calls continue to dominate EMS demand

Nearly 60% of 9-1-1 responses were classified as lower acuity, with “sick person” remaining the most common dispatch complaint for the third consecutive year. This ongoing demand strains resources and reinforces the need for data-driven deployment and alternative care pathways.

Motor vehicle crash responses are steadily increasing

More than 825,000 EMS MVC activations met inclusion criteria in 2025, with over 575,000 unique events after deduplication. This reflects a sustained public safety challenge and the need for coordinated prevention and response strategies.

Workforce turnover remains a defining pressure point

Across five states, 25% of the EMS workforce left the field between 2023 and 2025, despite net-positive growth from new entrants. Retention, not just recruitment, continues to challenge agencies, particularly for experienced clinicians.

These patterns reflect a broader shift in EMS, one that requires stronger visibility into data, more consistent documentation, and a proactive approach to operational and clinical decision-making. The analysis that follows is intended to support benchmarking, quality improvement, and strategic planning at the local, state, and national levels.

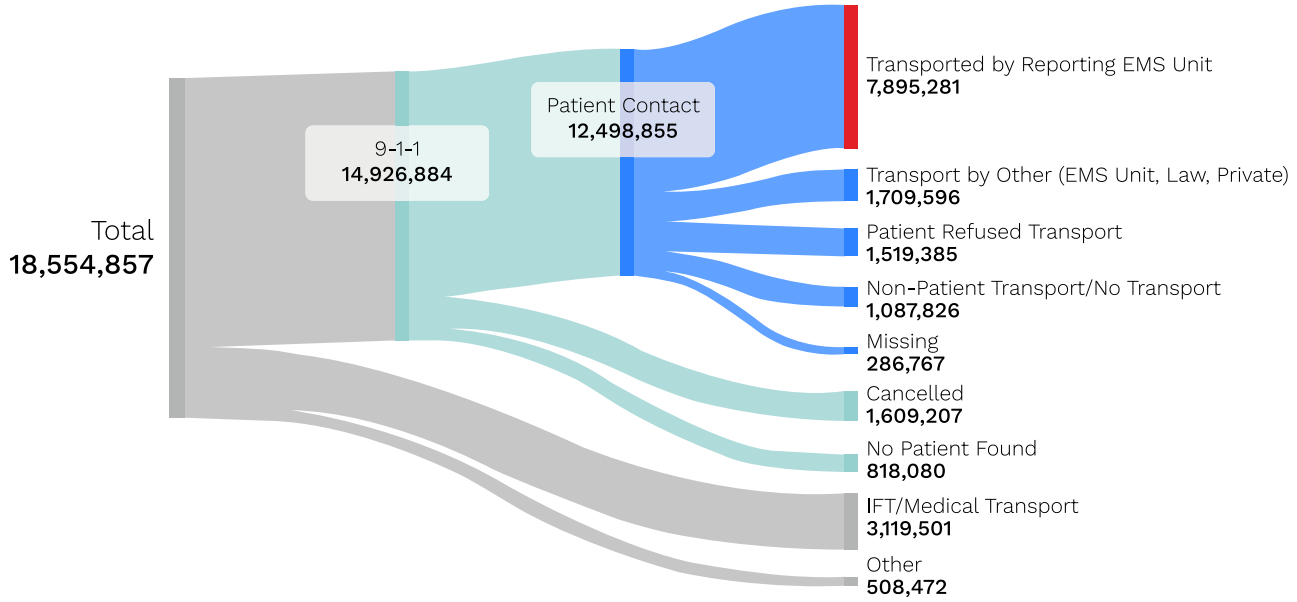
About the 2025 ImageTrend Collaborate Dataset

ImageTrend Collaborate aggregates EMS data from agencies across 50 U.S. states and over 3,100 EMS organizations. A peer-reviewed study[1] published in *Prehospital Emergency Care* found the Collaborate dataset closely reflects the characteristics of the NEMSIS research dataset—the national gold standard—across most call, patient, and intervention variables. This validation supports the use of Collaborate as a defensible resource for national EMS trend analysis.

Overview of National EMS Activity

- Of the over **18 million activations** contained in the 2025 IT Collaborate Dataset, **80% were 9-1-1 responses**, with **84% of those resulting in patient contact**
- A smaller, yet still notable, subset of records (**17%**) was for interfacility (IFT) or medical transports
- The chart on the next page provides a breakdown of response types and transport decisions contained in the 2025 ImageTrend (IT) Collaborate Dataset, characterizing the variety of scenarios agencies may encounter
- Understanding how your agency's response flow compares to national data can assist in strategic planning for resource deployment and staffing needs

Overall Response Types and Transport Decisions for Activations in the 2025 IT Collaborate Dataset



Profile of Agencies

Units activated in 9-1-1 Responses with Patient Contact:

- Ground-Transport **(78.9%)** vs. Air-Transport **(0.5%)**
  - An additional **19%** non-transport rescue units
- BLS **(22.8%),** ALS **(59.1%),** Critical Care/Specialty **(0.6%)**

When and Where Are 9-1-1 Responses Taking Place?

Urbanicity*

- Urban: **91%**
- Rural: **8%**

Half of 9-1-1 responses that occurred in rural areas were in counties not adjacent to urban areas.

**County-level urbanicity based on 2023 Rural-Urban Continuum Codes*

Incident Location

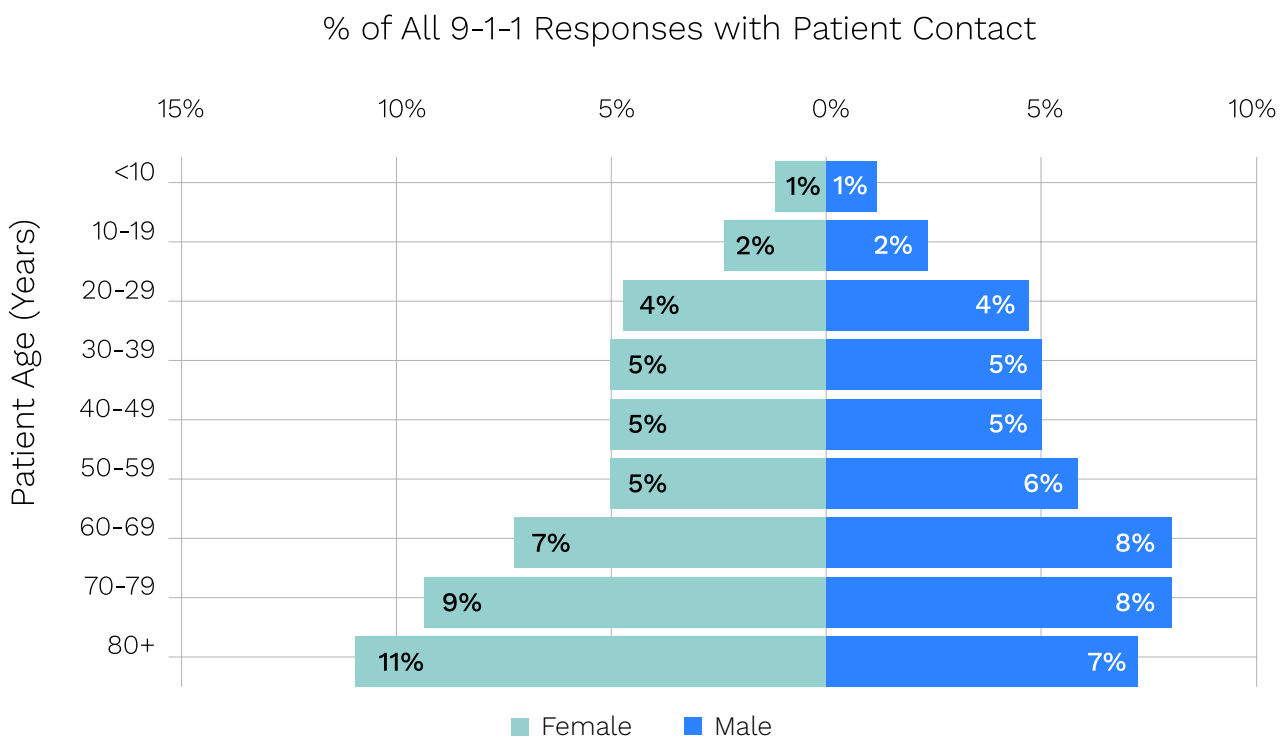
- Private Residence: **56%**
- Street: **13%**
  - **18%** of pediatric responses
- Healthcare: **12%**
  - **18%** of geriatric (65+ responses)
- Schools: **10%** of pediatric responses (3rd most common location)

Time of Day and Week

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	% OF DAILY RESPONSES
0:00-2:59	151,534	123,731	116,135	120,473	117,998	122,467	144,048	**7%**
3:00-5:59	111,651	105,782	99,054	102,279	99,812	100,297	107,953	**6%**
6:00-8:59	159,393	199,855	192,832	195,058	190,612	187,022	161,969	**10%**
9:00-11:59	249,861	316,504	310,009	314,657	307,743	307,865	260,956	**17%**
12:00-14:59	268,832	321,092	317,331	321,893	314,261	318,970	283,553	**17%**
15:00-17:59	264,082	304,730	302,676	305,541	301,302	306,788	278,427	**17%**
18:00-20:59	255,087	256,859	255,876	263,931	261,374	272,747	268,906	**15%**
21:00-23:59	187,231	179,409	178,190	186,049	184,015	205,618	211,265	**11%**
% OF WEEKLY RESPONSES	**13%**	**15%**	**15%**	**14%**	**14%**	**15%**	**14%**	

Who Is Being Seen?

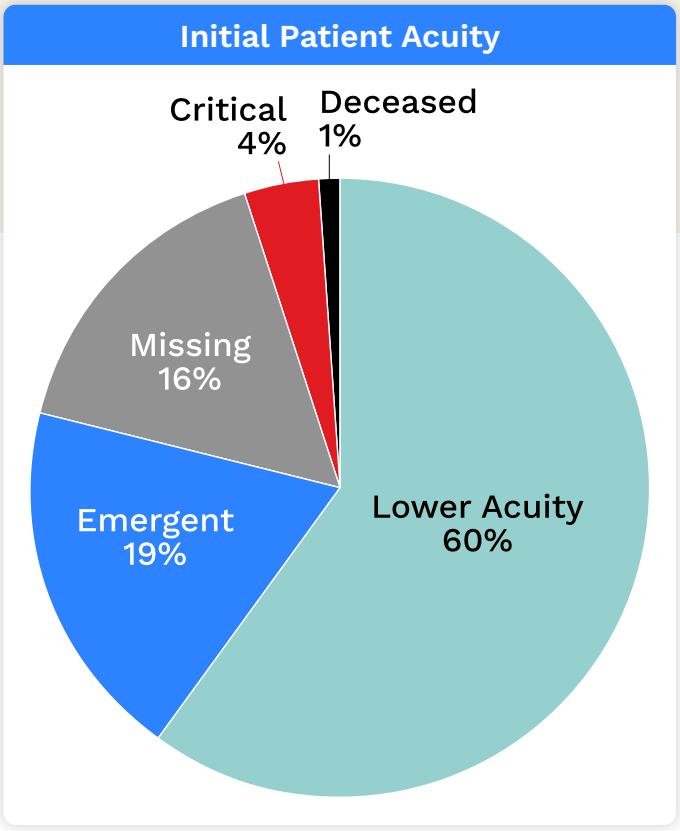
Patient Age and Gender



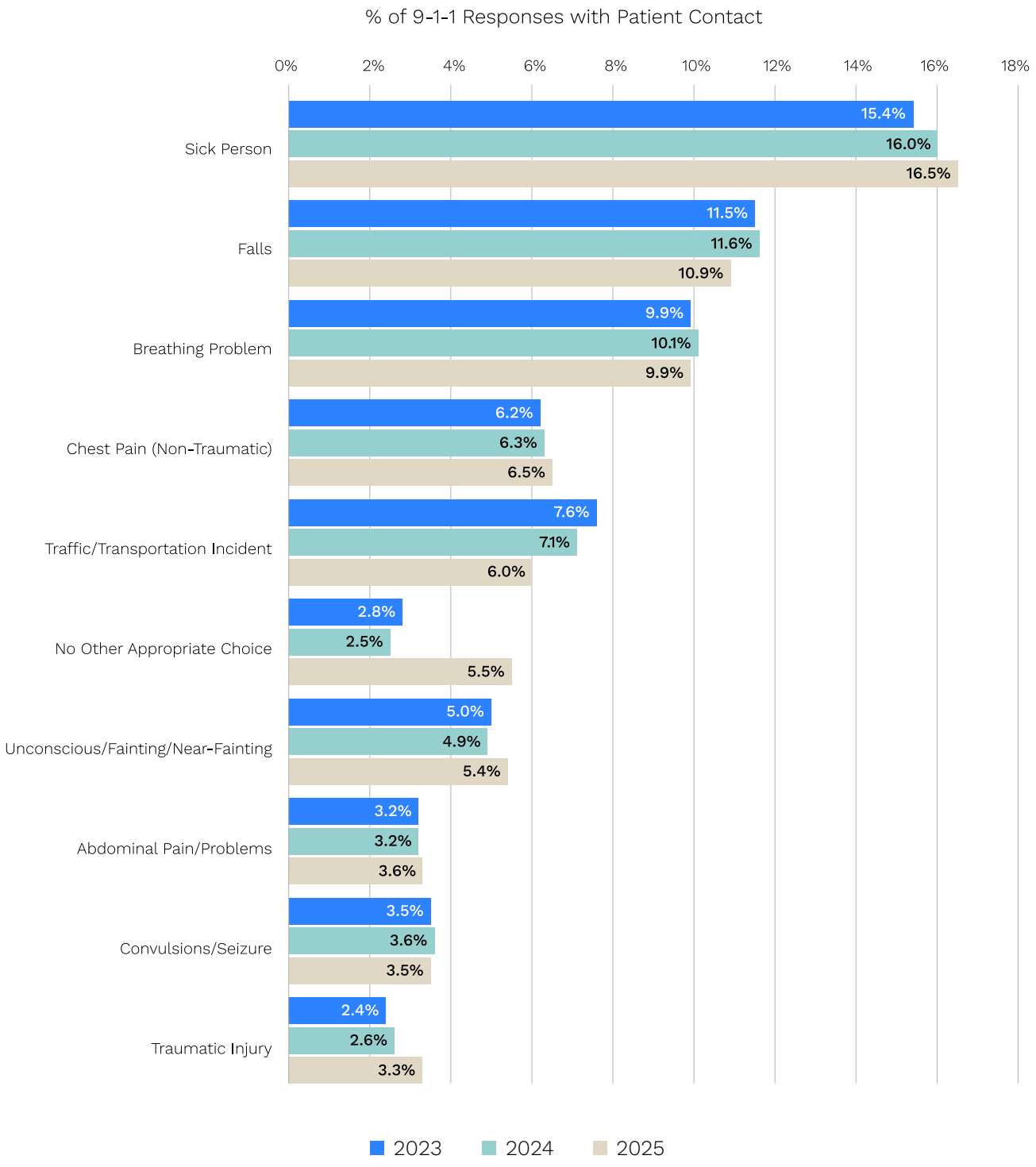
Note: In April of 2025, the data element ePatient.13 (Gender) was removed from NEMSIS to comply with Executive Order 14168 and replaced with ePatient25 (Sex). For records reported to the 2025 IT Collaborate Dataset, only 9% had patient sex documented using this new data element, while 96% still reported patient gender, thus, ePatient13 is utilized throughout this document to describe patient demographics.

Response Profile

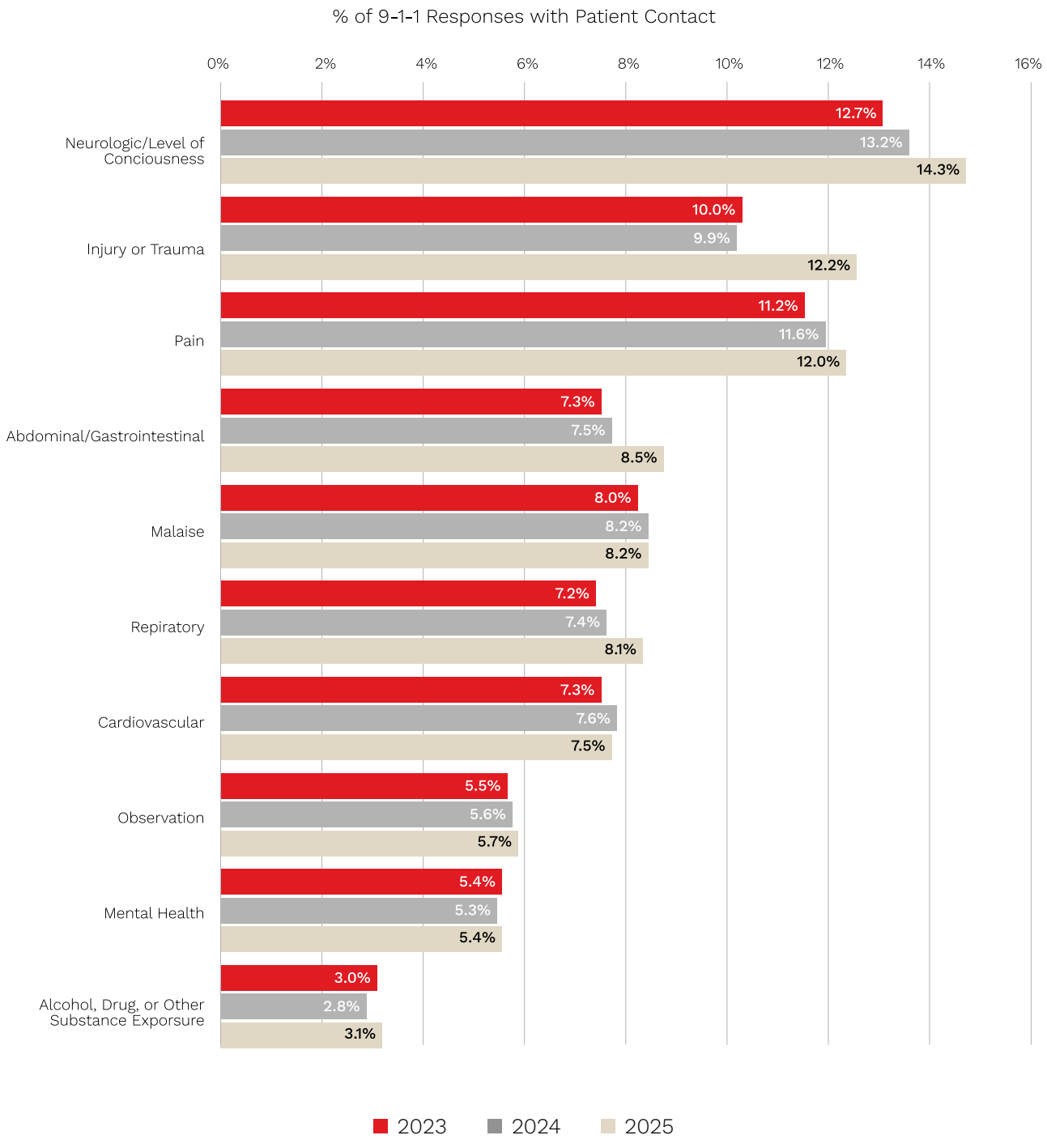
- Over half of all 9-1-1 responses were for patients with **lower initial acuity**
- A general description of **“sick person”** made up the largest portion of dispatch complaints in 2025, similar to the two years prior
- **Neurologic issues or loss of consciousness** was the most frequently reported provider primary impression
- There was a slight increase in the proportion of **injury or trauma** as primary impression between 2023 and 2025



2023-2025 Top 10 Dispatch Complaints



2023-2025 Top 10 Provider Impressions



Prehospital Blood Administration

Overview

Timely administration of blood products in patients experiencing hemorrhagic shock is a critical determinant of resuscitation and improved survival outcomes.[2,3] Although interest in prehospital blood administration programs (particularly in ground units) has been growing, they have historically been limited due to multiple logistic barriers.[4]

Understanding the national scope and trends in prehospital blood administration are essential for expanding and optimizing access.

How Blood Product Administration Was Defined

Patients who received prehospital blood administration were identified using relevant eProcedures03 (Procedure) and eMedications03 (Medication Administered) codes. 9-1-1 response reason was categorized using eInjury01 (Cause of Injury) codes for trauma patients and eSituation11 (Provider Primary Impression Codes) for patients who did not have injury documentation.

Overall Count By Year:

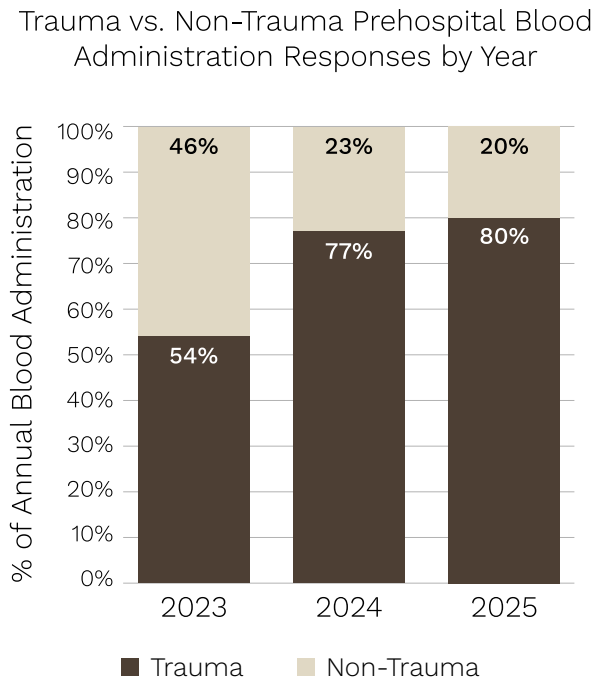
- 2023*: **2,046**
- 2024: **3,750**
- 2025: **3,790**

*Note: Only blood administrations documented after June 31, 2023 included due to errors in procedure classification among some agencies prior to that date.

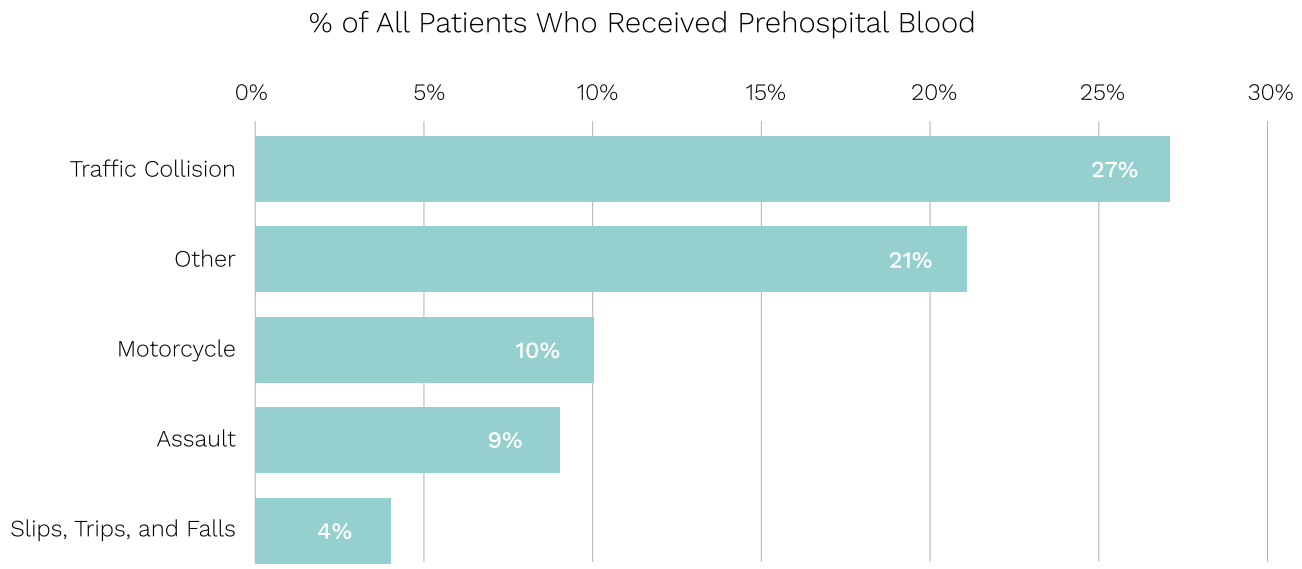
Type of Unit:

- While **87%** of prehospital blood administrations in 2025 were done by **air transport units, the proportion done by ground units** increased from **5% in 2023** to **10% in 2025**
  - **Ground: 4 per 100,000** responses
  - **Air: 5 per 100** responses
- **80%** of all responses that received blood were **trauma**
  - The proportion of responses with blood administration that were trauma-related increased over the past 3 years

Trauma vs. Non-Trauma Prehospital Blood Administration Responses by Year

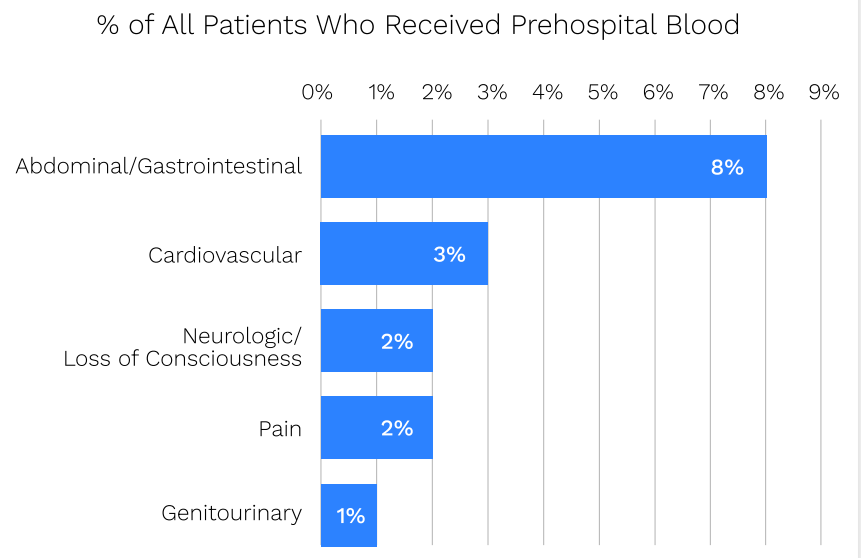


Top 5 Causes Of Injury In Trauma Responses



- 20% of responses that received blood were not trauma related

Top 5 Primary Impression Categories In Non-Trauma Responses



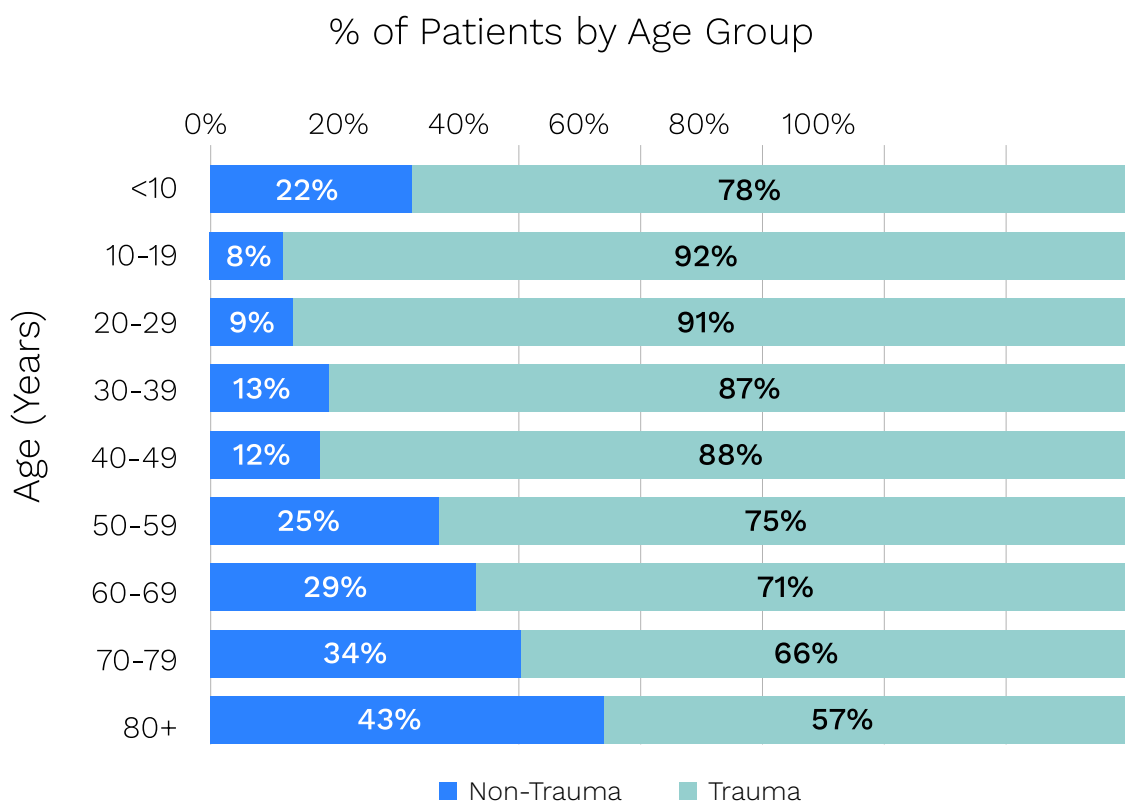
68% of those who received blood were male and 29% female

Male patients who received blood were more often trauma-related than female patients were (**84% vs. 71%**).

44% of patients who received blood were 20-49 years old

The proportion of trauma and non-trauma responses in patients who received blood varied substantially by age group.

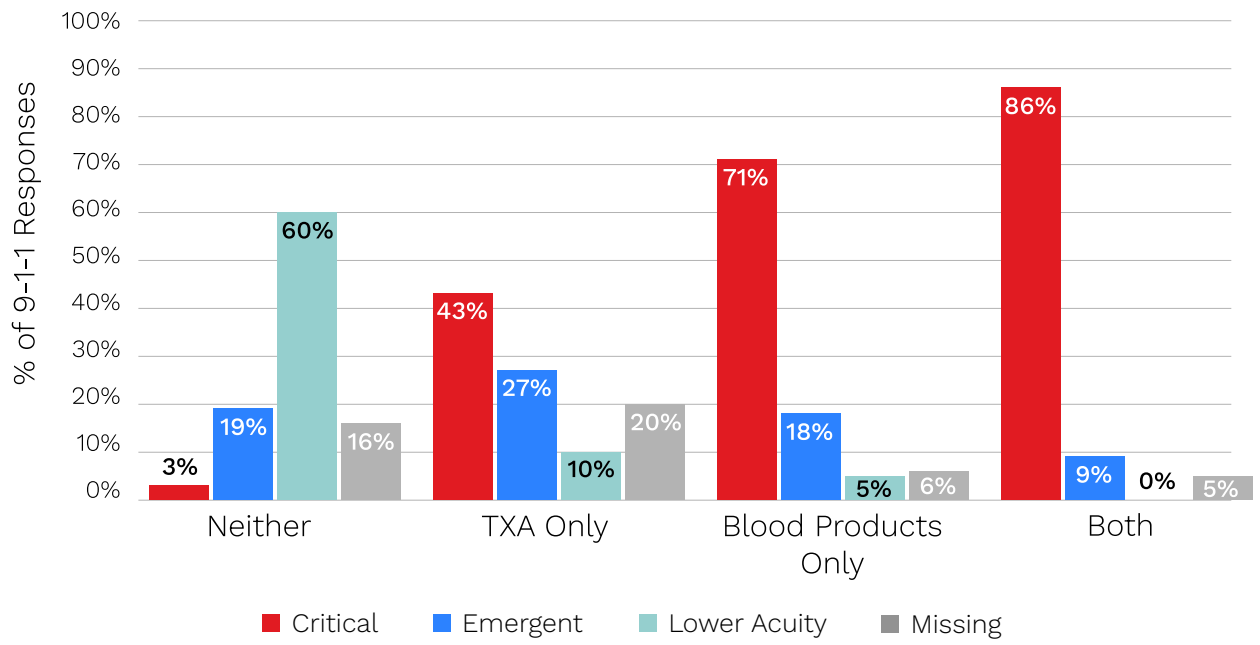
Proportion of Trauma and Non-Trauma Responses in Patients Receiving Blood by Age Group



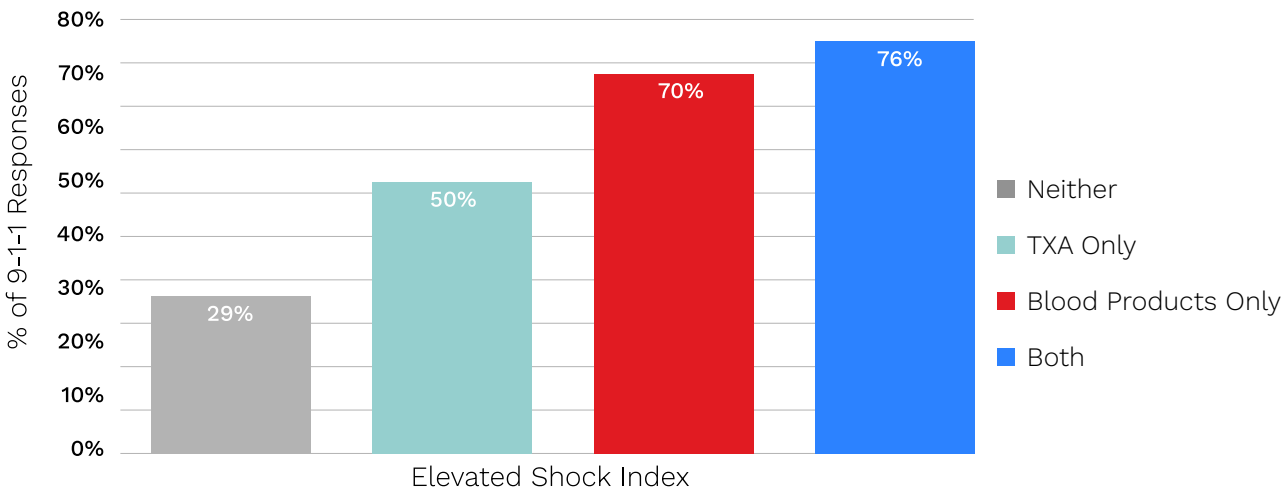
Blood Administration, Tranexamic Acid, and Clinical Condition

- Of patients that received blood products, 52% also received tranexamic acid (TXA)
- An additional 9,057 patients that did not receive prehospital blood were given TXA
- Patients who received blood products (with or without TXA) more frequently had critical initial acuity compared to those who received TXA only or neither
- Among patients that received blood products (with or without TXA), elevated shock index (>.9) was more common in trauma cases than non-trauma (75% vs. 61%)

Initial Acuity in 9-1-1 Responses by Prehospital Blood Administration and TXA Receipt

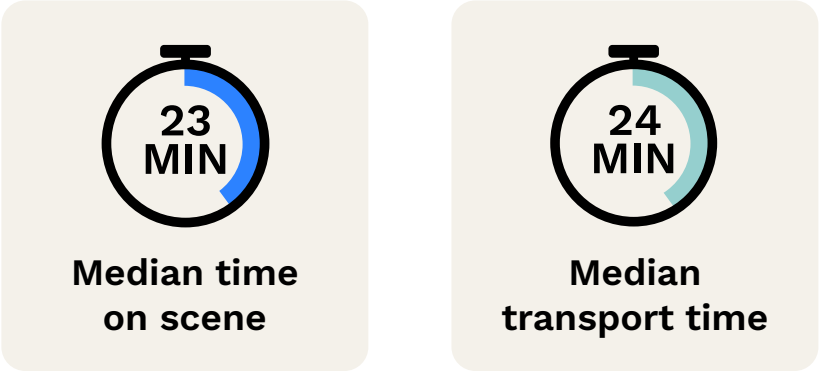


Percent of 9-1-1 Responses with Elevated Shock Index by Prehospital Blood Administration and TXA Receipt



Where are blood administrations taking place?

- **56%** of responses with blood administration took place in urban counties and **42%** in rural
  - However, **77%** of blood administrations by ground units took place in urban counties



  - Both median time on scene and transport time were 10-15 minutes longer than responses that did not involve blood administration, regardless of urbanicity

Key Takeaways

Prehospital blood administration remains predominantly performed by air transport units, although 1 in 10 patients who received prehospital blood in 2025 were treated by ground EMS units.

The majority of patients who received prehospital blood were trauma patients, with close to 2 in 5 resulting from traffic or motorcycle collisions.

Slightly less than half of responses involving prehospital blood administration took place in rural counties. However, blood administration by ground units occurred more frequently in urban counties.

Pain Management in Prehospital Trauma Care

Overview

Unintentional injuries—including falls, motor vehicle crashes, drowning, and poisoning—remain the leading cause of death among children, adolescents, and adults younger than 45 years in the United States.[6] Injuries also account for a substantial proportion of encounters managed by emergency medical services (EMS), making them among the most frequently documented provider impressions in the prehospital setting.[7]

Effective pain management is a critical component of injury care, as inadequately treated acute pain is associated with increased physiologic stress, heightened anxiety, and a greater risk of adverse clinical outcomes.[8] Despite the availability of evidence-based guidelines, multiple studies have demonstrated that pain is commonly underassessed and undertreated in prehospital care, highlighting a persistent gap between recommended and delivered analgesia.[7,9]

How Trauma-Related Incidents Were Defined

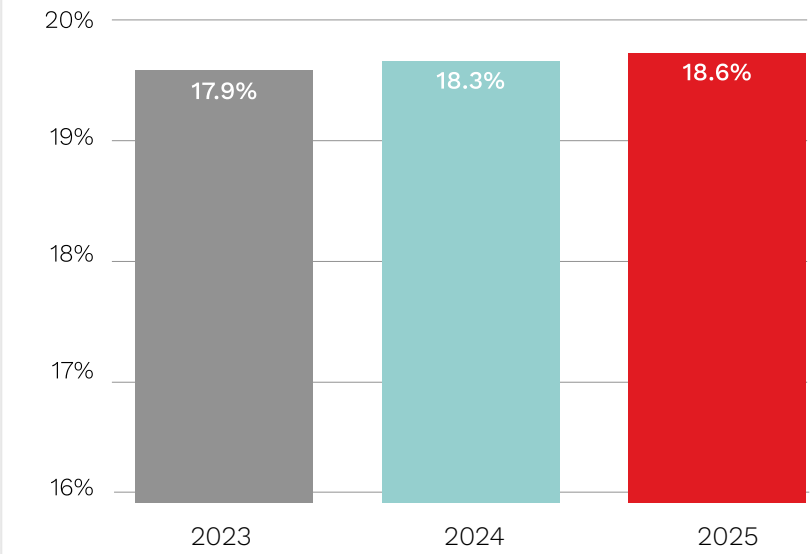
Trauma-related incidents were defined as 9-1-1 responses where a cause or mechanism of injury was documented. Pain scores were evaluated for transported patients with a normal Glasgow Coma Scale (GCS) score of 15. Pain medication administration was assessed for transported patients with at least one documented pain score.

What We Found

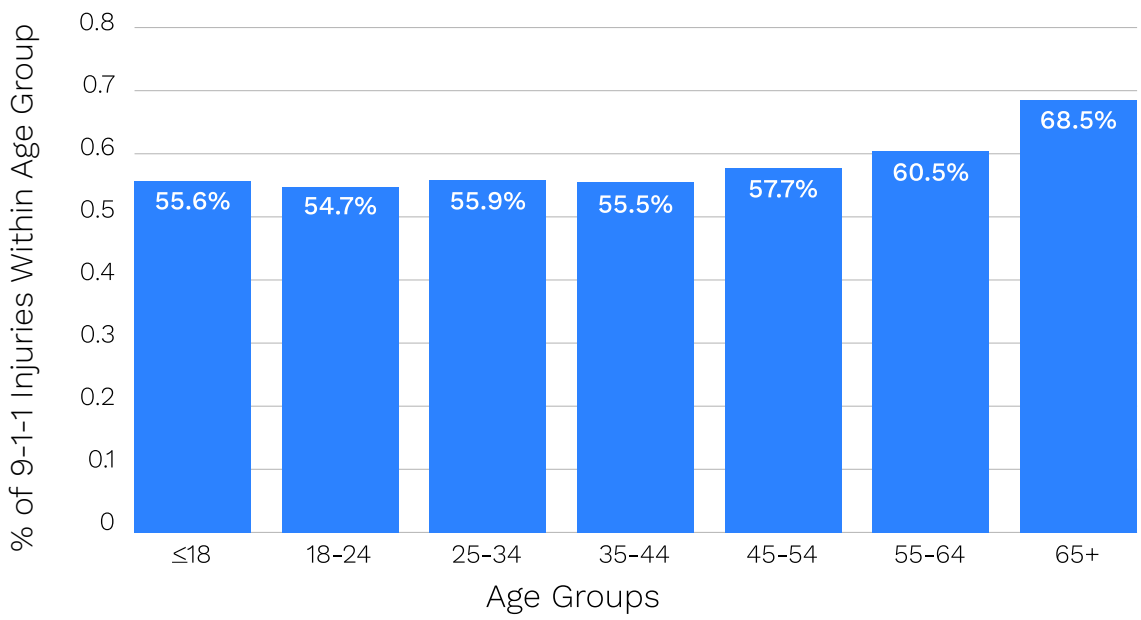
Injury Overview

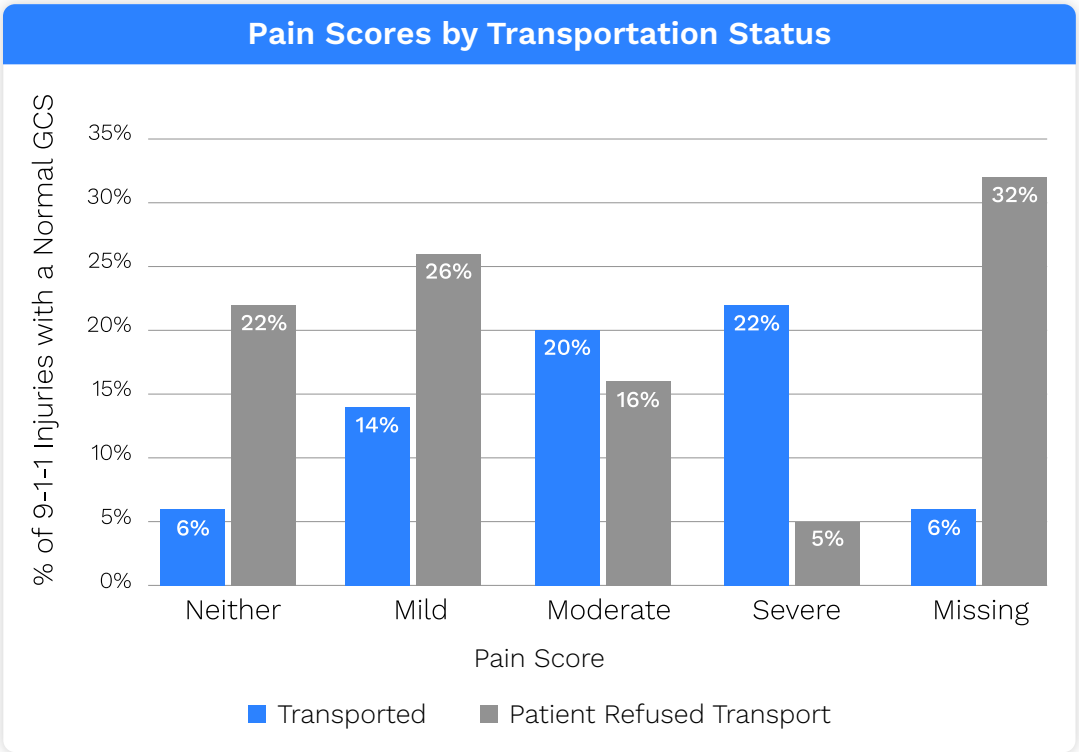
- **2,317,428 (18.6%)** of all 9-1-1 incidents were injury-related
- **68%** of injuries were treated and transported
- **72%** had a documented pain score
- **18%** of transported incidents with a pain score received pain medication

% of Injury-Related Incidents by Year 9-1-1 Responses (2023-2025)



Injury Transportation Rates by Age Groups (2025)





Pain Medication Administration

Administered pain medication by type

76%
Opioid

18%
Non-opioid

6%
Both opioid and non-opioid

Injury Context

Among transported injury patients:

- **56%** were slips, trips, and falls | **73%** amongst 65+ year olds
- **16%** were car, van, bus, or truck occupants | **19%** amongst pediatric patients (<18 years old)
- **6%** were assaults | **12%** amongst Black/African Americans

Equity Considerations in Pain Management

A few disparities emerged in documented pain medication rates:

- **12%** of Black/African American patients compared to **19%** White patients received pain medication
- Rates amongst female (**17%**) compared to males (**18%**) were similar
- **12%** of pediatric patients (<18 years), **17%** of older adults (+65 years) compared to **20%** for young adults (18-24 years)

These variations indicate a potential inequity in care delivery. While this report does not identify the underlying causes, this difference warrants further investigation into potential systemic bias, environmental factors, or operational constraints (e.g., intravenous access, time on scene or in transport, clinical judgment) that may influence pain management decisions.

Key Takeaways

- More than 1/3rd of verbally responsive patients involved in injury-related incidents did not have documented pain scores, highlighting gaps in consistent assessments and documentation.
- Almost 2/3rd of injuries attended by EMS result in a treat and transport disposition.
- Slips, trips, and falls account for a majority (56%) of injuries in EMS transported patients, but are even higher in adults aged 65 years and older (73%).
- Agencies should routinely review documentation practices, clinical protocols, and training programs to ensure alignment with current trauma evidence-based guidelines.

Behavioral Health in EMS Response

Overview

In 2025, an estimated 59–61 million U.S. adults (nearly one in four) experienced a mental health condition, and approximately one-quarter to one-half reported unmet mental health care needs, reflecting persistent gaps in treatment access.[10,11]

Behavioral health emergencies (BHEs) account for about 5% of all emergency department visits, based on national syndromic surveillance data,[12] and approximately 10% of EMS responses, representing a substantial and growing burden on prehospital care systems.[13]

How Behavioral Health Emergencies Were Defined

BHEs were defined as 9-1-1 responses involving patient encounters with at least one provider-reported impression, symptom, or complaint location consistent with a psychiatric or behavioral disorder. This analysis examined the use of naloxone, chemical sedatives (e.g., benzodiazepines, antipsychotics), and physical restraints by the responding EMS unit.

What We Found

Proportion of Incidents

- 2023: **9.8%**
- 2024: **11.6%**
- 2025: **11.7%**

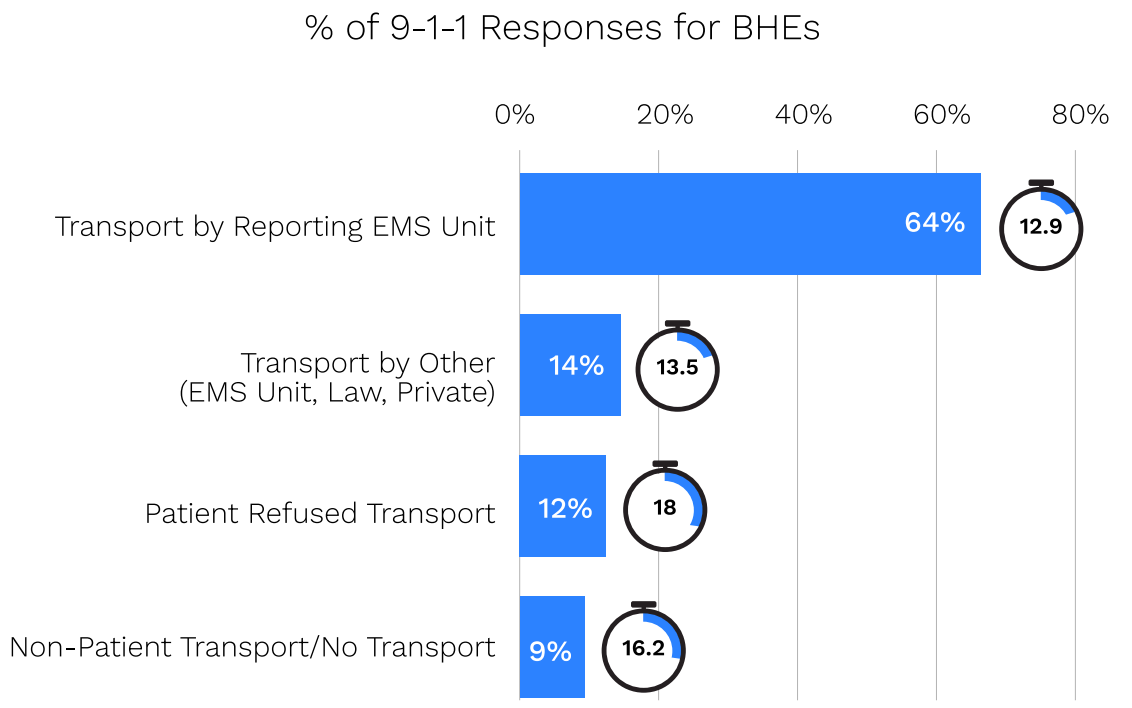
Location

- Private Residence: **51.9%** (ranged from **45%** in 30-39 to **66.7%** in 70-79)
- Street: **17.4%** (highest in 30-39 **22.8%,** lowest in 80+ **2.6%**)
- School: **9.8%** in <10 and **11.7%** in 10-19
- Healthcare: **14.8%** in 70-79, **22.6%** in 80-89

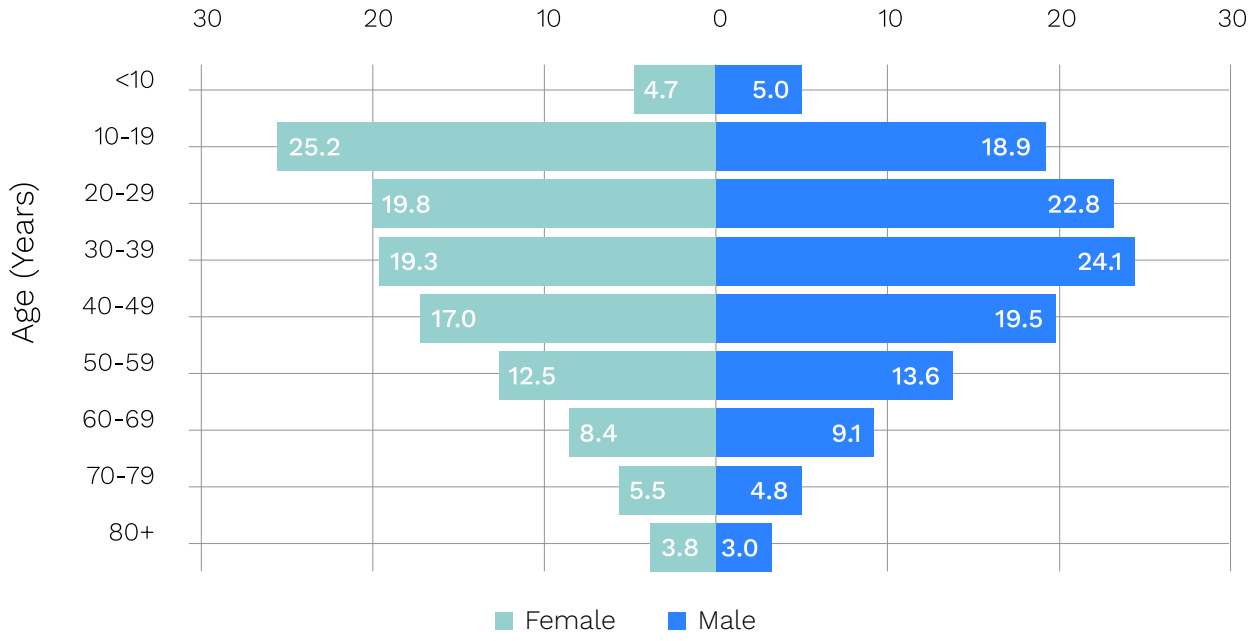
Urban/Rural

- **91.3%** in Urban; **7.6%** in Rural area

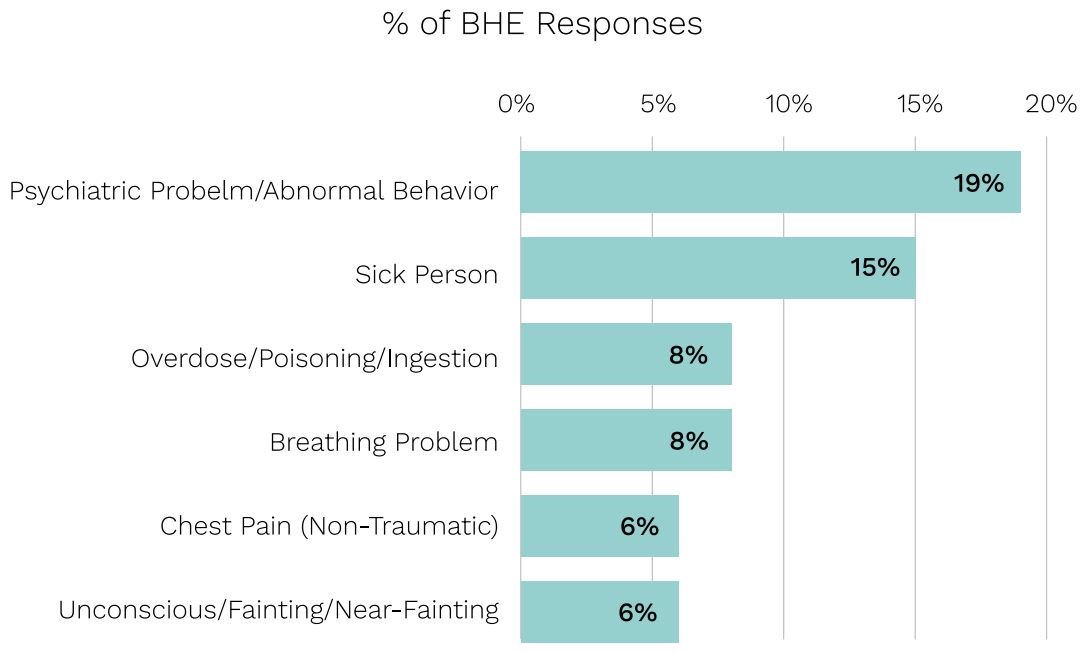
Transport Decision and Time on Scene (minutes) in BHEs

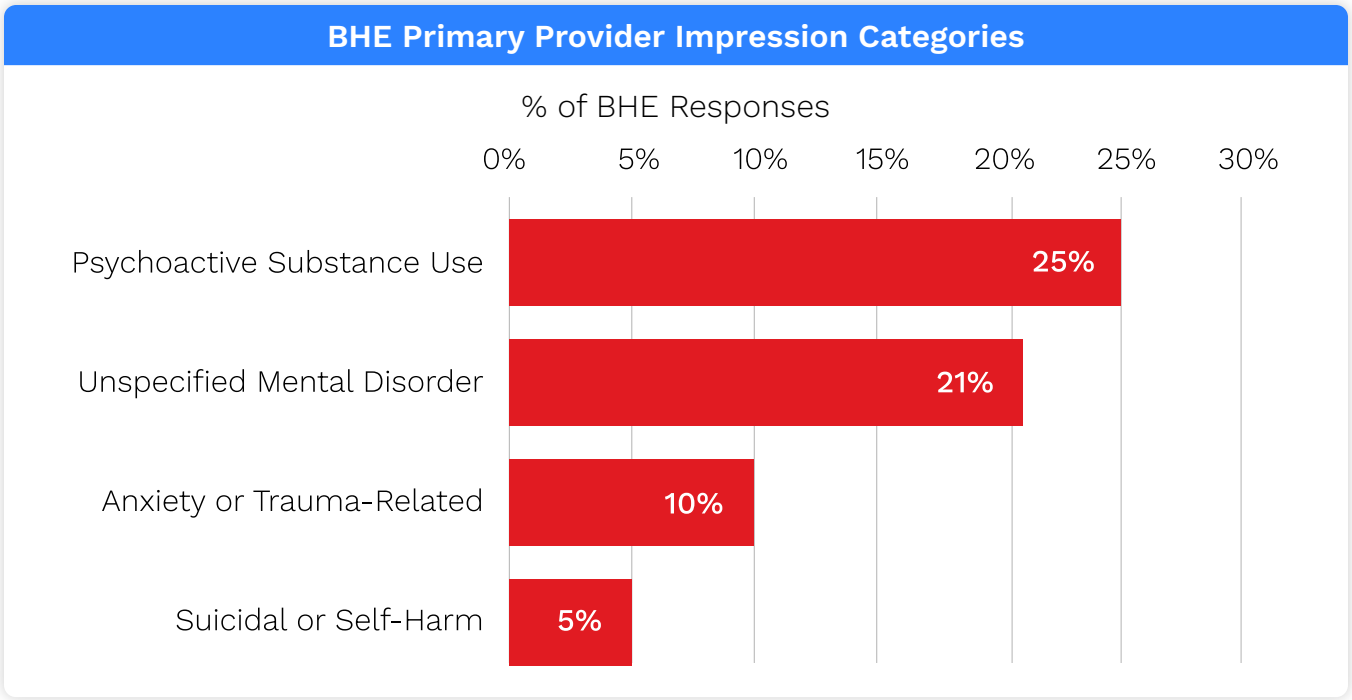


Rate of BHEs per 100 Patient Contact Encounters, by Age and Gender



Top Dispatch Complaints in BHE Responses





Interventions

2.3% used physical restraints

2.0% received a sedative

Key Takeaways

- BHEs continue to account for approximately **1 in 10** 9-1-1 responses.
- While responses that did not result in transport (AMA or non-transport) made up **20% of BHEs**, they had median response times 3-5 minutes longer than those that did.
- Rates were highest in girls between the ages of 10-19 years old and in men between the ages of 20-39. Agencies should consider identifying patients and demographics in their communities with high BHE response rates for targeted community interventions.
- Only **1 in 5** BHE responses were identified as such by dispatch, underscoring the critical role clinicians play in appropriate identification.

Insights Into Motor Vehicle Crashes

Overview

Motor vehicle collisions (MVCs) continue to remain both a public health concern and a large share of prehospital emergency activations. As such, collaboration between national, state, local, and industry partners remains critical to chronicling changes in what's happening on our roadways over time. This Insights report is all about time – what's happening and what we can expect the conversations to surround in 2027 and beyond.

This section puts together three years of data for post-pandemic trend evaluation, focusing on overall incidence, patient demographics, alcohol/drug involvement, vitals, and rurality.

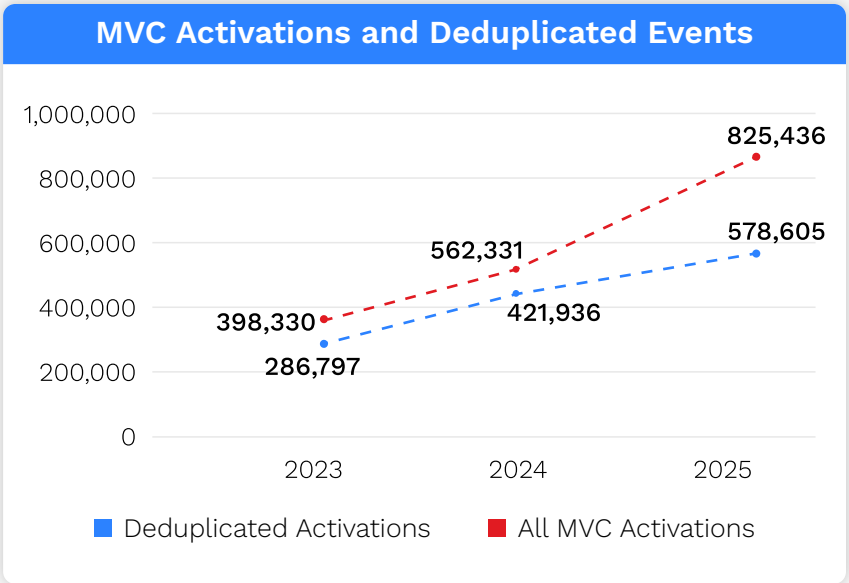
How MVC Incidents Were Defined

EMS incidents were included if they met the national Transportation Incident Visualization (TIV) project criteria, which aim to identify MVCs using standardized NEMSIS data elements. The data element clusters used in this process include eInjury, eDispatch, eScene, eSituation, eProtocols, eArrest, and eVitals. Additional details are available in the TIV Companion Guide.[14]

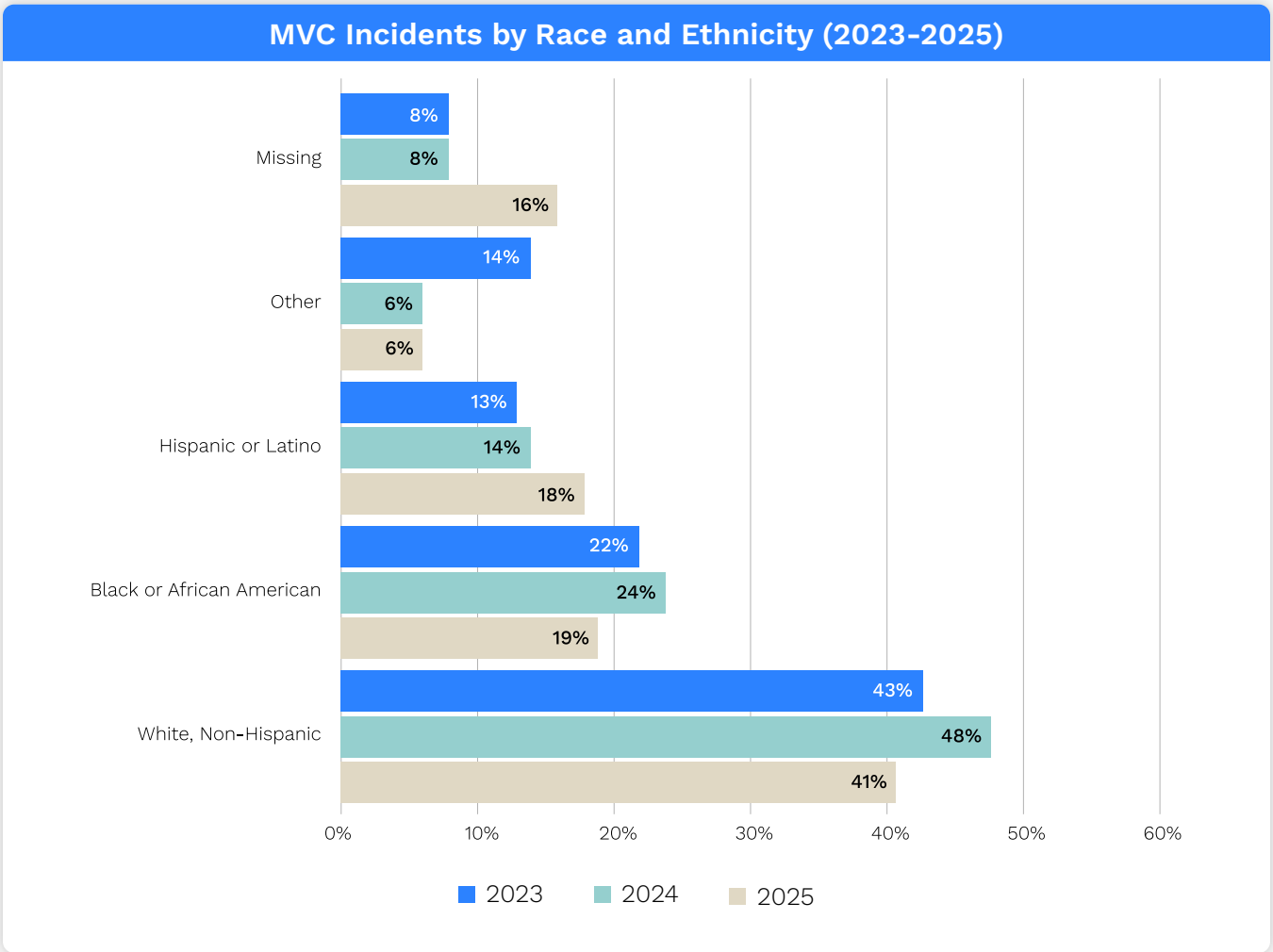
What We Found

Overall Activation Incidence

- **Over 825,000 EMS MVC activations** met inclusion criteria in 2025, showing a consistent increase by year as Collaborate grows.
- After deduplication (a process to reduce this data from activation to single incident based), **575,000 individual MVC events** were identified in 2025.

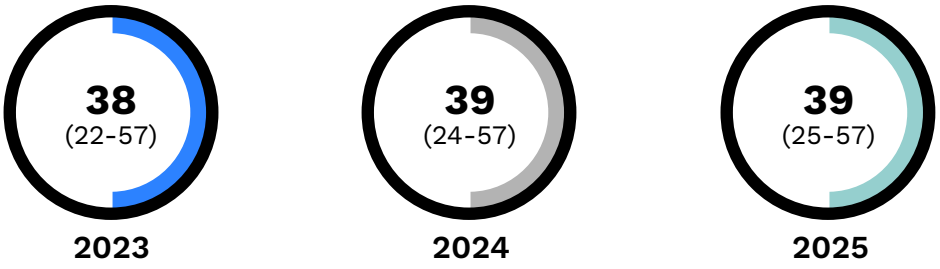


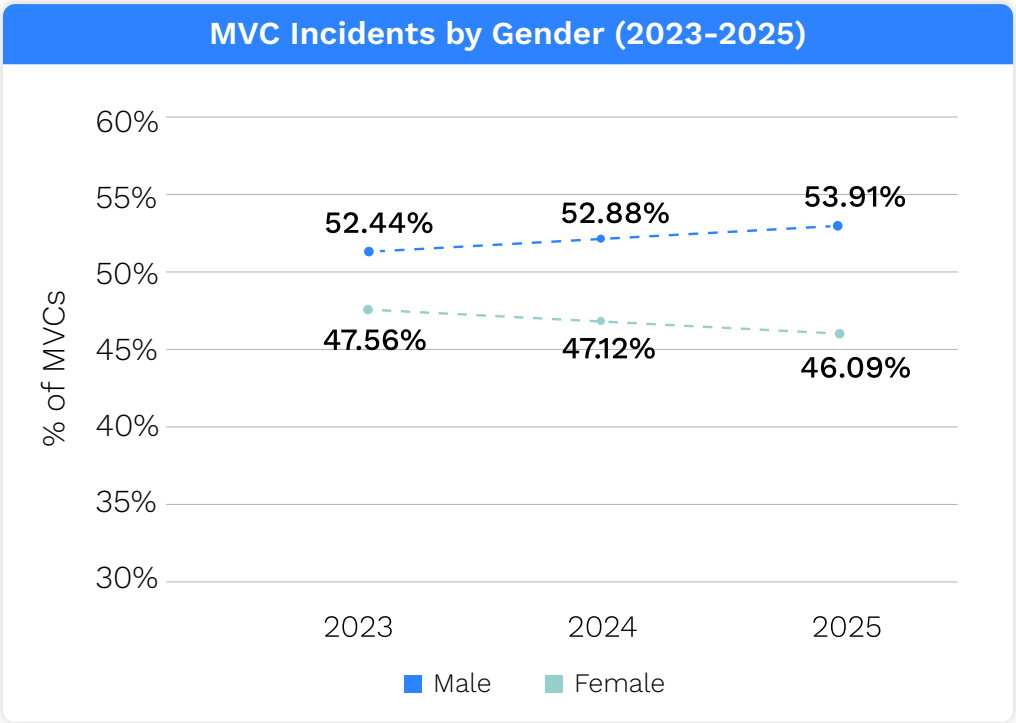
MVC Incidents by Demographics



Proportion of patient Race and Ethnicity has fluctuated, with missing increasing in 2025.

Age of patients did not vary over 3 years, Median (Interquartile Range)





- Crude proportion of MVC patients are trending towards more males than females

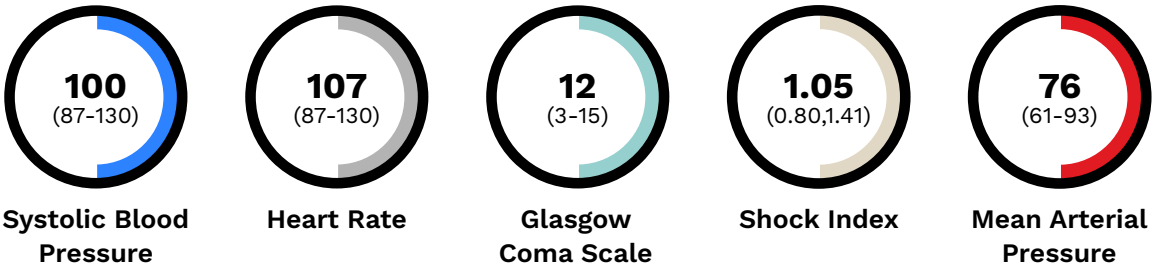
Drug and Alcohol

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
All MVC Incidents 2025	12%	14%	14%	13%	15%	18%	14%
MVC Incidents with Suspected Alcohol/Drug Involvement 2025	15%	12%	13%	11%	12%	16%	21%
MVC Incidents with Suspected Alcohol/Drug Involvement 2023-2024	17%	12%	11%	11%	12%	17%	20%

- Distribution of MVCs with suspected alcohol or drug involvement remained stable compared to 2023 and 2024

MVC and Blood

- 1,695 MVC patients received prehospital blood transfusion, up from 1,090 in 2024
- These patients had the following first vital signs (Median, Interquartile Range):



- Blood is given to proportionally more rural area activations than metro (0.67% vs. 0.08%)

Key Takeaways

MVC activation patient demographics, alcohol/drug involvement suspicion, and data duplication proportions have remained stable among 3 years of Collaborate data, indicating stable historical trends for future intervention planning.

Blood transfusion has continued to rise, though as an emerging intervention it will continue to require standardization in national reporting and documentation practices.

Vital signs of those receiving blood indicate their overall hemodynamic stability and the potential national patient profile of blood transfusion in MVCs.

EMS Workforce Dynamics

Overview

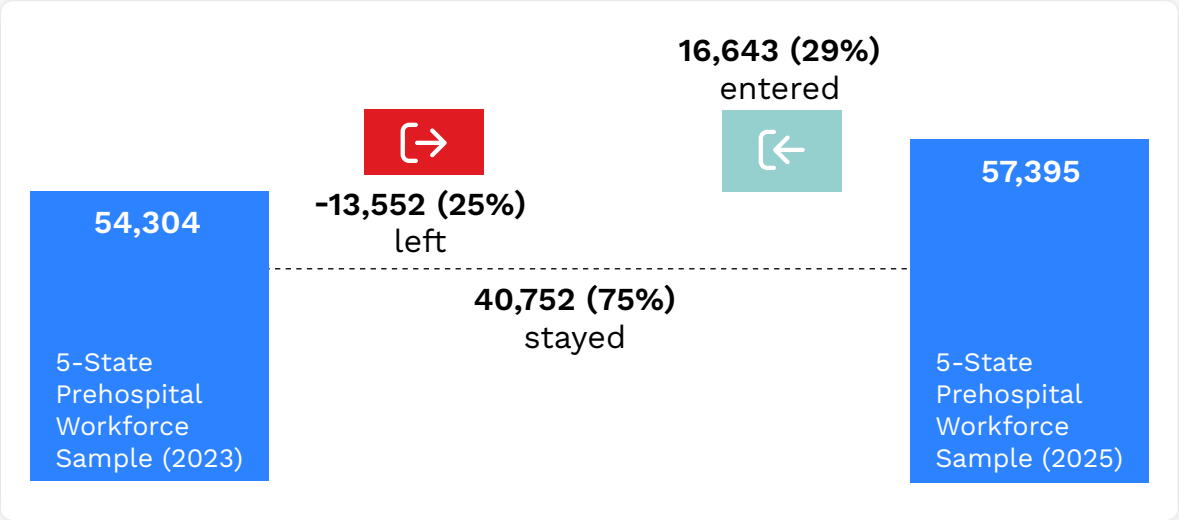
Continuous assessment of the EMS workforce is necessary to characterize those leaving, staying, and entering the profession.[15] This rigorous assessment enables us to fight for funding and identify gaps before they become threats to workforce stability. Expanding these data points to go beyond raw numbers (gender, education) is important to inform initial recruitment of competent entry-level clinicians, retention of experienced providers, and long-term agency workforce intervention planning. As we expand the data available to address workforce challenges, we're committed to grounding these findings in real-world evidence and your lived experiences – please reach out if you'd like to replicate this work in your own state or agency!

How Workforce Dynamics Were Defined

In this evaluation, we looked at the most recent data available, 2023-2025, among 5 blinded states who use ImageTrend License Management to coordinate their state's licensure records. We included those at the EMT, AEMT, paramedic, or state equivalent of those national certified levels. Those who left or stayed were calculated as proportions of the 2023 sample, while those who entered were identified from the 2025 sample. We further looked at, among those states who collected this information, gender and educational attainment.

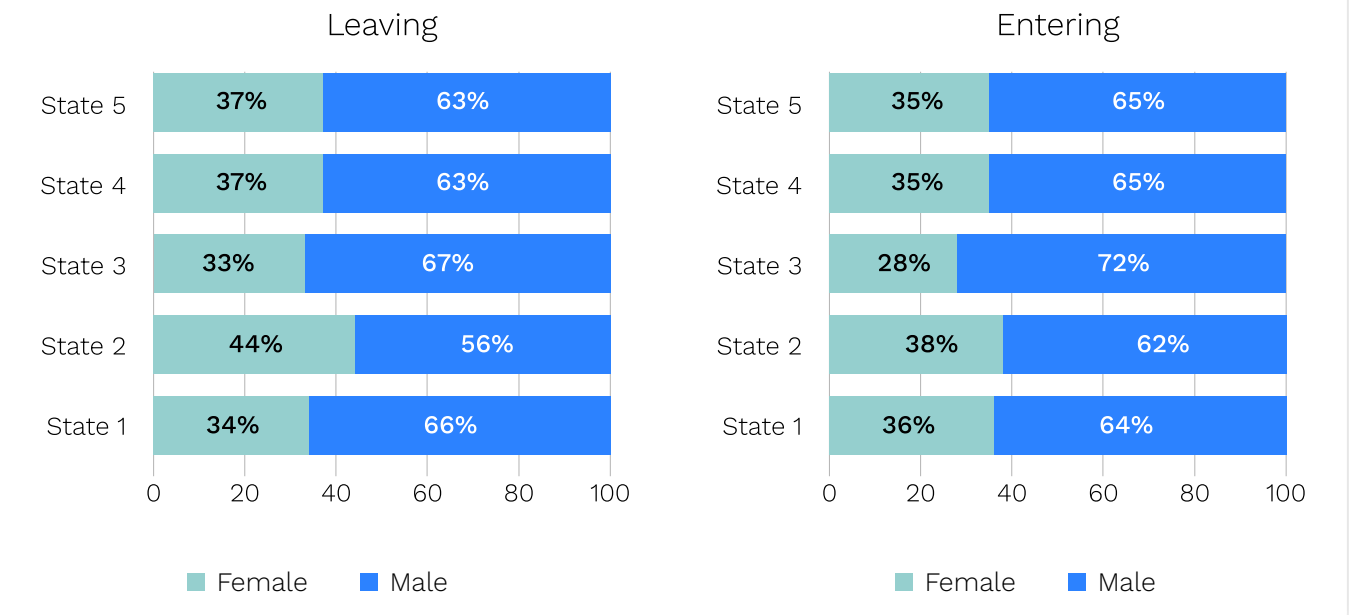
This evaluation was also presented at the NASEMSO 2026 Annual Meeting, and we are thankful for our state partners who made their blinded data available.

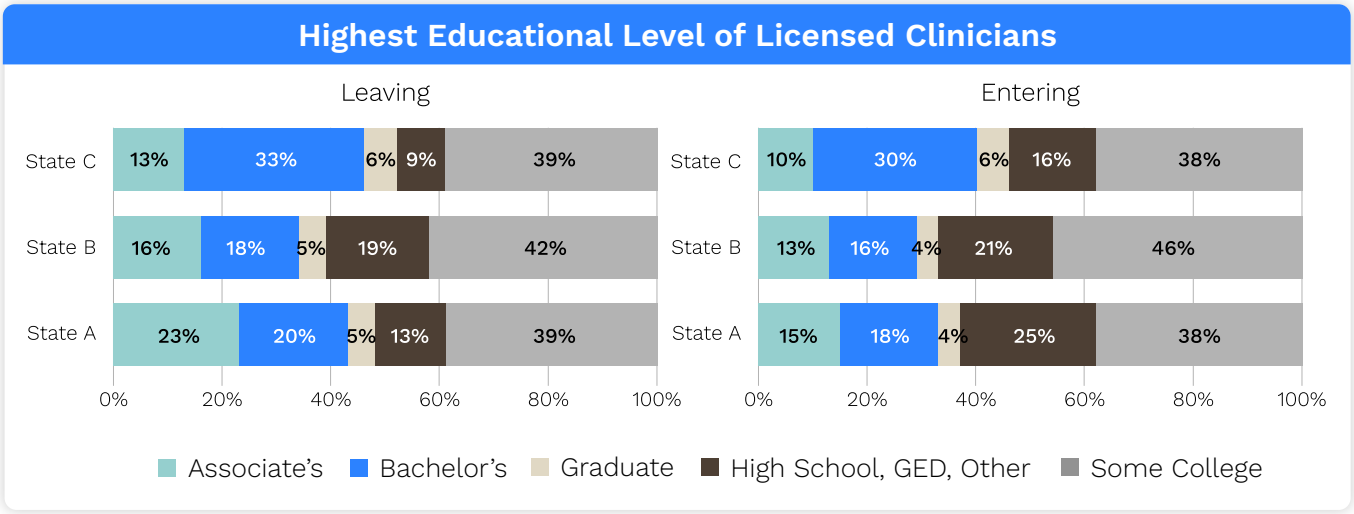
Combined (5 states) workforce dynamics from 2023 to 2025.



- More EMS Clinicians entered the field rather than left, suggesting at minimum net positive sample dynamics
- The importance of those entering to offset those leaving is emphasized, initial EMS educational programs are critical to positive dynamics
- Over ¼ of the EMS workforce left after a 2-year time period

Gender of Licensed Clinicians





State-Specific Differences

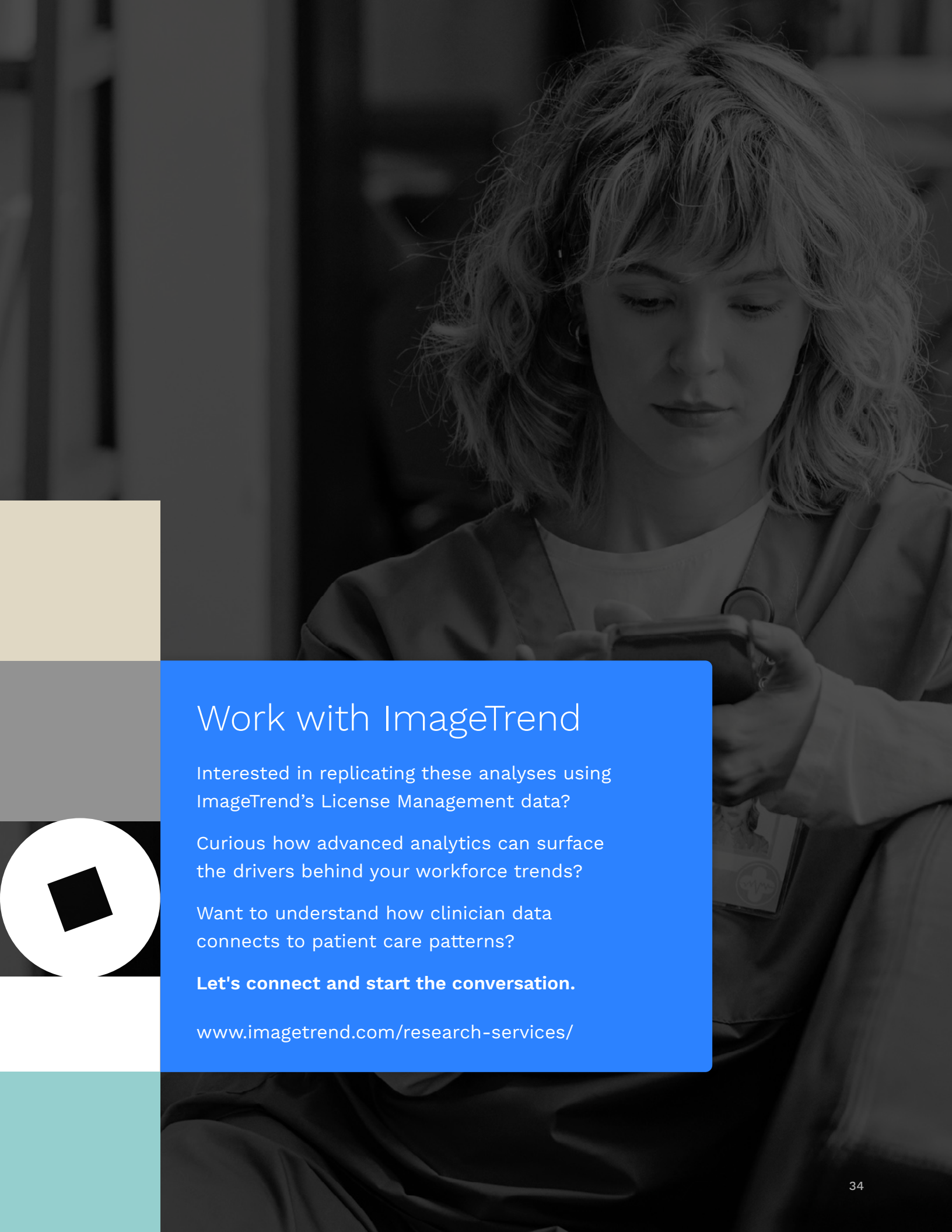
- 4 of 5 states had more clinicians entering than leaving, only 1 had a net loss of clinicians
- 4 of 5 states had a higher proportion of female clinicians leaving the 2023 workforce than entering the 2025 workforce
- All states reporting education showed a higher proportion of those with associates and bachelor's degrees leaving compared to entering

Key Takeaways

While overall samples of the EMS workforce shows net positive workforce dynamics, it is important to get a detailed view of state and local metrics that may hide hints of instability.

Ranges of female clinicians leaving the workforce are higher than those entering, shedding light on recent focuses on recruitment, retention, and equity.

As the debate on EMS education requirements continue, data shows more clinicians with higher education leaving the field than entering.



Work with ImageTrend

Interested in replicating these analyses using ImageTrend's License Management data?

Curious how advanced analytics can surface the drivers behind your workforce trends?

Want to understand how clinician data connects to patient care patterns?

Let's connect and start the conversation.

www.imagetrend.com/research-services/

About ImageTrend and the Collaborate Dataset

About ImageTrend

ImageTrend transforms incident data into actionable intelligence, empowering frontline teams to manage rising demands, navigate resource constraints, and drive meaningful change in their communities.

Founded in 1998, ImageTrend serves 3,100+ direct customers and 21,000+ agencies across Fire, EMS, and Hospital markets. With deep industry expertise and advanced data analytics, ImageTrend helps organizations streamline operations, inform long-term strategies, and improve outcomes. Its comprehensive software solutions and dedicated team provide the confidence and insight first responders need to meet today's challenges and prepare for tomorrow's uncertainties.

About ImageTrend's Clinical & Research Services

The Clinical & Research Services team partners with EMS, fire departments, hospitals, and public health agencies to identify trends, benchmark performance, and uncover meaningful insights. Their work spans national research initiatives, local analyses, and collaborative studies with agencies and academic partners.

Key areas of focus include:

- Custom research projects and peer-reviewed publications
- Collaborative studies with agencies and academic institutions
- Data-driven insights that inform funding, policy, and performance

Why Data Representativeness Matters

Decisions built on incomplete or biased data can lead to inaccurate conclusions sometimes with real consequences for public health and safety. Representative data ensures findings reflect the full population, not just a narrow subset. You can be confident that the trends we describe match national data in most instances, and more importantly know that we'll tell you when they may not.

Why ImageTrend Collaborate Data Stands Out

ImageTrend Collaborate offers one of the most nationally representative EMS datasets available today, allowing agencies and researchers to trust the validity of their conclusions and make informed decisions. Because Collaborate captures a broad and diverse set of EMS activations, with linkage to other ImageTrend solutions like License Management, Scheduling, and Community Health, we can do more with the data you have.

Assumptions and Limitations

The 2025 Collaborate dataset represents a cross-sectional snapshot in time. Findings may not generalize to prior or future years. Documentation practices vary by agency, state, and individual clinician, which can result in differences in how similar encounters are recorded. Missing data also presents challenges, as the direction and magnitude of its impact may be difficult to determine. For this year, several EMS agencies were added to the dataset and will not be reflected in the 2023 or 2024 findings. This could potentially impact overall results and trending data.

Collaborate participation is opt-in and may introduce selection bias. However, recent peer-reviewed evidence shows strong national representativeness across most activation, patient, and intervention characteristics when compared to the broader NEMSIS dataset.[1] These considerations are consistent with limitations common to retrospective EMS activation-based analyses.

Correspondence

Clinical & Research Services
ImageTrend
1305 Corporate Center Drive, Suite 500
Eagan, MN 55121
ClinicalResearch@ImageTrend.com

Citations

1. Alexander J. Ulintz, Christopher B. Gage, Jonathan R. Powell, Jacob C. Kamholz, Rebecca E. Cash, Henry E. Wang & Ashish R. Panchal (22 Jul 2025): Evaluating ImageTrend Collaborate as a National EMS Dataset: A Cross-Sectional Comparison with the National EMS Information System, Prehospital Emergency Care, DOI: 10.1080/10903127.2025.2526160

2. Levy MJ, Schaefer RM, Obyrne H, Krohmer JR, Bank EA, Holcomb JB. Prehospital blood transfusion coalition clinical practice guideline for civilian emergency medical services. Trauma Surgery & Acute Care Open. 2025;10:e001931. https://doi.org/10.1136/ tsaco-2025-001931

3. Shackelford, S. A., Del Junco, D. J., Powell-Dunford, N., Mazuchowski, E. L., Howard, J. T., Kotwal, R. S., Gurney, J., Butler, F. K., Jr, Gross, K., & Stockinger, Z. T. (2017). Association of Prehospital Blood Product Transfusion During Medical Evacuation of Combat Casualties in Afghanistan With Acute and 30-Day Survival. JAMA, 318(16), 1581–1591. https://doi.org/10.1001/jama.2017.15097

4. National Highway Traffic Safety Administration's Office of EMS. The Untapped Lifesaving Potential of Prehospital Blood Transfusion. EMS Update Newsletters. December 2024. https://tinyurl.com/2pw8bwcs

5. Berry, C., Gallagher, J. M., Goodloe, J. M., Dorlac, W. C., Dodd, J., & Fischer, P. E. (2023).Prehospital Hemorrhage Control and Treatment by Clinicians: A Joint Position Statement. Prehospital emergency care, 27(5), 544–551. https://doi.org/10.1080/10903127.2023.2195487

6. Office of Disease Prevention and Health Promotion. Injury prevention. Healthy People 2030. Accessed March 12, 2026. https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/injury-prevention

7. Alalawi AHA, Alerwi EAA, Albeladi MS, et al. The effectiveness of prehospital pain management protocols delivered by EMS providers: a systematic review. Am J Sci Prog. 2024;34:1-15.

8. Chou R, Wagner J, Ahmed AY, et al. Treatments for Acute Pain: A Systematic Review. Agency for Healthcare Research and Quality; 2020. AHRQ Publication No. 20(21)-EHC006.

9. Lindbeck G, Shah MI, Braithwaite S, et al. Evidence-based guidelines for prehospital pain management: recommendations. Prehosp Emerg Care. 2022;26(2):153-168. doi:10.1080/10903127.2021.2018073

10. Mental Health America. The State of Mental Health in America 2025. October 2025.

11. Substance Abuse and Mental Health Services Administration; National Institute of Mental Health. Mental Illness Statistics. Updated 2024–2025.

12. Centers for Disease Control and Prevention. Mental Health–Related Emergency Department Visits — National Syndromic Surveillance Program. Updated January–February 2026.

13. Burns A, Kampman H, Menachemi N. County characteristics associated with behavioral health emergency medical services calls. Health Affairs Scholar. 2025;3(4):qxaf054. doi:10.1093/haschl/qxaf054

14. TIV Initiative, 2025. Available at: https://www.imagetrend.com/tiv-initiative/

15. Kurth JD, Powell JR, Gage CB, et al. Evaluating changes in the emergency medical services workforce: A preliminary multistate study. JACEP Open. 2023; 4:e12975. https://doi.org/10.1002/emp2.12975


ImageTrend