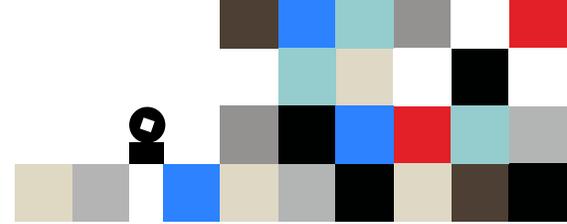


ImageTrend Short Report



February 2026 Short Report: 911 Responses for Out of Hospital Cardiac Arrest

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Scope and Demographics:

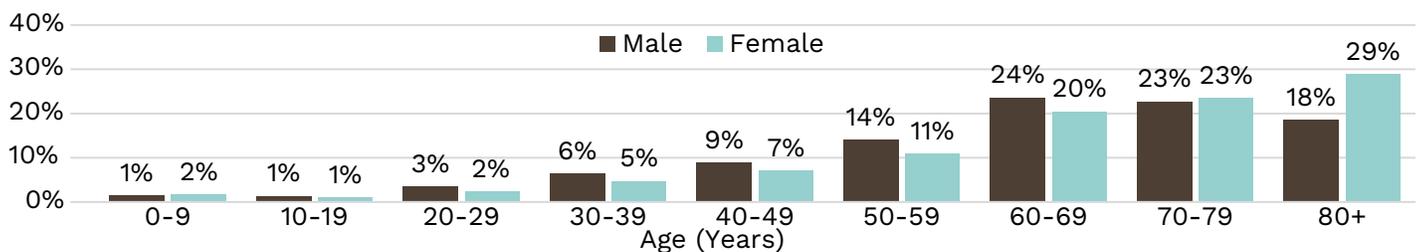
Out of hospital cardiac arrests (OHCA) are one of the most critical events EMS clinicians will encounter, with <1 in 10 of the 350,000+ annual patients ultimately surviving to hospital discharge.¹ Favorable outcomes for OHCA are strongly influenced by bystanders' prompt initiation of CPR prior to EMS arrival, improving survival rates by 2- to 3-fold.² While cardiac arrest precipitates EMS response for the majority of OHCA patients, a subset (~12%) is witnessed by EMS secondary to other medical conditions or trauma.³



In 2025, **1.4%** (n=257,587) of all 911-responses in the biospatial platform involved OHCA

- **61%** of OHCA cases were male and **37%** were female
- **Male** patients more frequently experienced OHCA at a **younger** age

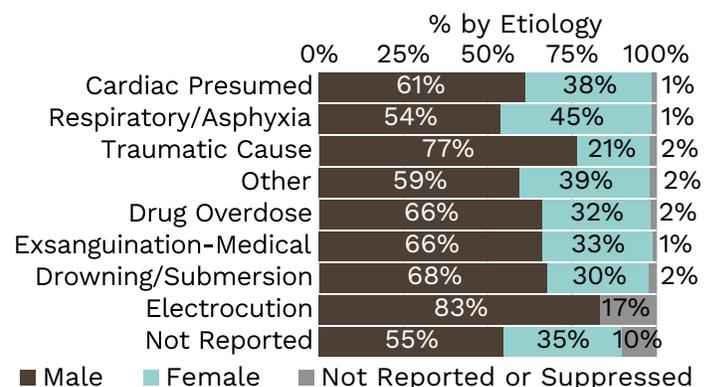
Distribution of OHCA Patient Age by Gender



Clinical and Response Characteristics:

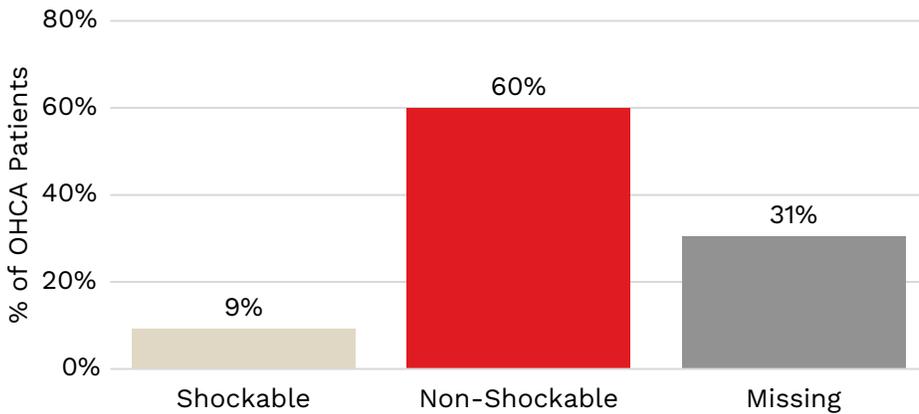
- **61%** of OHCA patients had presumed cardiac etiology, followed by **7%** with respiratory/asphyxia
 - **18%** were missing a reported etiology
- **2 of 3** patients with presumed cardiac etiology were >65 years old compared to only **1 of 5** with traumatic cause

Gender Differences in OHCA Etiology



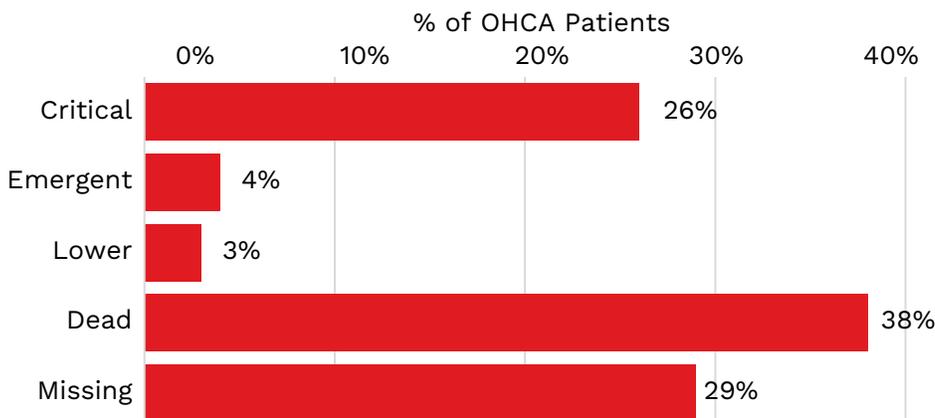
- Approximately **1 in 5** patients received bystander CPR before the first responding EMS unit arrived

First Cardiac Rhythm Monitored



- 24%** of patients received mechanical chest compressions (plunger, band, or thumper)
- 41%** of patients received epinephrine
- 20%** of patients achieved ROSC prior to hospital arrival

Final Patient Acuity



- Among alive patients at the time of final acuity documentation, **88%** were transported to a hospital by EMS

About the data:

This report used data from the ImageTrend biospatial platform for emergency EMS responses that were the first unit on scene for patients meeting the criteria for the cardiac arrest syndrome definition between January 1, 2025 and December 31, 2025. For more information on ImageTrend's biospatial platform visit <https://www.biospatial.io/>

Citations:

- Benjamin, E. J., et al. American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee (2019). Heart Disease and Stroke Statistics-2019 Update: A Report From the American Heart Association. *Circulation*, 139(10), e56–e528. <https://doi.org/10.1161/CIR.0000000000000659>
- Cheng A, Magid D, Auerbach M, et al. Part 6: Resuscitation Education Science: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*. 2020;142(suppl 2): S551-S579.
- Cardiac Arrest Registry to Enhance Survival (CARES). 2024 Annual Report- 20 Year Anniversary. https://mycares.net/sitepages/uploads/2025/2024_flipbook/index.html?page=34

Call to Action



Prompt bystander intervention can mean life or death in OHCA—support CPR and AED training within your community



Many underlying causes of cardiac arrests result from lifestyle risk factors, like high blood pressure, smoking, or weight—encourage awareness and support healthy habits in employees



Gender differences in OHCA are present by age and underlying etiology—prepare your clinicians to recognize and respond under a variety of conditions



Evidenced-based best practices for OHCA continue to evolve—keep your agency up to date on guidelines (see [2025 American Heart Association Guidelines for CPR and ECC](#))

Work With Us:

ImageTrend's Clinical & Research Services team partners with EMS and healthcare organizations to uncover actionable insights and drive data-informed public health initiatives.

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[> Learn more about participating in or conducting research with the ImageTrend Collaborate Dataset here:](#)

