2024

Georgia Emergency Cardiac Care Annual Report

Time Critical Diagnosis – STEMI and OHCA

GEORGIA DEPARTMENT OF PUBLIC HEALTH

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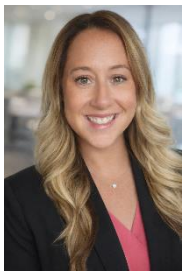
OFFICE OF CARDIAC CARE STAFF

"Alone we can do so little; Together we can do so much!"

Michael Johnson
Director, Office of EMS and Trauma



April Moss
Deputy Director, Systems of Care

Tiffany Harris
Cardiac Epidemiologist, Office of Cardiac Care

Maureen Frazier
GCaR Administrator, Office of Cardiac Care

Juana Smith
Business Administrator, Systems of Care

PUBLIC HEALTH INTEREST

BACKGROUND

Cardiovascular disease is responsible for over 800,000 deaths each year in the U.S., or about one in three deaths, according to the American Heart Association. Each day, 2,300 Americans die from cardiovascular disease. To improve these outcomes and reduce the death burden from cardiovascular disease and out-of-hospital cardiac arrest (OHCA) in Georgia, legislation was signed into law in 2017 establishing the Office of Cardiac Care within the Georgia Department of Public Health.

MISSION

The Mission of the Office of Cardiac Care is to improve survival rates in Georgia for out-of-hospital cardiac arrests (OHCA) and heart attacks (STEMI) through quality improvement, benchmarking and evidence-based guidelines. This effort is supported by a standardized data collection and reporting system. The foundation for evaluating Georgia's Emergency Cardiac Care System is the establishment and maintenance of the Georgia Cardiac Registry (GCaR).

The Emergency Cardiac Care System is a voluntary system comprised of several separate components, which are organized and work together, as a system. The individual components and elements are described below:

- **EMS Regions** –Facilitates system organization, coordination, and education requirements for both practitioners and the public. Each EMS Region (1-10) has a regional Emergency Cardiac Care Coordinator (ECCC) responsible for scheduling and facilitating quarterly regional meetings.
- **Pre-Hospital** – EMS units are an integral part of the Emergency Cardiac Care System. All EMTs and Paramedics must have a basic understanding of the System Plan, including alert criteria for identifying STEMI and communication protocols
- **Hospital** – Hospitals may participate in the Emergency Cardiac Care System on a voluntary basis, but must meet the criteria prescribed by the Office of Cardiac Care, Department of Public Health.
- **Regulatory Authority & Oversight** – The Georgia Department of Public Health, Division of Health Protection, Office of Cardiac Care provides regulatory oversight and program management.

BENEFITS OF DESIGNATION

EMS WILL:

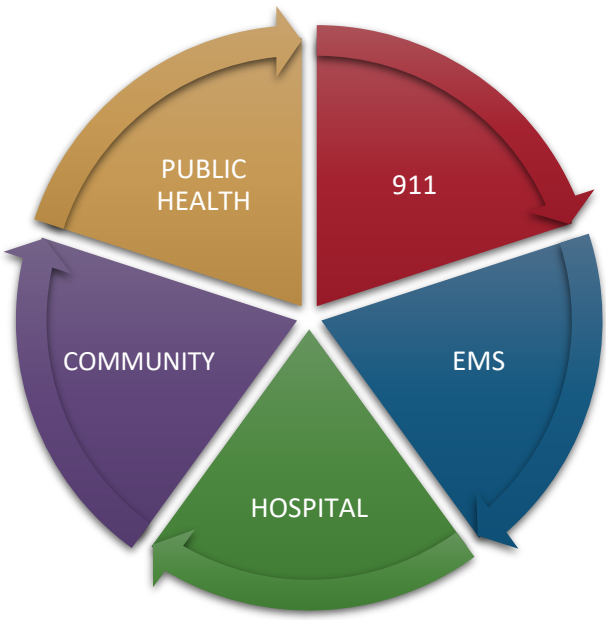
- Know what cardiac resources hospitals have, and they will be able to get patients to the right treatment in time.

HOSPITALS WILL:

- Strengthen Georgia's Emergency Medical Services system.
- Ensure cardiac patients get the proper treatment needed.
- Save lives, reduce disability, and improve quality of life.

THE COMMUNITY WILL:

- Have a designated Emergency Cardiac Care Center nearby.
- Have peace of mind knowing that if they go to the hospital, they'll receive the correct treatment. In some cases, that will involve transferring patients to higher-level care. In other cases, EMS will take patients directly to another hospital.



DESIGNATION REQUIREMENTS

EMERGENCY CARDIAC CARE CENTERS:

- Demonstrate commitment to a high standard of care.
- Submit heart attack (STEMI) and out-of-hospital cardiac arrest data to the Georgia Cardiac Registry (GCaR) data reporting system to help measure performance and improve outcomes.
- Collaboratively coordinate care among 911 dispatch, EMS, interfacility transport, and the destination hospitals.

As specified in O.C.G.A. § 31-11-132

Requirement	Level I	Level II	Level III
Cardio-Thoracic Surgery (CTS) on-site and available 24/7/365	✓		
Percutaneous Left Ventricular Assist Device (pLVAD) and Automatic Implantable Cardioverter-Defibrillator (AICD)	✓		
Percutaneous Coronary Intervention/angioplasty available 24/7/365	✓	✓	
Neurologic protocols to measure functional status at discharge	✓	✓	
Protocols for Targeted Temperature Management (TTM) for Out-of-Hospital Cardiac Arrest (OHCA)	✓	✓	✓
Written transfer plans with one or more higher level facilities		✓	✓

SYSTEMS OF CARE

PURPOSE

Each system of care has five key components: an organizational structure, protocols for the transport and transfer of patients, an advisory group process, a performance/quality improvement process, and a data collection system. These components work together to accomplish the ultimate goal of the systems – to deliver the right patient to the right hospital the first time.

STEMI patients should be recognized as quickly as possible to identify those eligible for thrombolytic or primary PCI therapy. Research has shown that both morbidity and mortality can be reduced by the approach of rapid interventional reperfusion within **ninety (90) minutes** of first medical contact.

Additional research has demonstrated that in-the-field recognition by pre-hospital providers utilizing 12-lead ECG, coupled with ***pre-hospital notification*** to the receiving facilities, can further reduce time to reperfusion, resulting in improved outcomes.

Performance Improvement is a vital part of the Emergency Cardiac System of Care. It is used to document continuing proper function of the system and evaluation of that function to implement improvements in system operation and Emergency Cardiac patient management.

Emergency Cardiac Care Centers submit data on STEMI and OHCA patients into the **Georgia Cardiac Registry (GCaR)** for use in performance improvement processes.

**Percutaneous Coronary Intervention (PCI) - Procedure used to open or widen narrowed or blocked blood vessels to restore blood flow supplying the heart. A small balloon on a catheter is delivered through the system of blood vessels into the area of blockage in the heart and then inflated to open the blocked artery. Devices such as a stent may be subsequently deployed at the blockage site to help keep the area from closing up again.*

**Reperfusion - The process of restoring normal blood flow to an organ or tissue that has had its blood supply cut off, such as after a myocardial infarction.*

DESIGNATED EMERGENCY CARDIAC CARE CENTERS

Level I Centers

- AdventHealth Redmond
- Atrium Health Navicent-Macon
- Emory Saint Joseph's Hospital
- Emory University Hospital
- Emory University Hospital Midtown
- Grady Memorial Hospital
- Memorial Health University Medical Center
- Northeast Georgia Medical Center-Gainesville
- Northside Hospital Gwinnett
- Phoebe Putney Memorial
- Piedmont Athens Regional
- Piedmont Augusta
- Piedmont Macon
- South Georgia Medical Center (SGMC) Health
- St. Francis-Emory Healthcare
- St. Joseph's Hospital
- Tanner Medical Center - Carrollton
- Wellstar Kennestone Regional Medical Center
- Wellstar MCG Health

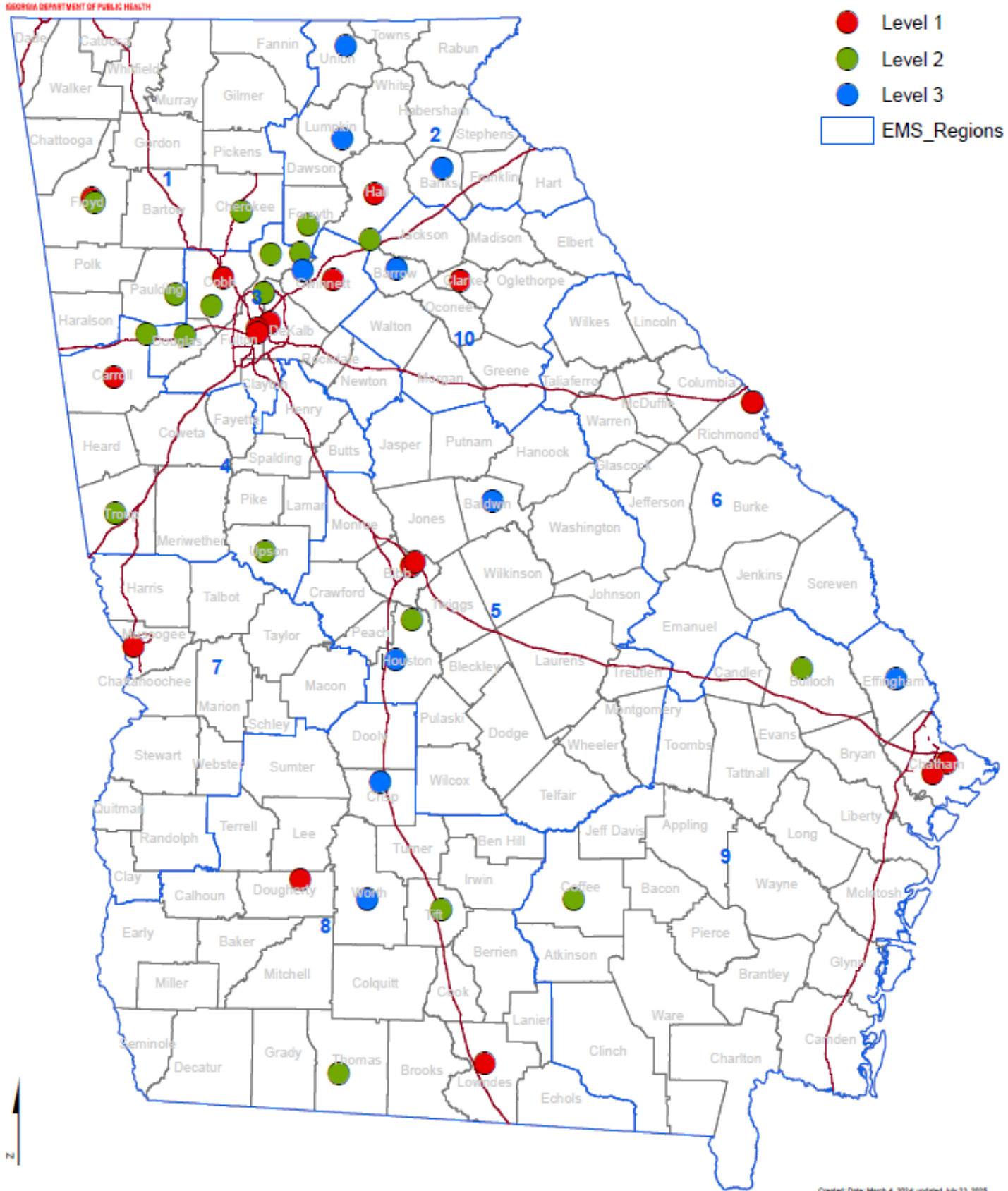
Level II Centers

- Atrium Health Floyd
- Coffee Regional Medical Center
- East GA Regional Medical Center
- Emory Johns Creek Hospital
- Emory Hospital - Warner Robins
- John D. Archbold Memorial Hospital
- Northeast Georgia Medical Center – Braselton
- Northside Hospital Atlanta
- Northside Hospital Cherokee
- Northside Forsyth
- Tanner Medical Center - Villa Rica
- Tift Regional Medical Center
- Upson Regional Medical Center
- Wellstar Cobb Hospital
- Wellstar Douglas Hospital
- Wellstar North Fulton Hospital
- Wellstar Paulding Hospital
- Wellstar West GA Medical Center

Level III Centers

- Atrium Health Navicent Baldwin
- Crisp Regional Hospital
- Effingham Health System
- Emory Hospital – Perry
- Northeast Georgia Medical Center-Barrow
- Northeast Georgia Medical Center-Habersham
- Northeast Georgia Medical Center-Lumpkin
- Northside Hospital Duluth
- Phoebe Worth Medical Center
- Union General Hospital

Cardiac Care Centers



Office of EMS
Emergency Preparedness
July 23, 2025

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Office of EMS
Office of Environmental Health
Office of Emergency Preparedness and Response
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GEORGIA CARDIAC REGISTRY (GCaR)

Data Summary - 2024

SUMMARY

HOSPITALS

47 designated emergency cardiac care centers submitted data in 2024.

- 19 Level I centers
- 18 Level II centers
- 10 Level III centers

Note:
The data presented in this report is ONLY from designated Emergency Cardiac Care Centers in the year 2024.

DEMOGRAPHICS: AGE & GENDER

Figures 1A, 1B, and 1C display the incidents for STEMI, OHCA, and Cardiogenic Shock by age and gender. For OHCA patients, the frequency of incidents peak in ages 60-69, then decreases. However that is only true for male STEMI and Cardiogenic Shock patients.

- Incidents are 71% in the male population and 29% in the female population for STEMI, Figure 1A.
- Inidents are 62% in the male population and 38% in the female population for OHCA, Figure 1B.
- Incidents are 63% in the male population and 37% in the female population for Cardiogenic Shock, Figure 1C.

Figure 1A: STEMI Patients by Age and Gender

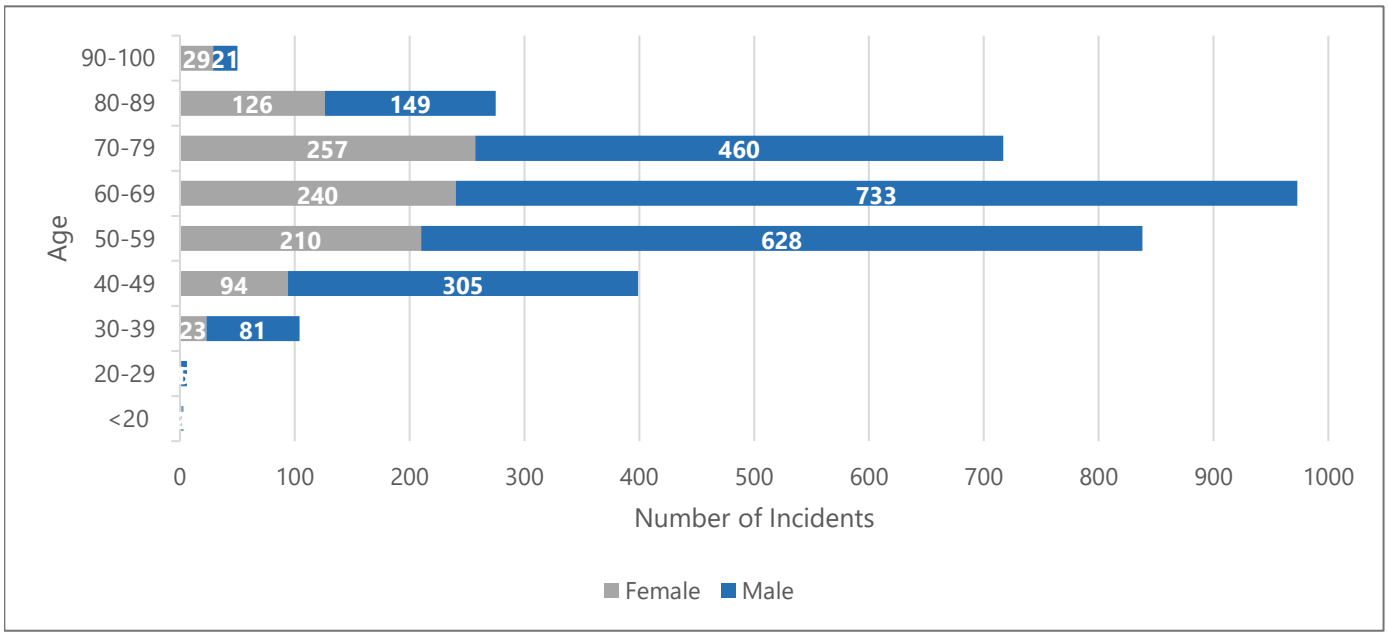


Figure 1B: OHCA Patients by Age and Gender

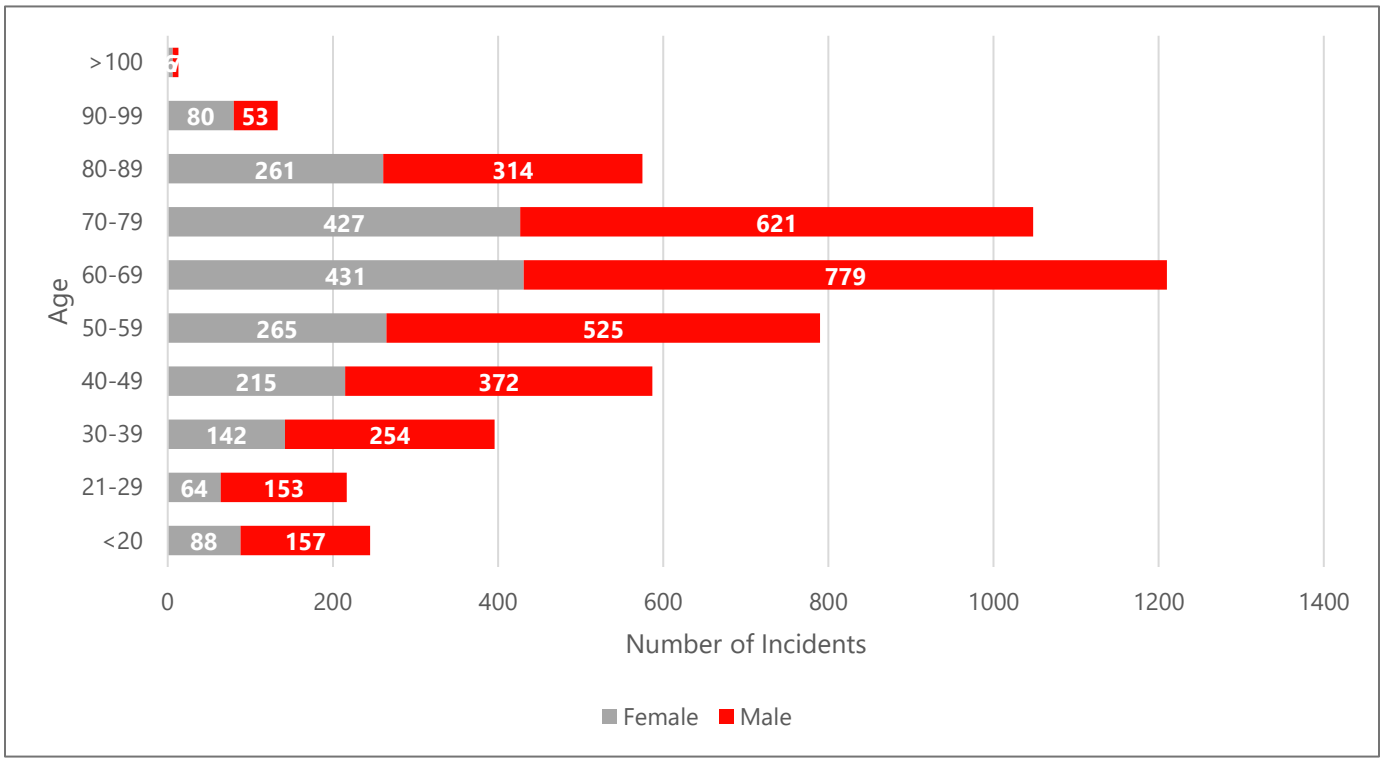
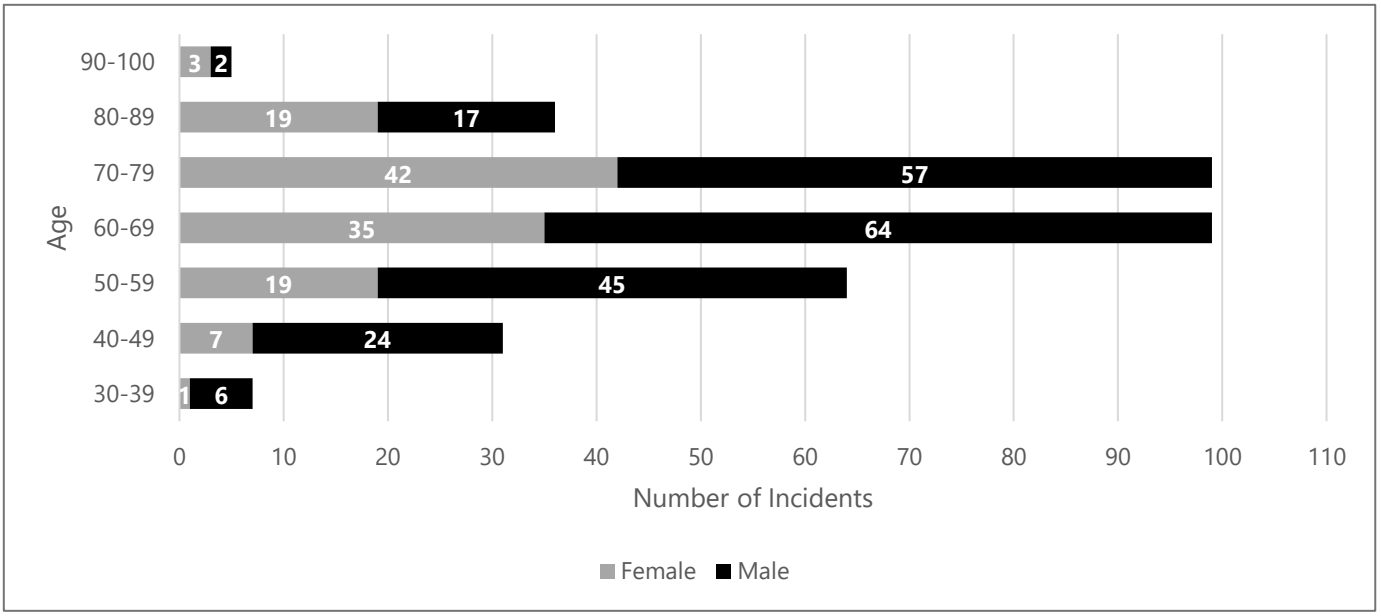


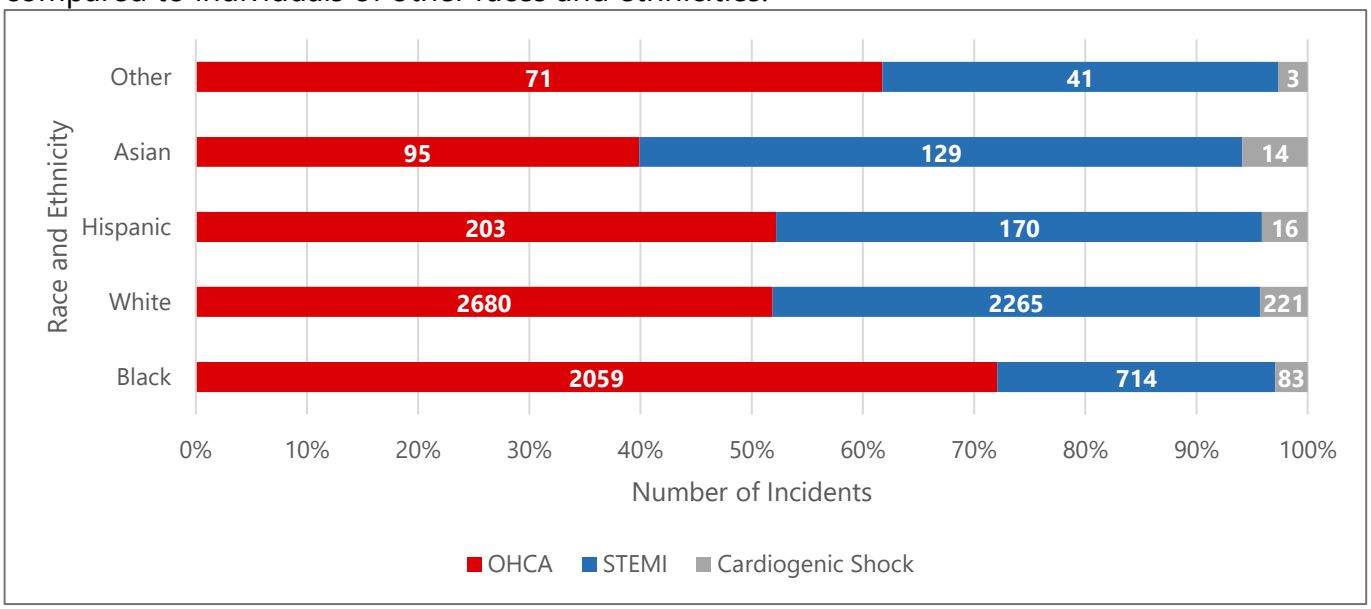
Figure 1C: Cardiogenic Shock Patients by Age and Gender



DEMOGRAPHICS: RACE

Figure 2: Cardiovascular Disease by Race and Ethnicity

African Americans experience the highest incidence of OHCA events compared to individuals of other races and ethnicities. Conversely, Asian Americans have the highest incidence of STEMI compared to individuals of other races and ethnicities.

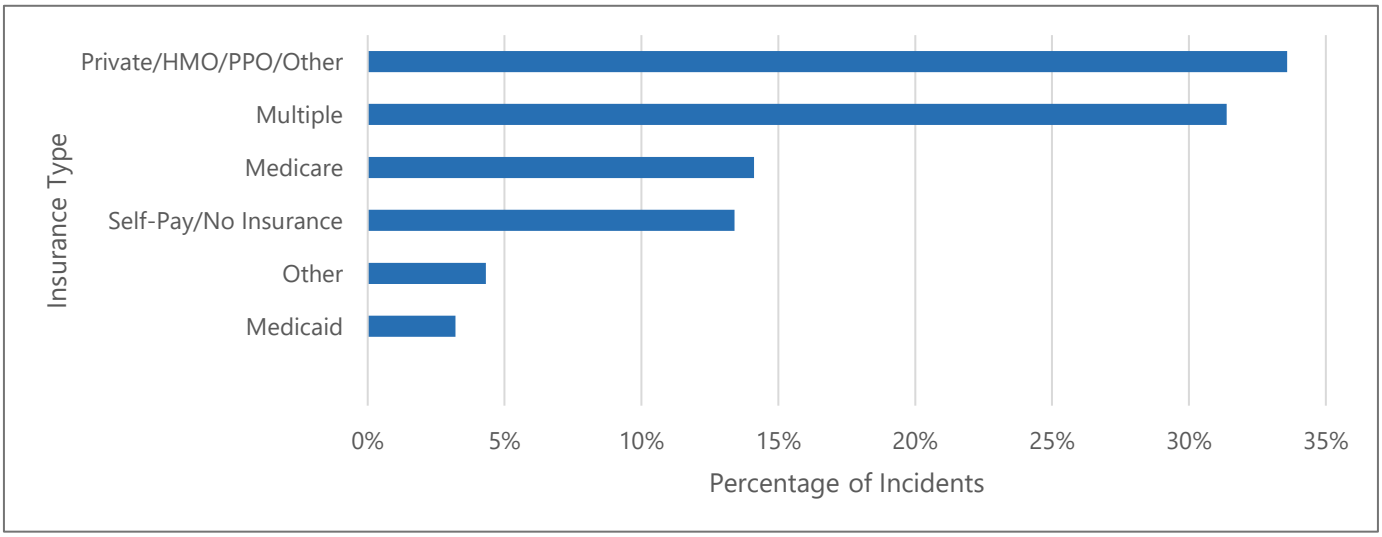


*Other contains Non-Hispanic Native Hawaiian or Other Pacific Islander, Non-Hispanic American India or Alaska Native, and Non-Hispanic Multirace.

DEMOGRAPHICS: PAYMENT

Figure 3: STEMI patients by Payment Source

Most of the STEMI patients treated by designated facilities had some form of private insurance, 34%. The next most common had a combination of insurance, 31% (i.e. HMO & Medicare or State-Specific & PPO). About 37% of STEMI patients had some form of Medicare, as the primary source of insurance or combined with another form of insurance.



*Other includes: State-Specific Plan, VA/CHSMPVA/Tricare, Non-US Insurance, Other/Not Documented/UTD. Excludes blank payment source.

DEMOGRAPHICS: MORTALITY

The overall mortality rate for STEMI patients at designated facilities is 7%, Table 1A. The overall mortality rate for OHCA patients at designated facilties is 84%, Table 1B. The overall mortality rate for Cardiogenic Shock patients at designated facilties is 37%, Table 1C.

Table 1A: STEMI Patients, Case Mortality Rates

Level	Expired	Case Mortality Rate
State	247	7%
I	168	8%
II	79	6%
III	0	0%

Table 1B: OHCA Patients, Case Mortality Rates

Level	Expired	Case Mortality Rate
State	4,433	84%
I	2,737	84%
II	1,430	85%
III	266	84%

Table 1C: Cardiogenic Shock Patients, Case Mortality Rates

Level	Expired	Case Mortality Rate
State	131	37%
I	98	43%
II	33	27%
III	0	0%

DEMOGRAPHICS: COMORBIDITY

- 39% of STEMI patients admitted were current smokers or recent smokers.
- Smokers account for 36% of female STEMI patients and 40% of male STEMI patients.
- Cholesterol levels: 75% of admitted STEMI patients had levels below 200 mg/dL, while 9% had levels of 240 mg/dL or higher.
- Among patients with cholesterol levels of 240 mg/dL or higher:
  - 72% were male
  - 28% were female

DATA TABLES AND FIGURES

Table 2A: OHCA Incidents by Facility Level

Of those transported to designated centers, the majority (62%) were taken to level I centers.

Level	Number	Percent
I	3,249	62%
II	1,683	32%
III	316	6%
Total	5,248	100%

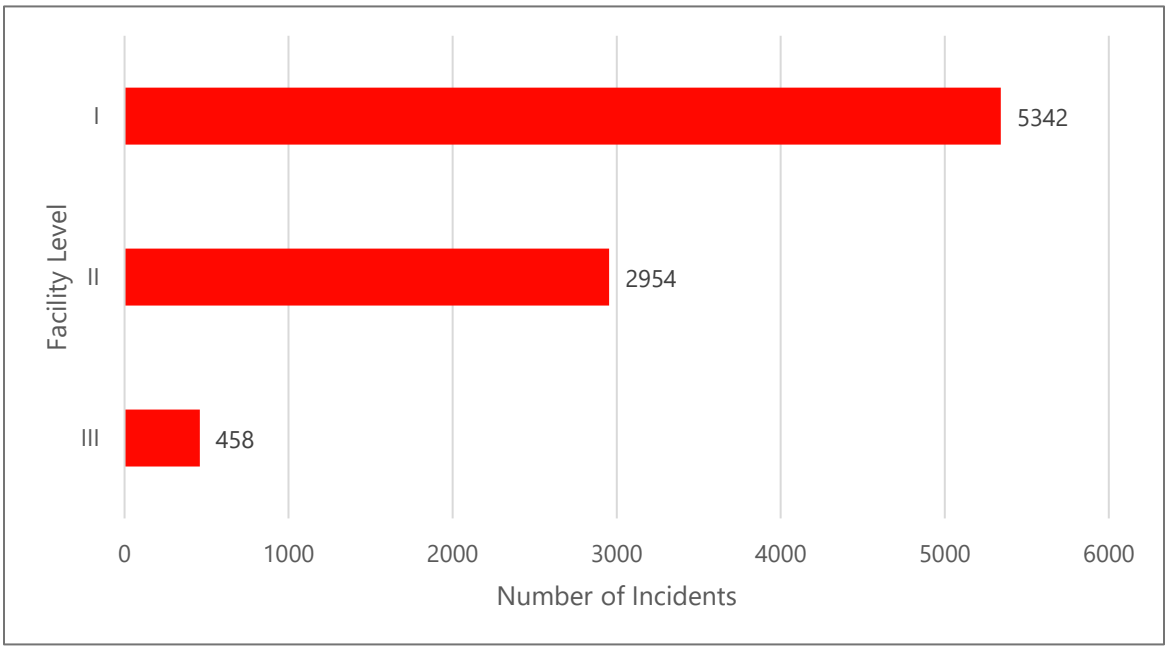
Table 2B: STEMI Incidents by Facility Level

About 96% of STEMI patients were treated in Level I or Level II designated centers.

Level	Number	Percent
I	2,093	60%
II	1,271	36%
III	142	4%
Total	3,506	100%

Figure 4: Overall Incidents by Facility Level

This chart shows the overall count of incidents by facility designation level. Level I facilities treated almost twice the number of patients than Level II facilities.



GEORGIA CARDIAC REGISTRY (GCaR)

STEMI DATA - 2024

2024 ANNUAL GCaR REGISTRY INCLUSION CRITERIA – STEMI

CASE CRITERIA:

Patients who meet the case criteria for the Georgia Cardiac Registry (GCaR) have the principal final/discharge diagnosis of a confirmed ST Elevation Myocardial Infarction (STEMI), should be included in the GCaR. This includes patients who are first treated at an Emergency Cardiac Care Center (ECCC) or transferred to an Emergency Cardiac Care Center within 24 hours of arriving at the transferring hospital. GCaR does not collect data for non-ST-elevation Myocardial Infarction (NSTEMI) diagnosis.

INCLUSION CRITERIA:

Patients with a confirmed diagnosis of STEMI who present to the hospital with signs, symptoms, or complaints consistent with an Acute Myocardial Infarction (AMI) (e.g., chest pain, tightness in chest, shortness of breath).

STEMI should be confirmed by:

- 12-Lead ECG results indicating AMI, or
- Elevated Troponin I levels above the upper normal limit
- Patients treated or evaluated for a STEMI, even if they later transfer, leave against medical advice, or expire.
- Patients directly transported to a catheterization laboratory or other nursing unit for STEMI treatment.
- Patients with STEMI who refuse treatment or have Do Not Resuscitate (DNR) orders.

ICD-10 CM DIAGNOSIS CODES TO INCLUDE:

ICD-10-CM codes used to describe the diagnosis of ST Elevation Myocardial Infarction (STEMI).

- I21: Acute myocardial infarction (including Type 1 myocardial infarction):
- I21.1: ST elevation (STEMI) myocardial infarction of inferior wall
- I21.2: ST elevation (STEMI) myocardial infarction of other sites
- I21.3: ST elevation (STEMI) myocardial infarction of unspecified site

EXCLUSION CRITERIA:

Patients are excluded from GCaR if they meet any of the following criteria:

- Under 18 years of age
- Transferred more than 24 hours after arrival at the initial hospital
- Present to an ECCC for non-STEMI symptoms (e.g., a patient evaluated for an ankle fracture later diagnosed with STEMI)
- Have ECG results stating "old" or "suspected MI" without positive cardiac markers
- Transferred to an ECCC for reasons unrelated to acute MI care (e.g., CABG or insurance-related transfers)

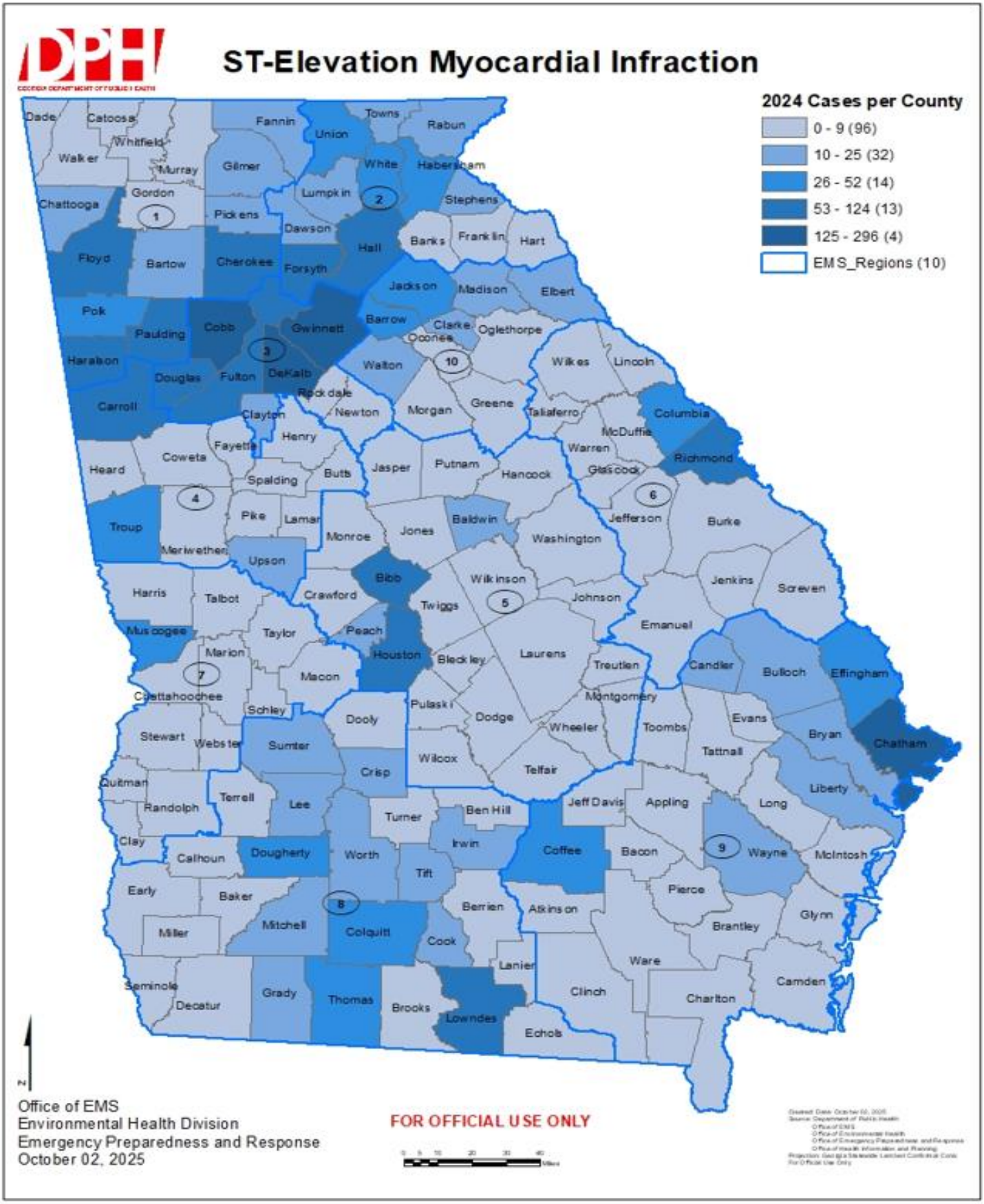


Figure 5: STEMI Heatmap

This heat map depicts STEMI patients' county of residence from GCaR in 2024.
8% of patients resided out-of-state and are not reflected in this map.

PRE-HOSPITAL DATA- STEMI

It is recommended that patients experiencing cardiac emergencies be transported to hospitals via Emergency Medical Services (EMS), as EMS serves as the first point of medical contact. EMS providers can identify STEMI cases and administer critical interventions during transport. Patients should be taken directly to the closest and most appropriate center.

The tables and graphs in this section present data on:

- The origin of patients before arriving at a designated Emergency Cardiac Care Center
- Primary complaints reported to EMS
- Medications administered by EMS
- Pre-hospital electrocardiogram (EKG) results
- STEMI alerts

Figure 6A: Mode of Transport, by Facility Level of Designation

About 66% of STEMI patients utilize EMS when seeking medical attention. However, over 80% of patients going to Level III facilities don't utilize EMS.

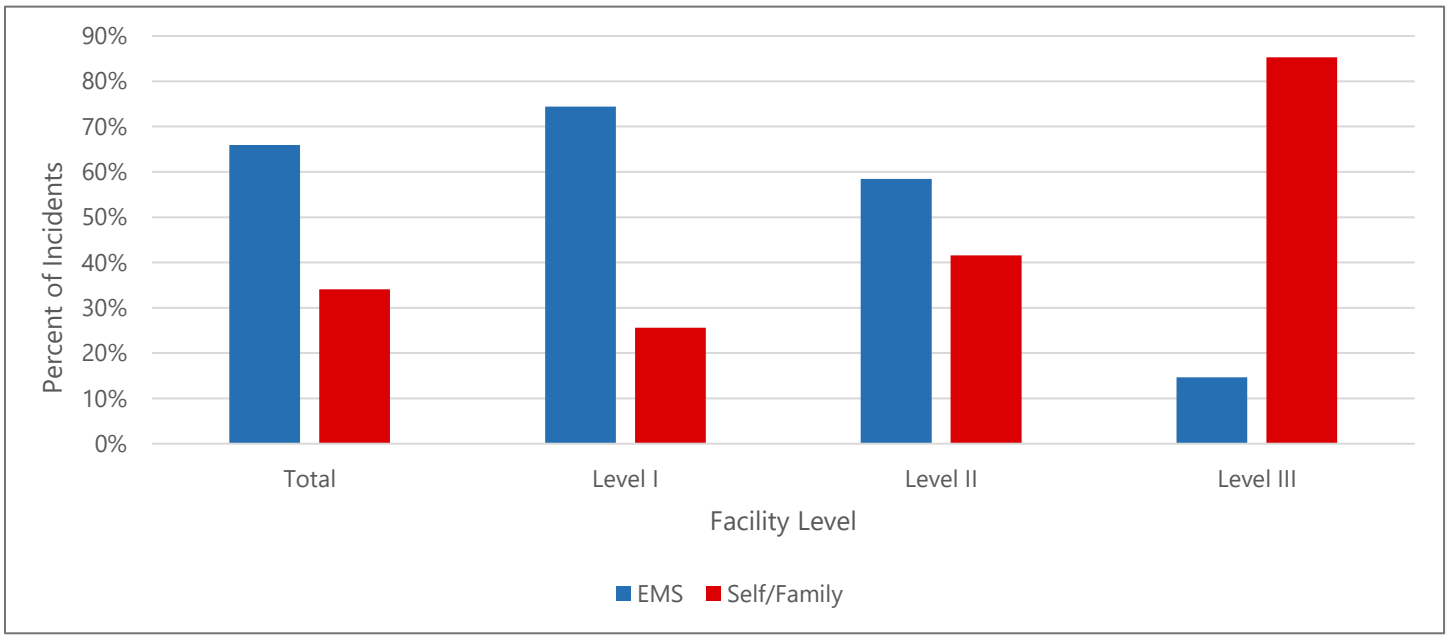


Figure 6B: Mode of Transport, by Patient County Type

STEMI patients living in non-rural counties are about 17% more likely to not use EMS when seeking medical attention than patients living in rural counties.

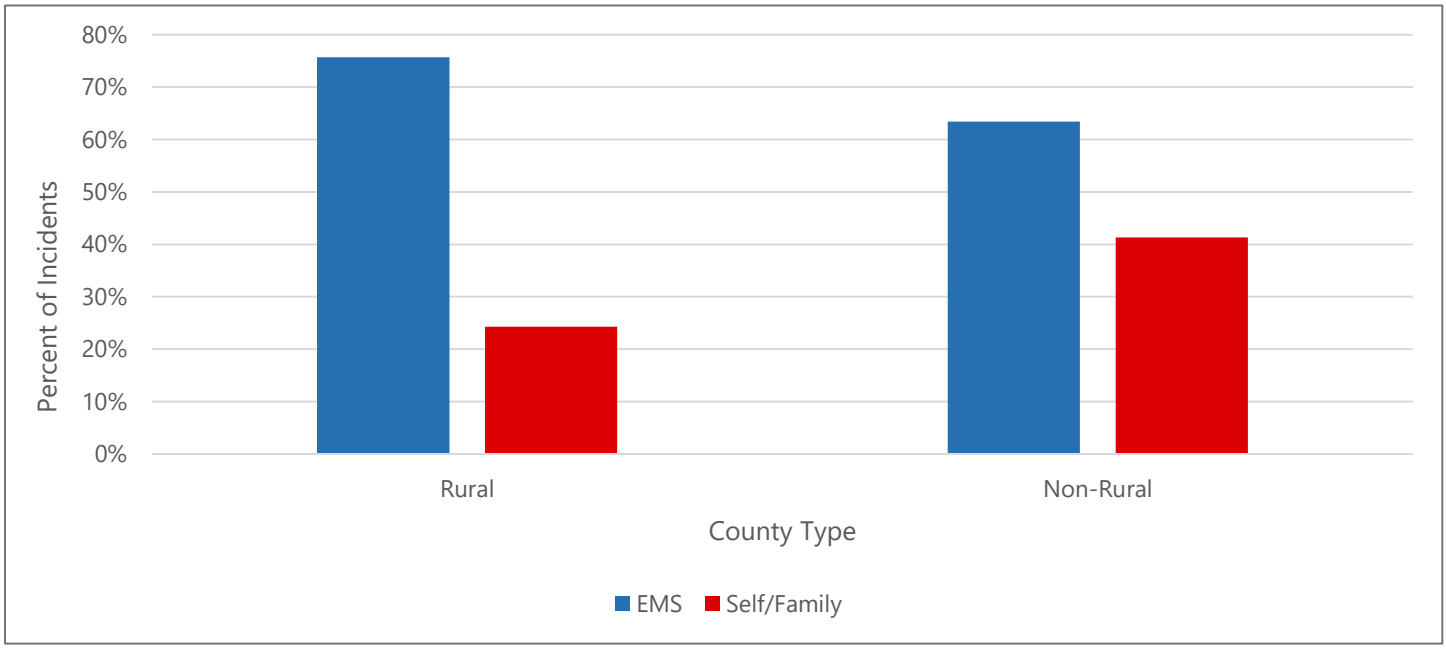


Figure 6C: Mode of Transport, by EMS Region

STEMI patients are most likely to utilize EMS when seeking medical attention, however that does vary by EMS region. Region 2 and Region 4 (59%) had the lowest rate of EMS utilization, compared to Region 8 (79%) with the highest rate of EMS utilization.

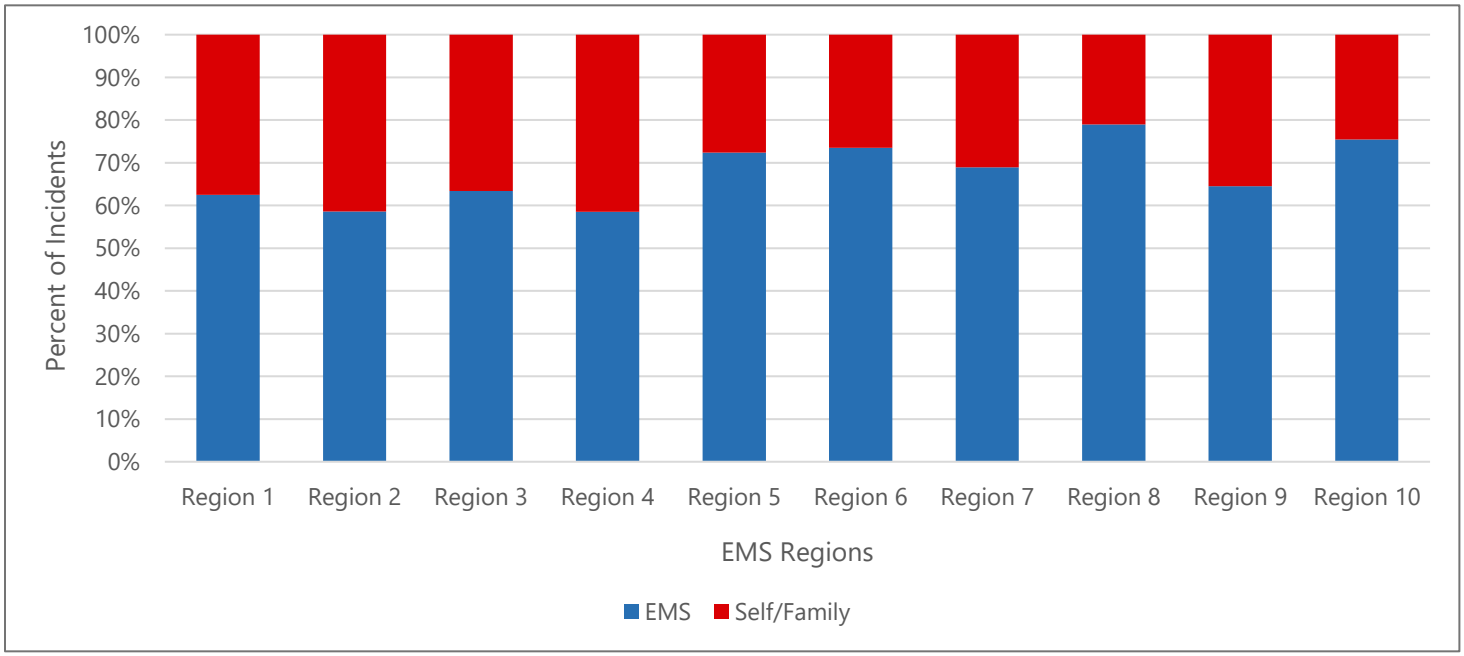
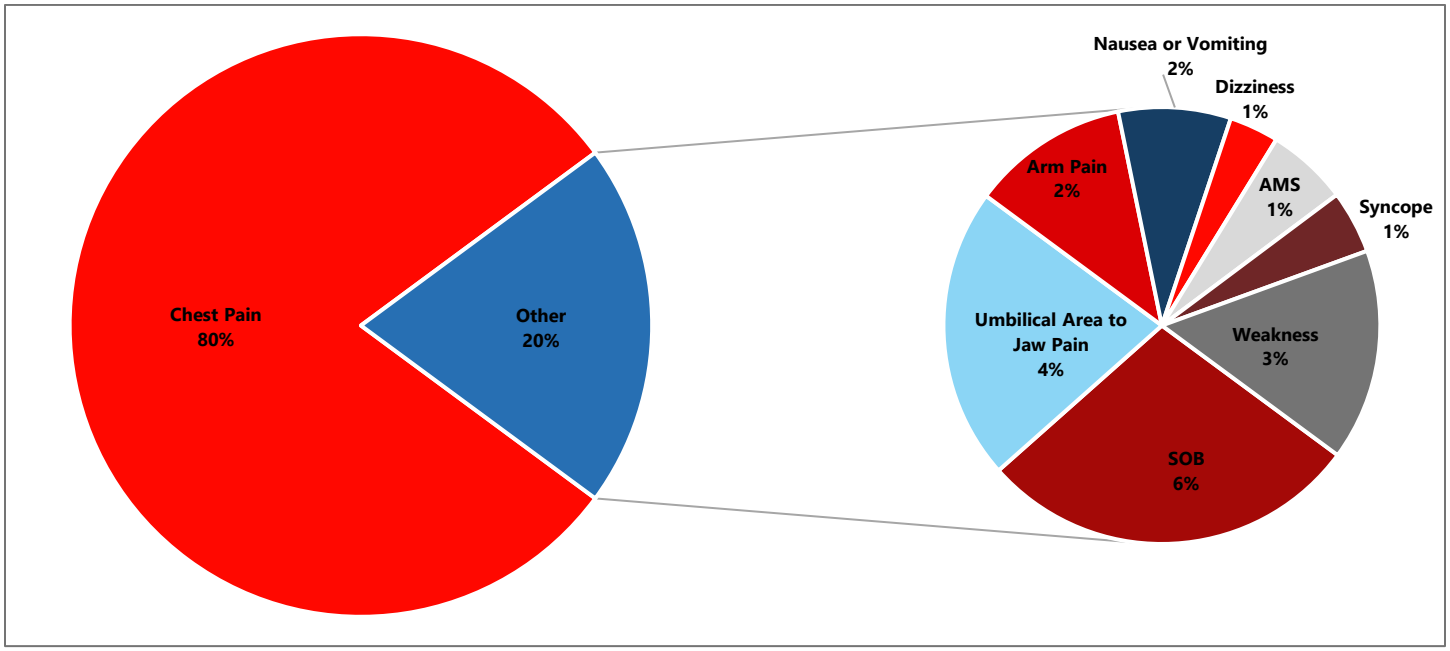


Figure 7: Pre-Hospital Primary Complaint

Chest pain symptoms accounted for 80% of documented primary complaints by EMS for confirmed STEMI cases. "Shortness of breath" was the next highest documented primary complaint, with pain from abdomen, back, neck, shoulder, or jaw being 3rd highest.



*SOB =Shortness of breath. AMS = altered mental status. Umbilical area to jaw area pain includes pain in abdominal, back, neck, shoulder, throat, or jaw area combined.

Table 3: Pre-Hospital Primary Complaint by Gender

Symptoms	Women	Men
Chest Pain	71%	83%
Other (Total)	29%	17%
SOB	6%	6%
Umbilical Area to Jaw Pain	6%	4%
Weakness	6%	2%
Arm Pain	4%	1%
Nausea	3%	1%
AMS	2%	1%
Syncope	2%	0%
Dizziness	1%	1%

Although chest pain was the predominant presenting symptom among most STEMI patients, symptom presentation differed by sex. Women were more likely than men to present with atypical symptoms, including weakness, arm pain, and nausea.

Table 4: Top 6 Medications Given Pre-Hospital

In order from greatest to least, aspirin was given the most by EMS to STEMI patients, and morphine was given the least. The list excludes IV fluids and Oxygen.

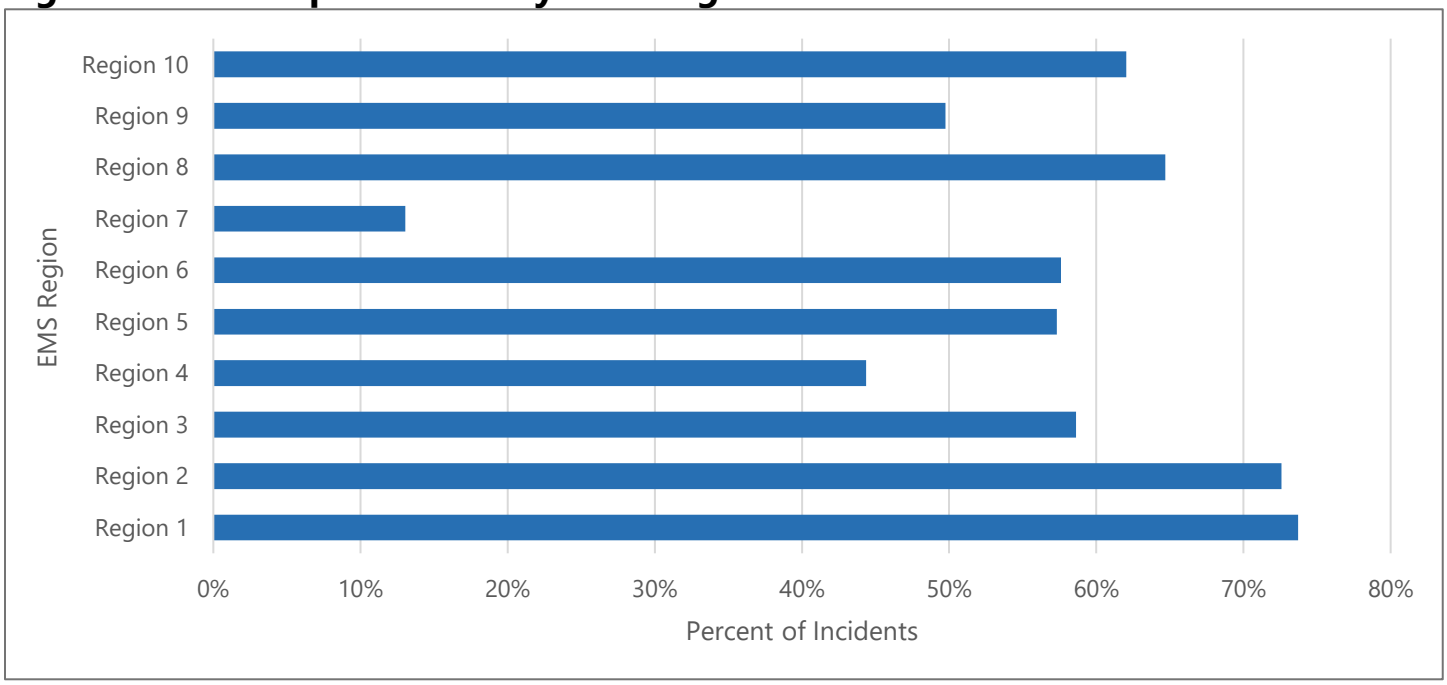
Medication Names	Percentages
Aspirin	69%
Nitroglycerin	41%
Heparin	24%
Ondansetron	15%
Fentanyl	12%
Morphine	8%

*Excludes unknown medications given

Of the 2,216 STEMI patients that arrived by EMS, 74% received pre-hospital EKG. Of these, 77% had signs of STEMI.

There were 1,564 STEMI patients that arrived by EMS with no interfacility transfers and received PCI treatment. About 57% had pre-hospital Cath Lab Activation.

Figure 8: Pre-Hospital Alerts by EMS Region



*Excludes interfacility transfers

Figure 8 represents the 892 STEMI patients with pre-hospital alerts for the Cath Lab activation by EMS Region. Region 1 (74%) having the highest percentage of pre-hospital alerts and Region 7 (13%) having the lowest.

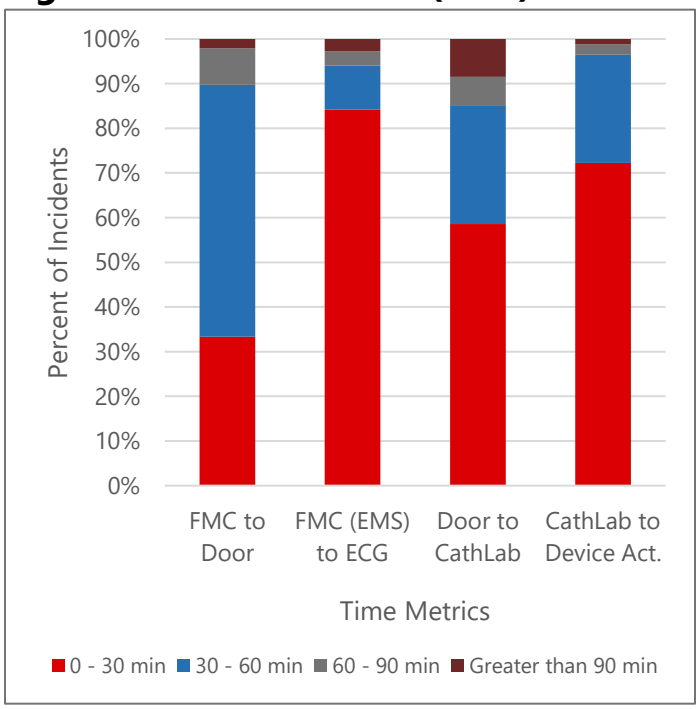
DATA TABLES AND FIGURES

STEM TIME METRICS

STEMI is a time-sensitive cardiovascular emergency. Decreasing the time between symptom onset and arrival at definitive care is directly linked to improved survival rates. The tables and graphs in this section present various time metrics associated with STEMI care, including:

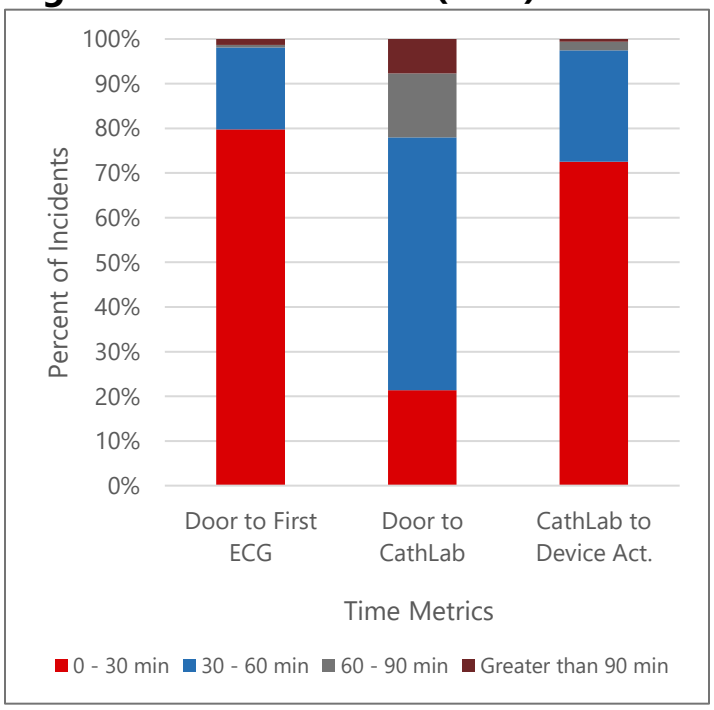
1. Comparison of times for patients arriving by EMS versus private vehicle (POV):
   - Time from first medical contact (FMC) to hospital arrival (door)
   - Time from FMC to EKG
   - Time from door to catheterization laboratory (cath lab)
   - Time from cath lab to device activation
2. Door-in/Door-out times for level III facilities, which capture the time from a patient's arrival at a non-PCI capable facility to their departure for a PCI-capable facility.
3. Use of thrombolytics at Level III facilities, if applicable.
4. Time to definitive care analysis including:
   - Time from EMS FMC to EMS EKG time
   - Time from EMS FMC to balloon activation time

Figure 9A: STEMI Times (EMS)



*cath lab to device activation does not include pre-door activation

Figure 9B: STEMI Times (POV)



Figures 9A and 9B illustrate the different time metrics for STEMI patients arriving at a designated facility by EMS or "self/family (POV)." The most significant difference is observed in the door-to-cath lab time, where EMS patients receive cath lab care more quickly than those arriving by POV.

Table 5A: STEMI Times (EMS)

Metric	Median Time
FMC to Door	36min (28, 47)
FMC (EMS) to ECG	9min (4, 18)
Door to Cath Lab	27min (13, 45)
Cath Lab to Device Act.	24min (19, 32)

* Median (25th, 75th percentiles)

Table 5B: STEMI Times (POV)

Metric	Median Time
Door to First ECG	6min (4, 10)
Door to Cath Lab	53min (37, 75)
Cath Lab to Device Act.	24min (19, 32)

* Median (25th, 75th percentiles)

Tables 5A and 5B display the median times for EMS and "self/family (POV)" arrivals. The most significant difference is observed in the door-to-cath lab times, with EMS patients reaching the cath lab approximately 26 minutes faster than those who arrive independently or with family.

49 min (33, 79) Median Door-in/Door-out time GOAL: 30 mins.

Less than 1% of STEMI patients received thrombolytics. Most given at Level III facilities before patients are transferred to higher level facilities for continued care.

Tables 6 and Tables 7 present the time to definitive care analysis for STEMI patients. The tables represent cases where EMS transported patients from the scene of the incident to a designated emergency cardiac care center for definitive STEMI care. Of the total STEMI patients transported by EMS, 562 cases (24%) involved interfacility transfers. The tables focus solely on 1,756 cases (76%) where patients were taken directly to their final destination and received definitive care. The goal for EMS patient contact time to EMS EKG time is 10 minutes, and the goal for EMS patient contact time to balloon activation is 90 minutes.

Table 6A: EMS Patient Contact Time to EMS EKG Time, Hospital Designation

Hospital Designation Level	Frequency	Median Time
Level I	1099	8min (4, 17)
Level II	535	7min (3, 15)
Total	1634	8min (4, 16)

* Median (25th, 75th percentiles). Cases with missing data were excluded

Table 6B: EMS Patient Contact Time to EMS EKG Time, Incident County Type

Incident County Type	Frequency	Median Time
Non-Rural	1138	8min (3, 16)
Rural	425	9min (5, 18)
Total	1,563	8min (4, 17)

* Median (25th, 75th percentiles. Cases with missing data were excluded

Table 6C: EMS Patient Contact Time to EMS EKG Time, EMS Region

EMS Region	Frequency	Median Time
Region 1	171	7min (3, 17)
Region 2	167	6min (2, 11)
Region 3	505	7min (3, 14)
Region 4	76	9min (5, 16)
Region 5	122	15min (7, 36)
Region 6	79	7min (2, 23)
Region 7	38	14.5min (5, 32)
Region 8	181	9min (6, 15)
Region 9	138	9min (6, 20)
Region 10	86	6.5min (3, 11)
Total	1,563	8min (4, 17)

* Median (25^{th}, 75^{th} percentiles). Cases with missing data were excluded

Table 6A represents the median time in minutes from EMS Patient Contact Time to EMS EKG Time by hospital designation level. Table 6B displays the median time in minutes for EMS Patient Contact Time to EKG Time by incident county type. Table 6C represents the median time in median for EMS Patient Contact Time to EKG Time by EMS region based off the incident county.

Table 7A: EMS Patient Contact Time to Ballon Activation Time, Hospital Designation

Hospital Designation Level	Frequency	Median Time
Level I	954	93min (77, 118)
Level II	475	88min (72, 111)
Total	1429	91min (76, 116)

* Median (25^{th}, 75^{th} percentiles). Cases with missing data were excluded

Table 7B: EMS Patient Contact Time to Balloon Activation Time, Incident County Type

Patient County Type	Frequency	Median Time
Non-Rural	979	88min (74, 113)
Rural	393	99min (82, 123)
Total	1,372	91min (76, 116)

* Median (25^{th}, 75^{th} percentiles). Cases with missing data were excluded

Table 7C: EMS Patient Contact Time to Balloon Activation Time, EMS Region

EMS Region	Frequency	Median Time
Region 1	144	90min (75, 116)
Region 2	155	88min (77, 106)
Region 3	428	87min (70.5, 115)
Region 4	57	100min (84, 129)
Region 5	110	92.5min (73, 123)
Region 6	61	102min (80, 135)
Region 7	30	105min (95, 142)
Region 8	174	93min (76, 113)
Region 9	129	92min (77, 120)
Region 10	84	99min (82.5, 119.5)
Total	1,372	91min (76, 116)

*Median (25^{th}, 75^{th} percentiles). Cases with missing data were excluded

Table 7A represents the median time in minutes from EMS Patient Contact Time to Balloon Activation Time by hospital designation level. Table 7B represents the median time in minutes for EMS Patient Contact Time to Balloon Activation Time by incident county type. Table 7C represents the median time in minutes for EMS Patient Contact Time to Balloon Activation Time by EMS region based off the incident county.

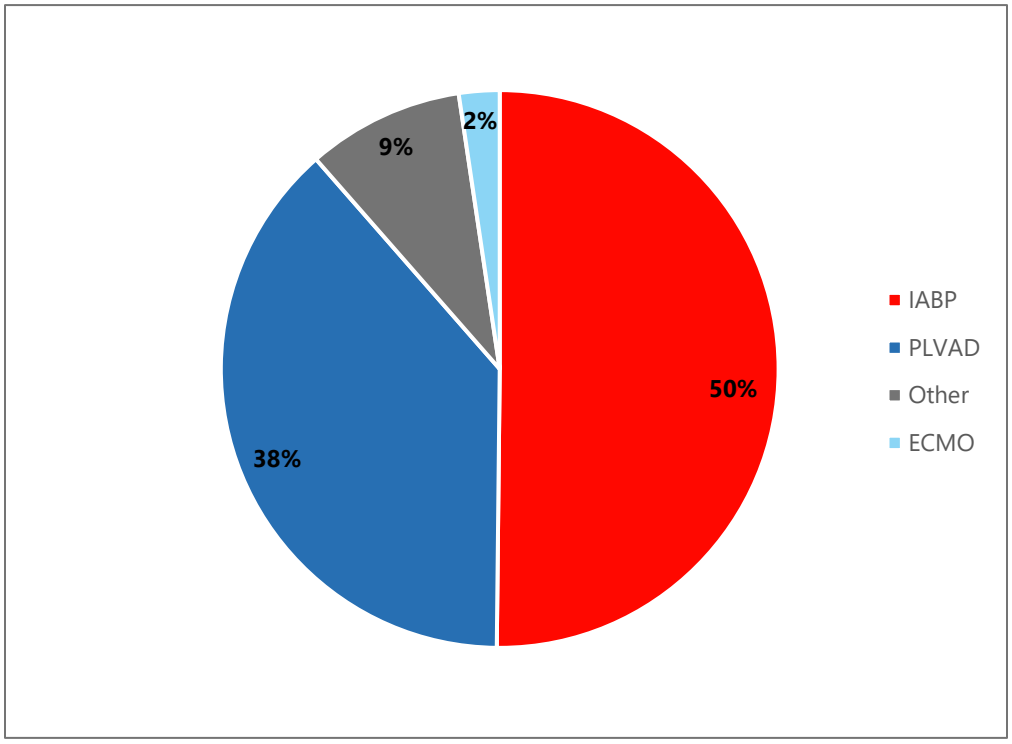
HOSPITAL & DISCHARGE DATA

Intervention for STEMI patients continues in the hospital. Approximately 93% of STEMI patients were eligible for reperfusion therapy, with 94% receiving PCI and less than 1% receiving thrombolytics. This section highlights the various intervention techniques, including mechanical support devices, commonly used in hospitals to treat STEMI patients, focusing on the processes and outcomes of these treatments.

The data on discharge outcomes provides insight into the results of cardiac interventions and ongoing management. Positive patient outcomes are a direct result of an effective, coordinated system of care that spans across hospital-based interventions and extends into post-discharge follow-up.

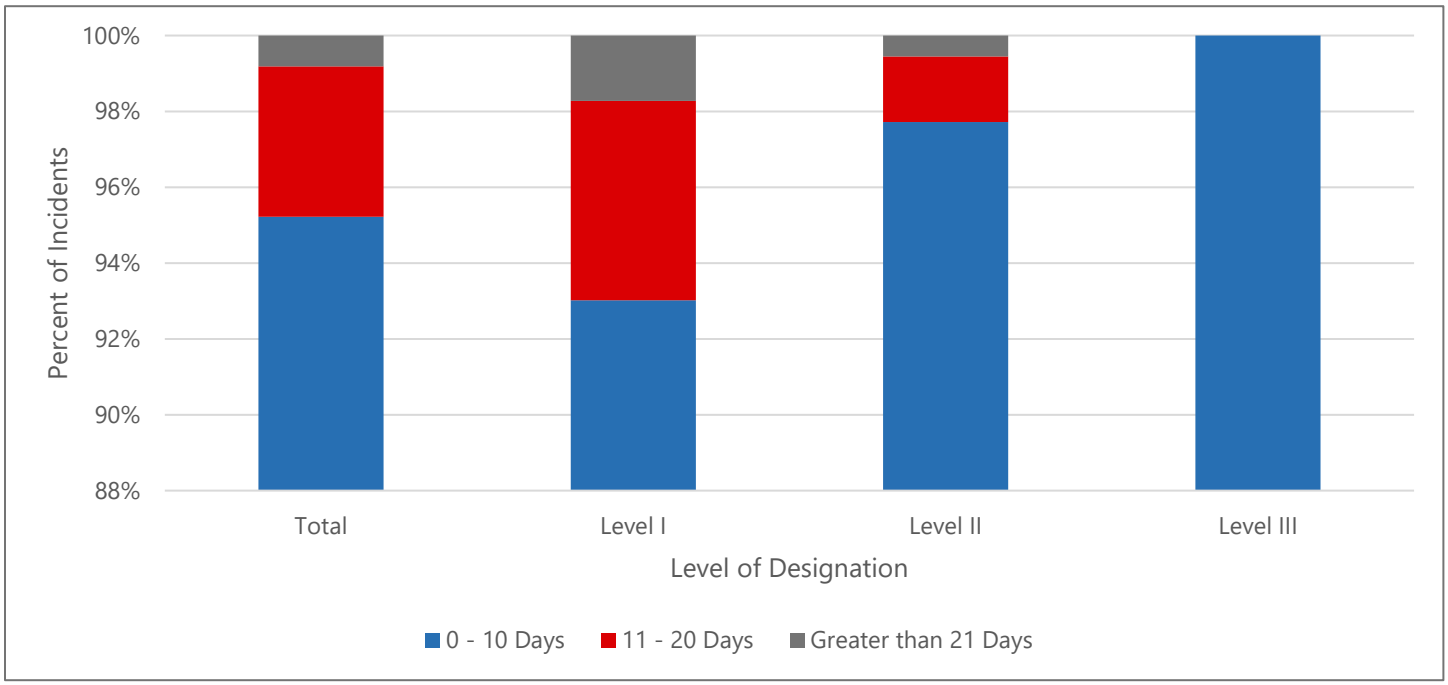
Figure 10: Mechanical Device Usage

Of the STEMI patients that received PCI, only 297 patients had an additional mechanical device used. Half of those patients received Intra-aortic Balloon Pump (IABP).



*Extracorporeal Membrane Oxygenation (ECMO), Intra-Aortic Balloon Pump (IABP), and Percutaneous Left Ventricular Assist Device (PLVAD)

Figure 11: Length of Stay for STEMI



Level I facilities had 8% of patients expire and 87% discharged alive in "0 – 10 days". Level II had 6% expired, 13% transferred to an acute care facility, and 78% discharged alive in "0 – 10" days. Level III had 100% transferred to an acute care facility, an improvement from 2023, which had 1% of expired.

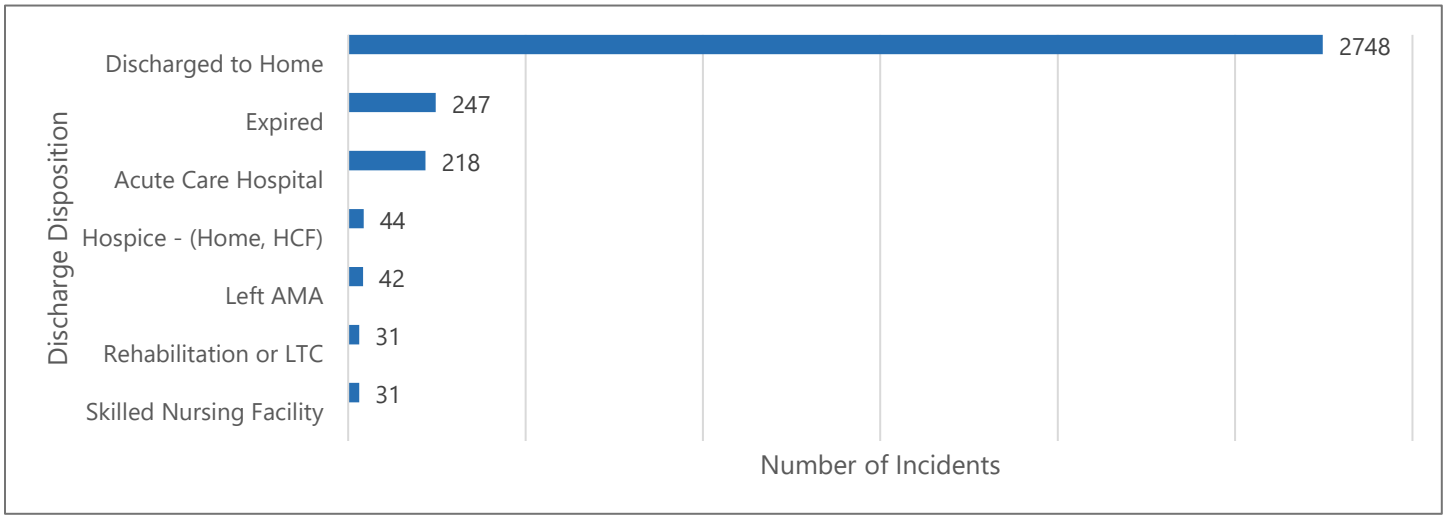
Table 8: Medication at Discharge

Medication	Yes	Contraindicated	No
ASPIRIN	80%	2%	18%
CLOPIDOGREL	27%	1%	72%
TICLOPIDINE	0%	1%	99%
PRASUGREL	17%	1%	82%
TICAGREL	37%	3%	60%
BETA BLOCKER	73%	6%	21%
ACE INHIBITOR	18%	10%	72%
ANGIOTENSIN RECEPTOR BLOCKER	31%	10%	59%
STATIN	80%	2%	18%

77% of STEMI patients received dual antiplatelets therapy at discharge, and less than 1% received triple antiplatelet therapy at discharge. 45% of STEMI patients received two or more antihypertensives at discharge. **66% received a combination of aspirin, beta blocker, and statin at discharge.**

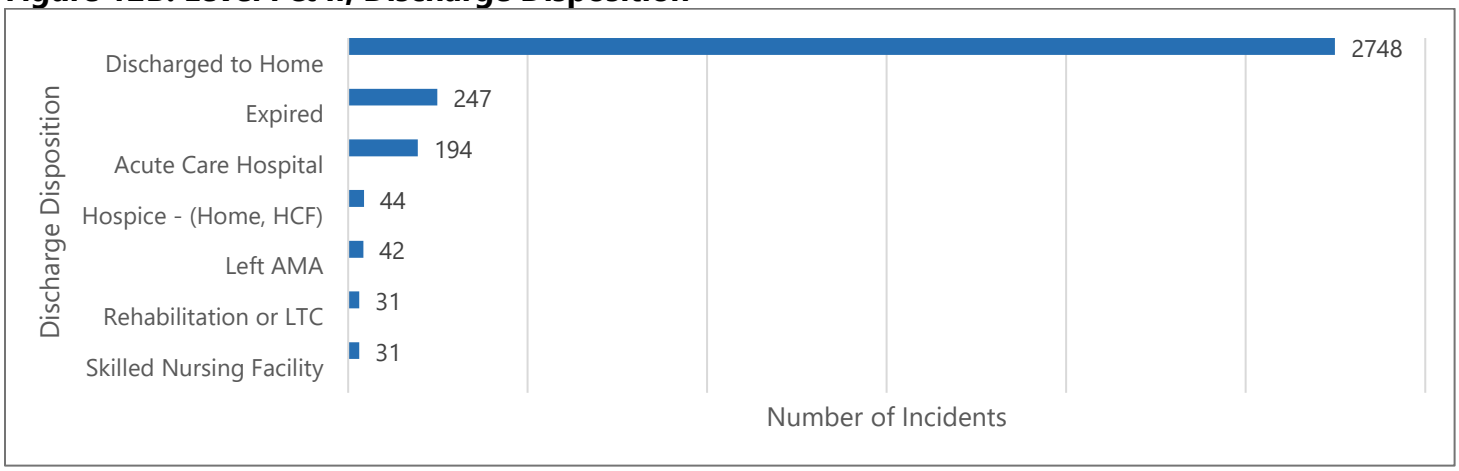
Figure 12A shows the discharge disposition for STEMI patients overall, followed by a breakdown by facility designation level. Level I and Level II facilities had very similar discharge disposition rates and were combined for comparison. Level III had 100% of their patients transferred to an acute care hospital.

Figure 12A: Statewide, Discharge Disposition



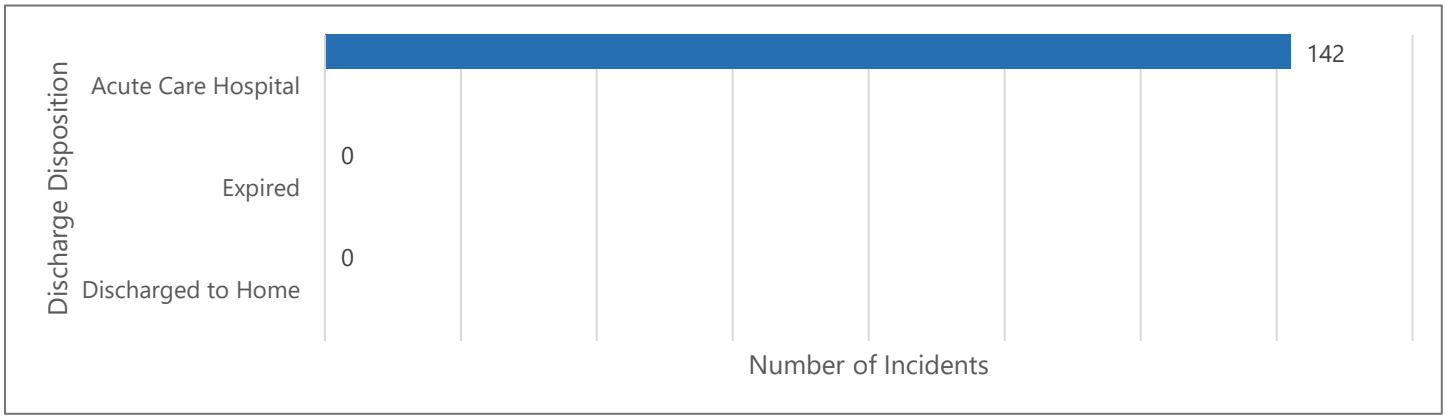
* Unknown discharge dispositions were not included. LTC= Long Term Care. AMA = Against Medical Advice. HCF = Health Care Facility.

Figure 12B: Level I & II, Discharge Disposition



* Unknown discharge dispositions were not included. LTC= Long Term Care. AMA = Against Medical Advice. HCF = Health Care Facility.

Figure 12C: Level III, Discharge Disposition



* Unknown discharge dispositions were not included. LTC= Long Term Care. AMA = Against Medical Advice. HCF = Health Care Facility

STEMI Trends 2021-2024

Monitoring data over time is essential for assessing program growth and performance. This section presents a four-year overview of patient clinical outcomes and management. In 2021, when data collection began, 28 facilities were designated. By 2024, the number of designated facilities increased to 47. As participation has expanded, the program continues to generate more comprehensive data to inform and drive meaningful system-level improvements.

Figure 13: Mortality Rates

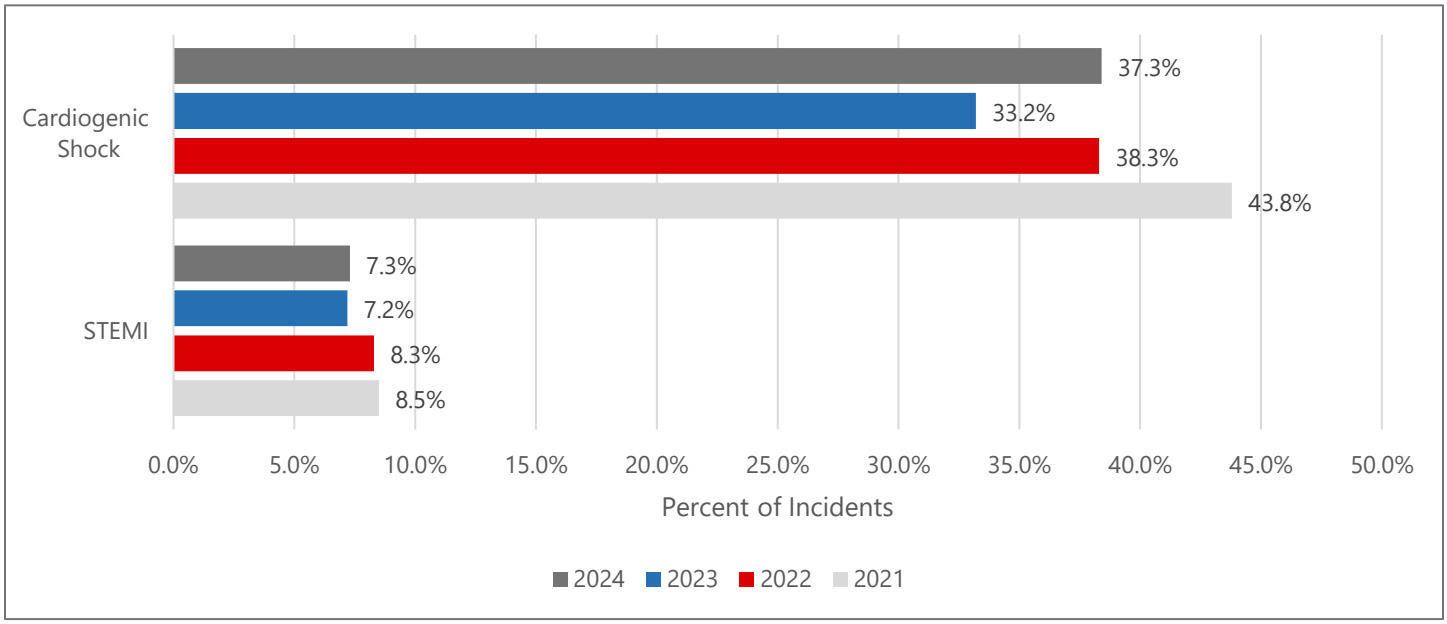


Figure 13 shows mortality rates for cardiogenic shock and STEMI cases. While there are fluctuations due to differing definitions, growth in data, etc., there is an overall decrease in mortality rates.

Figure 14: EMS Activated STEMI

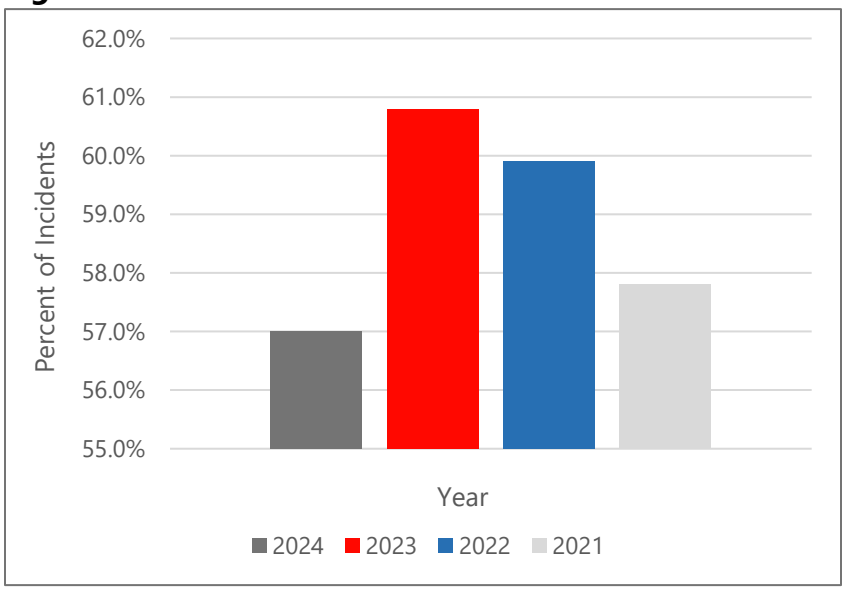


Figure 14 shows a decrease in EMS activating STEMI patients prior to hospital arrival or hospital admission.

Table 9: Door In – Door Out Time

Year	DIDO
2024	49 (33, 79)
2023	48 (33.75, 85)
2022	60 (40, 109)
2021	50 (37.5, 81)

*DIDO time in minutes. Median, 1st quartile and 3rd quartile

Table 9 shows no real difference in door-in/ door-out time over the years. However, looking at the interquartile range, there is a decrease in time.

GEORGIA CARDIAC REGISTRY (GCaR)

OHCA DATA - 2024

2024 ANNUAL GCAR REGISTRY INCLUSION CRITERIA - OHCA

CASE CRITERIA:

The Georgia Cardiac Registry (GCaR) defines an Out-of-Hospital Cardiac Arrest (OHCA) as a cardiac arrest that occurs outside of a hospital setting (traumatic/non-traumatic), where resuscitation is undertaken by Emergency Medical Services (EMS) personnel or by a bystander (via CPR and/or defibrillation).

INCLUSION CRITERIA:

- Victims of all ages who experience an Out-of-Hospital Cardiac Arrest (traumatic/non-traumatic).
- Victims who are pulseless upon arrival of EMS personnel.
- Victims who become pulseless in the presence of EMS personnel.
- Victims who have a pulse on EMS arrival, where CPR and/or defibrillation were successfully administered by a bystander before EMS arrival.

EXCLUSION CRITERIA:

Out-of-Hospital Cardiac Arrests that are untreated or unworked, including calls that are terminated immediately upon EMS arrival because the victim is not a viable candidate for resuscitation due to:

- Injuries not compatible with life.
- The presence of rigor mortis or livor mortis.
- Signs of bodily decomposition.
- A valid Do Not Resuscitate (DNR) order.
- EMS Transport that did not involve 911 dispatch.

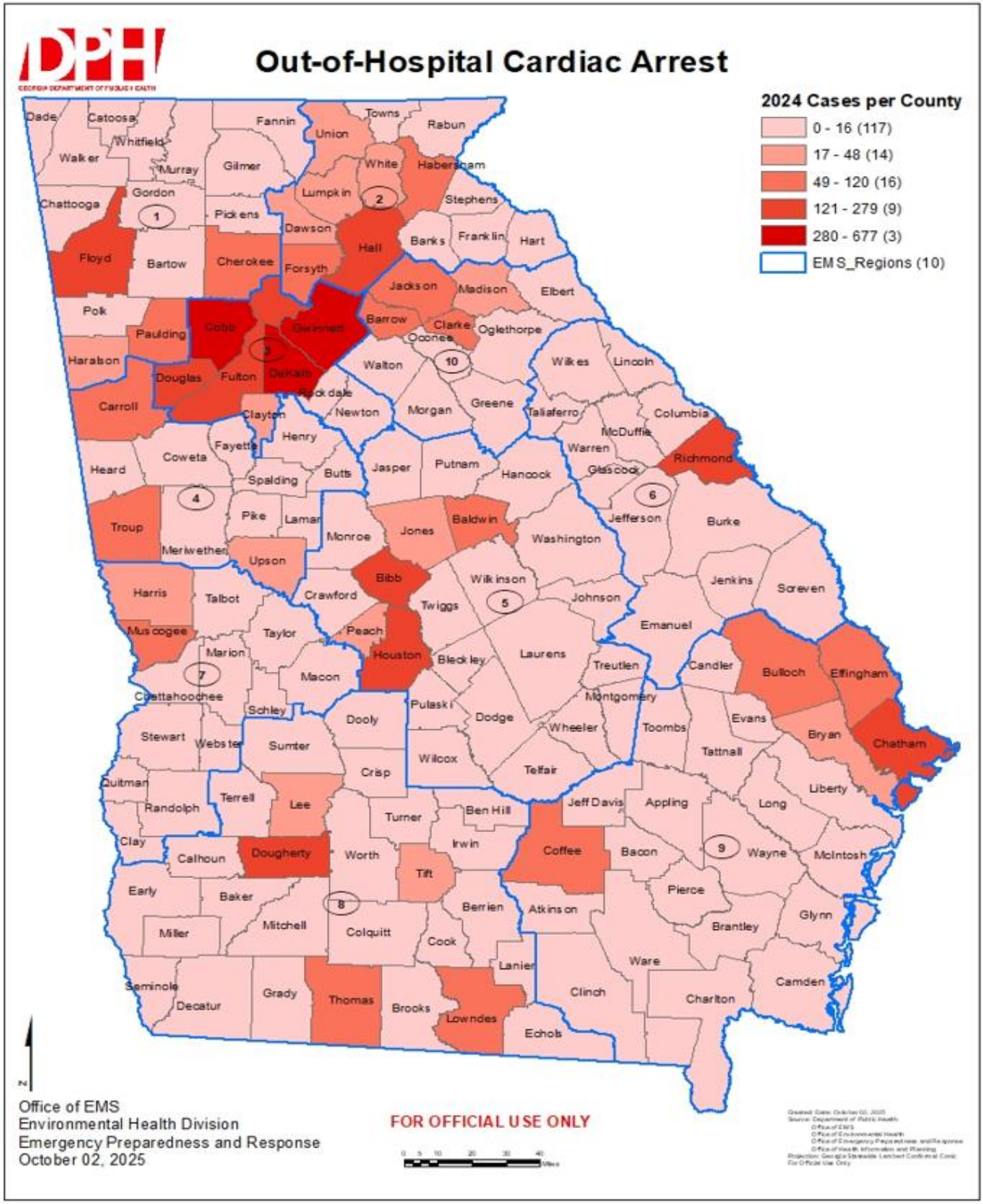


Figure 15: OHCA Heatmap

This heat map depicts OHCA patients' county of residence from GCaR 2024.
2% of patients resided out-of-state and are not reflected in this map.

DATA TABLES AND FIGURES

OHCA PRE-HOSPITAL

Most out-of-hospital cardiac arrests (OHCA) are treated by EMS. While survival rates are low, immediate recognition of cardiac arrest and activation of the emergency response system can assist in increasing survival rates. Early cardiopulmonary resuscitation (CPR) and defibrillation by bystanders or first responders can also assist in increasing survival rates in a pre-hospital setting. Understanding where most OHCA occur and the type of witness present can inform targeted public education and intervention training efforts. The tables and figures in this section present EMS-collected data on arrest etiology, prehospital medications administered, event location, witness type, and initial cardiac rhythm.

Figure 16: Cardiac Arrest Etiology

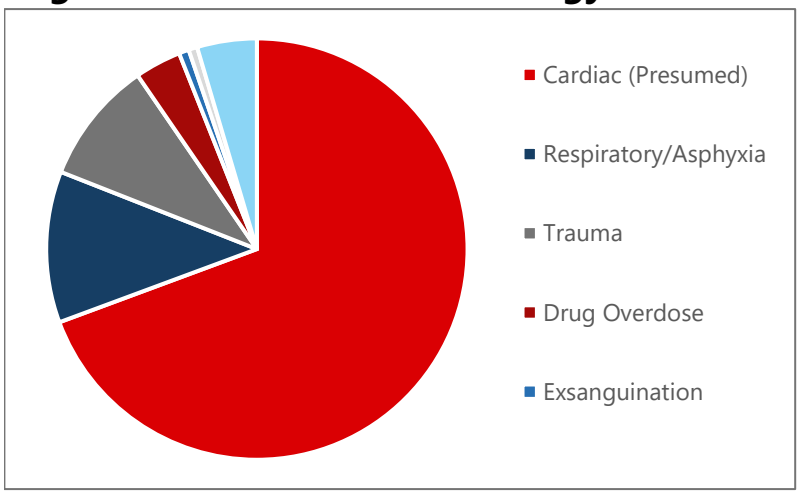


Table 10: Percent of OHCA Etiology

Etiology	Percent
Cardiac (Presumed)	69%
Respiratory/Asphyxia	12%
Trauma	9%
Drug Overdose	4%
Exsanguination	< 1%
Drowning/Submersion	< 1%
Other	5%

Figure 16 shows that 69% of OHCA were presumed to be of a cardiac cause. The next highest cause for OHCA was respiratory/asphyxia (12%), with trauma being the third highest (9%).

Table 11: Top 6 Medications Given Pre-Hospital, Cardiac Presumed

In order from greatest to least, epinephrine was given the most by EMS to OHCA patients with a cardiac presumed etiology, and dextrose was given the least. The list excludes IV fluids and Oxygen.

Medication Names	Percentage
Epinephrine	88%
Sodium Bicarbonate	33%
Naloxone	15%
Amiodarone	13%
Calcium Chloride	6%
Dextrose	5%

*Excludes unknown medications given

Figure 17: Cardiac Arrest Locations

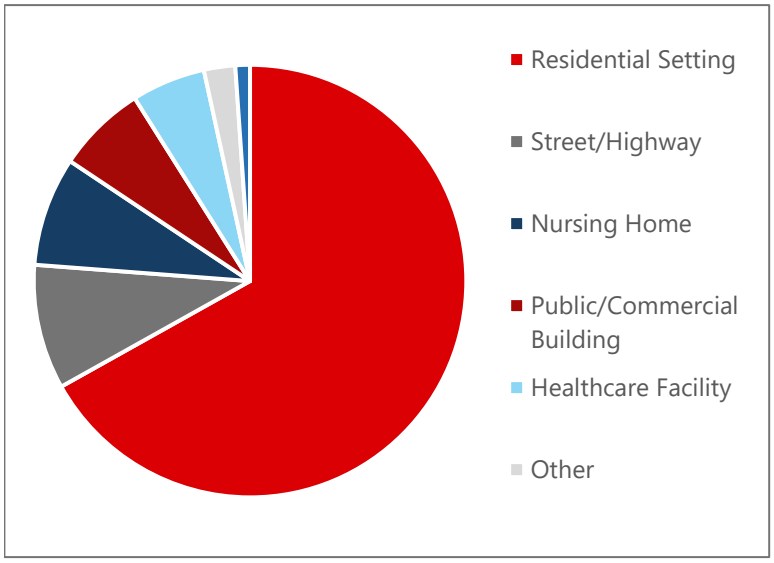
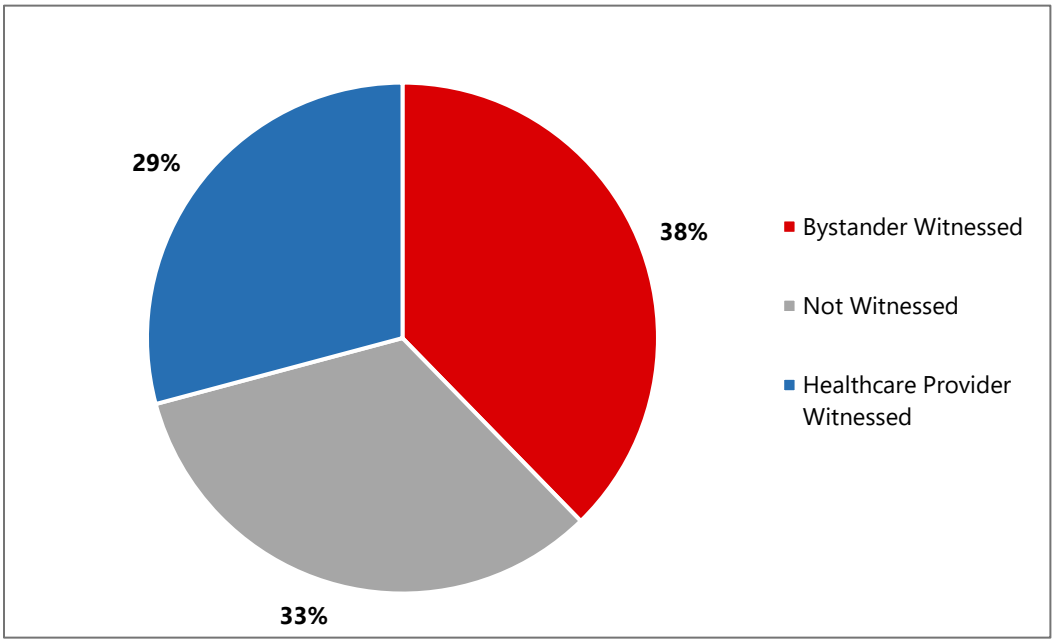


Table 12: Percent of OHCA Location Type

Location Type	Percent
Residential Setting	67%
Street/Highway	9%
Nursing Home	8%
Public/Commercial Building	7%
Healthcare Facility	6%
Place of Recreation	1%
Other	2%

Figure 17 shows that most OHCA occur at a residential setting (67%). The next most common location is a streets/highways (9%), and then nursing homes (8%).

Figure 18: OHCA Witnessed Type

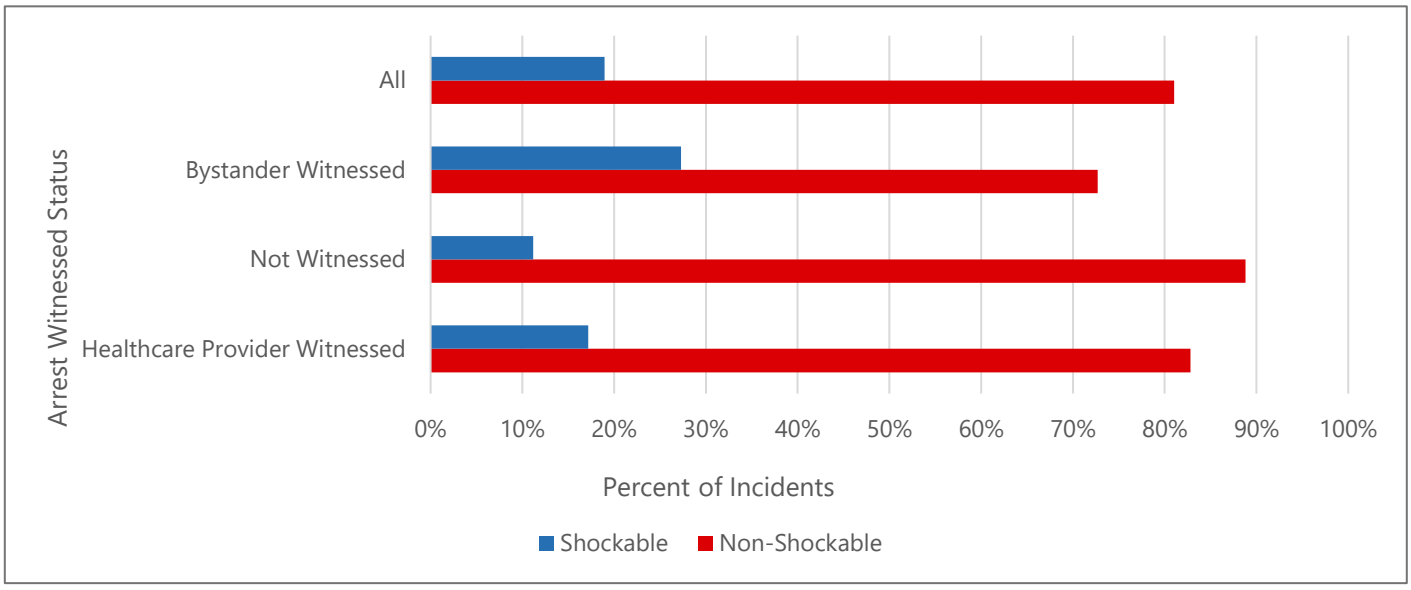


* Bystander Witness includes lay person or family member.
* Healthcare Provider Witnessed includes lay person medical provider, first responder, law enforcement, first responder (Non-EMS Fire), and responding EMS personnel

Figure 18 shows most of the OHCA events are witnessed by a family member or lay person (38%). The next highest percentage of OHCA events are not witnessed at all (33%).

Figure 19: Initial Rhythm by Witnessed Type

The majority of OHCA patients presented with an initial non-shockable rhythm, such as asystole or PEA (81%), compared to those with shockable rhythms like ventricular fibrillation (VF) and ventricular tachycardia-pulseless (VT) (19%). Initial rhythms differed by witnessed type. Bystander witnessed OHCA patients had a higher percentage of presenting with a shockable rhythm (27%) compared to those with non-witnessed events (11%).

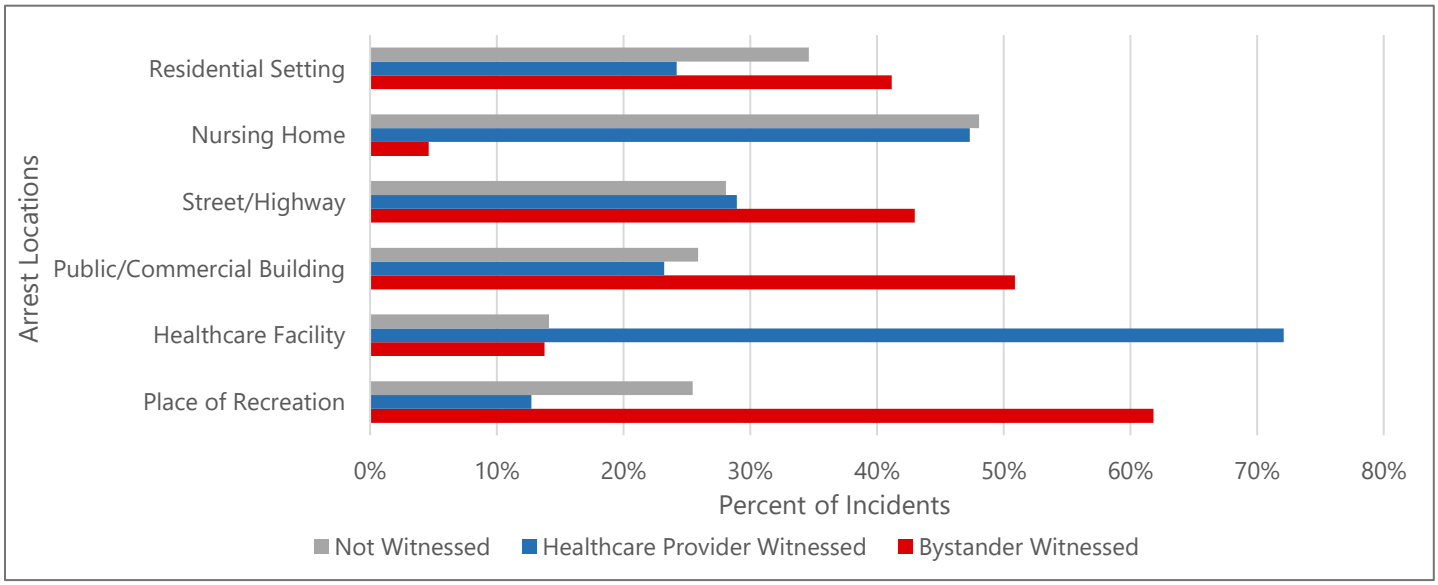


*Bystander Witness includes lay person or family member. Healthcare Provider Witnessed includes lay person medical provider, first responder, law enforcement, first responder (Non-EMS Fire), and responding EMS personnel.

*Shockable = ventricular fibrillation (VF) & ventricular tachycardia-pulseless (VT). Non-Shockable = asystole, idioventricular, pulseless electrical activity (PEA)

Figure 20: Location of Arrest by Witnessed Type

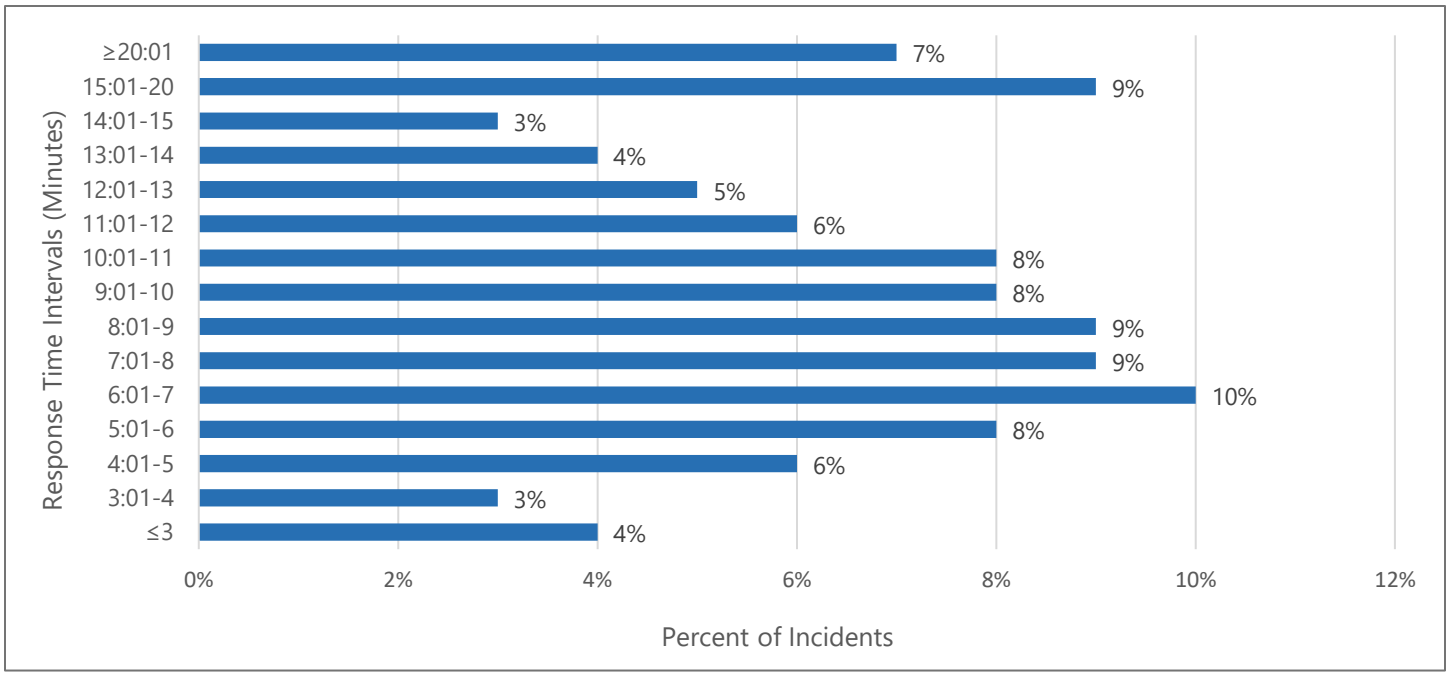
Patients that had an OHCA in a place of recreation had the highest percentage of being bystander witnessed (62%), while those in nursing homes had the lowest (5%). However, OHCA events in nursing homes had the highest percentage of cases not witnessed (48%) compared to healthcare facilities (14%).



* Unknown location type was not included.

* Bystander Witness includes lay person or family member. Healthcare Provider Witnessed includes lay person medical provider, first responder, law enforcement, first responder (Non-EMS Fire), and responding EMS personnel.

Figure 21: Distribution of EMS Response Time



*Time interval from 911 call to arrival on scene. Excludes missing times (9%)

The median response time by EMS was 9.02 (IQR: 6.3 – 12.4 minutes). EMS arrived of scene ≤6 minutes for 21% of OHCA incidents.

Figure 13: Bystander Intervention by EMS Region

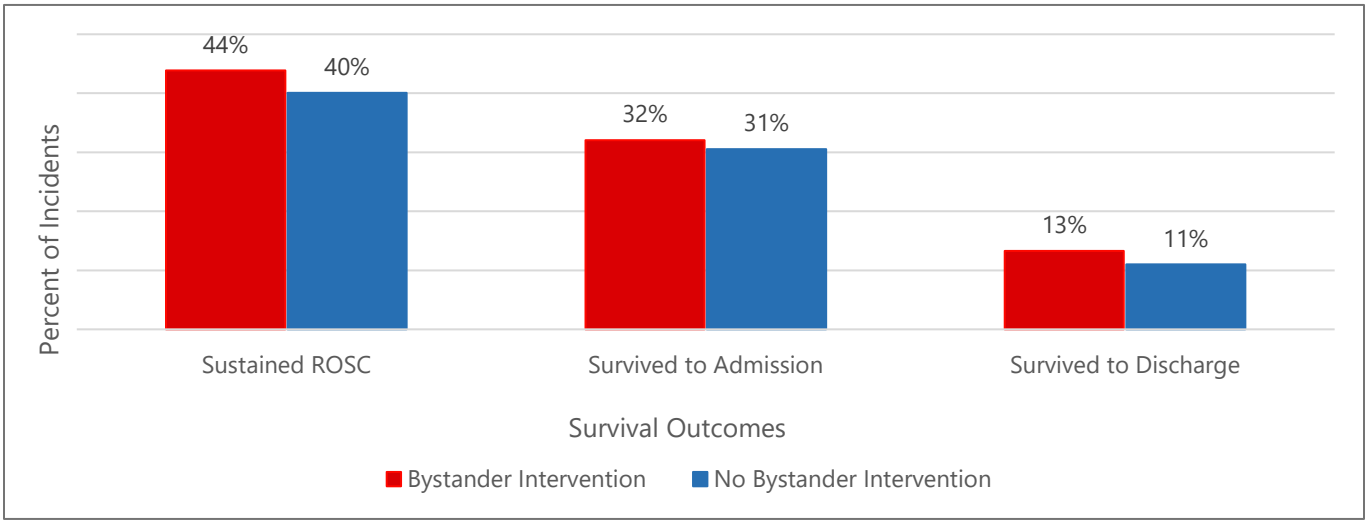
EMS Region	Frequency OHCA	CPR %	AED %
Region 1	349	30%	0.6%
Region 2	625	32%	2.1%
Region 3	1,856	28%	2.8%
Region 4	312	20%	1.6%
Region 5	507	16%	1.6%
Region 6	190	17%	0.5%
Region 7	107	22%	1.9%
Region 8	492	19%	0.4%
Region 9	511	20%	1.0%
Region 10	221	21%	0.5%
Total	5170	24%	1.8%

The average percent of bystander assistance for CPR is 24% and bystander assistance for AED is 1.8%. Region 2 had the highest percentage of Bystander CPR, region 5 had the lowest (16%). Region 3 had the highest bystander AED (2.8), and region 8 had the lowest (0.4%).

OCHA HOSPITAL & DISCHARGE DATA

While prehospital interventions are critical for patients with out-of-hospital cardiac arrest (OHCA), in-hospital care is equally essential. Discharge-level metrics provide insight into the effectiveness of acute cardiac interventions and ongoing clinical management. Patient outcomes are influenced by a well-coordinated and efficient system of care, as reflected in measures ranging from hospital length of stay to discharge disposition.

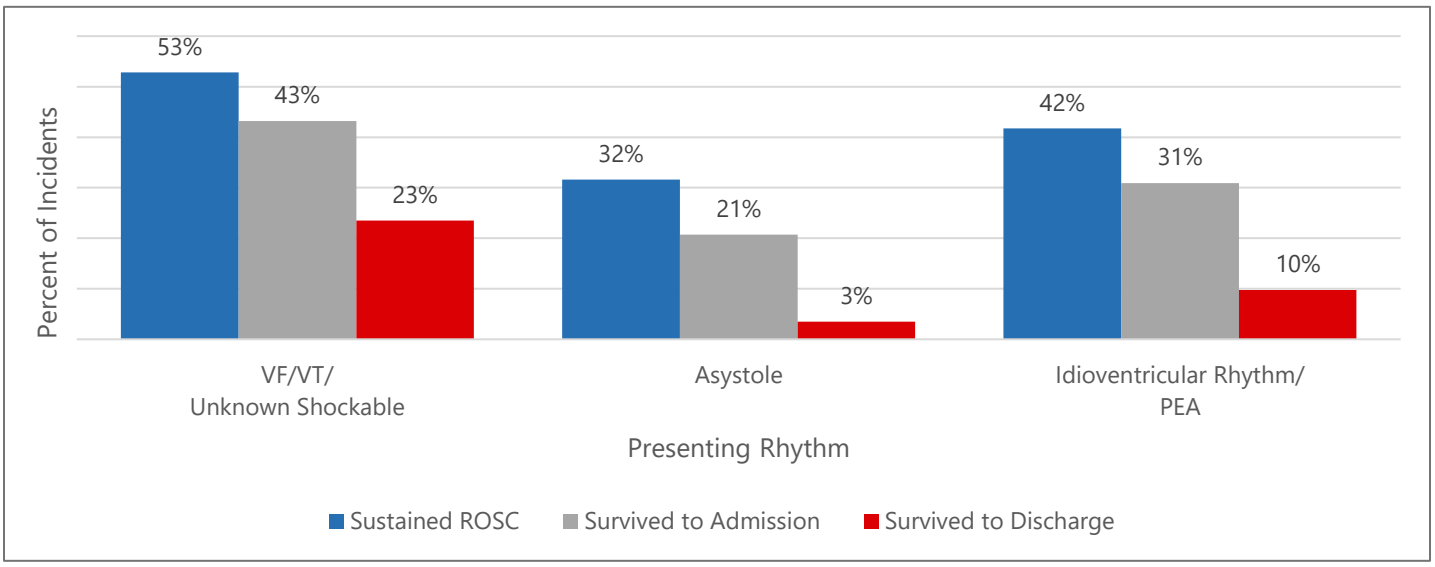
Figure 22: Survival Outcomes by Bystander Intervention



*Bystander Intervention includes CPR and/or AED use. Return of Spontaneous Circulation (ROSC)

Bystander intervention is shown to increase different survival outcomes. There was a 4% increase in ROSC for patients that received bystander CPR and/or AED use. There was a 1% increase in patients being admitted to the hospital and a 2% increase in patients being discharged alive when bystander CPR and/or AED were performed.

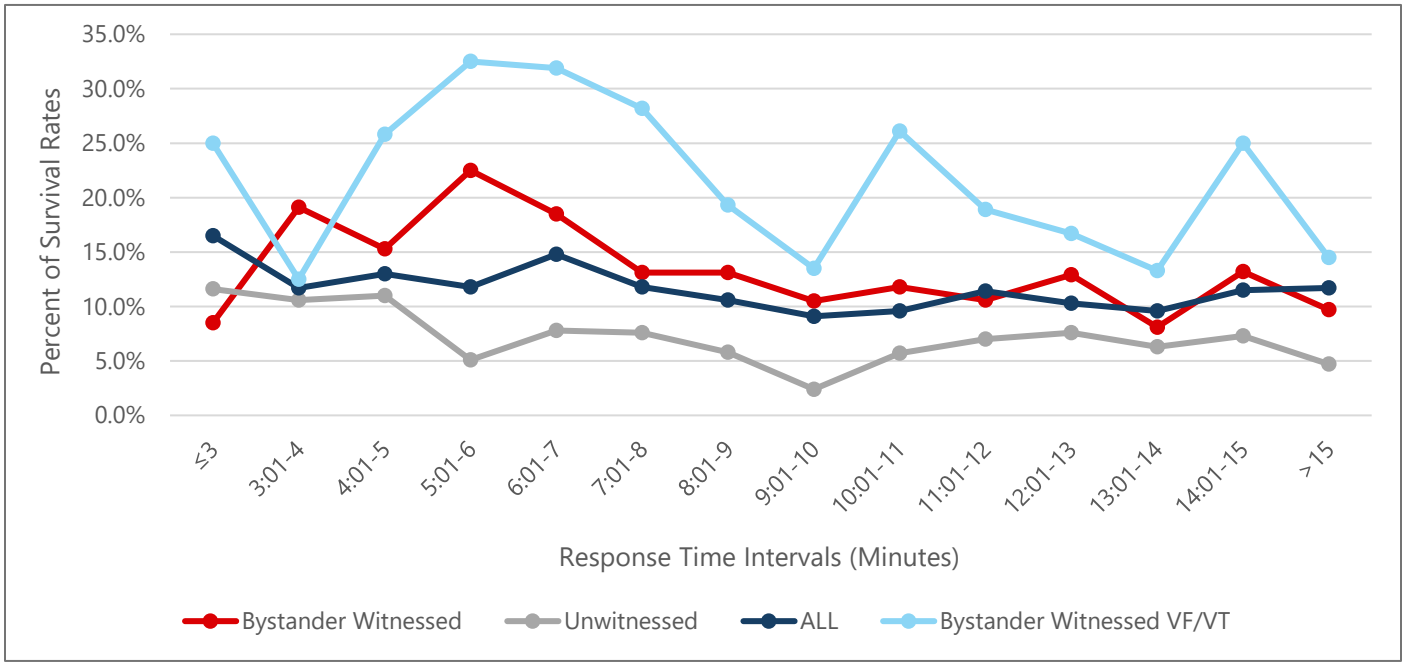
Figure 23: Survival Outcomes by Presenting Rhythm



*Unknown non-shockable rhythms were removed due to low incidents (3%)

Patients that presented with an initial shockable rhythm have a much higher chance of survival than patients with an unshockable initial rhythm. Patients with an initial shockable rhythm had a higher rate of being discharged alive (23%) than an unshockable initial rhythm or asystole (3%) or PEA (10%).

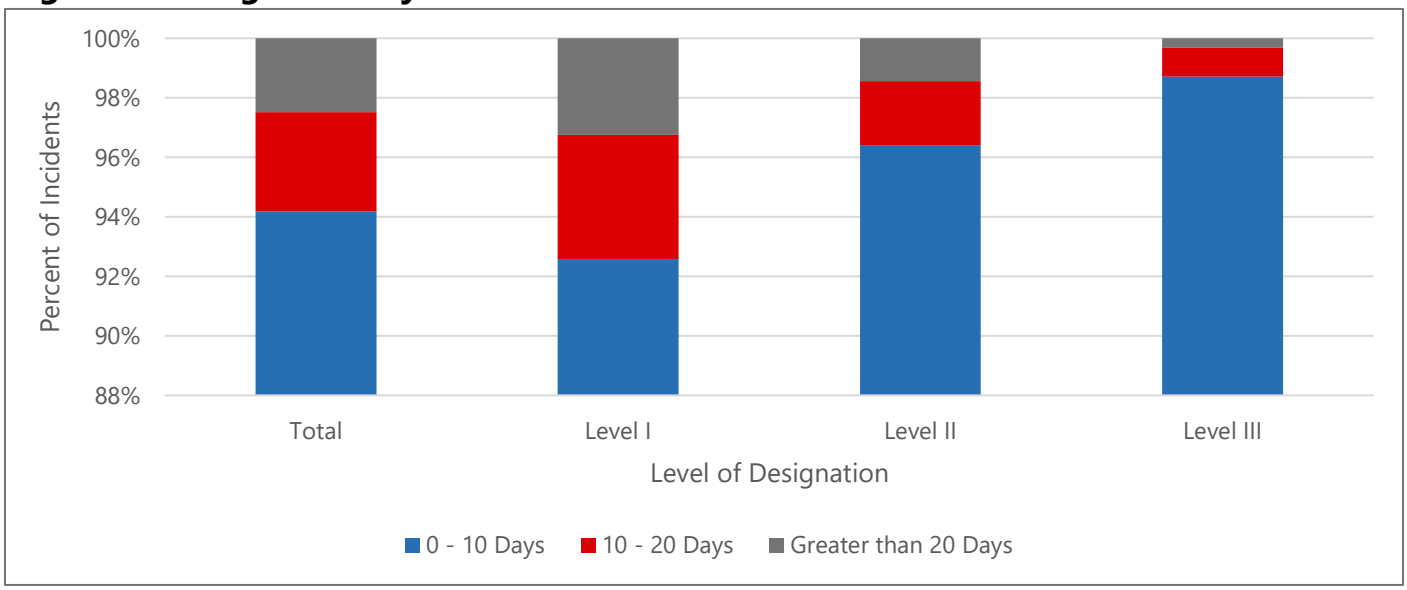
Figure 24: Survival Rates by EMS Response Rime and Arrest Witness Status



*Survival rates do not include transfers to acute care facilities

Among patients with bystander witnessed cardiac arrest and an initial shockable rhythm (VF/VT), survival decreased significantly as EMS response time increased. In contrast, EMS response time demonstrated minimal association with survival among unwitnessed arrests. Notably, beyond approximately a 7-minute response interval, survival rates appeared to plateau, with little additional decline observed.

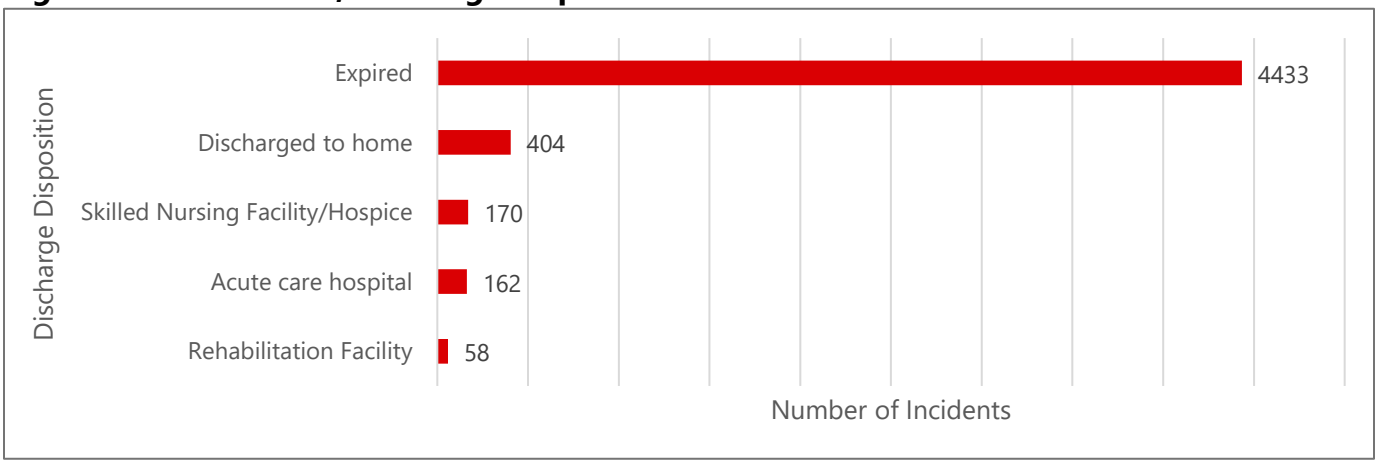
Figure 25: Length of Stay for OHCA



Level I facilities had 82% of patients expire and 9% discharged alive in "0 – 10 days". Level II had 84% expired, 5% were transferred to an acute care facility, and 7% were discharged alive in "0 – 10 days". Level III had 84% expired, and 14% were transferred to an acute care facility in "0 – 10 days".

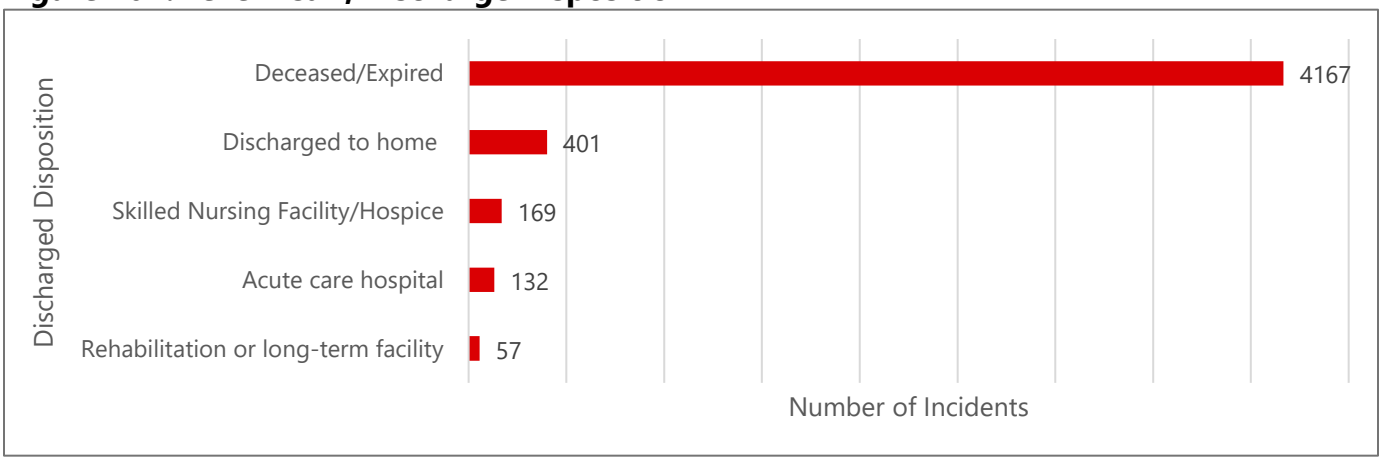
Figure 26A shows the discharge disposition for OHCA patients, further categorized by facility designation level. Level I and Level II facilities had similar discharge disposition rates and were combined for comparison. Level III had the highest rate of transferred to an acute care hospital.

Figure 26A: Statewide, Discharge Disposition



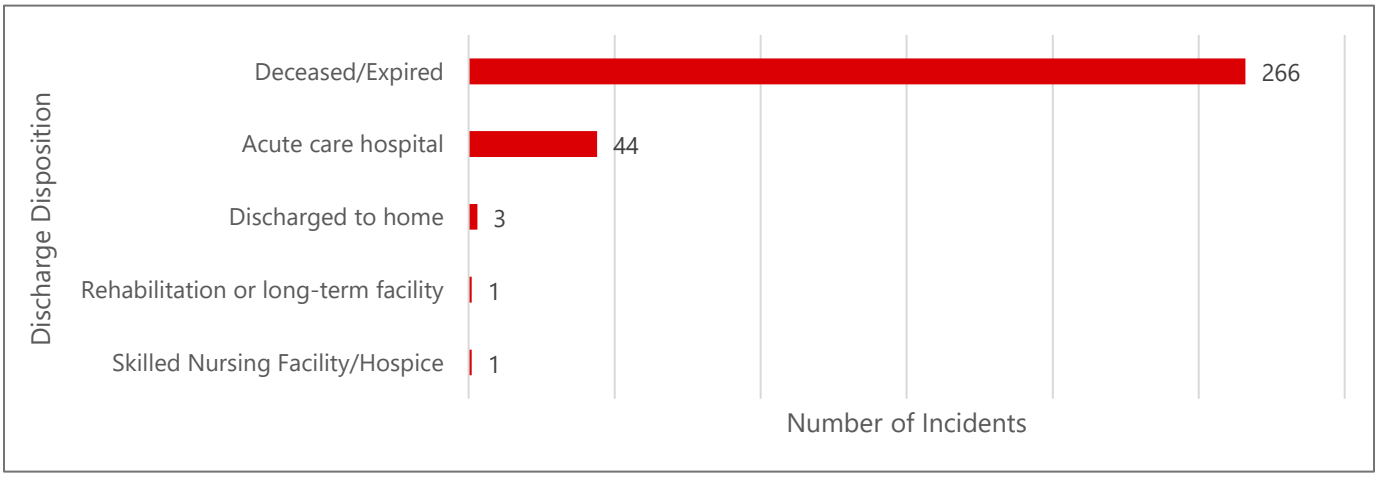
*Unknown discharge disposition was not included.

Figure 26B: Level I & II, Discharge Disposition



*Unknown discharge disposition was not included.

Figure 26C: Level III, Discharge Disposition



*Unknown discharge disposition was not included.

OHCA Trends 2021-2024

Monitoring data over time is essential for assessing program growth and performance. This section presents a four-year overview of patient clinical outcomes and bystander intervention. In 2021, when data collection began, 28 facilities were designated. By 2024, the number of designated facilities increased to 47. As participation has expanded, the program continues to generate more comprehensive data to inform and drive meaningful system-level improvements.

Figure 27: Mortality Rates per Year

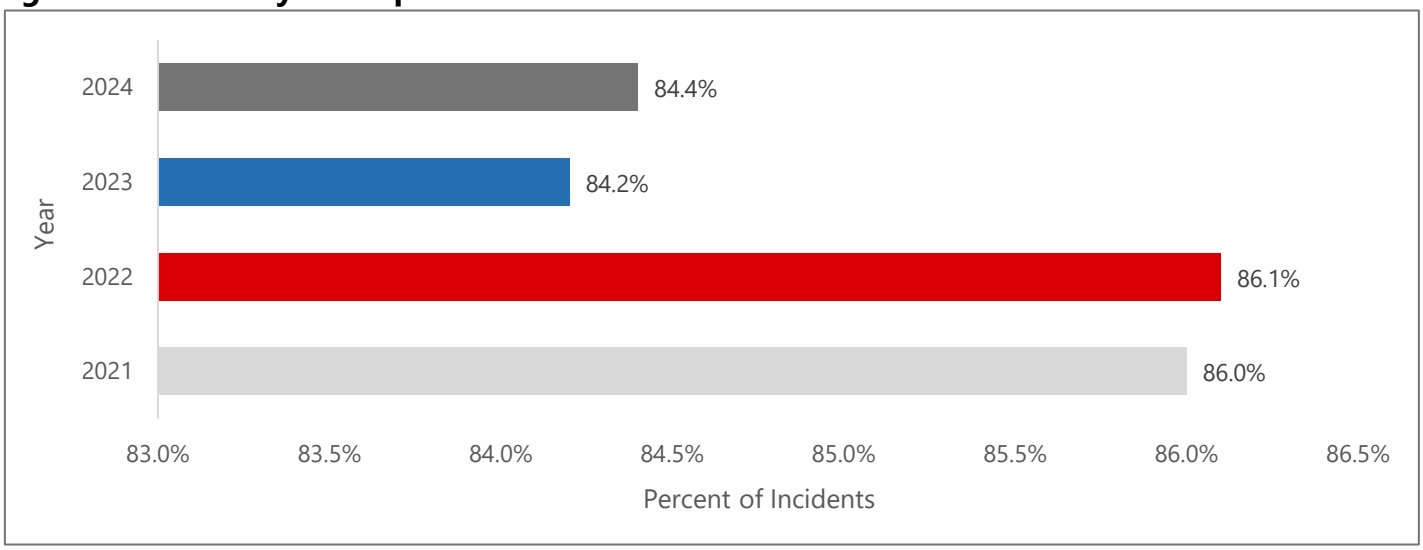


Figure 27 shows mortality rates for OHCA cases. While mortality rates remained stable from 2023-2024, there was an overall decrease in mortality rates from 2021 - 2024.

Figure 28: Bystander Intervention, CPR & AED

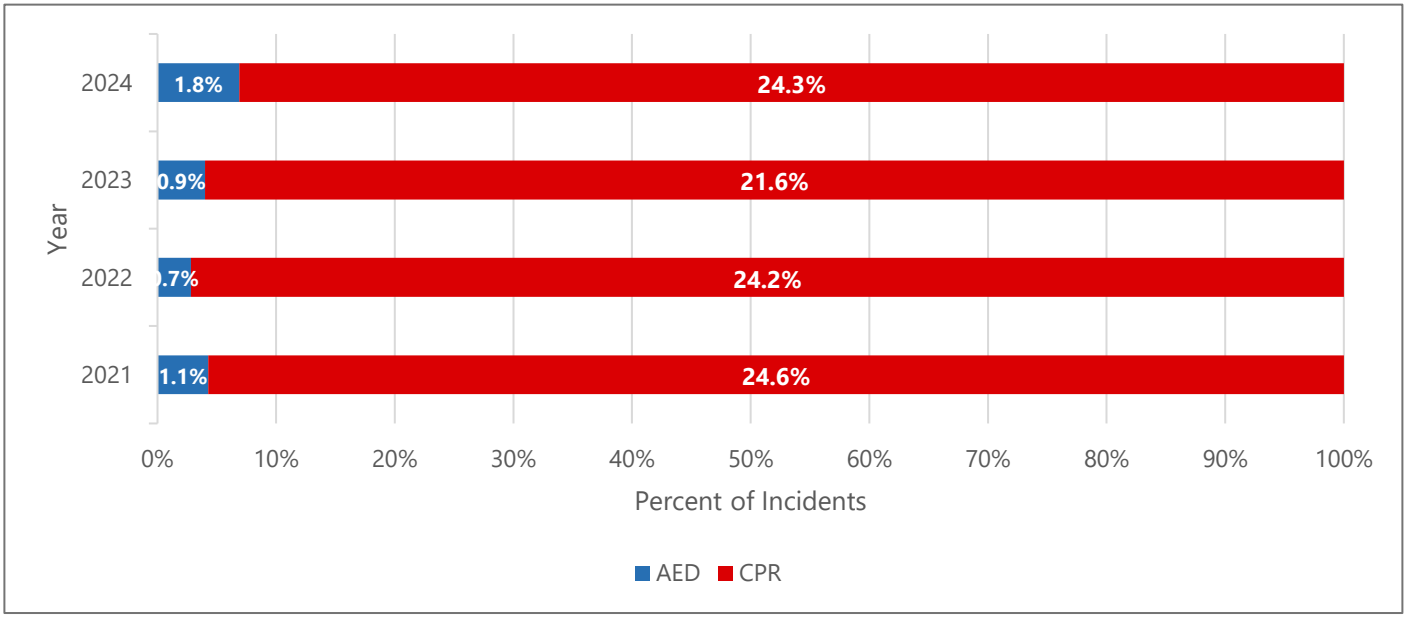


Figure 28 shows the percentage of bystander CPR and AED intervention. There are fluctuations due to changes in definitions and data collection over the years. However, there is growth in bystander CPR and bystander AED for OHCA patients.

UTSTEIN REPORT – GEORGIA

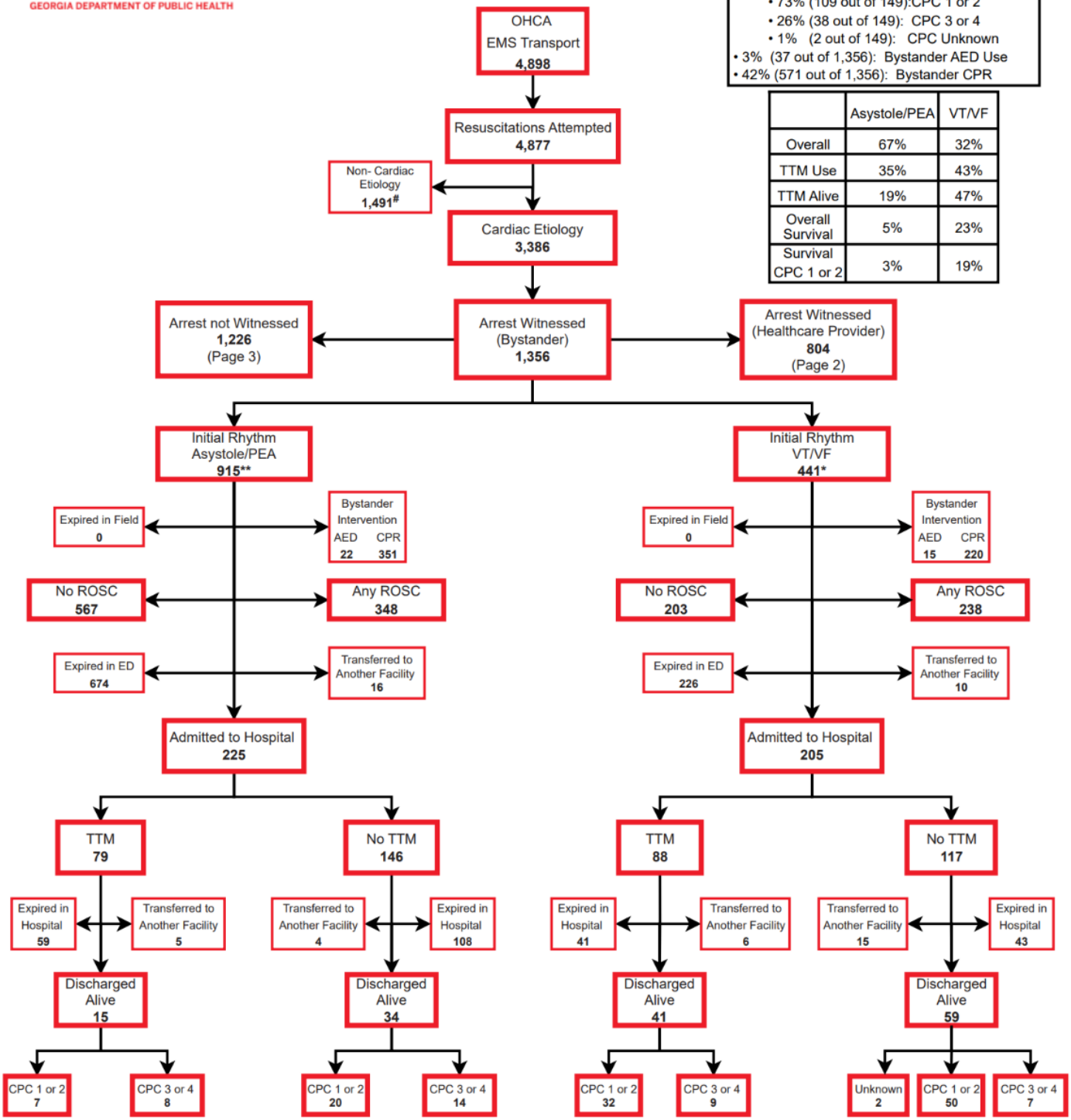
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Bystander Witnessed OHCA Cardiac Etiology

- 43% (586 out of 1,356): ROSC
- 32% (430 out of 1,356): Survival to Admission
- 11% (149 out of 1,356): Survival to Discharge
  - 73% (109 out of 149):CPC 1 or 2
  - 26% (38 out of 149): CPC 3 or 4
  - 1% (2 out of 149): CPC Unknown
- 3% (37 out of 1,356): Bystander AED Use
- 42% (571 out of 1,356): Bystander CPR

	Asystole/PEA	VT/VF
Overall	67%	32%
TTM Use	35%	43%
TTM Alive	19%	47%
Overall Survival	5%	23%
Survival CPC 1 or 2	3%	19%



Abbreviations & Definitions on the last page

#Drowning/Submersion (32), Drug overdose (154), Electrocution (4), Exsanguination (36) Respiratory/Asphyxia (562), Trauma (442), & Other (261)

*Ventricular Fibrillation (349), Ventricular Tachycardia-Pulseless (38), & Unknown AED Shockable Rhythm (54)

**Asystole (531), PEA (360), & Unknown AED Non-Shockable Rhythm (24)

We protect lives.

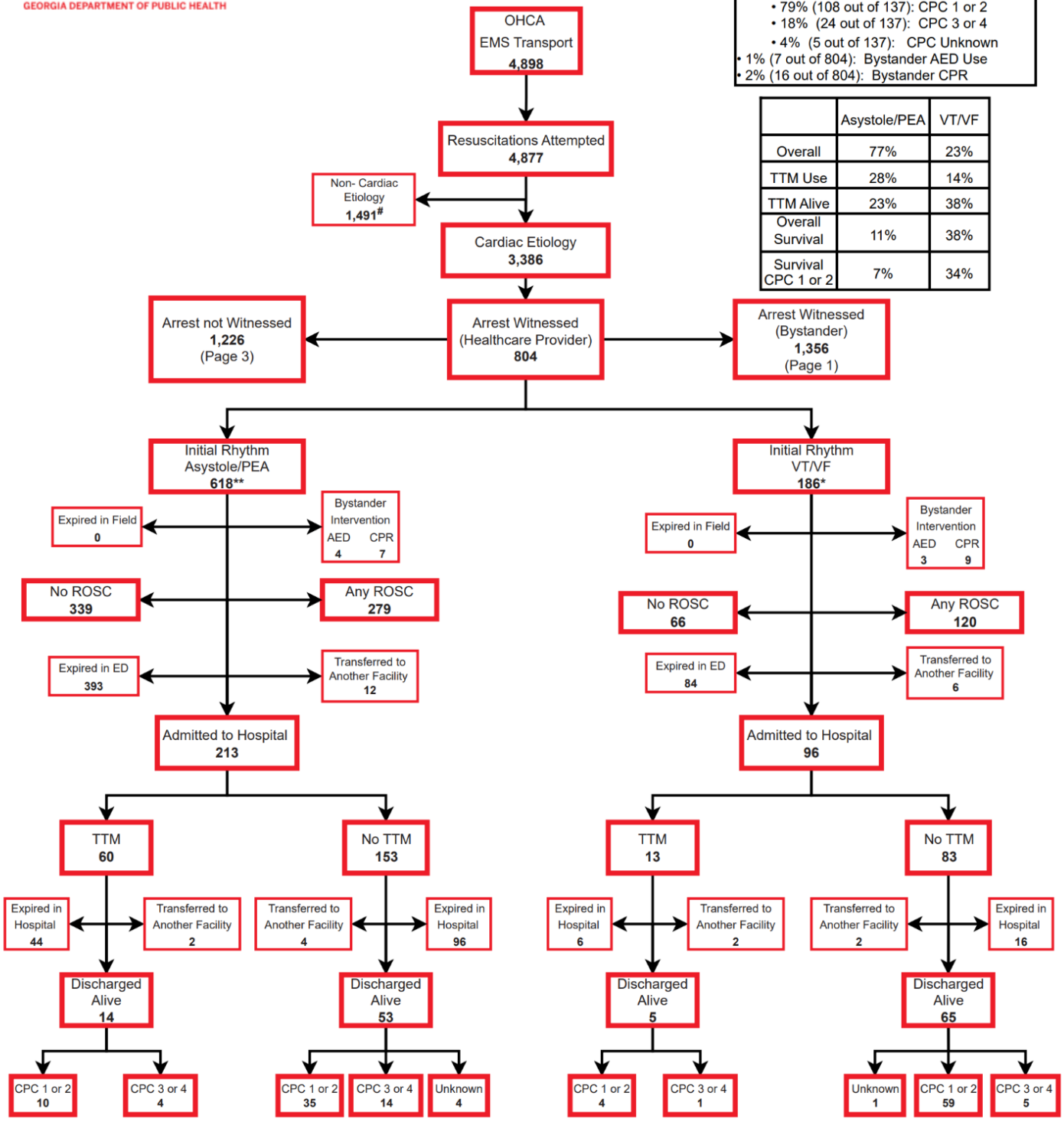
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Healthcare Provider Witnessed OHCA Cardiac Etiology

- 50% (399 out of 804): ROSC
- 38% (309 out of 804): Survival to Admission
- 17% (137 out of 804): Survival to Discharge
  - 79% (108 out of 137): CPC 1 or 2
  - 18% (24 out of 137): CPC 3 or 4
  - 4% (5 out of 137): CPC Unknown
- 1% (7 out of 804): Bystander AED Use
- 2% (16 out of 804): Bystander CPR

	Asystole/PEA	VT/VF
Overall	77%	23%
TTM Use	28%	14%
TTM Alive	23%	38%
Overall Survival	11%	38%
Survival CPC 1 or 2	7%	34%



Abbreviations & Definitions on the last page

#Drowning/Submersion (32), Drug overdose (154), Electrocution (4), Exsanguination (36) Respiratory/Asphyxia (562), Trauma (442), & Other (261)

*Ventricular Fibrillation (118), Ventricular Tachycardia-Pulseless (42), & Unknown AED Shockable Rhythm (26)

**Asystole (240), PEA (340), Idioventricular (1), & Unknown AED Non-Shockable Rhythm (37)

We protect lives.

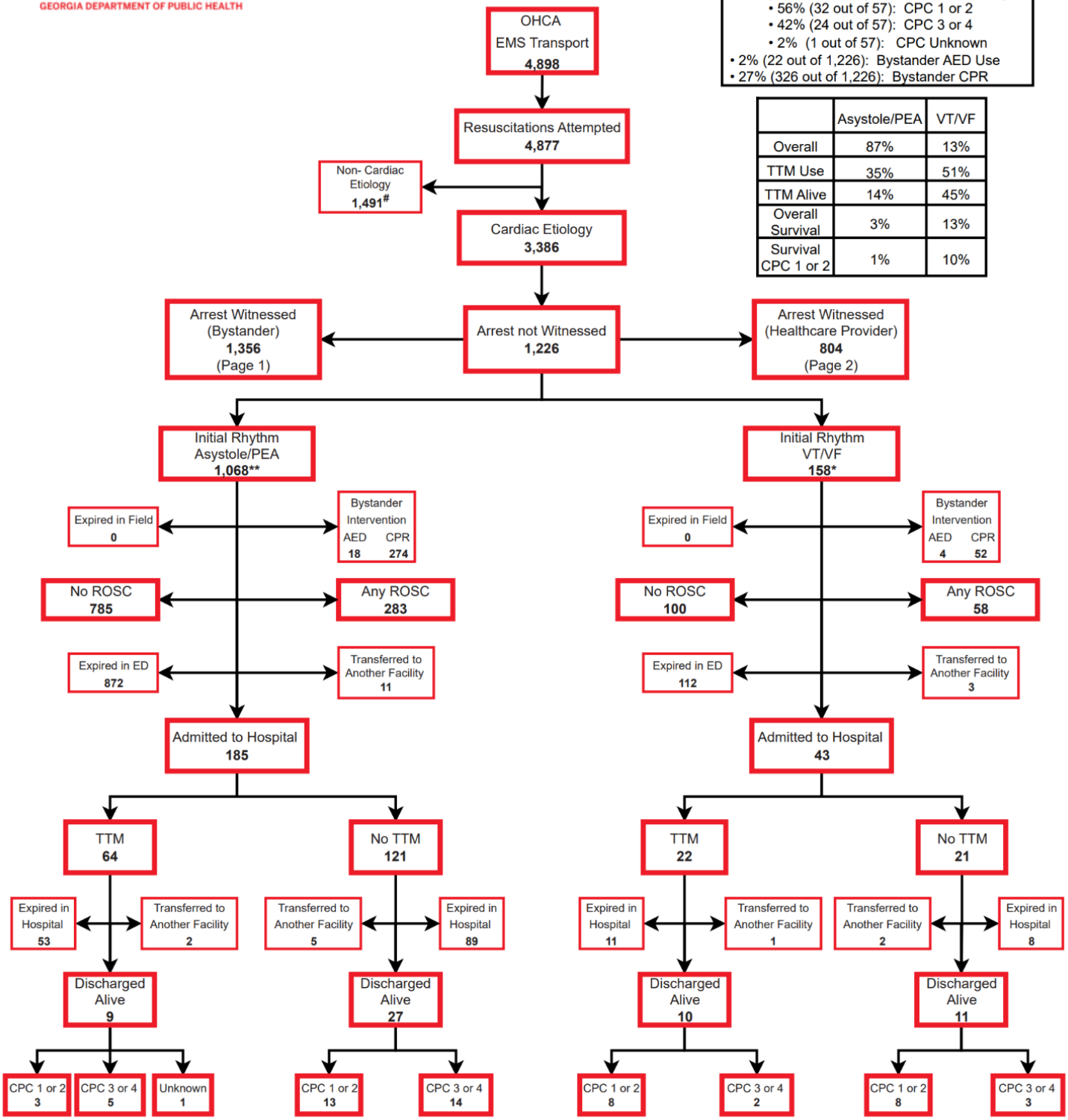
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Unwitnessed OHCA Cardiac Etiology

- 28% (341 out of 1,226): ROSC
- 19% (228 out of 1,226): Survival to Admission
- 5% (57 out of 1,226): Survival to Discharge
  - 56% (32 out of 57): CPC 1 or 2
  - 42% (24 out of 57): CPC 3 or 4
  - 2% (1 out of 57): CPC Unknown
- 2% (22 out of 1,226): Bystander AED Use
- 27% (326 out of 1,226): Bystander CPR

	Asystole/PEA	VT/VF
Overall	87%	13%
TTM Use	35%	51%
TTM Alive	14%	45%
Overall Survival	3%	13%
Survival CPC 1 or 2	1%	10%



Abbreviations & Definitions on the last page

#Drowning/Submersion (32), Drug overdose (154), Electrocution (4), Exsanguination (36), Respiratory/Asphyxia (562), Trauma (442), & Other (261)

*Ventricular Fibrillation (126), Ventricular Tachycardia-Pulseless (11), & Unknown AED Shockable Rhythm (21)

**Asystole (789), PEA (266), & Unknown AED Non-Shockable Rhythm (13)

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UTSTEIN REPORT– LEVEL I CENTERS

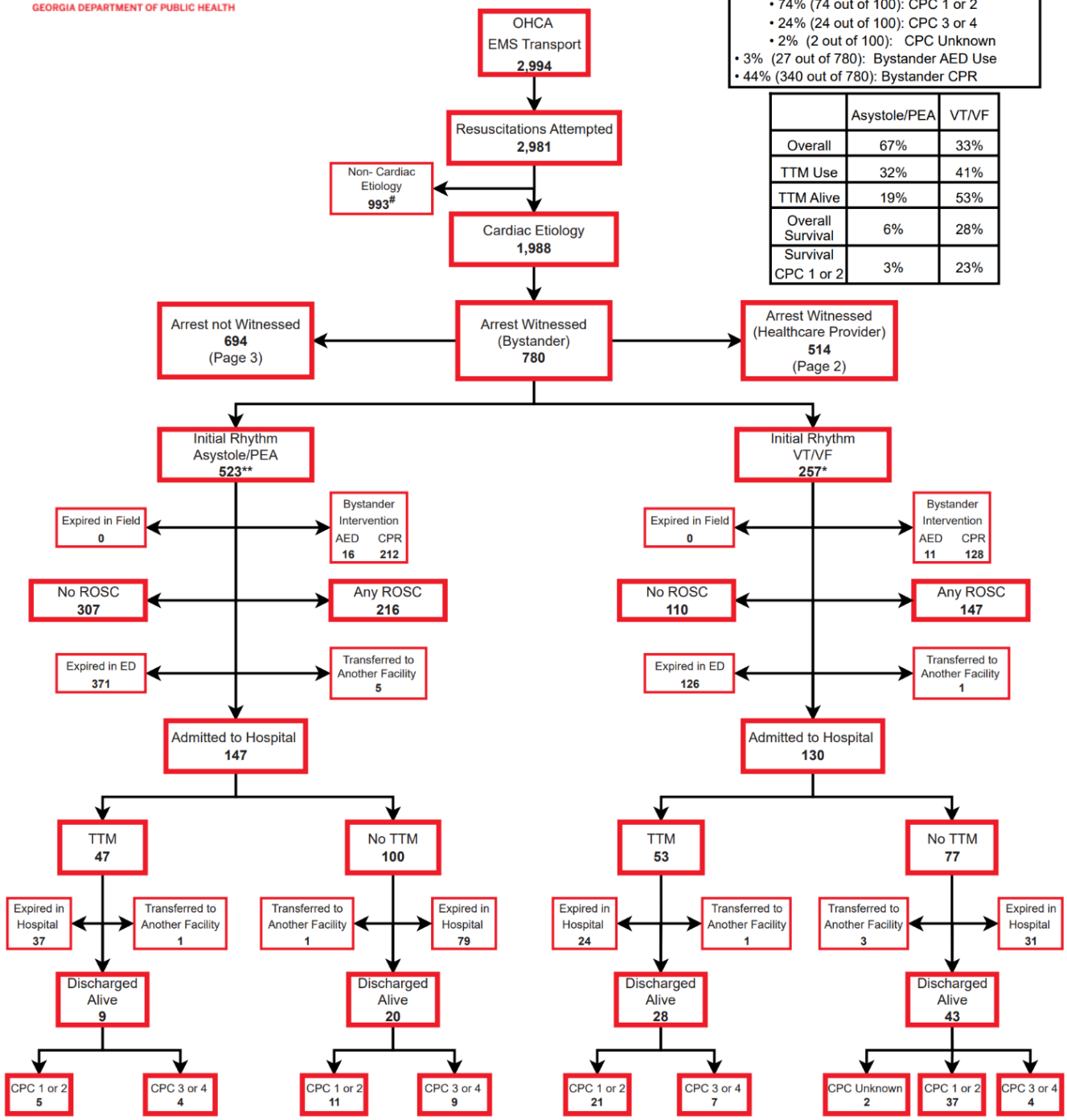
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level I
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Bystander Witnessed OHCA Cardiac Etiology

- 47% (363 out of 780): ROSC
- 36% (277 out of 780): Survival to Admission
- 13% (100 out of 780): Survival to Discharge
  - 74% (74 out of 100): CPC 1 or 2
  - 24% (24 out of 100): CPC 3 or 4
  - 2% (2 out of 100): CPC Unknown
- 3% (27 out of 780): Bystander AED Use
- 44% (340 out of 780): Bystander CPR

	Asystole/PEA	VT/VF
Overall	67%	33%
TTM Use	32%	41%
TTM Alive	19%	53%
Overall Survival	6%	28%
Survival CPC 1 or 2	3%	23%



Abbreviations & Definitions on the last page

#Drowning/Submersion (17), Drug overdose (102), Electrocution (4), Exsanguination (21), Respiratory/Asphyxia (352), Trauma (327), & Other (170)

*Ventricular Fibrillation (203), Ventricular Tachycardia-Pulseless (27), & Unknown AED Shockable Rhythm (27)

**Asystole (283), PEA (228), & Unknown AED Non-Shockable Rhythm (12)

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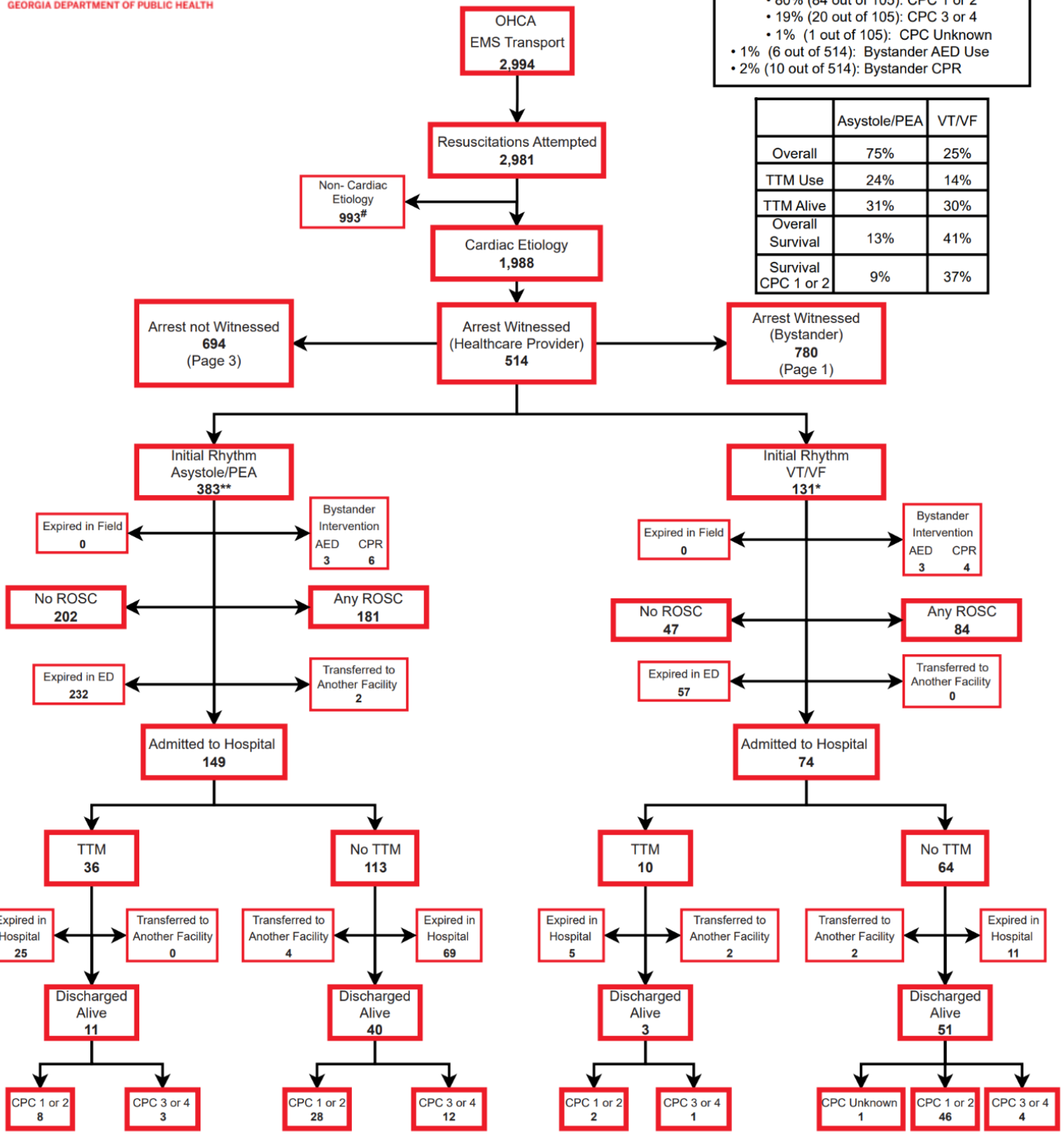
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level I
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Healthcare Provider Witnessed OHCA Cardiac Etiology

- 52% (265 out of 514): ROSC
- 43% (223 out of 514): Survival to Admission
- 20% (105 out of 514): Survival to Discharge
  - 80% (84 out of 105): CPC 1 or 2
  - 19% (20 out of 105): CPC 3 or 4
  - 1% (1 out of 105): CPC Unknown
- 1% (6 out of 514): Bystander AED Use
- 2% (10 out of 514): Bystander CPR

	Asystole/PEA	VT/VF
Overall	75%	25%
TTM Use	24%	14%
TTM Alive	31%	30%
Overall Survival	13%	41%
Survival CPC 1 or 2	9%	37%



Abbreviations & Definitions on the last page

#Drowning/Submersion (17), Drug overdose (102), Electrocution (4), Exsanguination (21), Respiratory/Asphyxia (352), Trauma (327), & Other (170)

*Ventricular Fibrillation (85), Ventricular Tachycardia-Pulseless (28), & Unknown AED Shockable Rhythm (18)

**Asystole (145), PEA (210), Idioventricular Rhythm (1), & Unknown AED Non-Shockable Rhythm (27)

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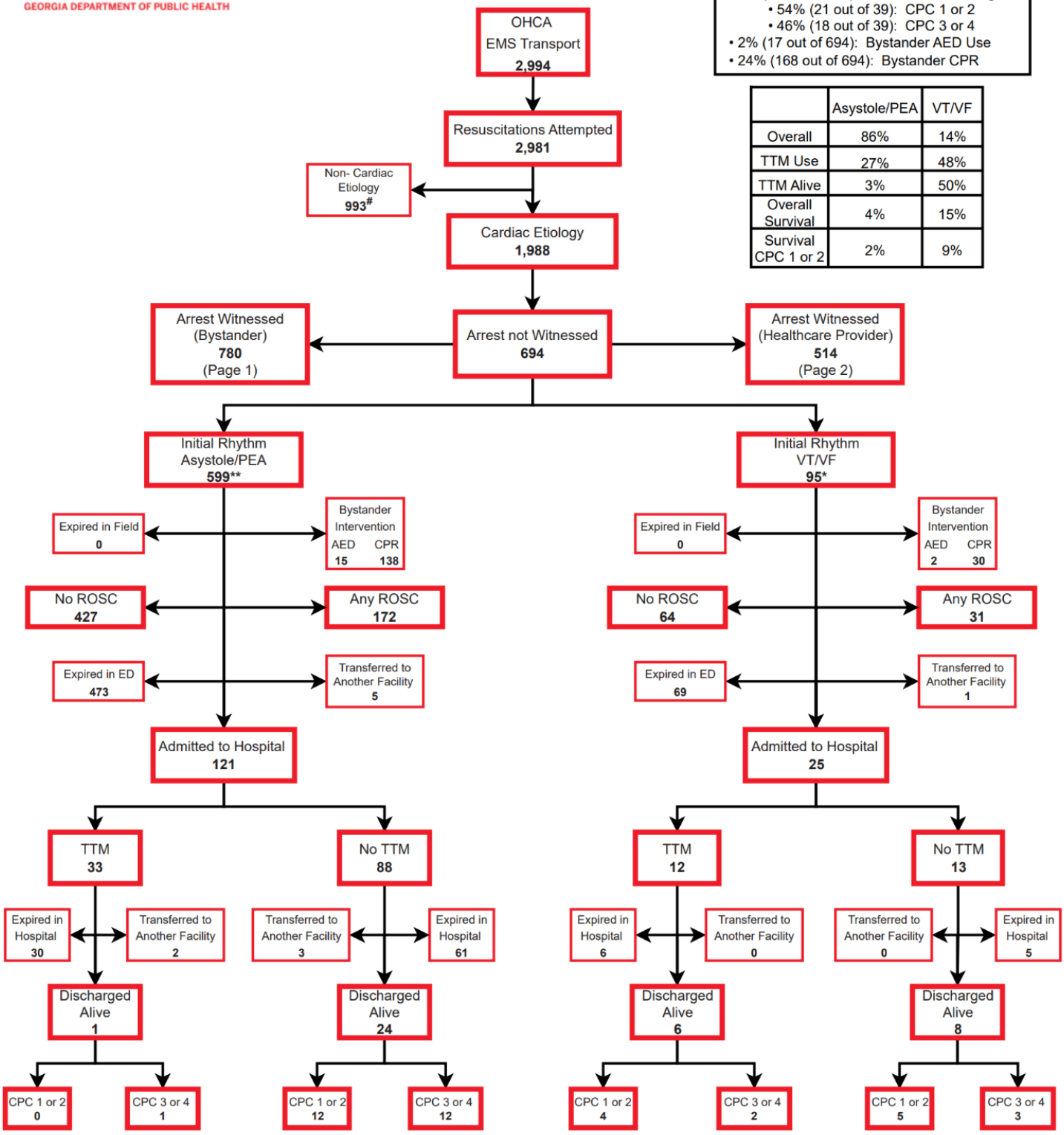
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level I
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Unwitnessed OHCA Cardiac Etiology

- 29% (203 out of 694): ROSC
- 21% (146 out of 694): Survival to Admission
- 6% (39 out of 694): Survival to Discharge
  - 54% (21 out of 39): CPC 1 or 2
  - 46% (18 out of 39): CPC 3 or 4
- 2% (17 out of 694): Bystander AED Use
- 24% (168 out of 694): Bystander CPR

	Asystole/PEA	VT/VF
Overall	86%	14%
TTM Use	27%	48%
TTM Alive	3%	50%
Overall Survival	4%	15%
Survival CPC 1 or 2	2%	9%



Abbreviations & Definitions on the last page

#Drowning/Submersion (17), Drug overdose (102), Electrocution (4), Exsanguination (21), Respiratory/Asphyxia (352), Trauma (327), & Other (168)

*Ventricular Fibrillation (79), Ventricular Tachycardia-Pulseless (6), & Unknown AED Shockable Rhythm (10)

**Asystole (444), PEA (145), & Unknown AED Non-Shockable Rhythm (10)

We protect lives.

UTSTEIN REPORT–LEVEL II CENTERS

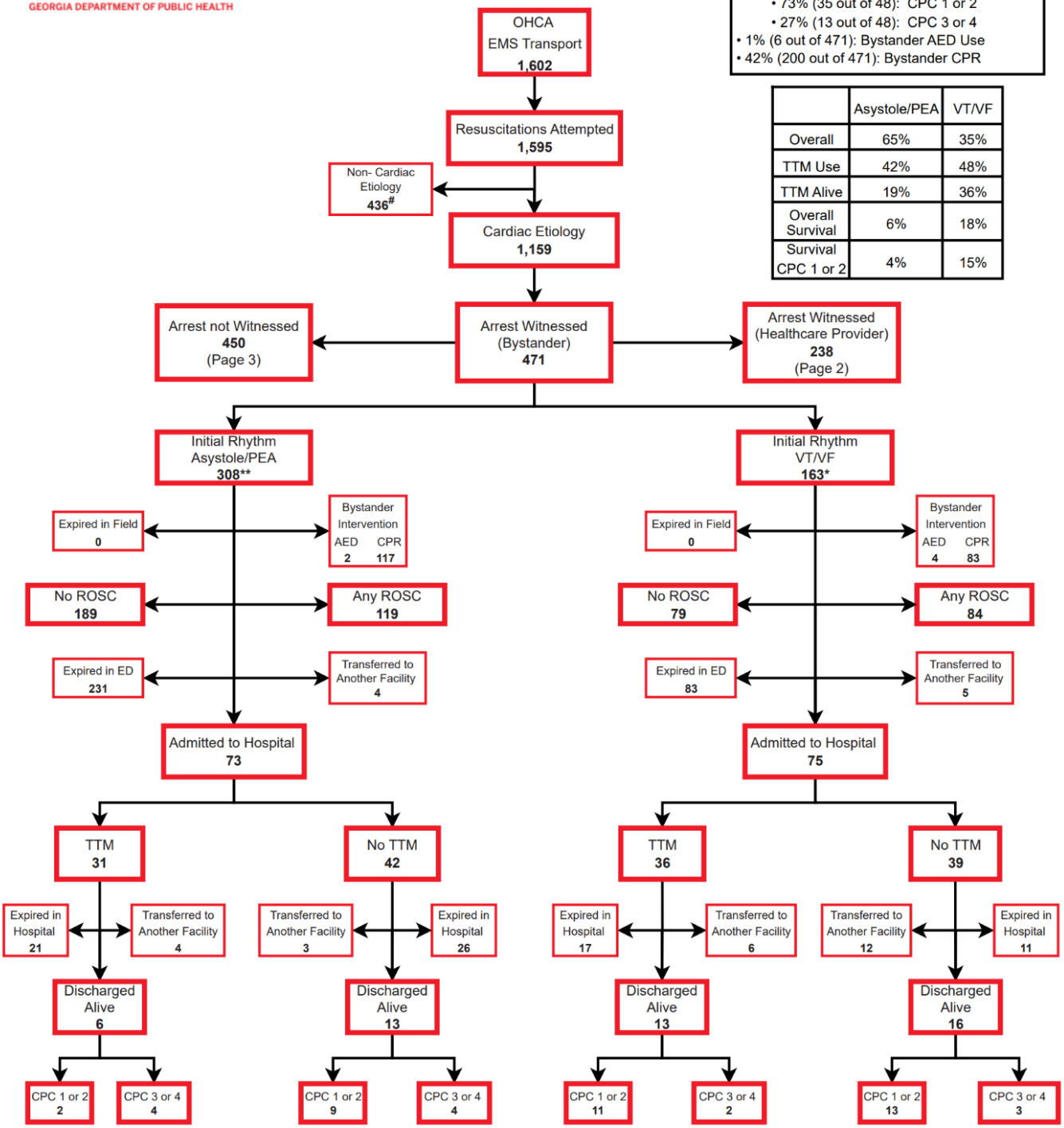
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level II
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Bystander Witnessed OHCA Cardiac Etiology

- 43% (203 out of 471): ROSC
- 31% (148 out of 471): Survival to Admission
- 10% (48 out of 471): Survival to Discharge
  - 73% (35 out of 48): CPC 1 or 2
  - 27% (13 out of 48): CPC 3 or 4
- 1% (6 out of 471): Bystander AED Use
- 42% (200 out of 471): Bystander CPR

	Asystole/PEA	VT/VF
Overall	65%	35%
TTM Use	42%	48%
TTM Alive	19%	36%
Overall Survival	6%	18%
Survival CPC 1 or 2	4%	15%



Abbreviations & Definitions on the last page

#Drowning/Submersion (12), Drug overdose (49), Exsanguination (13), Respiratory/Asphyxia (183), Trauma (97), & Other (82)

*Ventricular Fibrillation (127), Ventricular Tachycardia-Pulseless (9), & Unknown AED Shockable Rhythm (27)

**Asystole (184), PEA (114), & Unknown AED Non-Shockable Rhythm (10)

We protect lives.

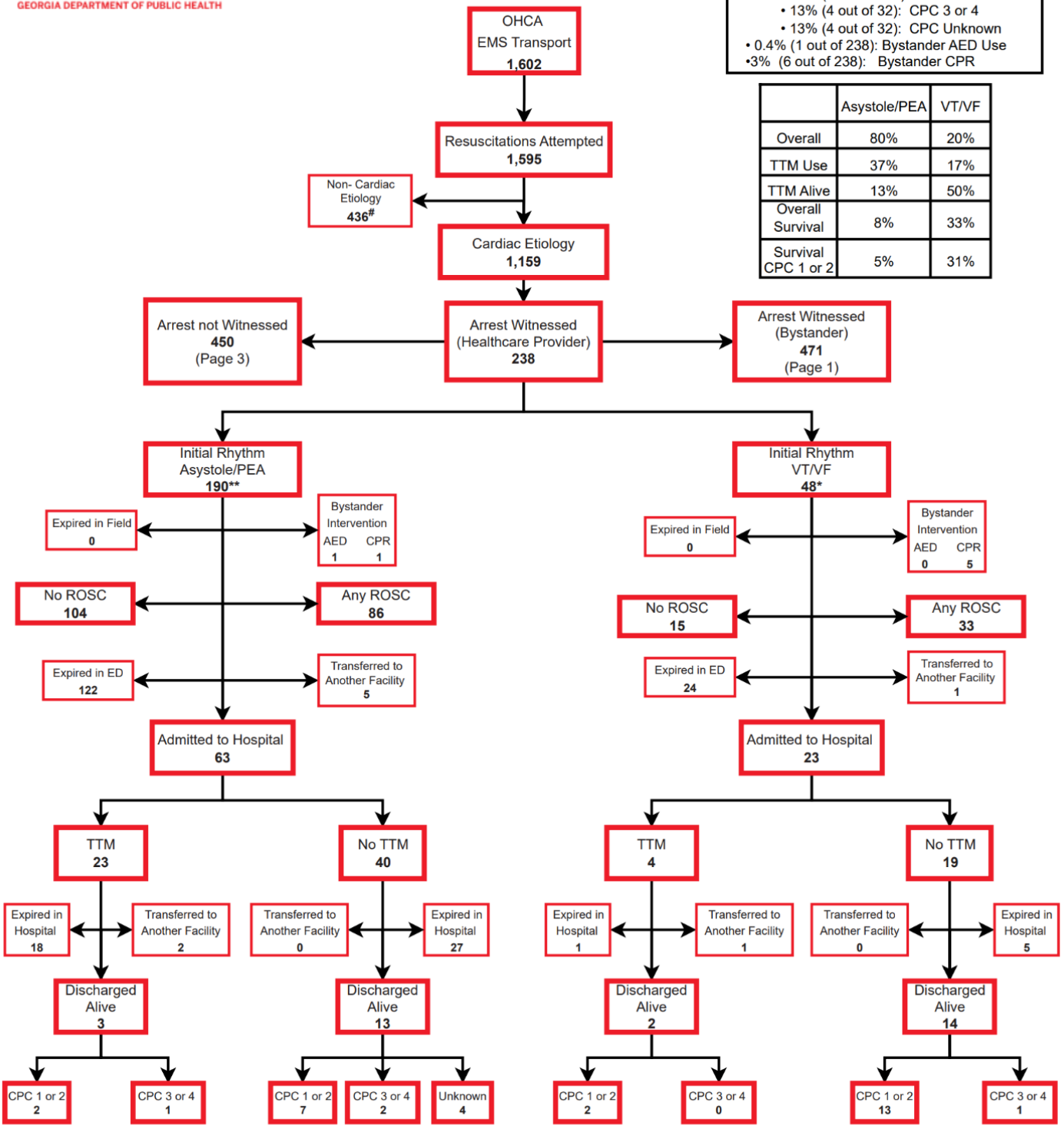
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level II
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Healthcare Provider Witnessed OHCA Cardiac Etiology

- 50% (119 out of 238): ROSC
- 36% (86 out of 238): Survival to Admission
- 13% (32 out of 238): Survival to Discharge
  - 75% (24 out of 32): CPC 1 or 2
  - 13% (4 out of 32): CPC 3 or 4
  - 13% (4 out of 32): CPC Unknown
- 0.4% (1 out of 238): Bystander AED Use
- 3% (6 out of 238): Bystander CPR

	Asystole/PEA	VT/VF
Overall	80%	20%
TTM Use	37%	17%
TTM Alive	13%	50%
Overall Survival	8%	33%
Survival CPC 1 or 2	5%	31%



Abbreviations & Definitions on the last page

#Drowning/Submersion (12), Drug overdose (49), Exsanguination (13), Respiratory/Asphyxia (183), Trauma (97), & Other (82)

*Ventricular Fibrillation (30), Ventricular Tachycardia-Pulseless (12), & Unknown AED Shockable Rhythm (6)

**Asystole (77), PEA (104), & Unknown AED Non-Shockable Rhythm (9)

We protect lives.

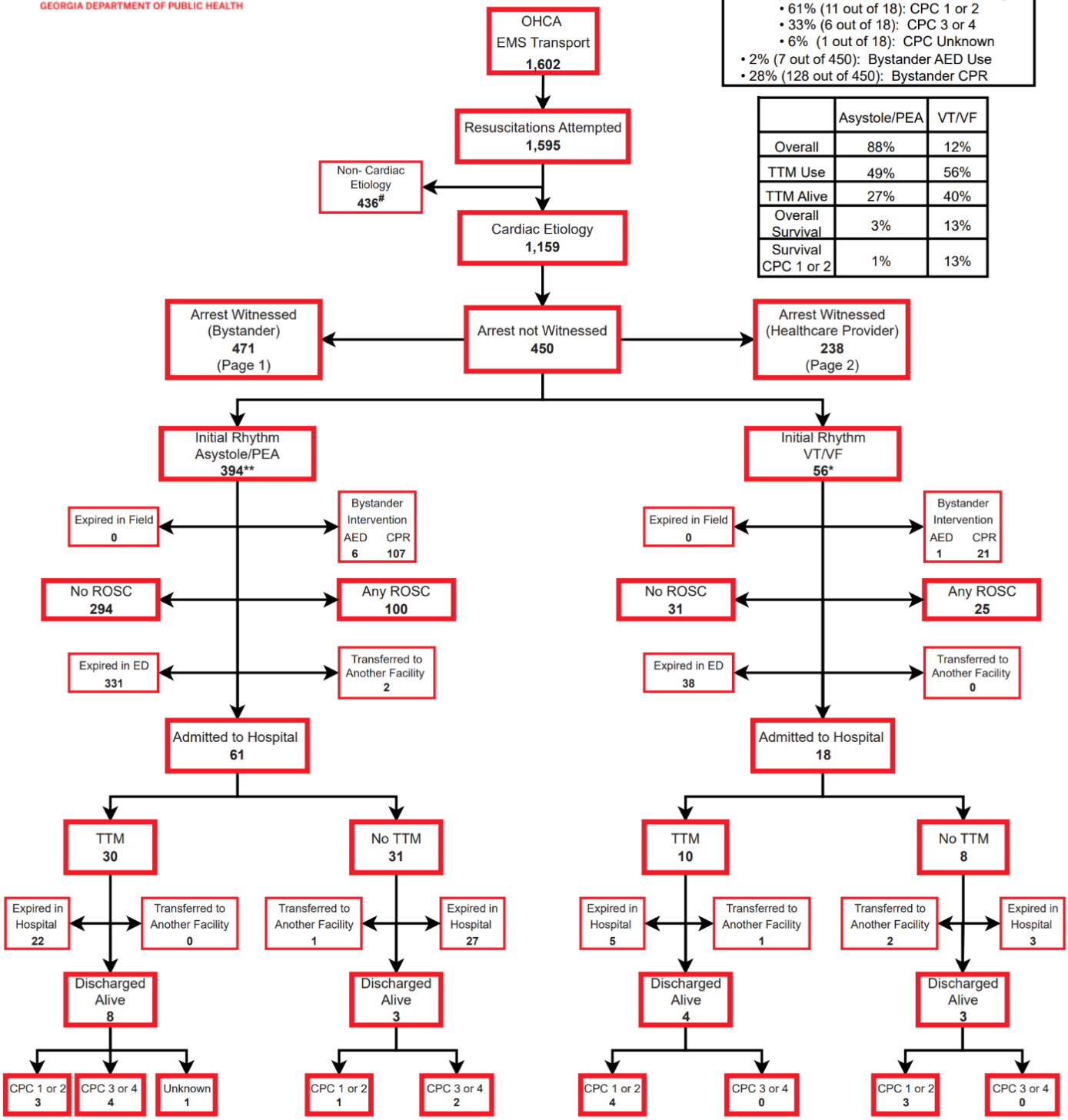
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level II
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Unwitnessed OHCA Cardiac Etiology

- 28% (125 out of 450):ROSC
- 18% (79 out of 450): Survival to Admission
- 4% (18 out of 450): Survival to Discharge
  - 61% (11 out of 18): CPC 1 or 2
  - 33% (6 out of 18): CPC 3 or 4
  - 6% (1 out of 18): CPC Unknown
- 2% (7 out of 450): Bystander AED Use
- 28% (128 out of 450): Bystander CPR

	Asystole/PEA	VT/VF
Overall	88%	12%
TTM Use	49%	56%
TTM Alive	27%	40%
Overall Survival	3%	13%
Survival CPC 1 or 2	1%	13%



Abbreviations & Definitions on the last page

#Drowning/Submersion (12), Drug overdose (49), Exsanguination (13), Respiratory/Asphyxia (183), Trauma (97), & Other (82)

*Ventricular Fibrillation (42), Ventricular Tachycardia-Pulseless (5), & Unknown AED Shockable Rhythm (9)

**Asystole (285), PEA (107), & Unknown AED Non-Shockable Rhythm (2)

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UTSTEIN REPORT–LEVEL III CENTERS

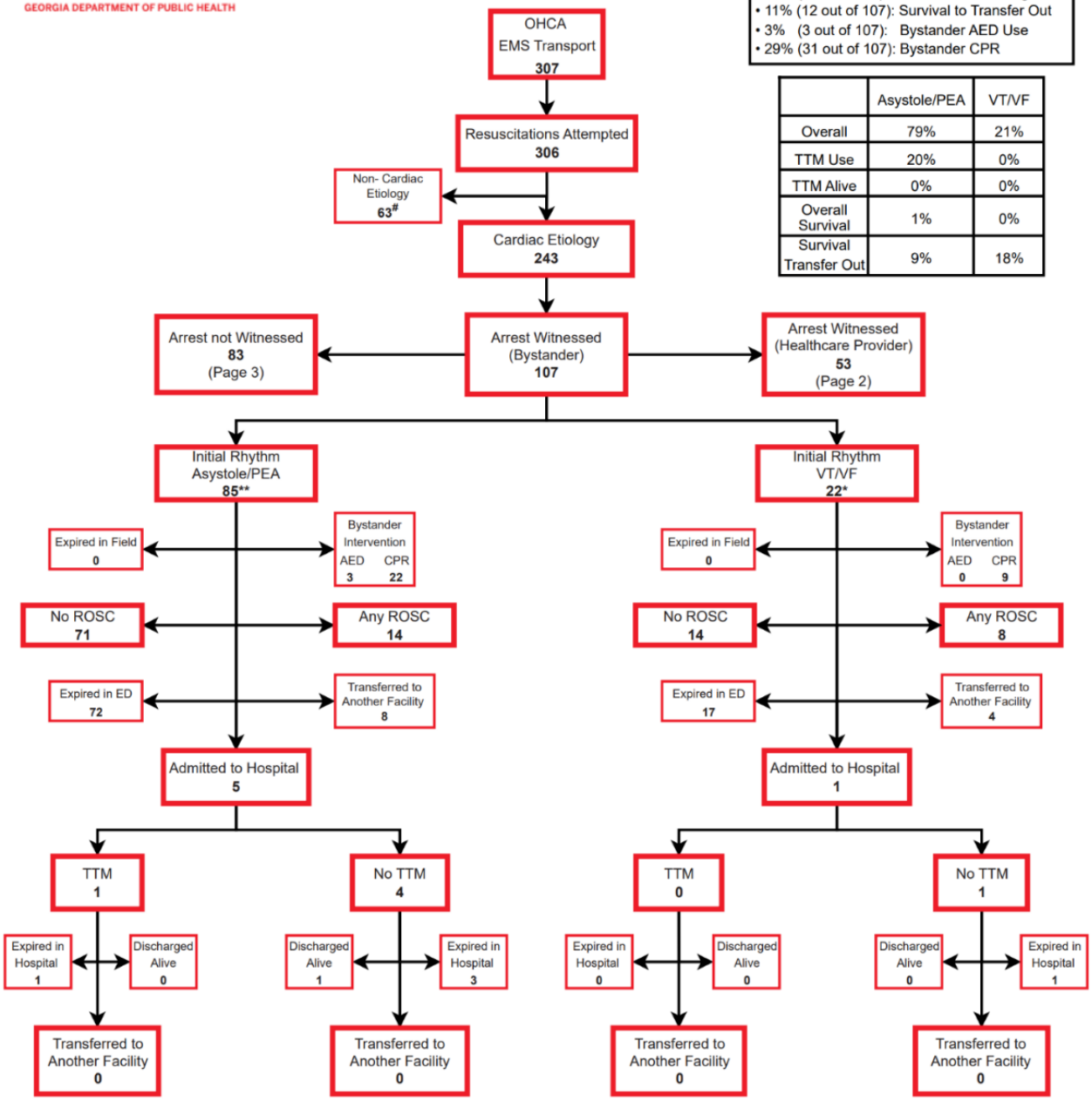
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level III
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Bystander Witnessed OHCA Cardiac Etiology

- 21% (22 out of 107): ROSC
- 6% (6 out of 107): Survival to Admission
- 1% (1 out of 107): Survival to Discharge
- 11% (12 out of 107): Survival to Transfer Out
- 3% (3 out of 107): Bystander AED Use
- 29% (31 out of 107): Bystander CPR

	Asystole/PEA	VT/VF
Overall	79%	21%
TTM Use	20%	0%
TTM Alive	0%	0%
Overall Survival	1%	0%
Survival Transfer Out	9%	18%



Abbreviations & Definitions on the last page

#Drowning/Submersion (3), Drug overdose (2), Exsanguination (2), Respiratory/Asphyxia (28), Trauma (19), & Other (9)
*Ventricular Fibrillation (19), Ventricular Tachycardia-Pulseless (2), & Unknown AED Shockable Rhythm (1)
**Asystole (64), PEA (19), & Unknown AED Non-Shockable Rhythm (2)

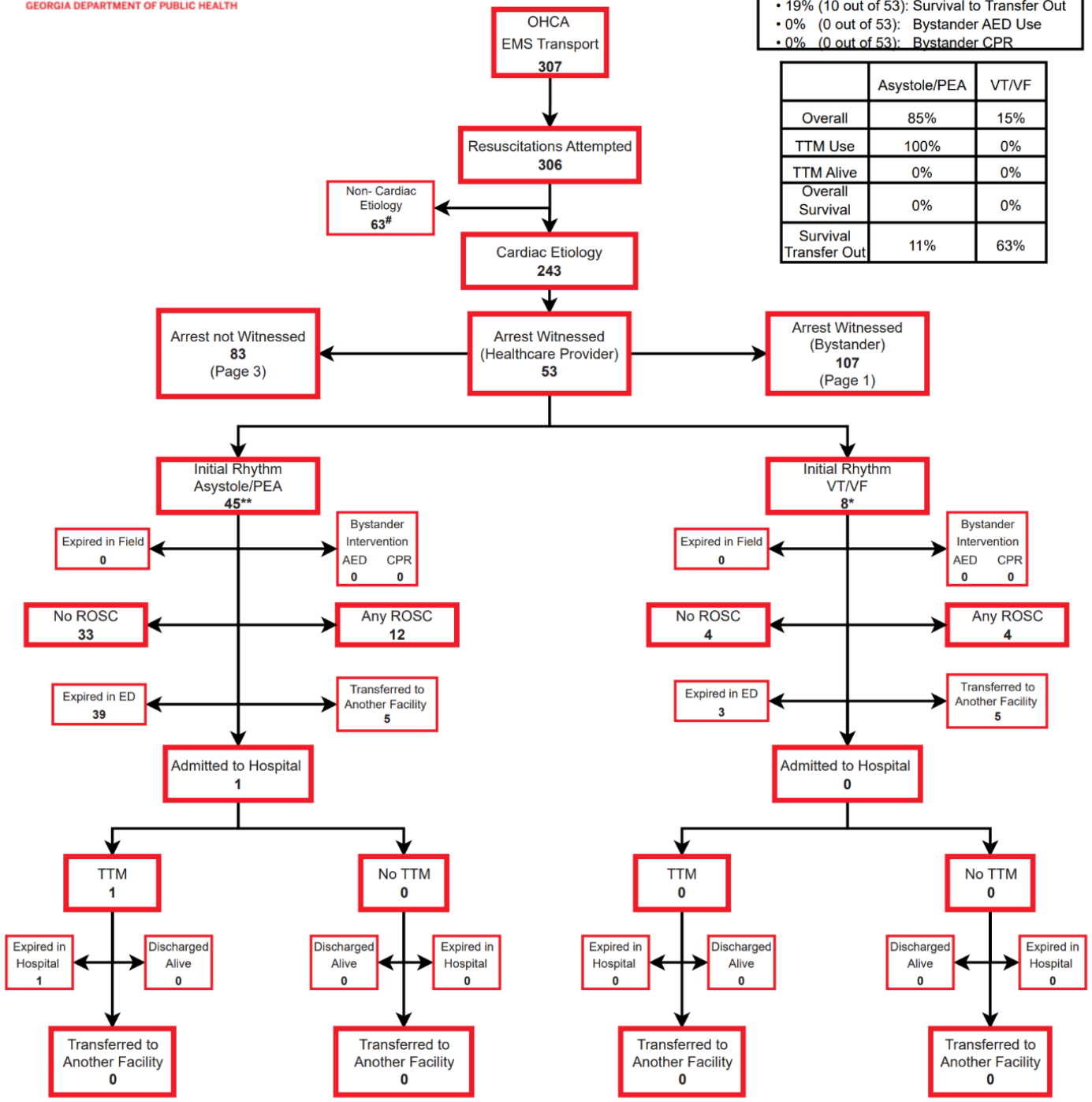
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level III
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Healthcare Provider Witnessed OHCA Cardiac Etiology

- 30% (16 out of 53): ROSC
- 2% (1 out of 53): Survival to Admission
- 0% (0 out of 53): Survival to Discharge
- 19% (10 out of 53): Survival to Transfer Out
- 0% (0 out of 53): Bystander AED Use
- 0% (0 out of 53): Bystander CPR

	Asystole/PEA	VT/VF
Overall	85%	15%
TTM Use	100%	0%
TTM Alive	0%	0%
Overall Survival	0%	0%
Survival Transfer Out	11%	63%



Abbreviations & Definitions on the last page

#Drowning/Submersion (3), Drug overdose (2), Exsanguination (2), Respiratory/Asphyxia (28), Trauma (19), & Other (9)
*Ventricular Fibrillation (4), Ventricular Tachycardia-Pulseless (2), & Unknown AED Non-Shockable Rhythm (2)
**Asystole (18), PEA (26), & Unknown AED Non-Shockable Rhythm (1)

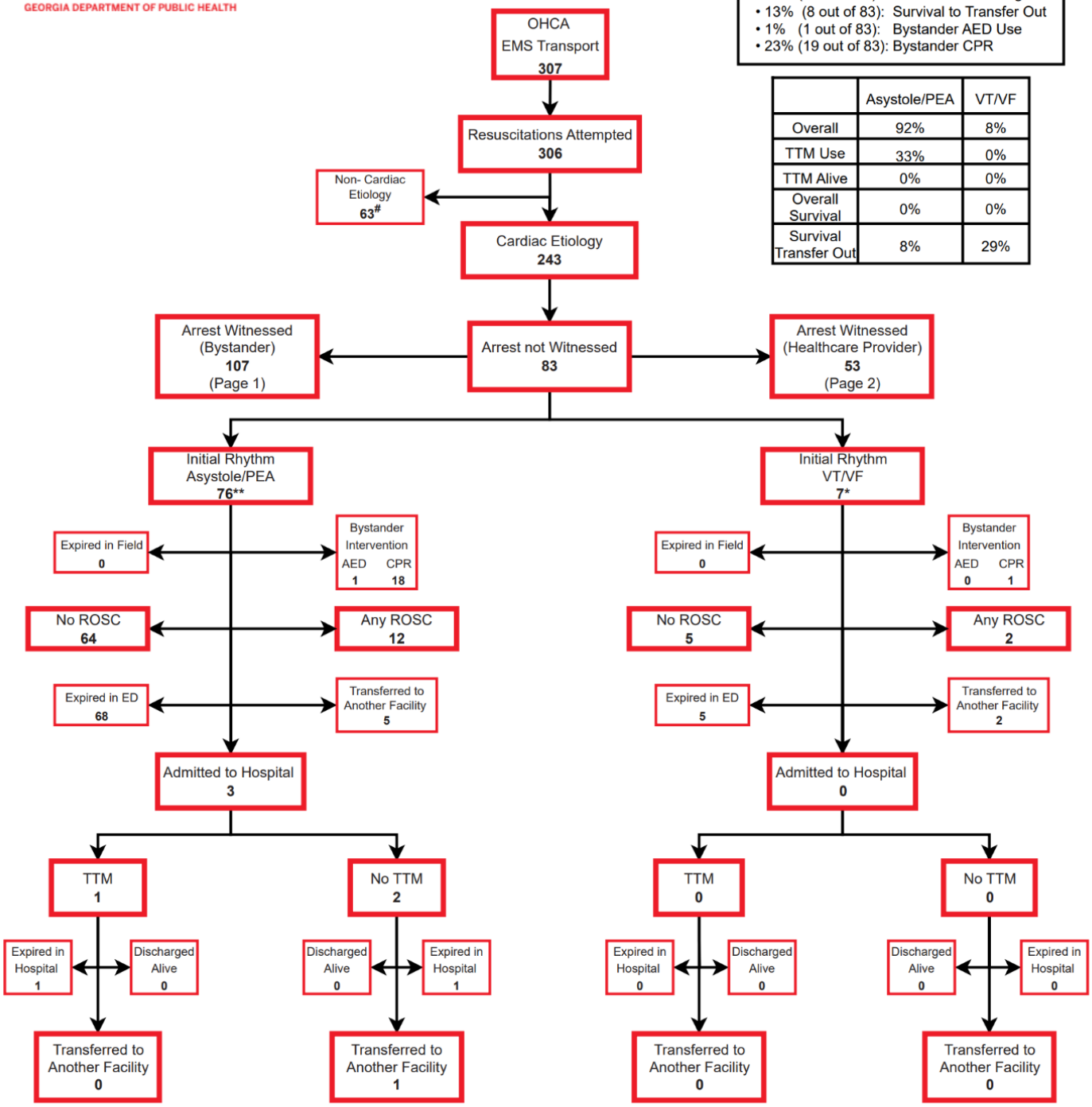
GEORGIA DEPARTMENT OF PUBLIC HEALTH

STATE OF GEORGIA - Level III
Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Unwitnessed OHCA Cardiac Etiology

- 17% (14 out of 83): ROSC
- 4% (3 out of 83): Survival to Admission
- 0% (0 out of 83): Survival to Discharge
- 13% (8 out of 83): Survival to Transfer Out
- 1% (1 out of 83): Bystander AED Use
- 23% (19 out of 83): Bystander CPR

	Asystole/PEA	VT/VF
Overall	92%	8%
TTM Use	33%	0%
TTM Alive	0%	0%
Overall Survival	0%	0%
Survival Transfer Out	8%	29%



Abbreviations & Definitions on the last page

#Drowning/Submersion (3), Drug overdose (2), Exsanguination (2), Respiratory/Asphyxia (28), Trauma (19), & Other (9)
*Ventricular Fibrillation (5), Ventricular Tachycardia-Pulseless (0), & Unknown AED Shockable Rhythm (2)
**Asystole (61), PEA (14), & Unknown AED Non-Shockable Rhythm (1)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

Utstein Report
1/01/2024 - 12/31/2024
OHCA Cardiac Etiology

Abbreviations and Definitions

AED	Automated External Defibrillator
CPR	Cardiopulmonary Resuscitation
ED	Emergency Department
EMS	Emergency Medical Services
OHCA	Out-of-Hospital Cardiac Arrest
PEA	Pulseless Electrical Activity
ROSC	Return of Spontaneous Circulation
TTM	Target Temperature Management
VF	Ventricular Fibrillation
VT	Ventricular Tachycardia

Cerebral Performance Category (CPC) Scores

CPC Score	Description
CPC 1	Good Cerebral Performance
CPC 2	Moderate Cerebral Performance
CPC 3	Severe Cerebral Performance
CPC 4	Coma, Vegetative State

Georgia Utstein Report is based on data from 47 hospitals.
Level I Utstein Report is based on data from 19 hospitals.
Level II Utstein Report is based on data from 18 hospitals.
Level III Utstein Report is based on data from 10 hospitals.
Excludes unknown first monitored arrest rhythm of patient and unknown outcome for patients.
Bystander witnessed includes: lay person and/or family member. Healthcare Provider witness includes: lay person medical provider, first responder, law enforcement, first responder (non EMS fire), responding EMS personnel.


DPH
GEORGIA DEPARTMENT OF PUBLIC HEALTH