Emergency Medical Services Authority

Annual EMS Data Report

Calendar Years 2022 - 2023

California Emergency Medical Services Authority
California Health and Human Services Agency

SYS 100-18

ACKNOWLEDGEMENTS

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INTRODUCTION

The Emergency Medical Services (EMS) Authority is pleased to release the annual EMS data report for calendar year (CY) 2022 and 2023. Local EMS Agencies (LEMSA) who are currently reporting data to the California Emergency Medical Services Information System (CEMSIS) encompass populations that represent approximately 75% (29,524,214) of California's total population of 39,538,223[1]. While the data does not capture all emergency services provided to the state's total population, it does provide insight into the services provided. These preliminary reports serve to evaluate our data quality and availability for analysis.

PURPOSE

This report provides a general description of statewide emergency medical services in CY 2022 and 2023. The EMS Authority is mandated to annually report on the effectiveness of EMS systems and related impact on death and disability (Health and Safety Code 1797.121). HSC 1797.103 (f) further identifies that one of the required elements of an EMS system is data collection and evaluation. The EMS Authority meets these mandates by collecting data from the LEMSAs.

Currently the data collected serves to provide an image of the EMS system, the number and types of patients being cared for, and the EMS and hospital institutions and individuals who are providing that care. As more data becomes available to the EMS Authority, that image will sharpen. As the reliability of the data improves, answers to questions about the quality of the care provided to EMS patients will be possible. And finally, the EMS Authority's concurrent effort to integrate EMS data with existing data streams drawn from the spectrum of medical care using Health Information Exchange (HIE) promises to answer questions about the impact of EMS care on patient outcomes. The EMS Authority's converging data objectives will, together, allow California to at last measure the value that EMS adds to the health care system.

[1] *https://www.census.gov/quickfacts/fact/table/US/PST045221*

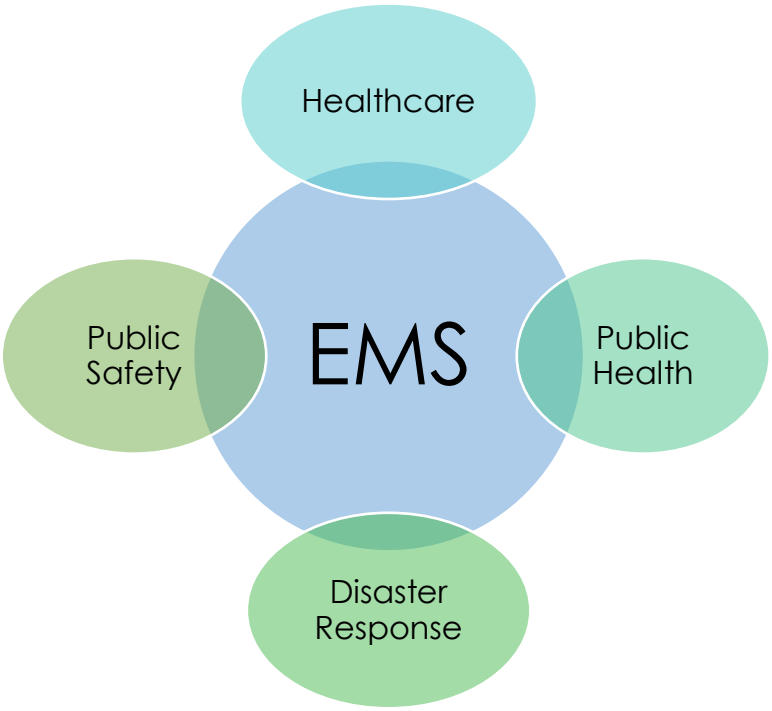
BACKGROUND

Data collection for EMS in California is decentralized with LEMSAs collecting and analyzing data to meet local needs or resources. This focus on local management is unique to California; other states generally have a direct relationship with the data submittal process statewide. LEMSAs have contractual relationships with EMS providers that address issues such as training and data entry that impact the data collection process. The data collection process in California emphasizes the importance of collaboration among the EMS Authority, LEMSAs, and the providers so that essential questions about California's EMS system can be answered.

MISSION AND VISION

The EMS Authority's mission is to prevent injuries, reduce suffering, and save lives by developing standards for, and administering an effective statewide coordinated system of, quality emergency medical care and disaster medical response that integrates public health, public safety, and healthcare.

The EMS Authority's vision is to be a lead EMS system throughout California in a collaborative endeavor to advance the quality, safety, and satisfaction of healthcare in local communities.



The EMS Authority fulfills its mission and vision by partnering with LEMSAs in the collection of data directly from their local providers. EMSA fosters such collaboration through various work groups and stakeholder events.

The EMS Authority is finding ways of using this data to achieve high quality emergency medical care in California by promoting activities such as:

- Health care quality improvement programs that are based on patient care outcomes;
- agency collaboration across jurisdictional boundaries;
- local, regional, and state-level public health surveillance; and
- increased public awareness of emergency medical services in California.

METHODOLOGY

Currently, there are 34 LEMSAs within the State of California in CY 2022 and 2023. However, in CY 2022, there were 33 LEMSAs[2]. For this report, CEMSIS collected some form of data from 33 of the 34 LEMSAs (97%). Of these 33 LEMSAs, CEMSIS received data from approximately 509 local EMS providers. The data presented in this report were collected in CEMSIS based on version 3.4 standards from the National Emergency Medical Services Information System (NEMSIS).

LEMSAs obtain data from local EMS providers within their specific geographical service areas and submit that data to Inland Counties Emergency Medical Agency (ICEMA), which had a contractual relationship with the EMS Authority to serve as the agent for CEMSIS using the software application ImageTrend®. In 2023, the EMS Authority transitioned operations from ICEMA to EMSA in-house. This data is submitted on a voluntary basis.

The EMS Authority is on the most current NEMSIS data standard, version 3.5. **However, all data shown in this report is from version 3.4 only.** NEMSIS announced version 3.5 and the data dictionary, which was finalized November 2019, is available on their website. NEMSIS version 3.5 corrects errors in version 3.4 and expands data elements related to the disposition of patients and incidents in the EMS System. The EMS Authority and local agencies adopted the new national data standards by transitioning from NEMSIS version 3.4 to NEMSIS version 3.5 in 2023.

Software vendors are subject to initial and annual NEMSIS/CEMSIS compliance testing of each version update.

To standardize data collection statewide, we are using specific lists for the following NEMSIS elements:

- Providers Primary Impression (eSituation.11)
- Providers Secondary Impression (eSituation.12)
- Cause of injury (eInjury.01) and
- Incident/Patient Disposition (eDisposition.12)

[2] Stanislaus County separated from Mountain Counties EMS Agency and became their own LEMSA on July 1, 2022.

CEMSIS

CEMSIS first began as a demonstration project for improving EMS data across California and continues to offer a secure, centralized data system for collecting data about individual emergency medical service requests, patients treated at hospitals, and EMS provider organizations. CEMSIS uses the national standard, NEMSIS, to collect patient care information resulting from an emergency 9-1-1 call for assistance. Health and Safety Code, Section 1797.227 requires the most current version of NEMSIS to be used to collect EMS data.

CEMSIS PARTICIPATION

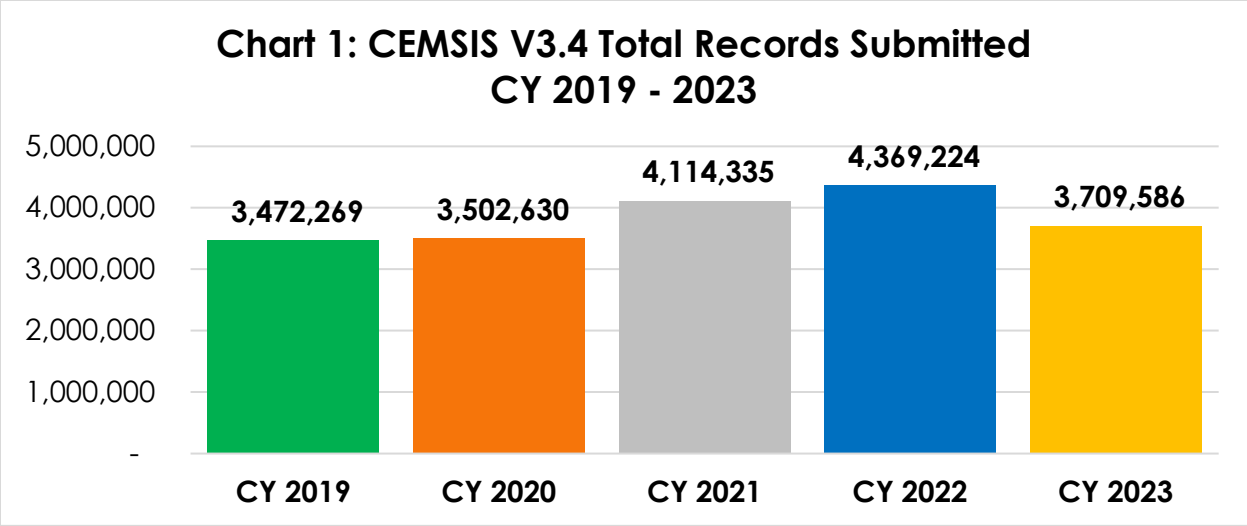
Since transitioning to NEMSIS version 3.4 in January 2017, the number of LEMSAs submitting to CEMSIS has increased; 33 LEMSAs submit into CEMSIS. The EMS Authority has been working with the one remaining LEMSA that is not submitting to CEMSIS.

While we are receiving EMS data from 33 LEMSAs, CEMSIS only received approximately 183K records from San Diego County EMS Agency in 2023 of a population of 3,298,634, accounting for less than 50% of their patient transports.

Los Angeles County EMS Agency is submitting version 3.5 data and will be shown on 2024 Annual EMS Data Report.

CEMSIS RECORDS SUBMITTED

Since adopting NEMSIS version 3.4 in 2016, and becoming the default national data standard on January 1, 2017, CEMSIS has successfully received over 19 million EMS incident records submitted by LEMSAs to date.



Between CY 2019 and 2023, EMSA saw a 7% percent increase in record submission, and the drop of records shown between CY 2022 and 2023 is due to this report including only v3.4 data; many LEMSAs underwent a transition in 2023 to from v3.4 to v3.5 data.

When fully operational, with 100% LEMSA and local participation, it is anticipated that CEMSIS will receive over approximately six million records each year.

DATA ANALYSIS

Data presented in this report was collected in CEMSIS based on the NEMSIS version 3.4 EMS data standards. The charts and graphs have been grouped into different categories:

- **EMS Responses:** This includes all types of calls, including emergency, non-emergency, interfacility transfer, medical transport, 9-1-1 Response (Scene), intercept, mutual aid, etc.
    - Calculated by incident year 2022 and 2023.

- **EMS Transports:** Same criteria as EMS Responses, with an additional criterion.
    - "Incident Patient Disposition" select Patient Treated and Transported
    - Calculated by incident year 2022 and 2023.

These criteria are used throughout the charts and graphs unless otherwise stated. The data in this report were run between April 9-11, 2024 and May 14-16, 2024.

LIMITATIONS OF ANALYSIS

The analysis of the data in this report is descriptive only and not intended to provide statistical information. Collaboration between LEMSAs and the EMS Authority in the development of data validation tools will ultimately result in reporting with more statistical depth. After reviewing the data in CEMSIS, the EMS Authority found several discrepancies between some data elements and the values that were chosen by the EMS providers. One example is "NOT" values, which inhibit meaningful analysis and usefulness of the data. It is not known if these values are due to provider input or other data quality issues. Analysis is also limited as this report does not represent all of California.

There are more than 700 total public and private EMS ambulance service providers within the state of California; however, not all providers are submitting data into CEMSIS. As previously stated, approximately 500 EMS agencies submitted data to CEMSIS between CY 2022 and 2023 and is reflected in this report.

MAPPING

There are some data elements submitted to CEMSIS that are data mapped to the NEMSIS/CEMSIS specific values. EMS data submission is typically a two-step process; data is first submitted from EMS providers to a LEMSA, then from a LEMSA to CEMSIS. Disparate data mapping will negatively impact data quality. Many LEMSAs have their own scope of practice and collect data reflecting this. For this report, the data elements that are affected are the four data elements stated on page nine. LEMSAs map the data that they collect to reflect the State list.

SELECTED DATA ELEMENTS

This report presents six tables and 25 related charts comprised of both National and State data elements in the NEMSIS version 3.4 software application. National data elements are required to be collected at the LEMSA level and submitted to the state. The data elements used in this report are listed below:

Data Element Number	Data Element Name	Accepts NOT Values
eDisposition.12	Incident/Patient Disposition	No
eDisposition.21	Type of Destination	Yes
eResponse.05	Type of Service Requested	No
ePatient.13	Gender	Yes
ePatient.15	Age	Yes
dAgency.09	Primary Type of Service	No
dAgency.13	Organizational Type	No
eInjury.01	Cause of Injury	Yes
eResponse.15	Level of Care of This Unit	No
eDisposition.16	EMS Transport Method	Yes
eSituation.11	Providers Primary Impression	Yes
eResponse.23	Response Mode to Scene	No
dAgency.11	Agency Level of Service	No
eSituation.09	Situation Primary Symptom	Yes
eInjury.02	Injury Mechanism of Injury	Yes

NOT VALUES

The NEMSIS version 3.4 data standard has four usage levels indicating when the data element is expected to be collected:

- **Mandatory**: Must be completed and does not allow for "NOT" values
- **Recommended**: Does not need to be completed and allows "NOT" values
- **Optional**: Does not need to be completed and does not allow for "NOT" values
- **Required**: Must be completed and allows for "NOT" values
- Most of the data elements in this report have a *Required* status, meaning the system will accept "NOT" values. The "NOT" values include:
    - Not Applicable
    - Not Recorded
    - Not Reporting
    - Not Available
    - Not Known

SECTION 1: LEMSA EMS DATA

LEMSA EMS DATA

In building the below table, the EMS Authority drew from two sources. The first source is information provided by LEMSAs in their most recent approved EMS Plan Submissions. The second source is electronic EMS data sent by LEMSAs to CEMSIS. These dual sources help to determine the degree to which the data submitted within the EMS Plans agrees with that received by CEMSIS. The EMS Authority works with the LEMSAs to determine the sources of these discrepancies.

According to the most recent LEMSA's EMS plans submitted to the EMS Authority, it is estimated that California EMS providers receive over 6.4 million EMS calls every year.

The total EMS Responses submitted in CY 2022 and 2023 are presented throughout this section.

Table 1: LEMSA EMS Plans and CEMSIS V3.4 Reported EMS Responses CY 2022 - 2023

LEMSA	EMS responses derived from the most current EMS Plan	EMS Responses submitted into CEMSIS CY 2022	EMS Responses submitted into CEMSIS CY 2023	Submission Rate CY 2022	Submission Rate CY 2023
Alameda	129,877	296,801	226,728	229%	175%
Central California	343,908	237,769	195,483	69%	57%
Coastal Valleys	28,070	64,066	73,110	228%	260%
Contra Costa	124,763	139,983	116,620	112%	93%
El Dorado		19,233	19,129	NA	NA

LEMSA	EMS responses derived from the most current EMS Plan	EMS Responses submitted into CEMSIS CY 2022	EMS Responses submitted into CEMSIS CY 2023	Submission Rate CY 2022	Submission Rate CY 2023
Imperial	18,797	17,852	5,639	95%	30%
Inland Counties	383,965	505,090	471,399	132%	123%
Kern	180,993	170,681	154,579	94%	85%
Los Angeles	2,089,048	6	N/A*	0%	0%
Marin	20,316	22,849	22,489	112%	111%
Merced	71,099	38,062	26,962	54%	38%
Monterey	40,595	63,027	52,312	155%	129%
Mountain Counties	12,757	74,991	32,508	588%	35%
Napa	21,603	21,389	17,762	99%	82%
NorCal	10,280	11,019	9,866	107%	96%
North Coast	35,560	32,820	26,185	92%	74%
Orange	522,756	505,415	428,236	97%	82%
Riverside	294,861	493,222	372,112	167%	126%
Sacramento	317,920	289,420	257,250	91%	81%
San Benito	4,223	4,306	1,976	102%	47%
San Diego	769,438	108,701	183,945	14%	24%
San Francisco	198,067	129,016	115,439	65%	58%
San Joaquin	143,199	138,391	110,973	97%	77%

LEMSA	EMS responses derived from the most current EMS Plan	EMS Responses submitted into CEMSIS CY 2022	EMS Responses submitted into CEMSIS CY 2023	Submission Rate CY 2022	Submission Rate CY 2023
San Luis Obispo	44,042	43,453	42,609	99%	97%
San Mateo	57,550	109,590	89,288	190%	155%
Santa Barbara	73,025	67,087	53,929	92%	74%
Santa Clara	288,466	317,591	292,578	110%	101%
Santa Cruz	47,967	28,912	21,680	60%	45%
Sierra-Sacramento Valley	191,706	187,251	108,010	98%	56%
Solano	83,108	54,705	29,044	66%	35%
Tuolumne	13,712	8,244	59,472	60%	434%
Ventura	93,563	85,182	6,978	91%	7%
Yolo County	25,131	28,105	69,125	112%	275%
Grand Total:	**6,680,365**	**4,314,229**	**3,693,415**	**65%**	**55%**

**N/A is defined as no data submitted into CEMSIS or EMS responses could not be derived from EMS Plan.*

In CY 2023, LEMSA's CEMSIS electronic submissions numbered approximately 3,693,415 fewer than those documented within the LEMSAs' EMS Plans. The LEMSAs transitioning from V3.4 to V3.5 attribute to the lower number of records in 2023 for this report.

LEMSA POPULATION

The 34 LEMSAs represent all 58 counties in the State of California. The United States Census Bureau estimated that California's population in 2023 was approximately 39,538,223.

Several LEMSA service areas are based on their specific geographical locations and population sizes, resulting in these service areas covering multiple counties. These multicounty agencies are:

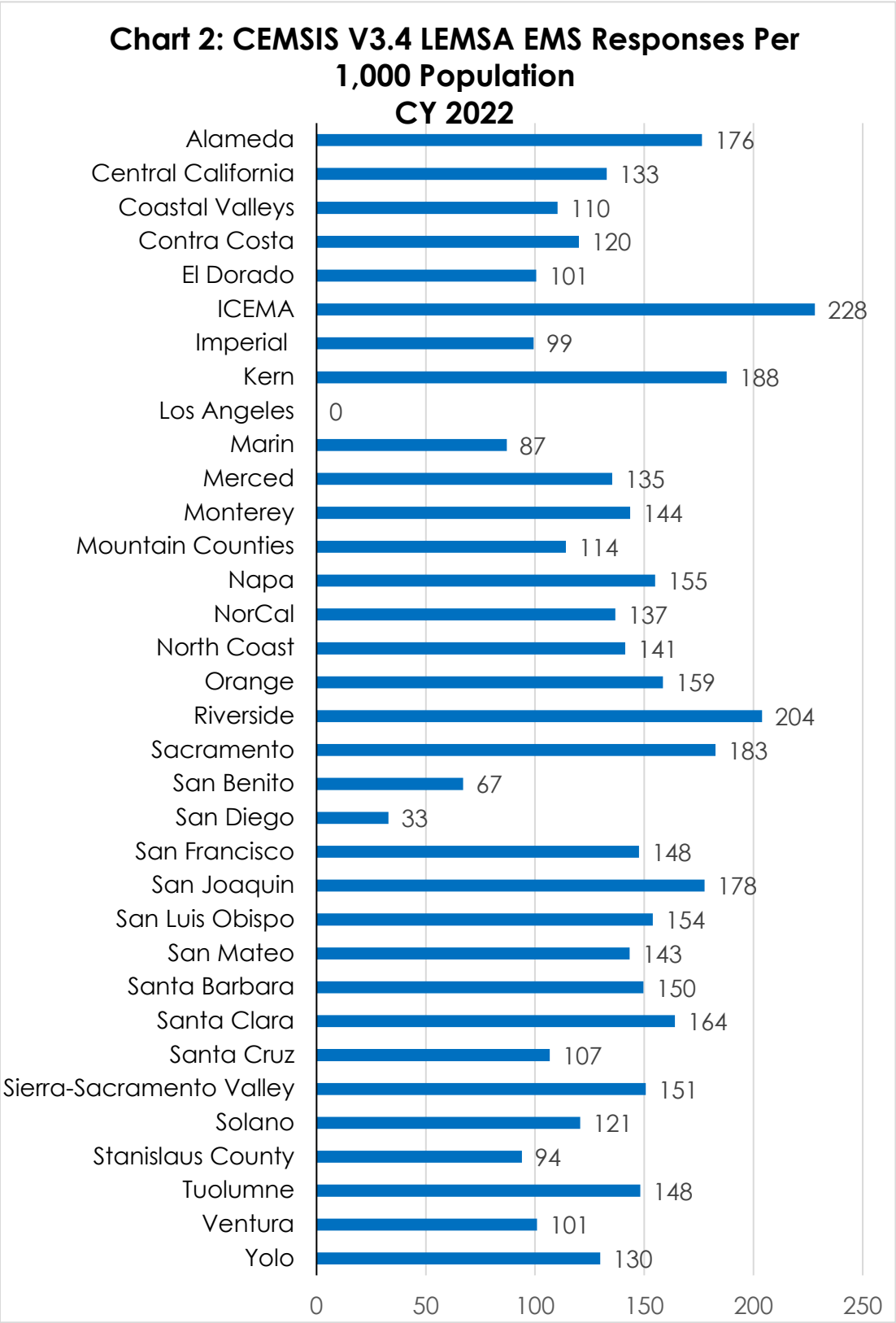
- **Central California EMS Agency:** Fresno, Kings, Madera, and Tulare
- **Coastal Valleys EMS Agency:** Mendocino and Sonoma
- **Inland Counties Emergency Medical Agency (ICEMA):** Inyo, Mono, and San Bernardino
- **Mountain Counties EMS Agency:** Alpine, Amador, Calaveras, and Mariposa
- **North Coast EMS Agency:** Del Norte, Humboldt, and Lake
- **Northern California (Nor Cal) EMS Agency:** Lassen, Modoc, Plumas, Sierra, and Trinity
- **Sierra-Sacramento Valley EMS Agency:** Butte, Colusa, Glenn, Nevada, Placer, Shasta, Siskiyou, Sutter, Tehama, and Yuba

Local EMS Agencies in California

Table 2: LEMSA Population CY 2023	
LEMSA	**Population Count**
Alameda	1,682,353
Central California	1,790,512
Coastal Valleys	580,464
Contra Costa	1,165,927
El Dorado	191,185
Imperial	179,702
Inland Counties	2,213,865
Kern	909,235
Los Angeles	10,014,009
Marin	262,321
Merced	281,202
Monterey	439,035
Mountain Valley	656,979
Napa	138,019
North Coast	232,369
Northern California	80,568
Orange	3,186,989
Riverside	2,418,185
Sacramento	1,585,055
San Benito	64,209
San Diego	3,298,634
San Francisco	873,965
San Joaquin	779,233
San Luis Obispo	282,424
San Mateo	764,442
Santa Barbara	448,229
Santa Clara	1,936,259
Santa Cruz	270,861
Sierra-Sacramento Valley	1,242,636

LEMSA	Population Count
Stanislaus County	552,878
Solano	453,491
Tuolumne	55,620
Ventura	843,843
Yolo	216,403
Grand Total:	**40,091,101**

LEMSA RESPONSES PER 1,000 POPULATION



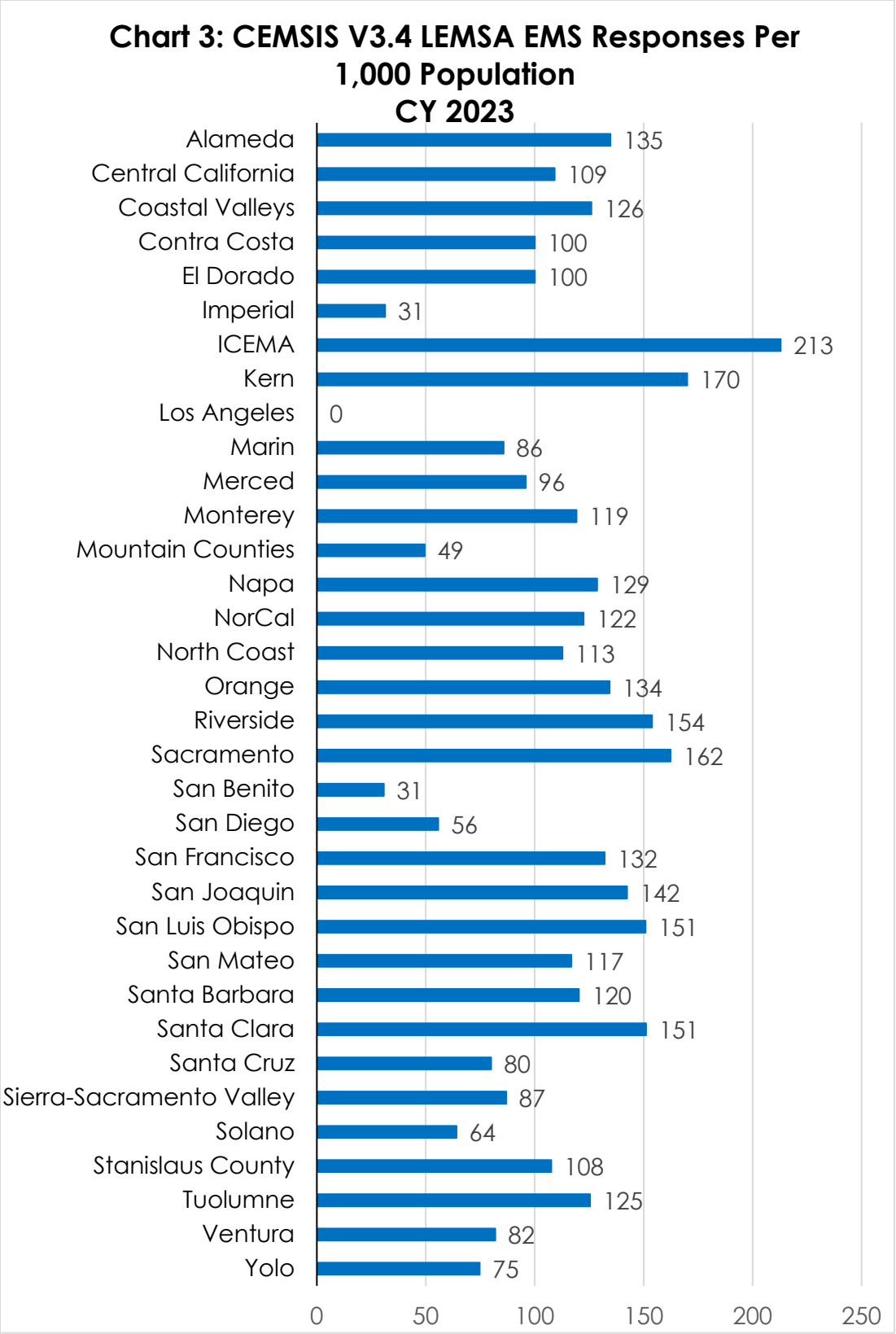


Chart 3: CEMSIS V3.4 LEMSA EMS Responses Per 1,000 Population CY 2023
Alameda 135
Central California 109
Coastal Valleys 126
Contra Costa 100
El Dorado 100
Imperial 31
ICEMA 213
Kern 170
Los Angeles 0
Marin 86
Merced 96
Monterey 119
Mountain Counties 49
Napa 129
NorCal 122
North Coast 113
Orange 134
Riverside 154
Sacramento 162
San Benito 31
San Diego 56
San Francisco 132
San Joaquin 142
San Luis Obispo 151
San Mateo 117
Santa Barbara 120
Santa Clara 151
Santa Cruz 80
Sierra-Sacramento Valley 87
Solano 64
Stanislaus County 108
Tuolumne 125
Ventura 82
Yolo 75
0
50
100
150
200
250

SECTION 2: STATEWIDE EMS DATA

EMS RESPONSE & PATIENT CARE

EMS RESPONSE TOTAL

In CY 2022, CEMSIS received a total of 4,500,926 EMS responses, this represents a 16% (701,246) decrease in the total number of EMS responses submitted to CEMSIS compared to those submitted in CY 2023 (3,799,680). These EMS responses are compromised of the total number of all calls reported by EMS agencies into CEMSIS, including 9-1-1 Response, Interfacility Transfer, Medical Transport, Mutual Aid, etc.

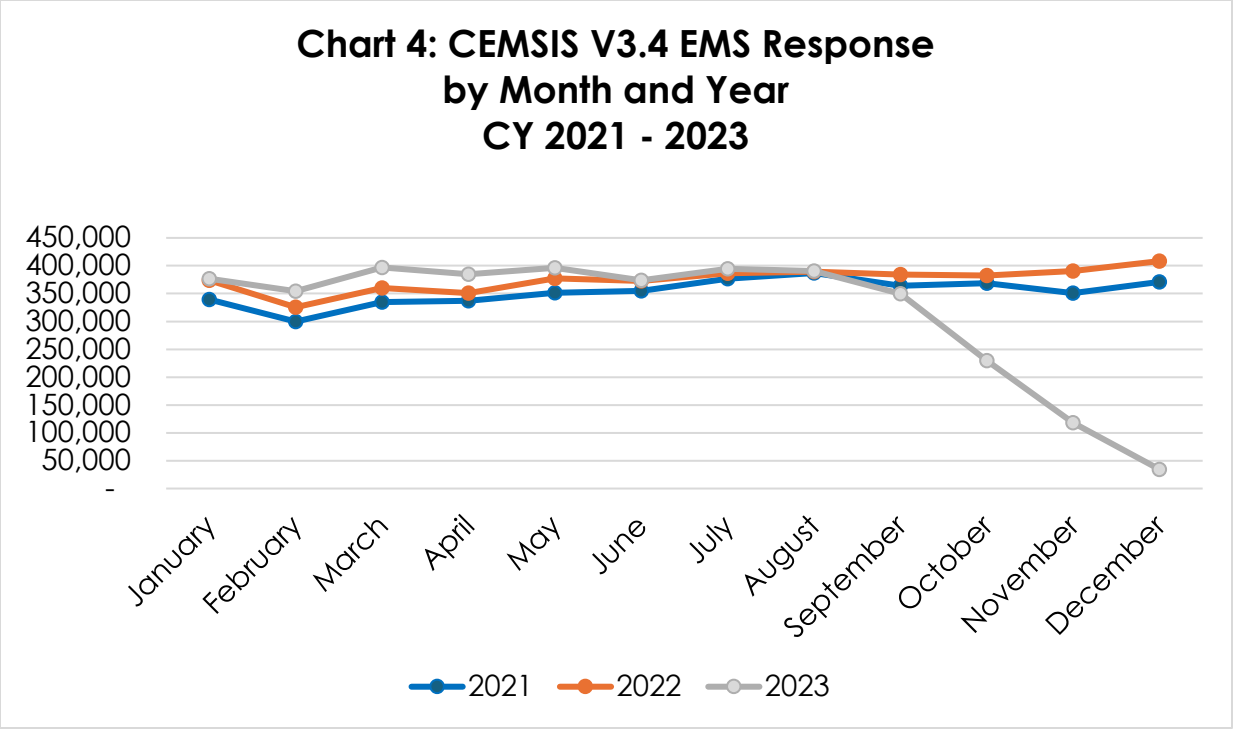
There were over 500,000 records in version 3.5 submitted to CEMSIS in 2023, resulting in a total increase in EMS incidents reported to CEMSIS from CY 2022 to 2023.

CY 2022: 4500926
CY 2023: 3,799,680

Table 3: CEMSIS V3.4 EMS Responses by Month and Year CY 2022 & 2023

Month	CY 2022	CY 2023
January	373,645	376,873
February	325,518	354,077
March	359,801	396,961
April	350,989	384,653
May	377,229	396,117
June	372,589	374,018
July	386,627	394,565
August	389,369	390,532
September	384,056	349,456
October	382,408	229,734*
November	390,358	118,286*
December	408,337	34,408*

**NOTE: this drop is due to LEMSAs transitioning from NEMSIS version 3.4 to version 3.5.*



NOTE: For comparative purposes, CY 2021 EMS data has been included in this chart.

In CY 2023, we saw the highest overall total number of EMS responses in March and the lowest total reported in December, CEMSIS received the highest overall total number of EMS responses in December 2022, however, the lowest total number of EMS responses was reported in February 2022.

The drop starting from August to December is due to LEMSAs transitioning from NEMSIS version 3.4 to version 3.5.

Chart 5: CEMSIS V3.4 Emergency Response vs. Non-Emergency Response CY 2022

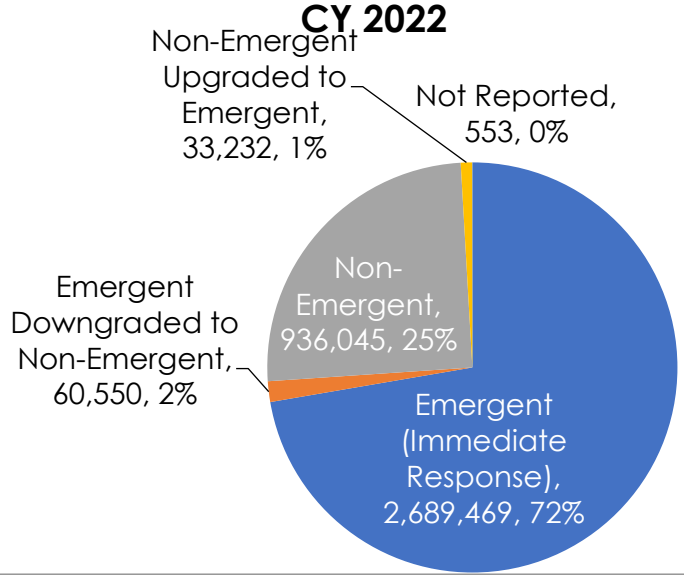
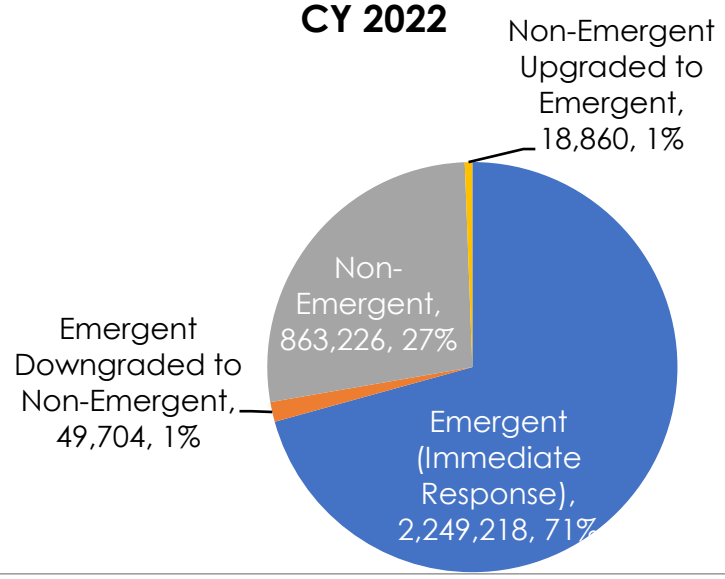


Chart 6: CEMSIS V3.4 Emergency Response vs. Non-Emergency Response CY 2022



NOTE: Some local EMS agencies may be incorrectly miscoding ALL EMS transports as "911 scene calls" or may not be reporting non-emergent transports to CEMSIS at all, resulting in a lower % of non-emergent transports than in reality.

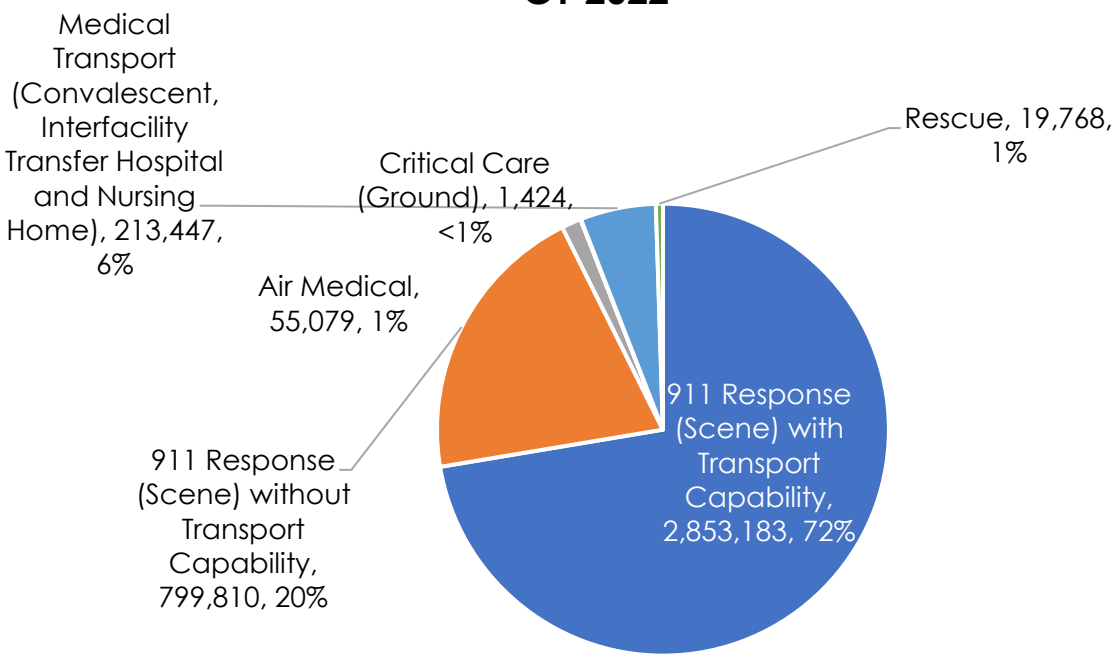
Over 72% of EMS calls reported in CY 2023 and 71% in CY 2022 were incidents requiring emergency or immediate response by the EMS agency to the scene.

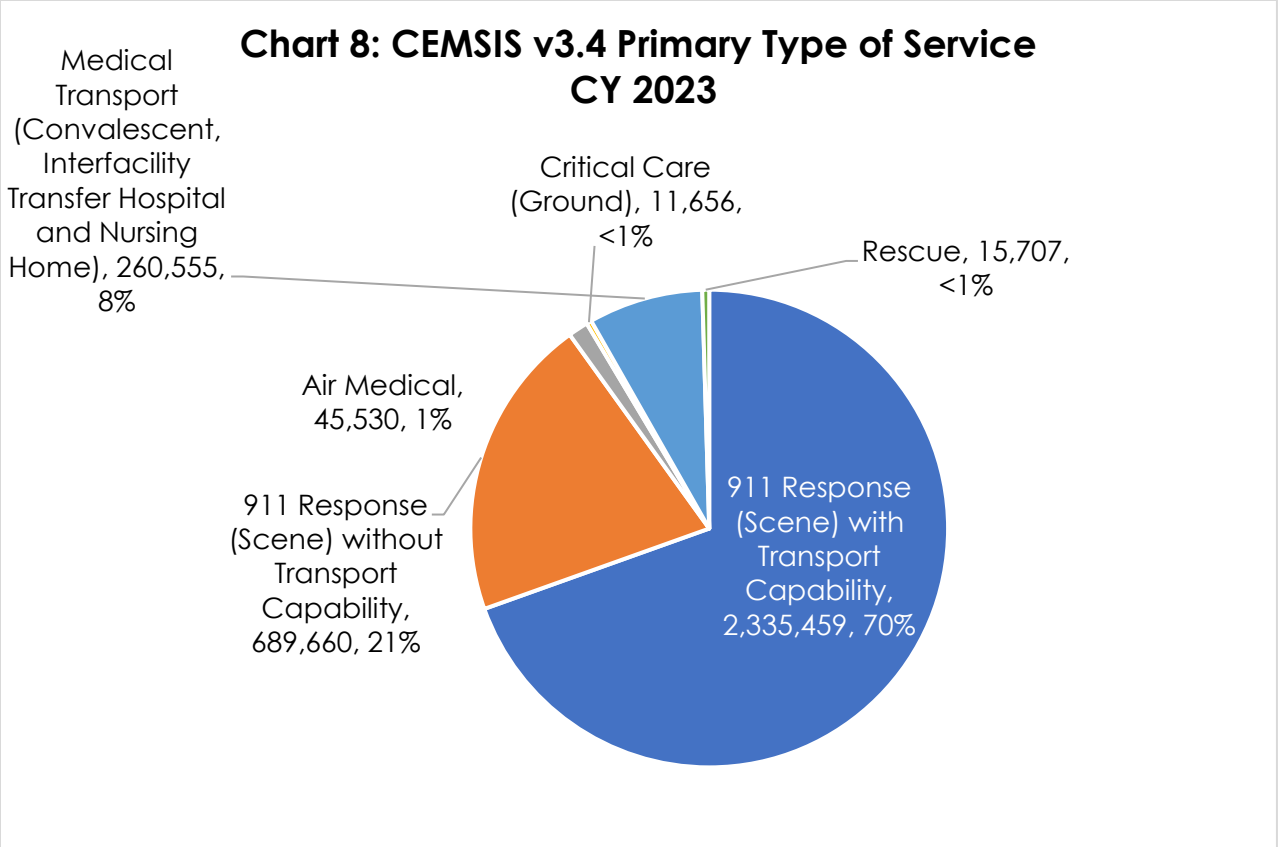
EMS RESPONSE SERVICES

There were over 3.9 million EMS calls in CY 2022 and 72% (2.8M) of calls were 9-1-1 responses to the scene with Transport Capability of an emergency.

In CY 2023, 70% (2.3M) of 3.3M calls were 9-1-1 responses to the scene with Transport Capability of an emergency.

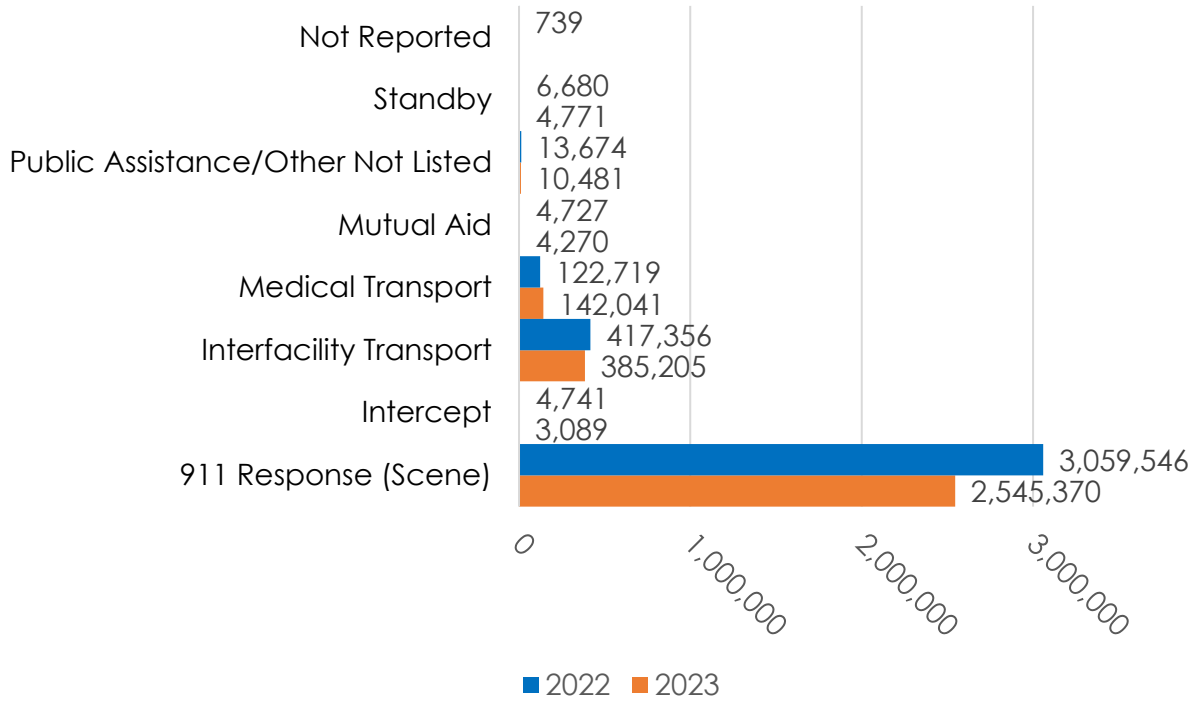
Chart 7: CEMSIS V3.4 Primary Type of Service CY 2022





9-1-1 Response (Scene) without Transport Capability, 799,810 or 20%, in CY 2022 and 689,660 or 21% of all calls in CY 2023 was the second most common type of service requested followed by Interfacility Transport with 55,079 and 45,530 EMS records, in CY 2022 and 2023 respectively. The remaining EMS type of services were significantly lower, representing less than 1% of the total EMS calls in CY 2022 and 2023.

Chart 9: CEMSIS V3.4 EMS Type of Response Service CY 2022 vs 2023

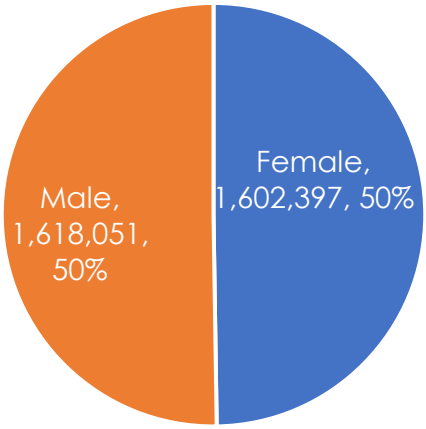


NOTE: 911 Response (Scene) calls are lower in 2023 because this report only includes v3.4 records. 911 Response (Scene) calls appear proportionally higher than non-emergency calls in part because of incomplete reporting of non-emergent calls from some LEMSAs.

911 Response has been the highest EMS type of response service with 84% and 82% of total responses in CY 2022 and 2023, respectively.

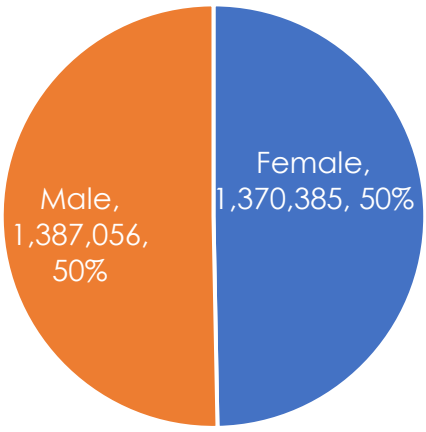
PATIENT CHARACTERISTICS

Chart 10: CEMSIS V3.4 EMS Patient Gender CY 2022

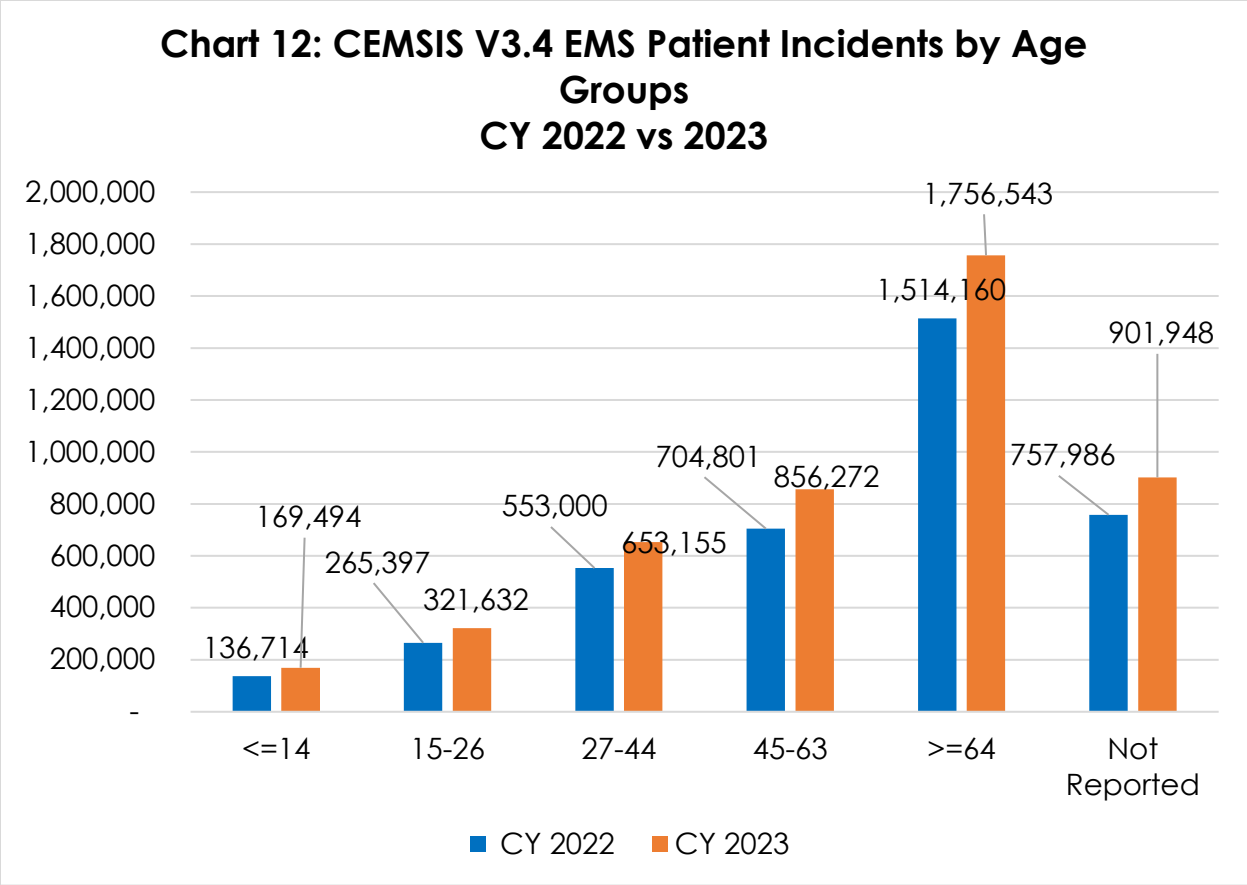


*For analytical purposes, "Not Values" data totals have been excluded from this chart due to the lack of specific gender information. *Not includes Not Applicable, Not Recorded, Not Reported, and Unable to determine totals (n=912,473)*

Chart 11: CEMSIS V3.4 EMS Patient Gender CY 2023



*For analytical purposes, "Not Values" data totals have been excluded from this chart due to the lack of specific gender information. *Not includes Not Applicable, Not Recorded, Not Reported, and Unable to determine totals (n=761,403)*



The age ranges chosen here are based on the previous annual EMS reports. Displaying transports by age supports efforts to collect data for the Emergency Medical Services for Children (EMSC) program, which provides funds to help improve EMS services for patients ages zero through 14 years. It also organizes data for patients ages 64 and over to support public health efforts aimed at older people. The largest portion (48% and 47%) of total EMS responses were for those ages 64 and older.

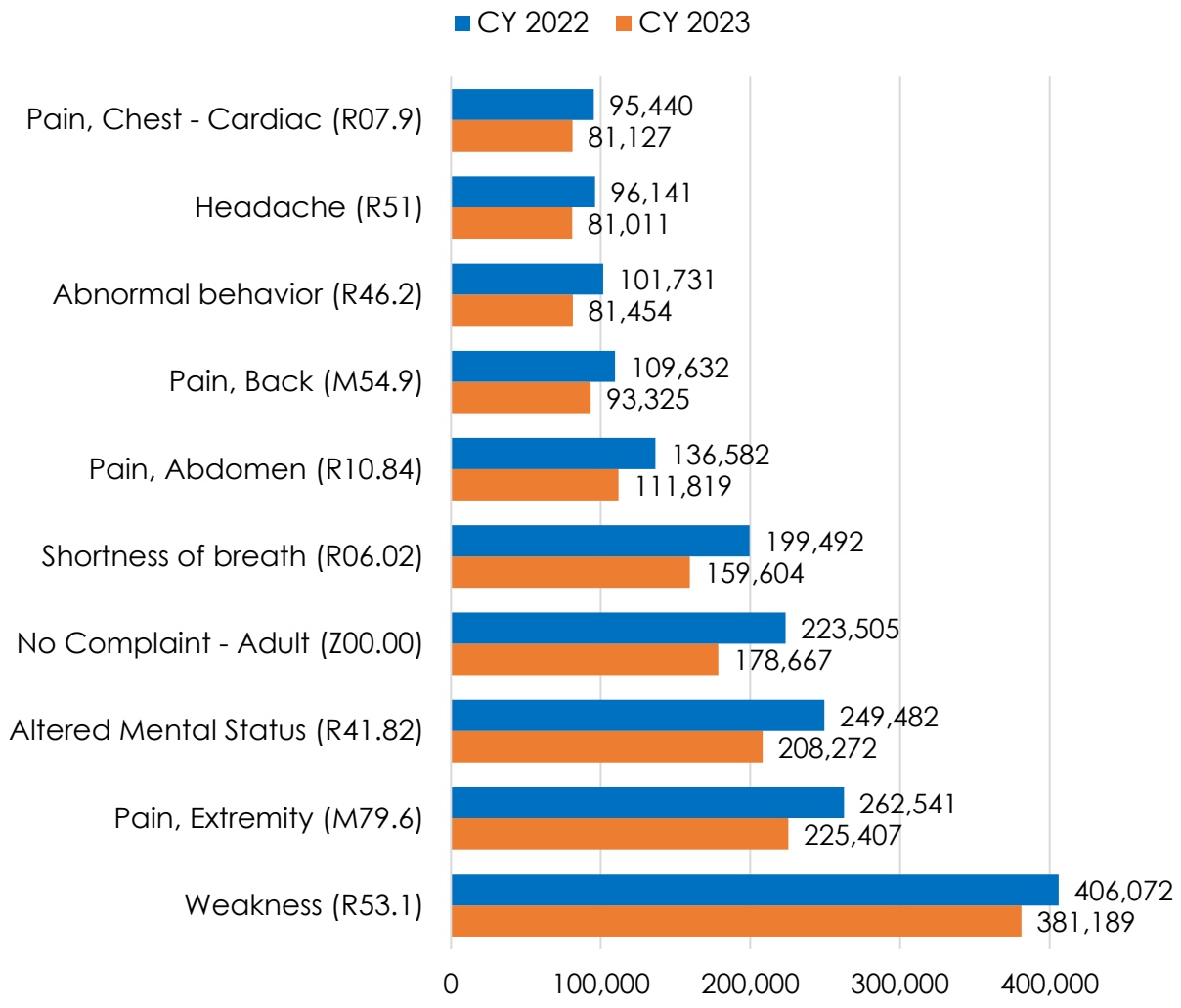
"Not Reported" *Ages (n=757,956 and n=901,948 CY 2022 and 2023 resp.)*

PATIENT PRIMARY SYMPTOM

"Weakness" as the primary symptom was reported the most in CY 2022 and 2023.

Table 4: CEMSIS V3.4 Top Ten Patient Primary Symptom CY 2022 & 2023		
Patient Primary Symptom	**CY 2022**	**CY 2023**
Weakness (R53.1)	406,072	381,189
Pain, Extremity (M79.6)	262,541	225,407
Altered Mental Status (R41.82)	249,482	208,272
No Complaint - Adult (Z00.00)	223,505	178,667
Shortness of breath (R06.02)	199,492	159,604
Pain, Abdomen (R10.84)	136,582	111,819
Pain, Back (M54.9)	109,632	93,325
Abnormal behavior (R46.2)	101,731	81,454
Headache (R51)	96,141	81,011
Pain, Chest - Cardiac (R07.9)	95,440	81,127

Chart 13: CEMSIS V3.4 EMS
Top Ten Patient Primary Symptoms
CY 2022 vs 2023



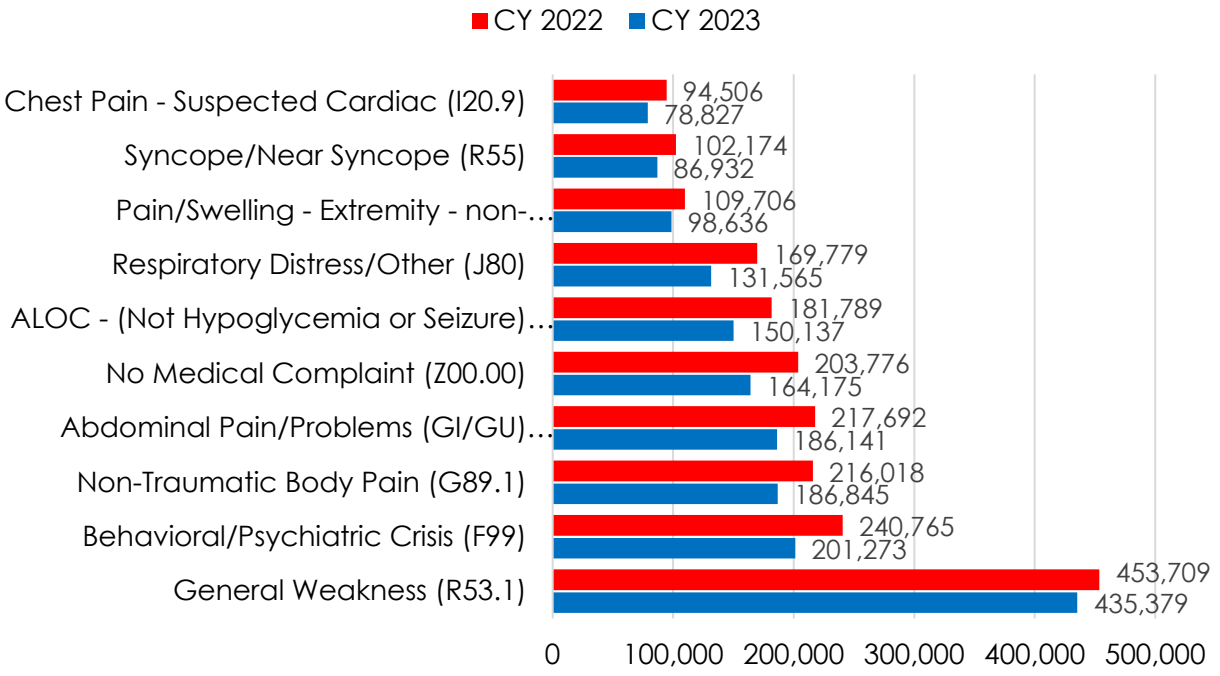
All categories decreased in CY 2023 over 2022. "Weakness" was the most reported primary symptom.

Total patient primary symptoms reported 3.1M and 2.6M in CY 2022 and 2023 respectively, apart from "Not Values".

PROVIDERS PRIMARY IMPRESSION

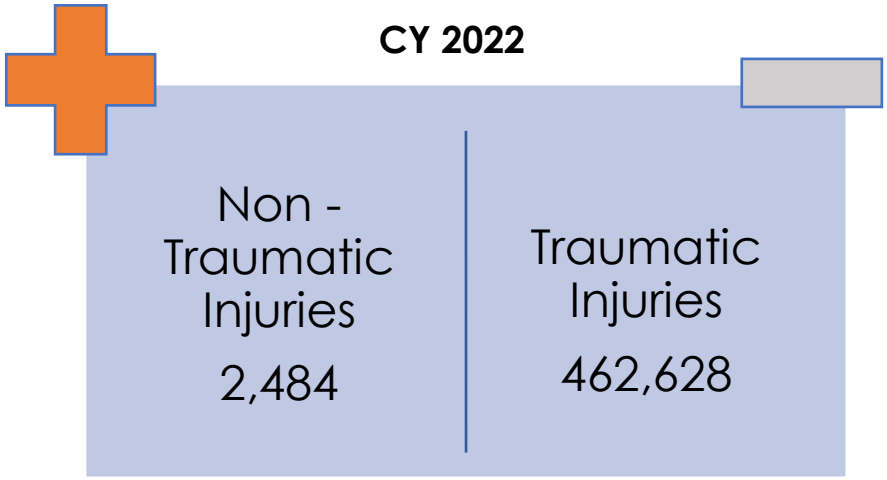
The EMS personnel's impression of the patient's primary problem or most significant condition which led to the management given to the patient (treatments, medications, or procedures).

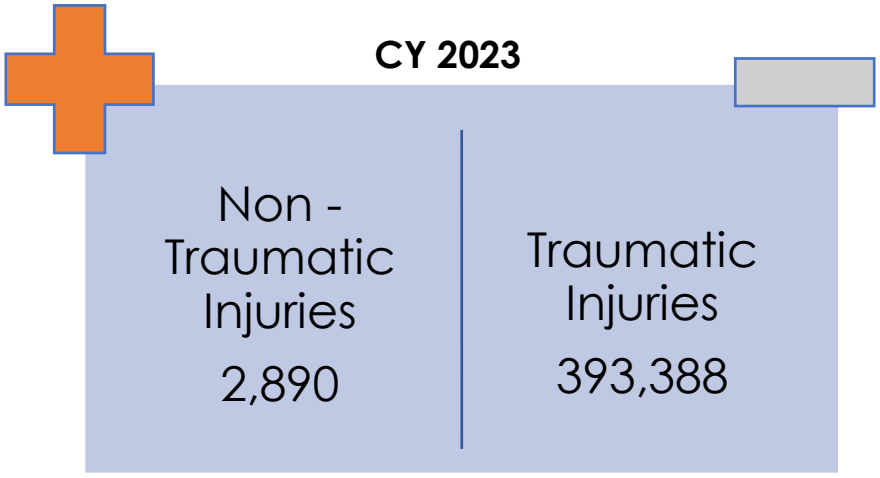
Chart 14: CEMSIS V3.4 EMS
Top Ten Patient Primary Impressions
CY 2022 vs 2023



There was a total of 4.6M records in CY 2022 and 3.8M in 2023 for primary impressions. General weakness was the most reported primary impression (10% in CY 2022 and 11% in 2023) followed by traumatic injury (10%) in both the years.

For analytical purposes, "Not Values" data totals have been excluded from this chart due to the lack of specific information.

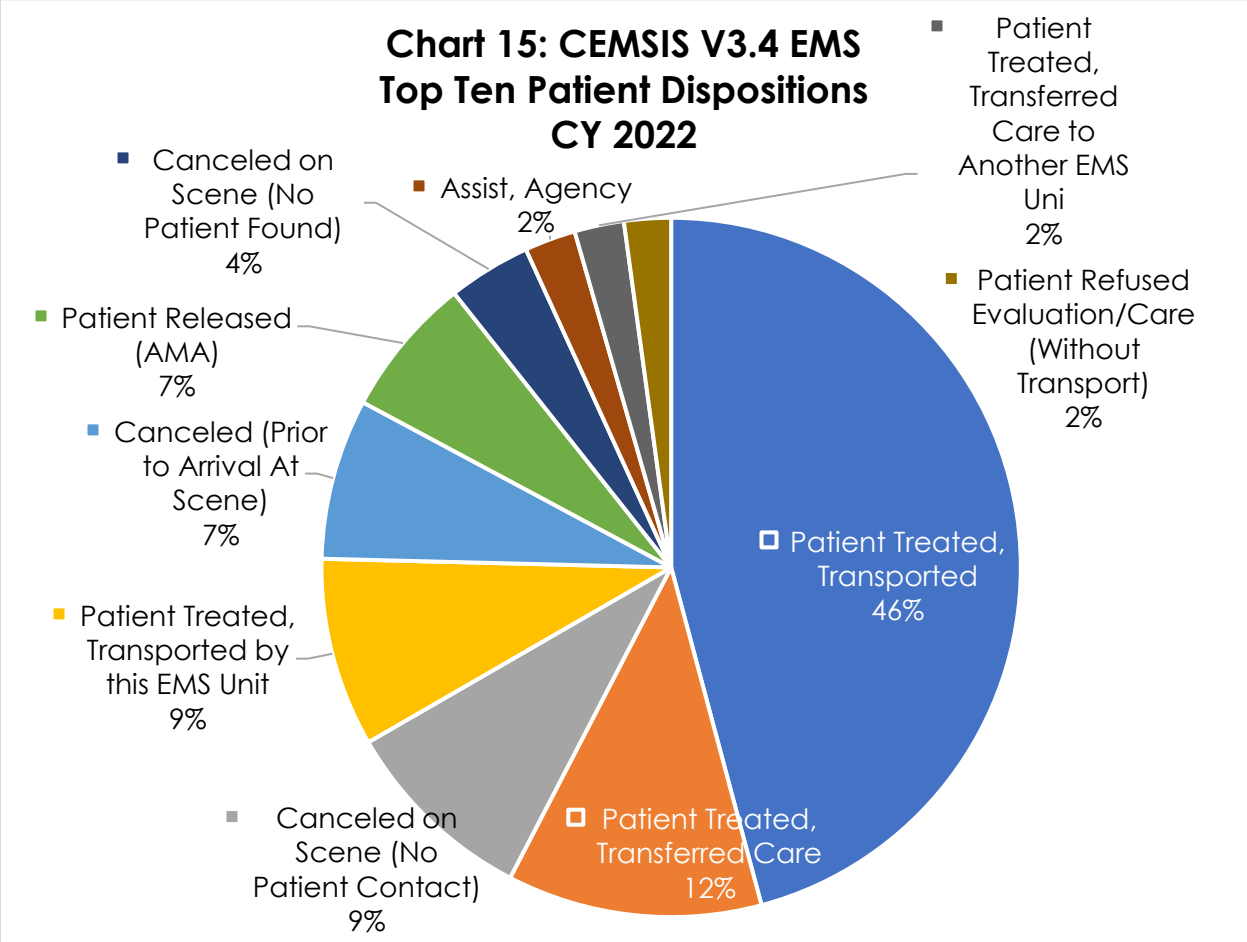


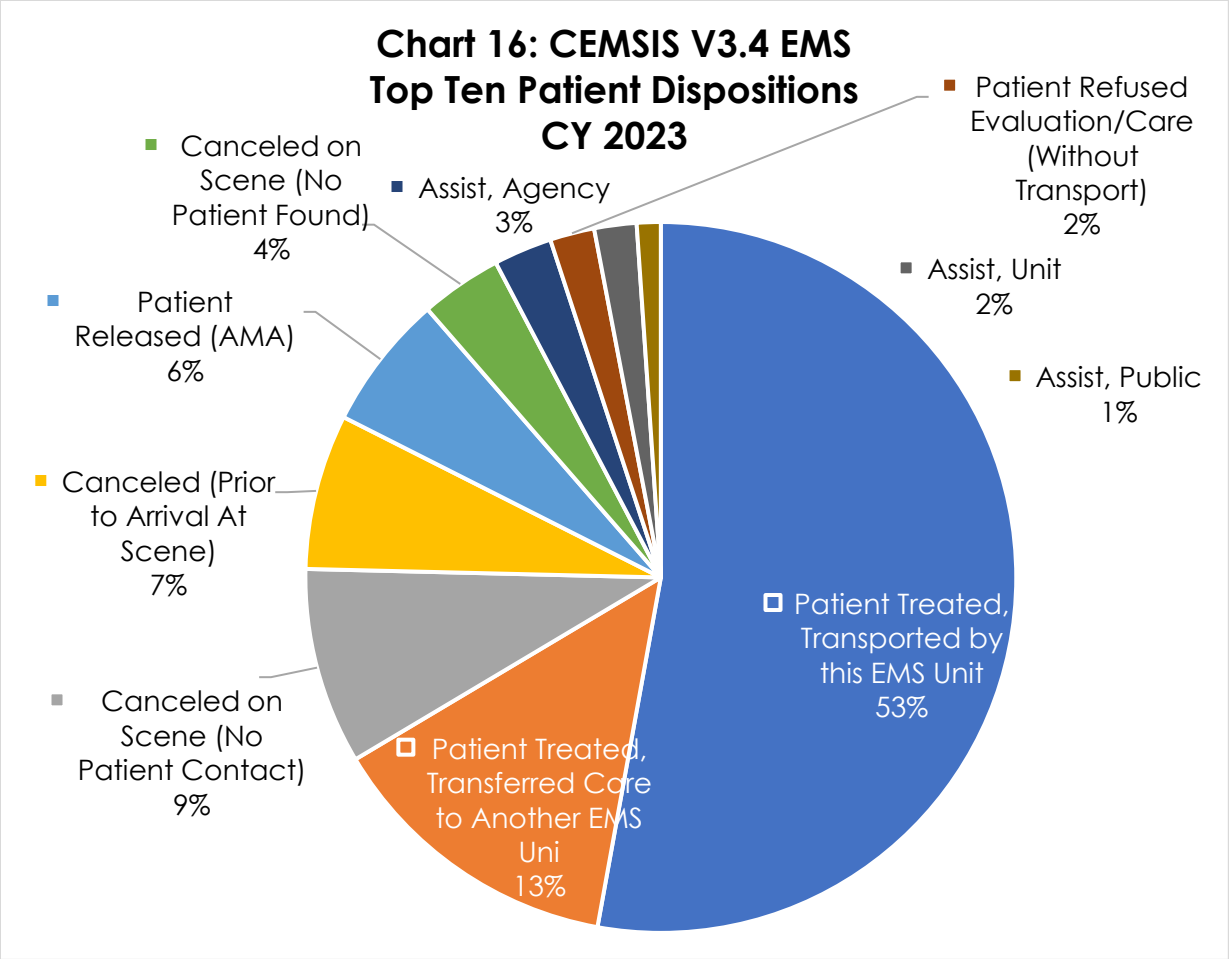


In CY 2022 and 2023, 90% of EMS incidents were non-traumatic or medical in nature compared to traumatic injuries.

PATIENT DISPOSITION

Patients treated and transported by the responding EMS unit represented the most common reported disposition treatment of patients in CY 2022 (46%) followed by patients treated, transferred care (12%).





Patients treated and transported by the responding EMS unit represented the most common reported disposition treatment of patients in CY 2023 (53%) followed by patients treated, transferred care (13%).

CAUSE OF INJURY

In CY 2022, there were over 4.3 million EMS records and in CY 2023, 3.3 million records of causes of injuries were reported by EMS providers. This total includes data that was Not Reported, Not Applicable, and Not Recorded in addition to all other injury descriptions related to the Trauma ICD-10 codes.

Due to the vast number of categories of reported and suspected external cause of injuries and the ability for responders to select multiple options per incident, it is difficult to provide a useful and in-depth analysis accurately categorizing the total cause of injuries reported.

Chart 17: CEMSIS V3.4 EMS Top Ten Causes of Injury CY 2022

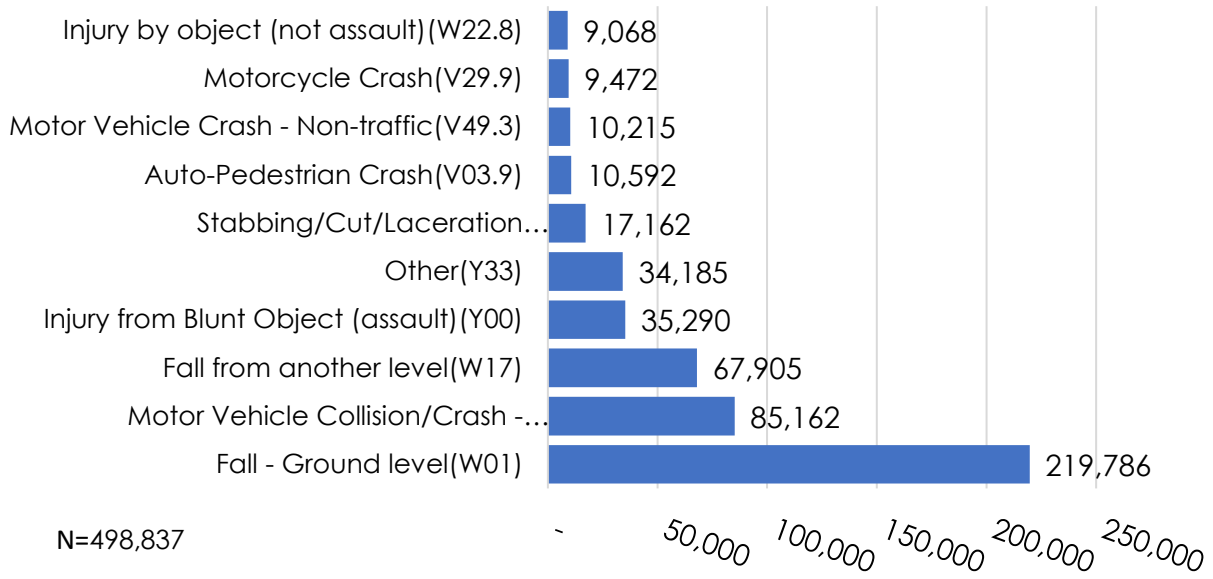
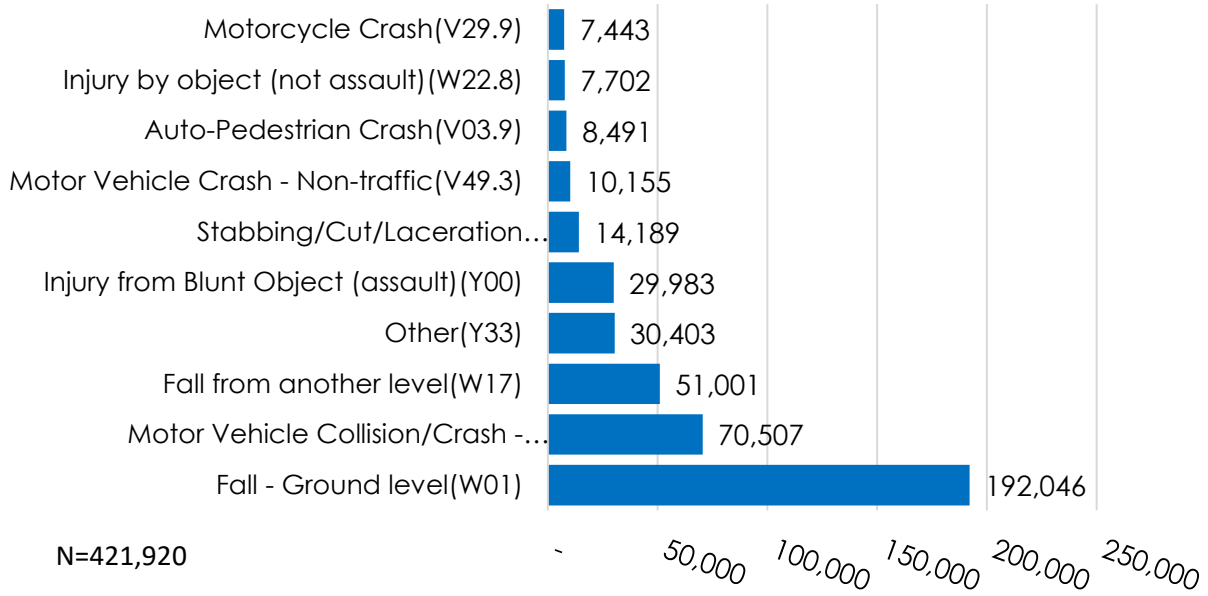


Chart 18: CEMSIS V3.4 EMS Top Ten Causes of Injury CY 2023

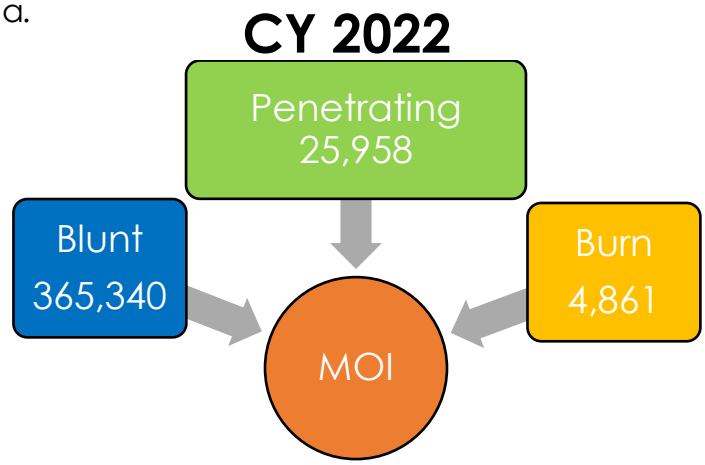


Injuries suspected as being caused by or involving falls of any kind were the most common cause of injury as reported in CY 2022 and 2023

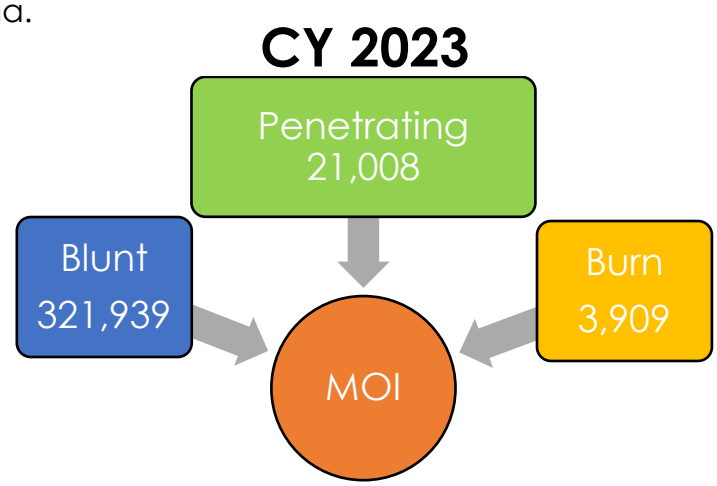
Injuries suspected as being caused by or involving falls of any kind were the most common cause of injury in CY 2022 and 2023. In 2022, "Fall – Ground level" represented 45% of the top ten causes of injuries. In 2023 "Fall – Ground level" represented 44% top ten causes of injuries in 2022. Motor vehicle related injuries represented the second highest reported, representing 70,507 or 17% in 2023.

MECHANISM OF INJURY

The predominant mechanism of injury (MOI) of EMS patients in CY 2022 was blunt force trauma.



The predominant mechanism of injury (MOI) of EMS patients in CY 2023 was blunt force trauma.



EMS ORGANIZATIONS

AGENCY ORGANIZATION TYPE

The agency type or organizational structure from which EMS services were delivered (fire, hospital, county, etc.) The provider type is associated with the EMS Agency and each EMS Agency has a specific EMS Agency Number assigned to them.

Chart 19: CEMSIS V3.4 EMS Agency Type CY 2022

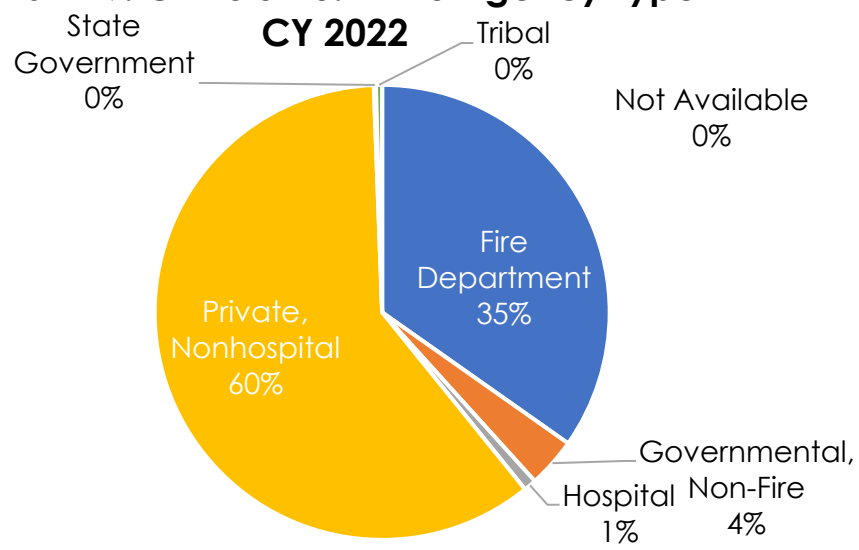
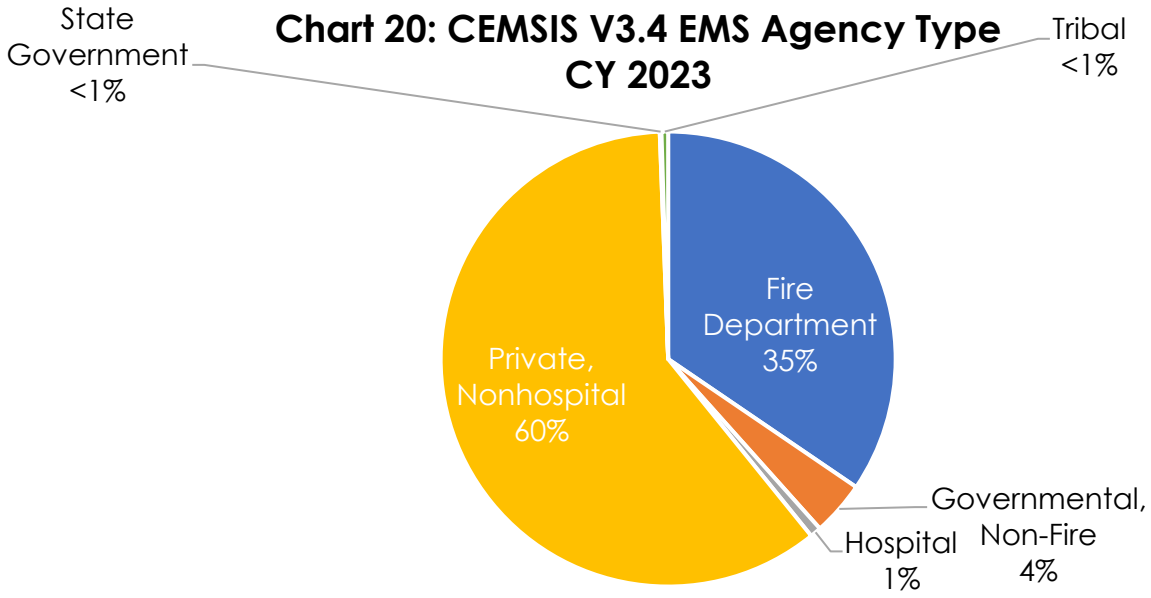
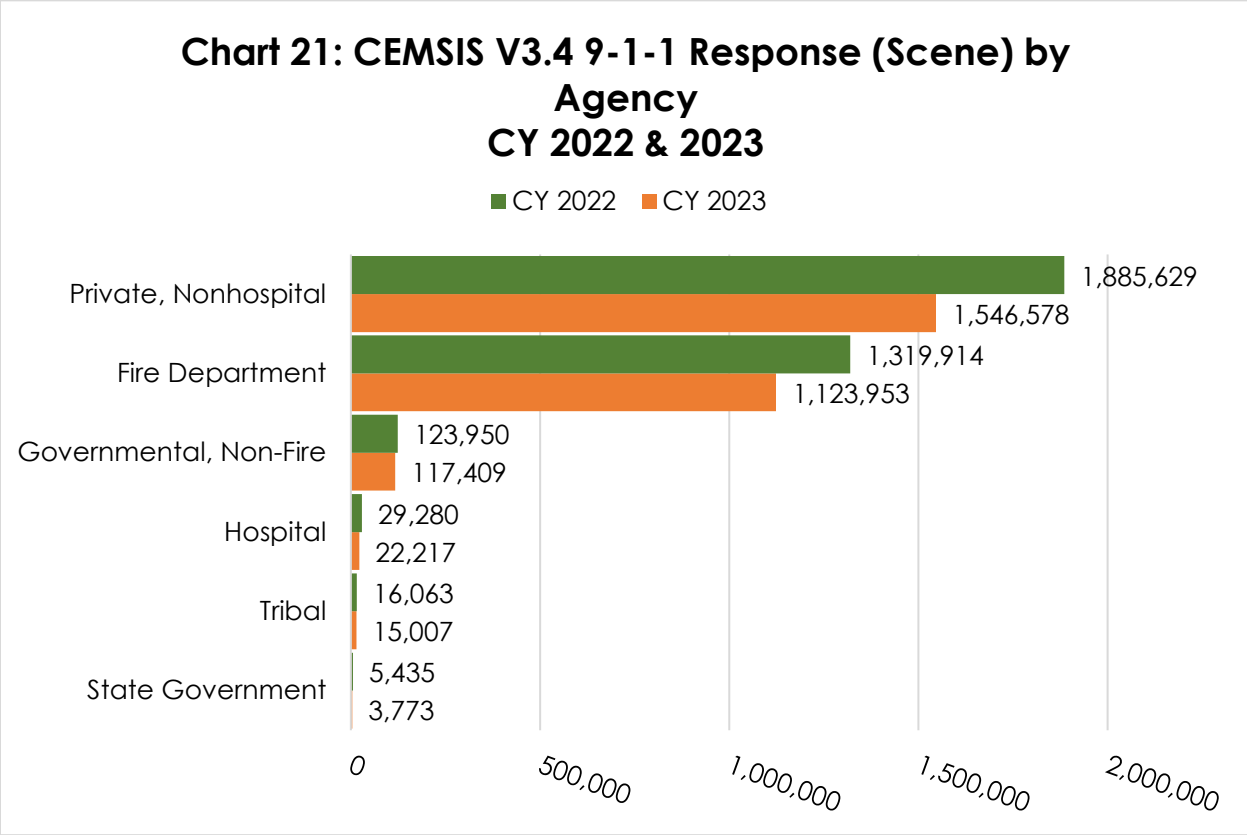


Chart 20: CEMSIS V3.4 EMS Agency Type CY 2023



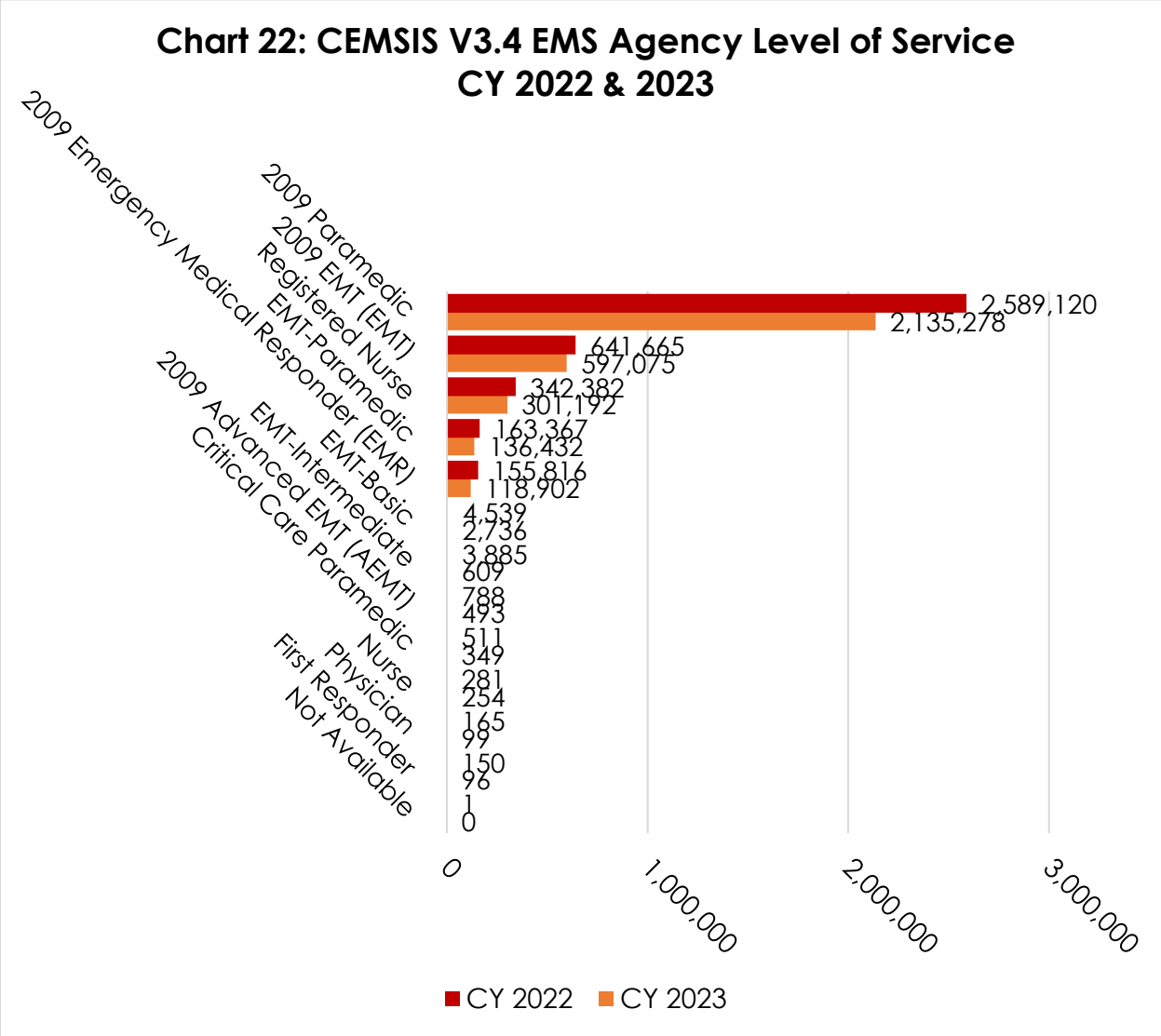
AGENCY ORGANIZATION 9-1-1 RESPONSES



Private, Nonhospital 911 response were predominantly higher compared to other response to scene in CY 2022 and 2023 with 56% and 55% respectively.

AGENCY LEVEL OF SERVICE

The level of service which the agency provides EMS care for every request for service.



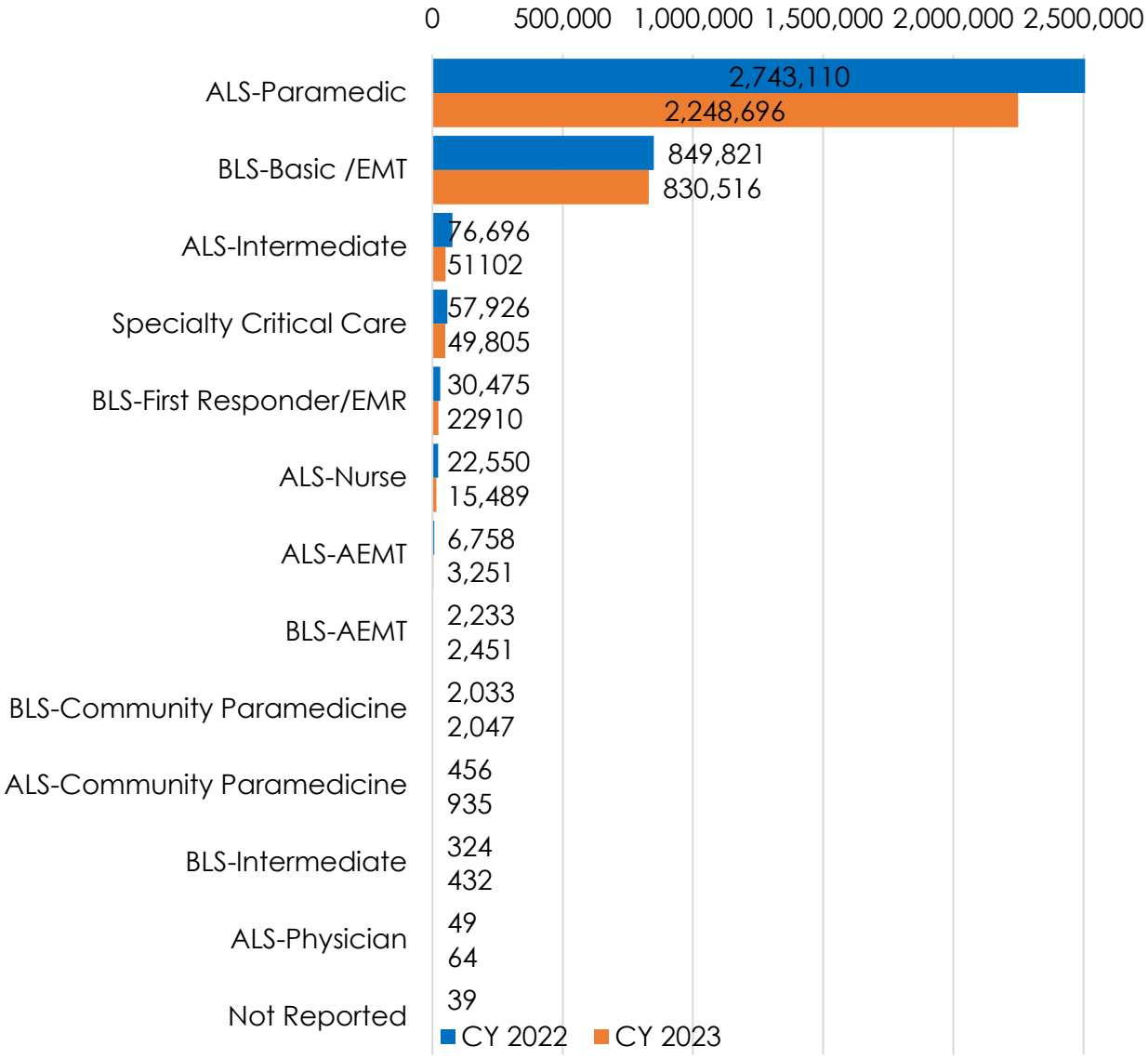
The levels shown are entered at the provider level. In the future, the EMS Authority plans on combining this list to show only one value for paramedic, emergency medical technician (EMT), etc.

Agencies providing a 2009 Paramedic level of care responded to the most EMS incidents reported in CY 2022 and 2023, representing 66% and 65%, resp. The '2009' data entries are intended to define EMS personnel who meet the 2009 National EMS Education Standards. All licensed California paramedics have passed the National Registry exam and/or meet all California continuing education standards.

RESPONSE UNITS LEVEL OF CARE

The level of care or license level (BLS or ALS) the response unit can provide is based on the unit's treatment capabilities for the specific EMS event regardless of patient need. For example, if a unit/crew is staffed with an EMT-Intermediate or EMT-Paramedic but the unit is either licensed or stocked at a BLS level, the appropriate level of care is "BLS-Basic." This is because the care provided to patients is limited to BLS skills.

Chart 23: CEMSIS V3.4 EMS Response Unites Level of Care
CY 2022 & 2023



AGENCY PRIMARY TYPE OF SERVICE

The primary type of service provided by the responding EMS agency.

Chart 24: CEMSIS V3.4 EMS Agency Primary Type of Service
CY 2022

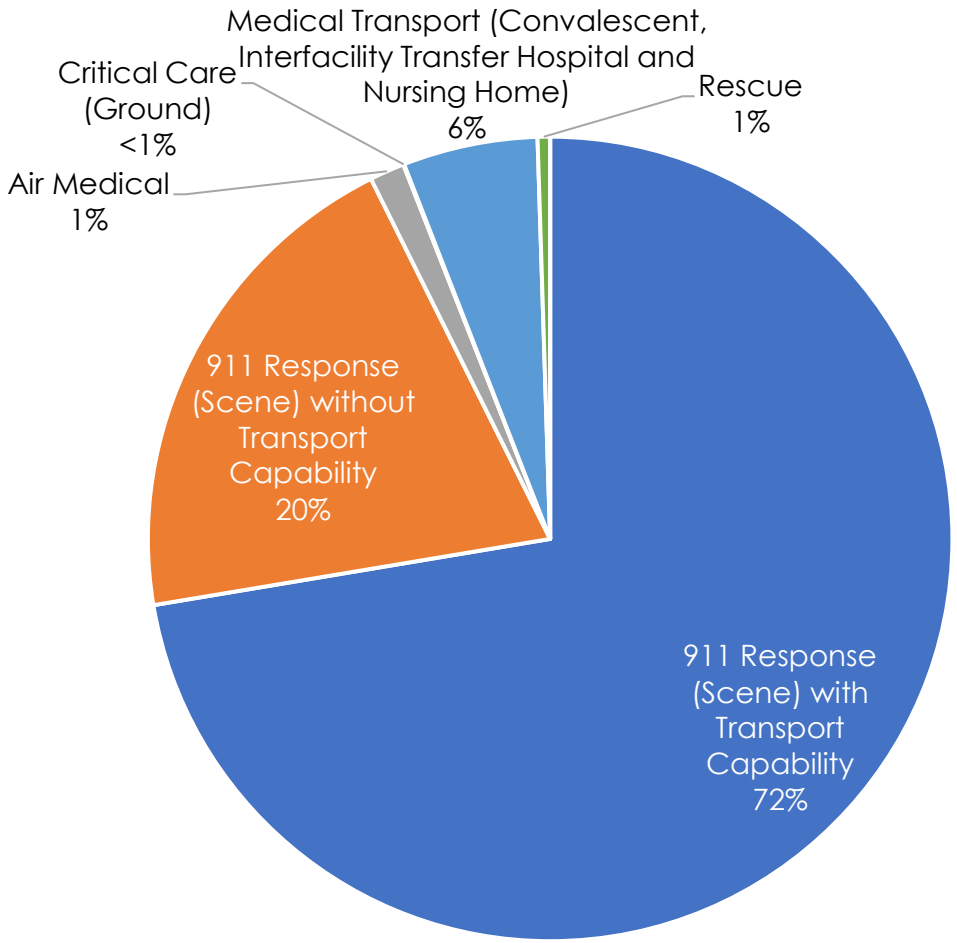
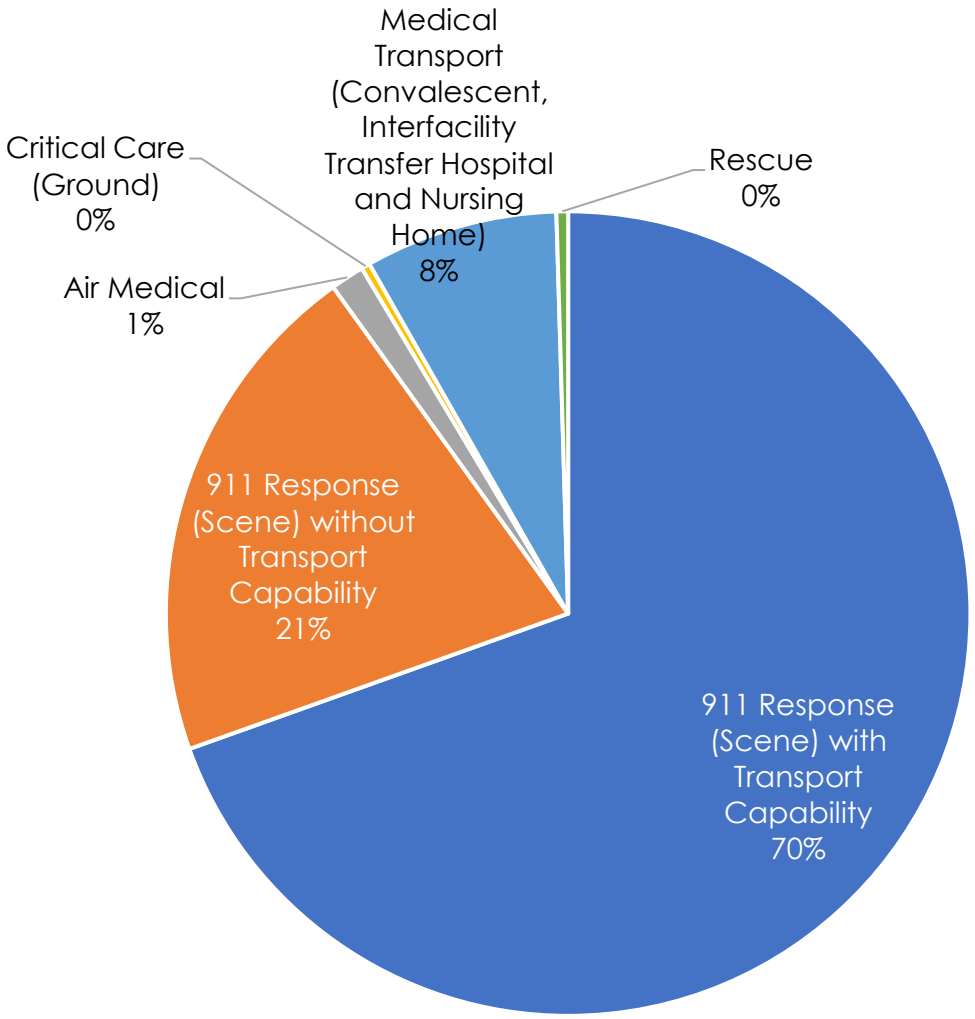


Chart 25: CEMSIS V3.4 EMS Agency Primary Type of Service
CY 2023



EMS TRANSPORTS

EMS TRANSPORT RESPONSES

EMS Transports

CY 2022: 2,511,091
CY 2023: 2,120,359

Table 5: CEMSIS V 3.4 EMS Transports by Month and Year CY 2022 & 2023

Month	CY 2022	CY 2023
January	184,497	194,027
February	174,391	197,978
March	196,926	221,848
April	194,901	190,944
May	211,374	226,252
June	208,408	215,355
July	219,907	225,045
August	221,592	223,391
September	219,561	198,789
October	221,001	135,510
November	224,579	67,667
December	233,954	23,553

The highest total of EMS transports in CY 2022 was reported in December representing 9% and the lowest total reported was in February, representing 7% of transports. CY 2023 reported the most transport in July but reported the lowest amount in December. The drop in records is due LEMSAs transitioning NEMSIS version 3.4 to version 3.5.

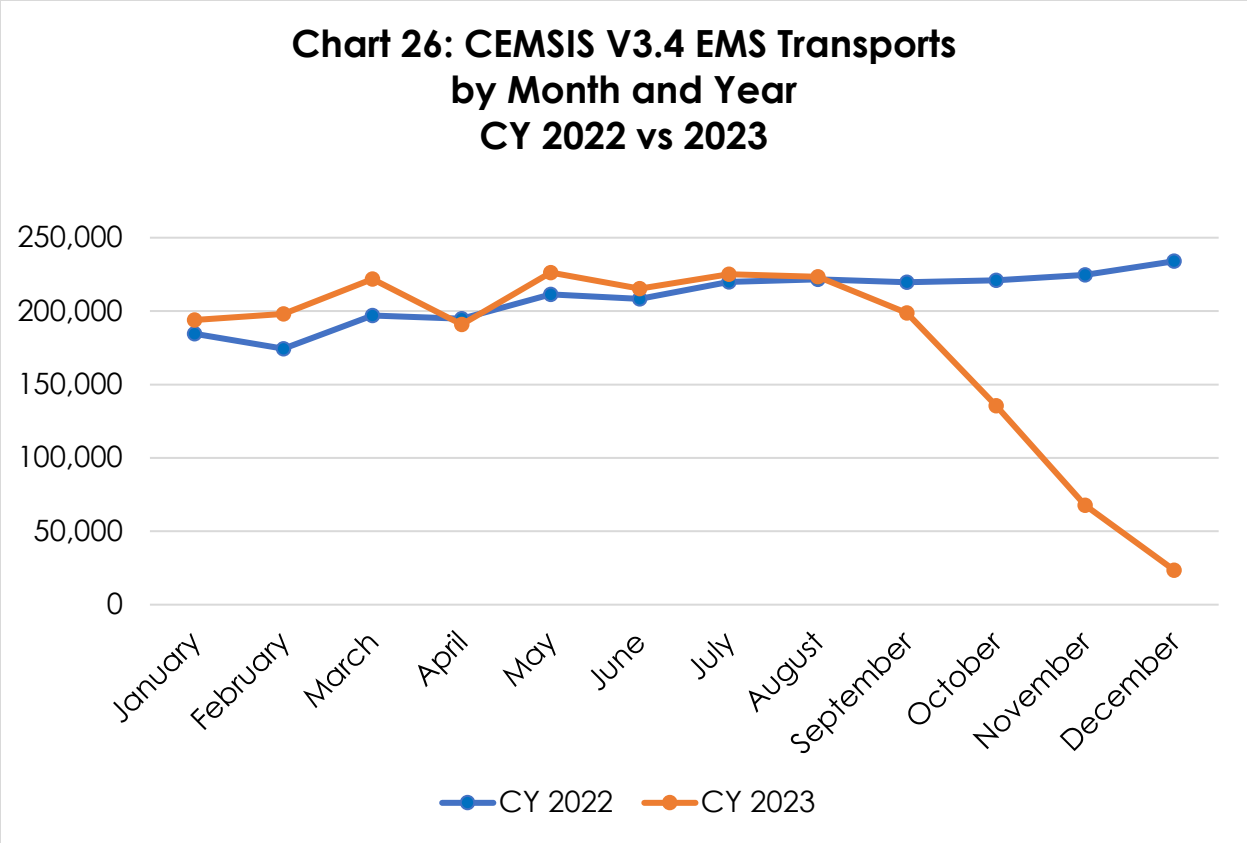
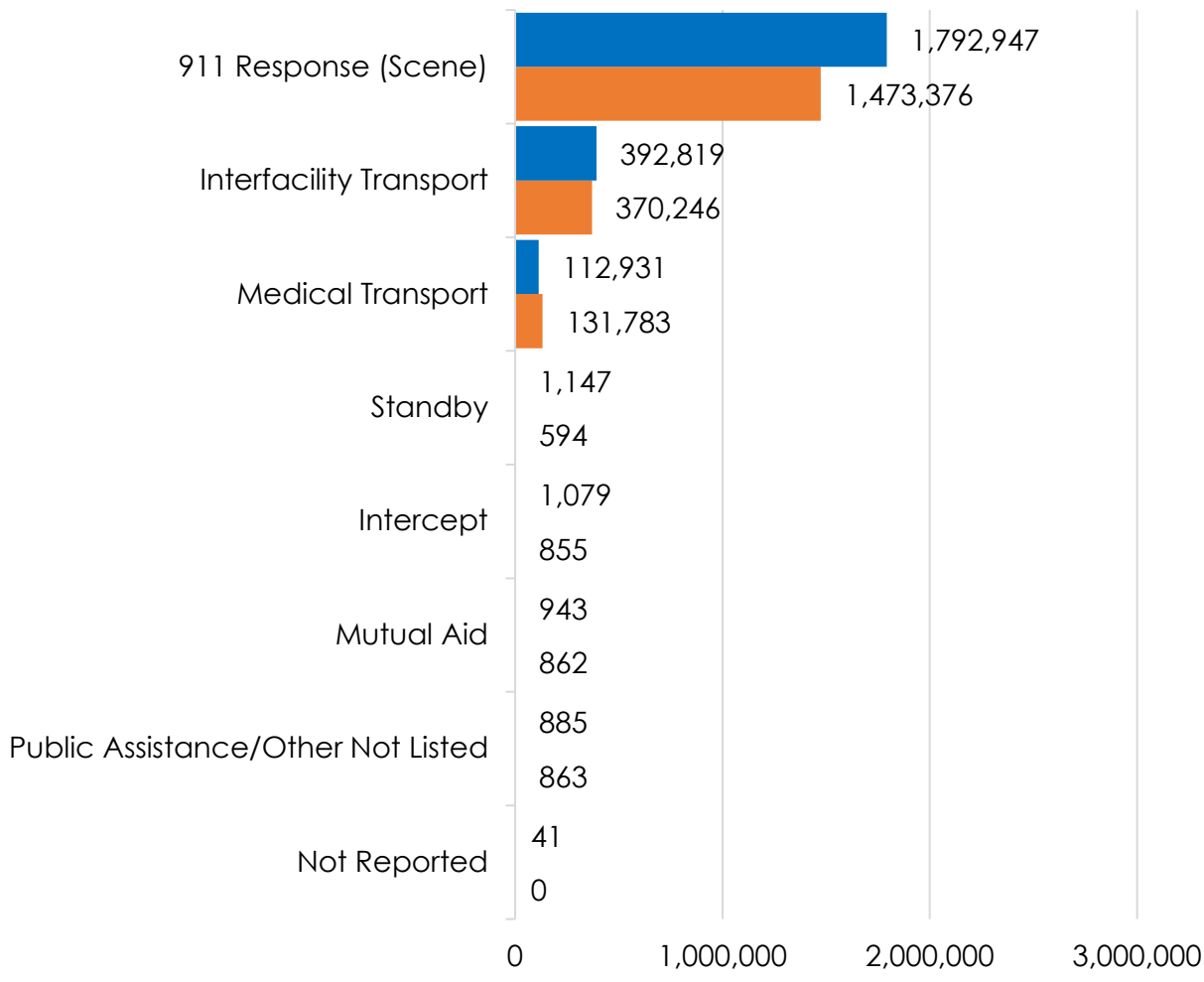
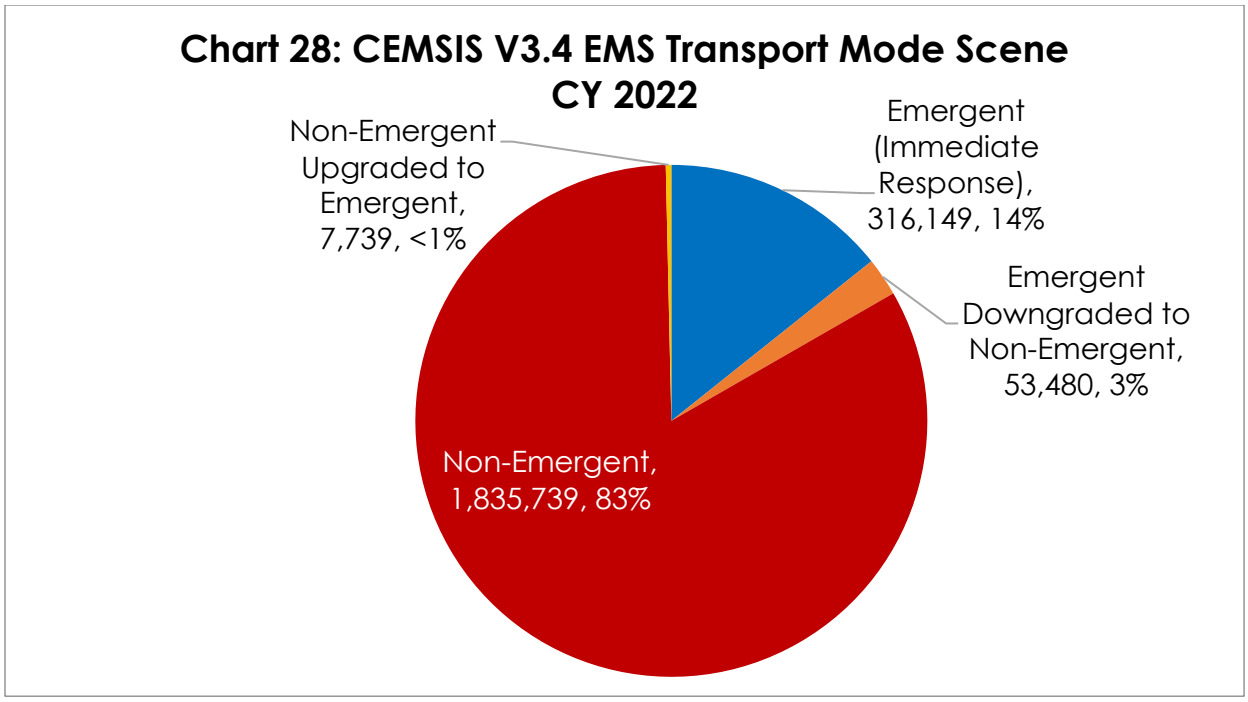


Chart 26: CEMSIS V3.4 EMS Transports
by Month and Year
CY 2022 vs 2023
250,000
200,000
150,000
100,000
50,000
0
January
February
March
April
May
June
July
August
September
October
November
December
CY 2022
CY 2023

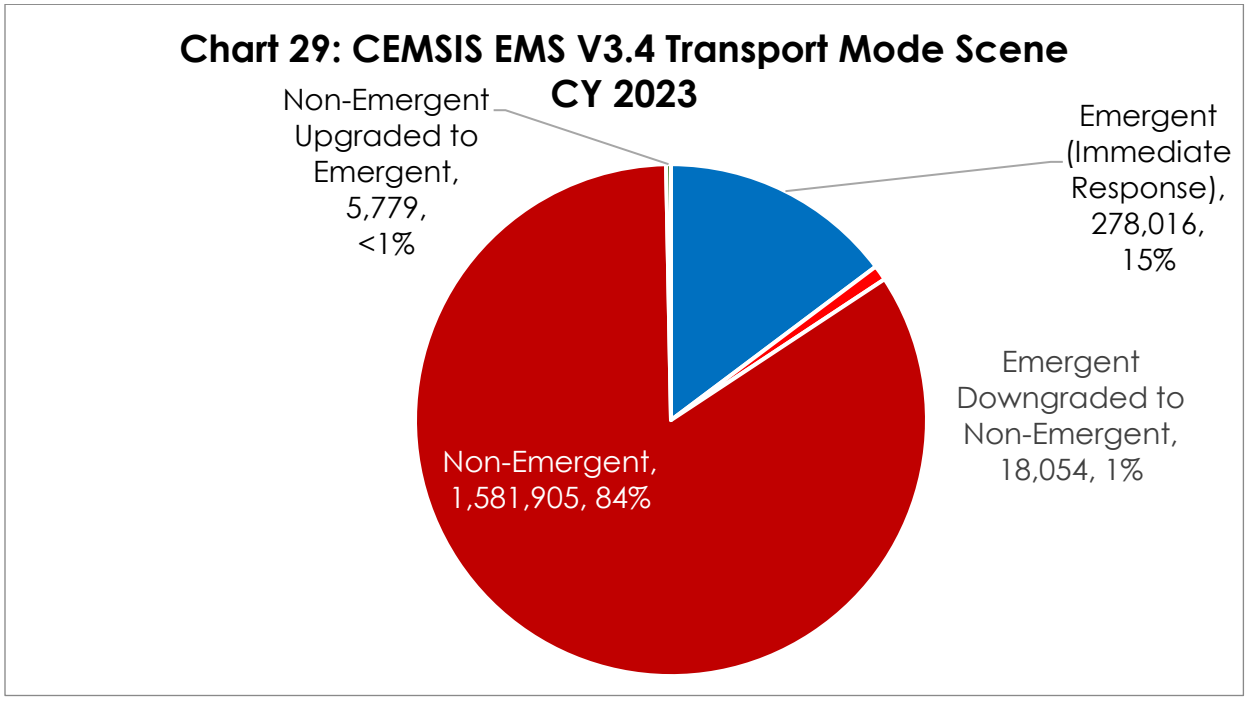
9-1-1 EMS transports were predominant in CY 2022 and 2023.

Chart 27: CEMSIS V3.4 EMS Transports
Type of Service Requested
CY 2022 vs 2023





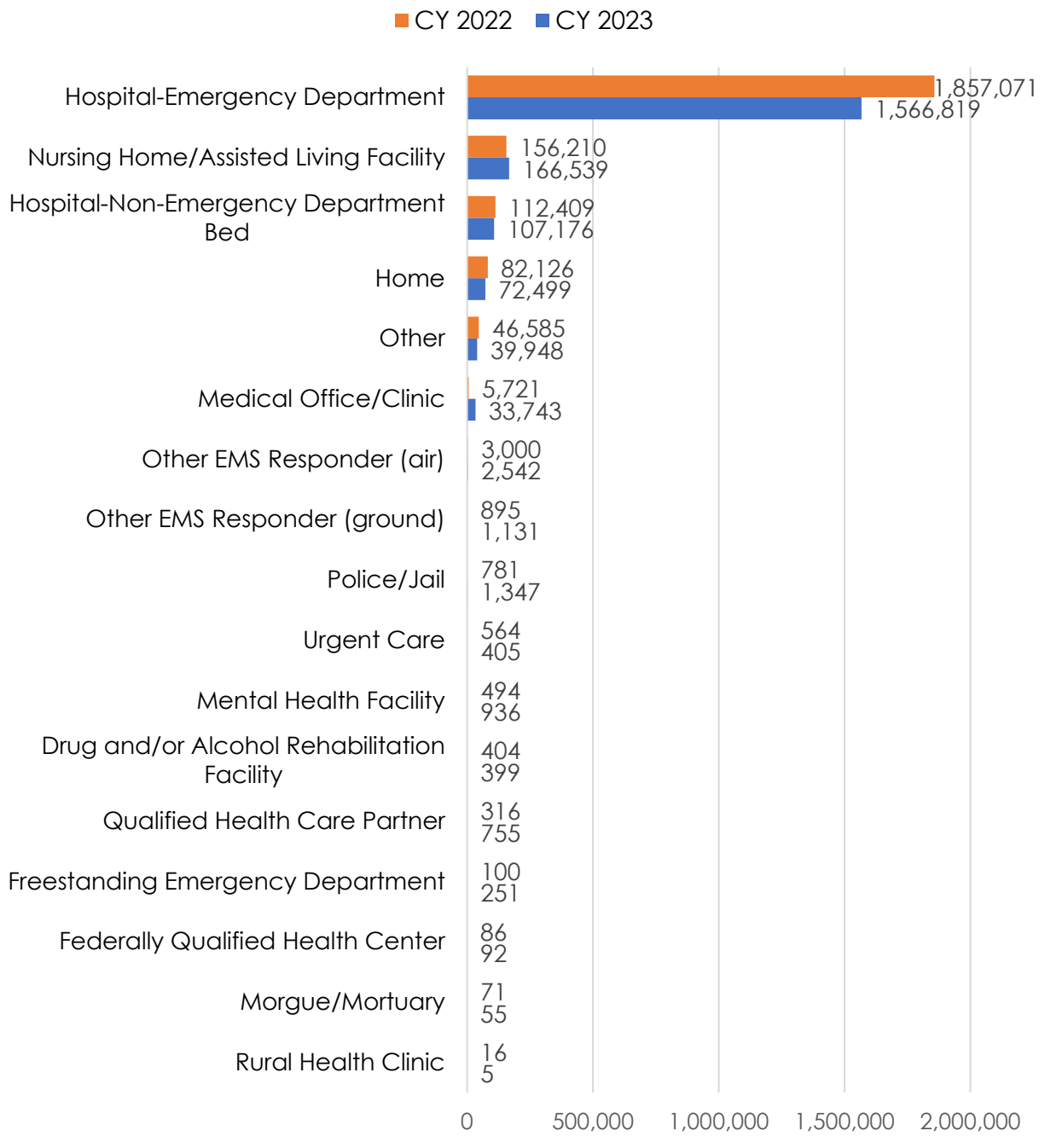
*For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. *"Not Values" includes Not Applicable, Not Recorded, and Not Reported totals (n= 64,484)*



*For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. *"Not Values" includes Not Applicable, Not Recorded, and Not Reported totals (n=56,650)*

EMS TRANSPORT DESTINATIONS

Chart 30: CEMSIS V3.4 EMS Transport Destinations CY 2022 vs 2023

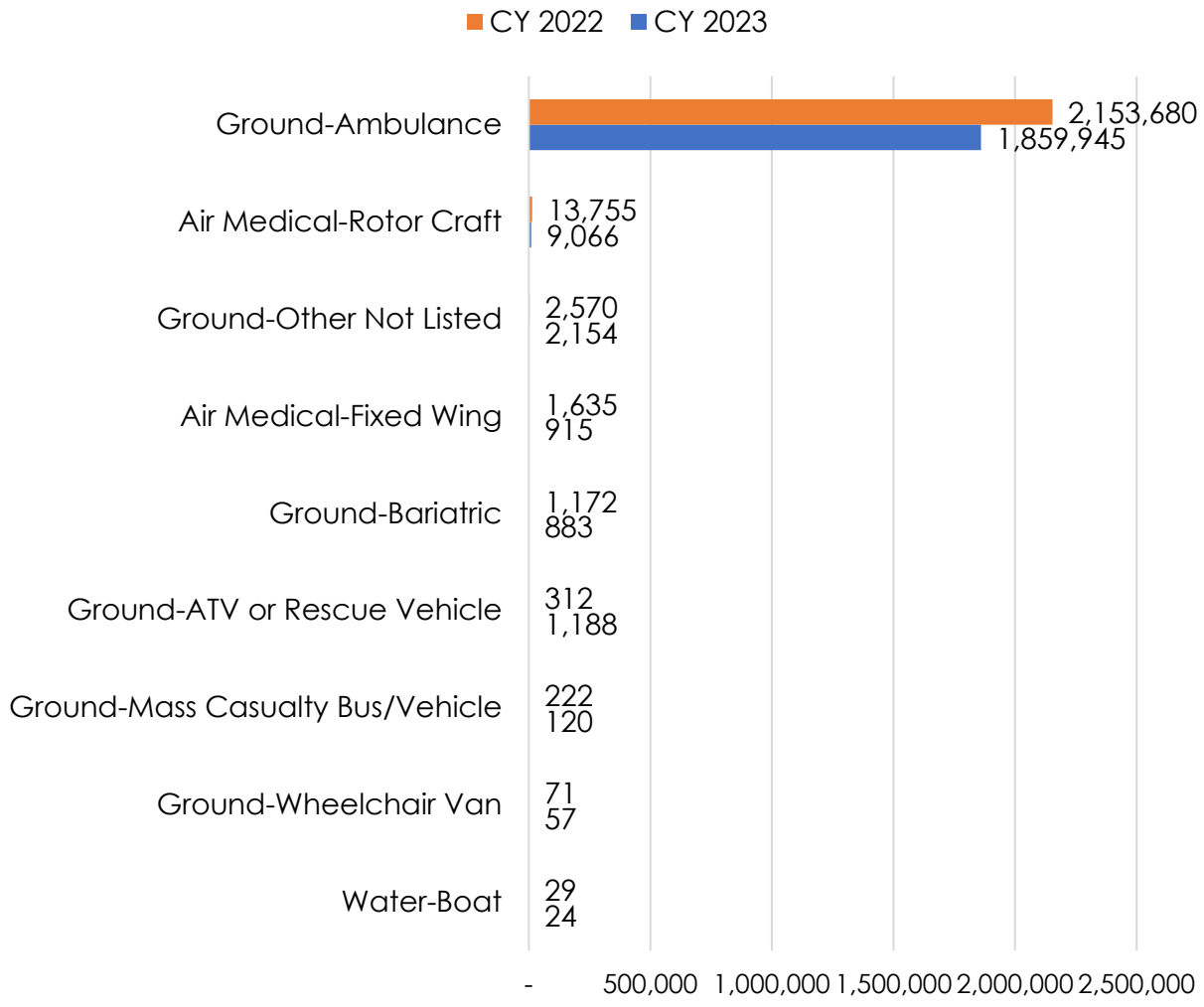


*For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. *"Not Values" includes Not Applicable, Not Recorded, Not Reported, Other totals CY 2022 (n=20,993) vs CY 2023 (n=86,656)*

METHOD OF TRANSPORT

EMS transports reporting the patient as being treated and transported by Ground-Ambulance providers was the predominant in CY 2022 and 2023.

Chart 31: CEMSIS V3.4 EMS Method of Transport CY 2022 vs 2023



*For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. *"Not Values" includes Not Applicable, Not Recorded, and Not Reported totals CY 2022 (n=7,693) and CY 2023(n=7,351)*