



# Emergency Medical Services Authority Annual EMS Data Report Calendar Year 2020

California Emergency Medical Services Authority  
California Health and Human Services Agency



# ACKNOWLEDGEMENTS

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# TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS.....</b>	<b>2</b>
<b>MESSAGE FROM THE DIRECTOR .....</b>	<b>5</b>
<b>INTRODUCTION .....</b>	<b>6</b>
PURPOSE .....	6
BACKGROUND.....	7
<b>MISSION AND VISION.....</b>	<b>7</b>
<b>METHODOLOGY .....</b>	<b>8</b>
<b>CEMSIS.....</b>	<b>9</b>
CEMSIS PARTICIPATION .....	9
CEMSIS RECORDS SUBMITTED .....	9
<b>DATA ANALYSIS .....</b>	<b>10</b>
LIMITATIONS OF ANALYSIS.....	11
MAPPING .....	11
SELECTED DATA ELEMENTS .....	12
NOT VALUES.....	13
<b>SECTION 1: LEMSA EMS DATA .....</b>	<b>14</b>
LEMSA EMS DATA.....	14
LEMSA POPULATION.....	16
LEMSA RESPONSES PER 1,000 POPULATION .....	19
<b>SECTION 2: STATEWIDE EMS DATA .....</b>	<b>20</b>
<b>EMS RESPONSE &amp; PATIENT CARE .....</b>	<b>21</b>
EMS RESPONSE TOTAL.....	21
EMS RESPONSE SERVICES .....	23
PATIENT CHARACTERISTICS .....	25
PATIENT PRIMARY SYMPTOM .....	27
PROVIDERS PRIMARY IMPRESSION.....	29
PATIENT DISPOSITION .....	30

CAUSE OF INJURY .....	30
MECHANISM OF INJURY .....	32
<b><u>EMS ORGANIZATIONS .....</u></b>	<b><u>33</u></b>
AGENCY ORGANIZATION TYPE .....	33
AGENCY ORGANIZATION RESPONSES.....	33
AGENCY LEVEL OF SERVICE .....	34
RESPONSE UNITS LEVEL OF CARE.....	35
AGENCY PRIMARY TYPE OF SERVICE .....	37
<b><u>EMS TRANSPORTS .....</u></b>	<b><u>39</u></b>
EMS TRANSPORT RESPONSES .....	39
EMS TRANSPORT DESTINATIONS .....	41
METHOD OF TRANSPORT .....	42
EMS TRANSPORT VEHICLE .....	43
<b><u>SECTION 3: COVID-19 SNAPSHOT .....</u></b>	<b><u>44</u></b>

# MESSAGE FROM THE DIRECTOR

I am proud to present the Emergency Medical Services Authority's (EMSA) sixth annual Emergency Medical Services (EMS) Data Report for 2020. The Annual EMS Data Report promotes collaboration, creates points for discussion on data quality, encourages data submissions, and provides a general description of statewide emergency medical services. Additionally, the report builds on the EMS Authority's existing efforts of working with the Local Emergency Medical Agencies (LEMSA) to increase and improve EMS data capacities, to standardize the collection of prehospital data, to study the efficacy of the EMS systems, and to continue to improve EMS data collection across California.

On January 1, 2017, the data standard changed for the entire nation when NEMSIS transitioned to the most current version, 3.4. This is our third report since the implementation of version 3.4 in 2017, and we have seen a significant increase in both EMS data submission and LEMSAs participation. The current version incorporates Health Level 7 (HL7) and Internal Classification of Disease (ICD) 10 standards, achieving better and more useful information on patient care.

For high quality services to be efficiently delivered, all components of the EMS system must mutually reinforce and support one another. The EMS Authority, through standard setting, consensus building, and leadership, plays a central role in improving the quality of emergency medical services available for all Californians.

Although this report still focuses on descriptive data, it provides us with significant information. We are in discussion with various partners and vendors to determine how to best display our growing California EMS Information System (CEMSIS) data. Our goal is to develop worthwhile and timely data reports for use at the state and local levels.

Elizabeth Basnett  
Acting Director

# INTRODUCTION

The EMS Authority is pleased to release the annual EMS Data Report for calendar year (CY) 2020. LEMSAs who are currently reporting data to CEMSIS encompass populations that represent approximately 75% (29,524,214) of California's total population of 39,538,223<sup>1</sup>. 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.

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## PURPOSE

This report provides a general description of statewide emergency medical services in CY 2020. EMSA is mandated to annually report on the effectiveness of EMS systems and related impact on death and disability (HSC 1797.121). HSC 1797.103 (f) further identifies that one of the required elements of an EMS system is data collection and evaluation. EMSA 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 EMSA, 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, EMSA'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 to questions about the impact of EMS care on patient outcomes. EMSA's converging data objectives will, together, allow California to at last measure the value that EMS adds to the health care system.

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<sup>1</sup> <https://www.census.gov/quickfacts/fact/table/US/PST045221>

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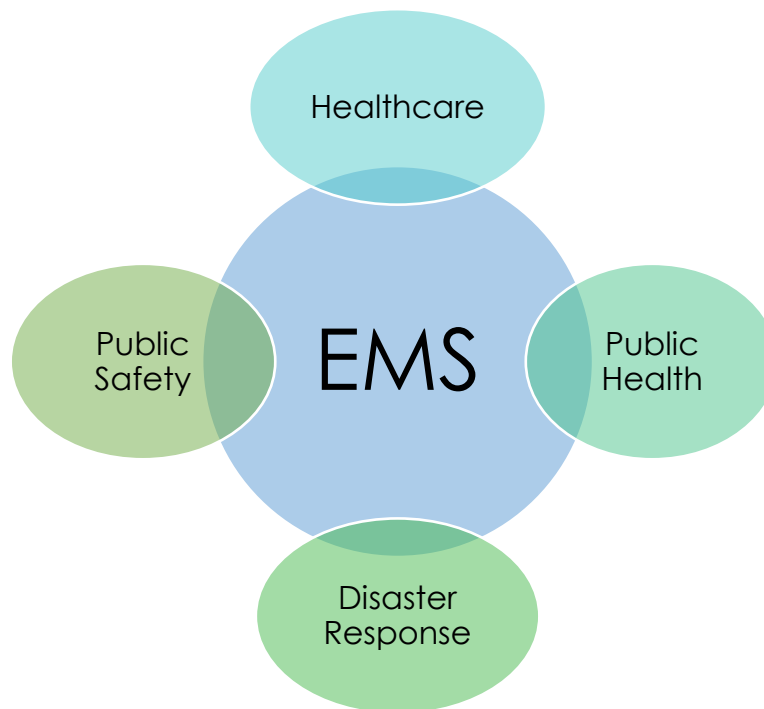
## BACKGROUND

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 EMSA, LEMSAs, and the providers so that essential questions about California's EMS system can be answered.

## MISSION AND VISION

EMSA'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.

EMSA'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.



EMSA fulfills its mission and vision by partnering with LEMSAs in the collection of data directly from their local providers. Local control underscores the importance of data collaboration amongst EMSA, LEMSAs, and the providers to achieve real knowledge about EMS in our state. EMSA fosters such collaboration through various work groups and stakeholder events.

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

- healthcare 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

There are 33 LEMSAs within the State of California and in CY 2020, EMSA collected some form of data from 32 LEMSAs (97%). From these 32 LEMSAs, CEMSIS received data from approximately 482 local EMS providers. The data presented in this report was 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 has a contractual relationship with EMSA to serve as the agent for CEMSIS using the software application ImageTrend®. This data is submitted on a voluntary basis.

EMSA continues to use the most current NEMSIS data standard version 3.4, until the newest version 3.5 is available. NEMSIS announced that version 3.5 is underway, 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 expand data elements related to the disposition of patients and incidents in the EMS System. EMSA and local agencies will adopt new national data standards by transitioning from NEMSIS version 3.4 to NEMSIS version 3.5. We are anticipating the transition to start in the first quarter of 2023; however, the exact timing is still being determined.

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).

## CEMSIS

CEMSIS 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.

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### CEMSIS PARTICIPATION

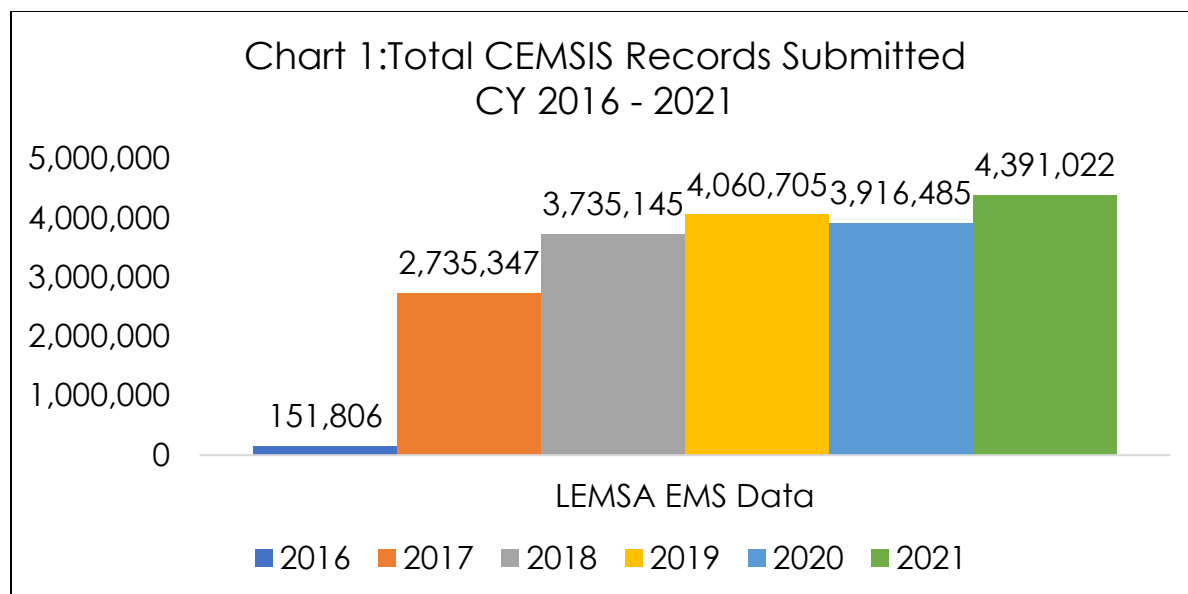
Since transitioning to NEMSIS version 3.4 in January 2017, the number of LEMSAs submitting to CEMSIS has increased to 32 of the 33 LEMSAs now submitting. EMSA is working with the one remaining LEMSA that is not submitting to CEMSIS and we hope to have their data soon.

Los Angeles County EMS Agency is currently in the testing stage to submit version 3.4 data into CEMSIS.

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### 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 CY 2020, we saw a 4% decrease in record submission, and a 11% increase in record submission between CY 2020 and CY 2021.

When fully operational, with 100% LEMSA and local participation, it is anticipated that CEMSIS will receive approximately 6 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, 911 Response (Scene), intercept, mutual aid, etc.
  - Calculated by incident year 2020
- **EMS Transports:** Same criteria as EMS Responses, with an additional criterion.
  - “Incident Patient Disposition” select Patient Treated and Transported
  - Calculated by incident years 2020
- **911 EMS Responses:** This includes only calls that required an emergent or immediate response to an incident location, regardless of method of

notification (e.g., 9-1-1, direct dial, walk-in, flagging down, air ambulance scene flight).

- “Type of Service Requested” select 911 Response-Scene and Basic Life Support (BLS) 911 Response-Scene
- Calculated by incident years 2020
- **911 EMS Transports:** Same criteria as 911 EMS Response, with an additional criterion.
  - Type of Service Requested” select 911 Response-Scene and BLS 911 Response-Scene
  - “Incident Patient Disposition” select Patient Treated and Transported
  - Calculated by incident years 2020

These criteria are used throughout the charts and graphs unless otherwise stated. The data sets in this report were run between November 22, 2021 and December 31, 2021.

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## 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 EMSA in the development of data validation tools will ultimately result in reporting with more statistical depth. After review of the data in CEMSIS, EMSA 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.

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## 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 9. LEMSAs map the data that they collect to reflect the State list.

## SELECTED DATA ELEMENTS

This report presents 7 tables and 31 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
<b>eDisposition.12</b>	Incident/Patient Disposition	No
<b>eDisposition.21</b>	Type of Destination	Yes
<b>eResponse.05</b>	Type of Service Requested	No
<b>ePatient.13</b>	Gender	Yes
<b>ePatient.15</b>	Age	Yes
<b>dAgency.09</b>	Primary Type of Service	No
<b>dAgency.13</b>	Organizational Type	No
<b>eInjury.01</b>	Cause of Injury	Yes
<b>eResponse.15</b>	Level of Care of This Unit	No
<b>eDisposition.16</b>	EMS Transport Method	Yes
<b>eSituation.11</b>	Providers Primary Impression	Yes
<b>eResponse.23</b>	Response Mode to Scene	No
<b>dAgency.11</b>	Agency Level of Service	No
<b>eSituation.09</b>	Situation Primary Symptom	Yes
<b>eInjury.02</b>	Injury Mechanism of Injury	Yes

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## NOT VALUES

The NEMESIS 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 current report, EMSA drew from two sources. The first source is information provided by LEMSAs in their EMS Plan Submissions. The second source is electronic data sent by LEMSAs to EMSA's CEMSIS data repository. These dual sources help to determine the degree to which the data submitted within the EMS Plans agrees with that received by EMSA's data repository. EMSA works with the LEMSAs to determine the sources of these discrepancies.

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

The total EMS Responses submitted in CY 2020 are presented throughout this report.

**Table 1: LEMSA CEMSIS Reported EMS Responses CY 2020**

LEMSA	EMS responses derived from LEMSA EMS Plan	EMS Responses submitted into CEMSIS CY 2020	Submission Rate
<b>Alameda</b>	271,685	243,708	90%
<b>Central California</b>	310,132	190,760	62%
<b>Coastal Valleys</b>	64,904	63,980	99%
<b>Contra Costa</b>	124,763	110,653	89%
<b>El Dorado</b>	12,719	24,425	192%
<b>Imperial</b>	18,797	15,021	80%
<b>Inland Counties</b>	499,546	504,976	101%
<b>Kern</b>	118,065	107,125	91%
<b>Los Angeles</b>	1,803,293	N/A	N/A
<b>Marin</b>	20,316	19,157	94%
<b>Merced</b>	71,099	15,046	21%

<b>Table 1: LEMSA CEMSIS Reported EMS Responses CY 2020</b>			
<b>LEMSA</b>	<b>EMS responses derived from LEMSA EMS Plan</b>	<b>EMS Responses submitted into CEMSIS CY 2020</b>	<b>Submission Rate</b>
<b>Monterey</b>	40,595	43,939	108%
<b>Mountain Valley</b>	83,399	107,004	128%
<b>Napa</b>	21,603	15,984	74%
<b>NorCal</b>	9,051	10,907	121%
<b>North Coast</b>	34,381	24,435	71%
<b>Orange</b>	522,846	523,999	100%
<b>Riverside</b>	297,093	417,815	141%
<b>Sacramento</b>	303,383	261,661	86%
<b>San Benito</b>	7,347	4,262	58%
<b>San Diego</b>	596,121	115,674	19%
<b>San Francisco</b>	204,571	123,764	60%
<b>San Joaquin</b>	150,168	129,764	86%
<b>San Luis Obispo</b>	44,042	29,812	68%
<b>San Mateo</b>	57,550	96,129	167%
<b>Santa Barbara</b>	73,025	59,787	82%
<b>Santa Clara</b>	288,466	273,079	95%
<b>Santa Cruz</b>	39,489	43,282	110%
<b>Sierra-Sacramento Valley</b>	145,324	171,748	118%
<b>Solano</b>	69,677	48,477	70%
<b>Tuolumne</b>	13,713	7,172	52%
<b>Ventura</b>	77,857	96,331	124%
<b>Yolo County</b>	25,131	27,304	109%
<b>Grand Total:</b>	6,420,151	3,927,180	61%

\*N/A is defined as no data submitted into CEMSIS

In CY 2020, LEMSAs CEMIS electronic submissions numbered approximately 2,503,676 fewer than those documented within the LEMSAs' EMS Plans, at a submission rate of 61%.

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## LEMSA POPULATION

The 33 LEMSAs represent all 58 counties in the State of California. The United States Census Bureau estimated that California's population in 2020 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-Valley EMS Agency:** Alpine, Amador, Calaveras, Mariposa, and Stanislaus.
- **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.



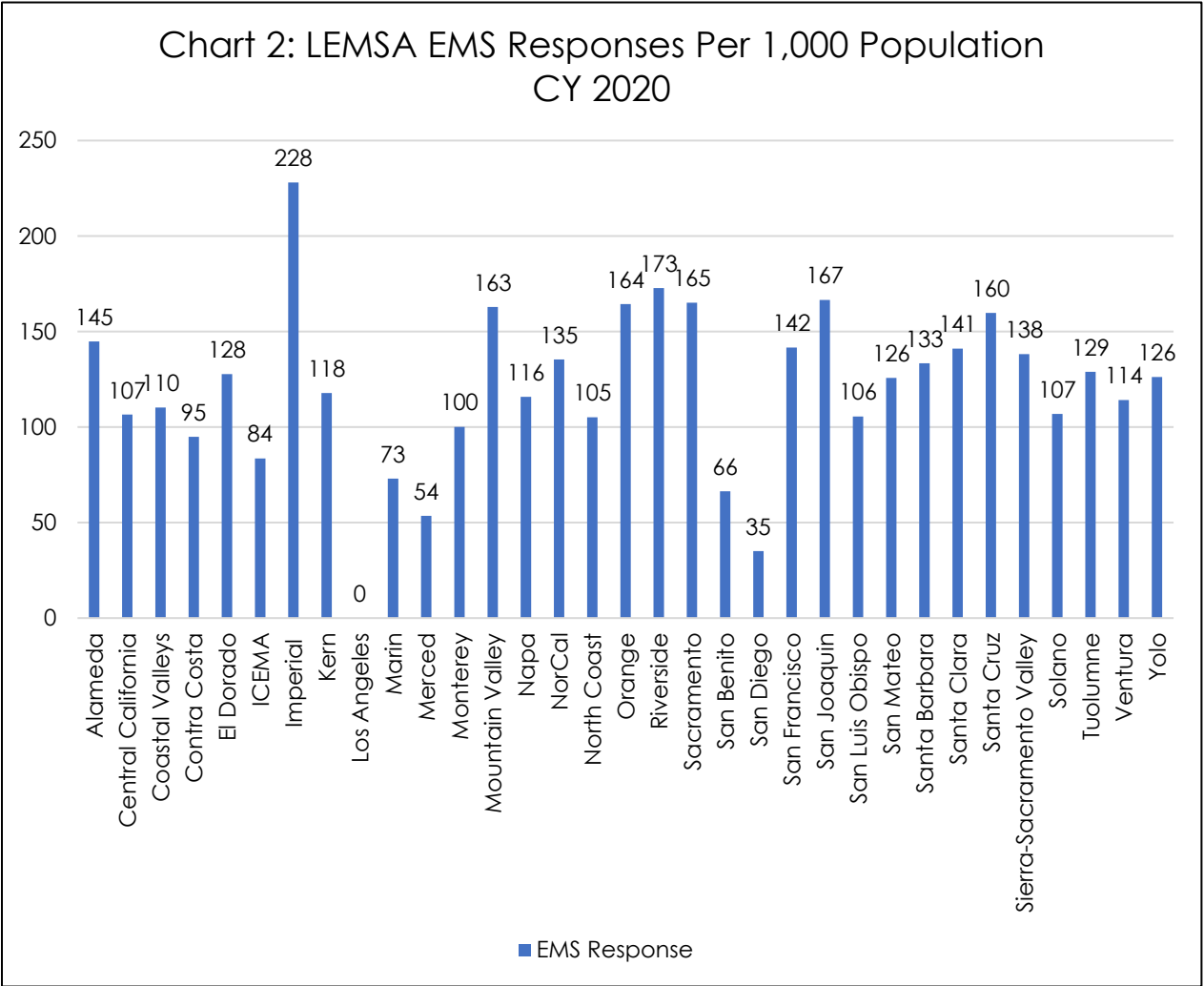


**Table 3: LEMSA Population  
CY 2020**

<b>LEMSA</b>	<b>Population Count</b>
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
NorCal	80,568
North Coast	232,369
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

<b>LEMSA</b>	<b>Population Count</b>
Sierra-Sacramento Valley	1,242,636
Solano	453,491
Tuolumne	55,620
Ventura	843,843
Yolo	216,403
<b>Grand Total:</b>	<b>39,538,223</b>

**LEMSA RESPONSES PER 1,000 POPULATION**



# SECTION 2: STATEWIDE EMS DATA



# EMS RESPONSE & PATIENT CARE

## EMS RESPONSE TOTAL

In CY 2020, CEMSIS received a total of 3,927,679 EMS responses, this represents a 4% (147,457) decrease in the total number of EMS responses submitted into CEMSIS compared to those submitted in CY 2019 (4,074,637). These EMS responses are comprised of the total number of all calls reported by EMS agencies into CEMSIS, including 911 Response, Interfacility Transfer, Medical Transport, Mutual Aid, etc.

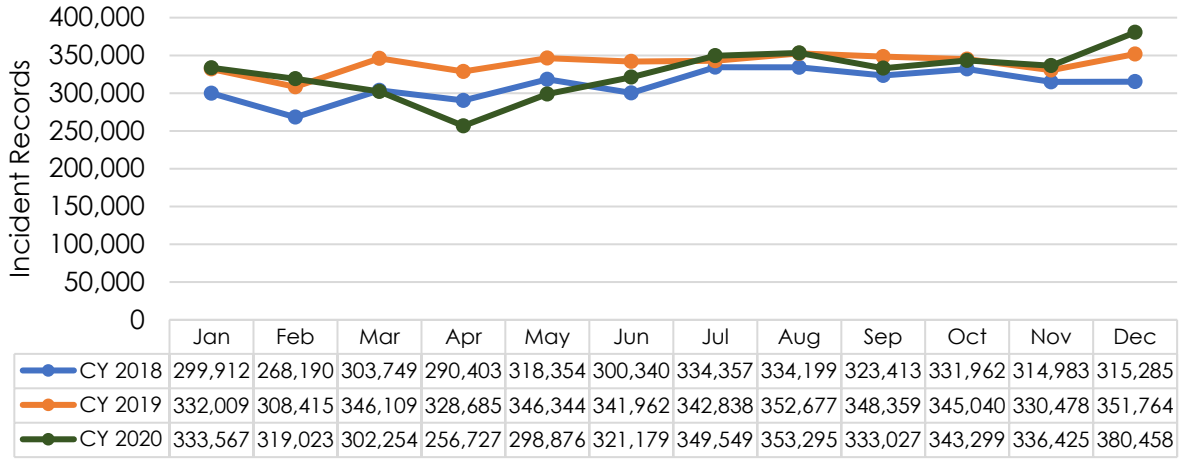
CY 2020	
Month	CY 2020
January	333,567
February	319,023
March	302,254
April	256,727
May	298,876
June	321,179
July	349,549
August	353,295
September	333,027
October	343,299
November	336,425
December	380,458

**3,927,679**  
**EMS**  
**Responses**



**COVID-19 had a notable impact on EMS call volume trends in 2020 throughout the state and country.**

Chart 3: CEMSIS EMS Responses  
by Month and Year  
CY 2018 - CY 2020

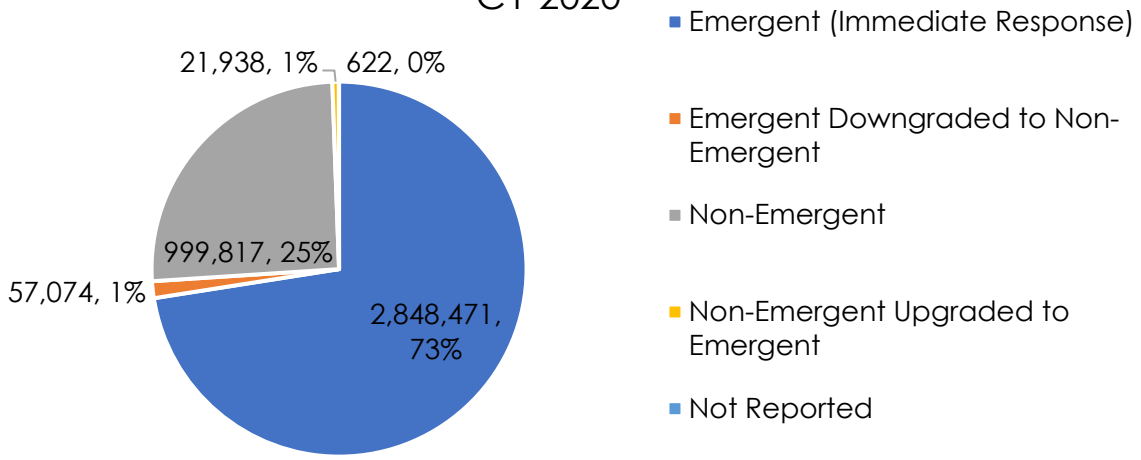


For comparative purposes, CY 2018 and CY 2019 EMS data has been included in this chart.

In CY 2018, we saw the highest overall total number of EMS responses in July, and the lowest total reported in February, which is significantly different when compared to CY 2019 and CY 2020 data.

CEMSIS received the highest overall total of number of EMS responses in December CY 2019 and December CY 2020; however, the lowest total number of EMS responses was reported in February CY 2019, while in CY 2020 the lowest was reported in April.

Chart 4: CEMSYS Emergency Response vs. Non-Emergency Response  
CY 2020

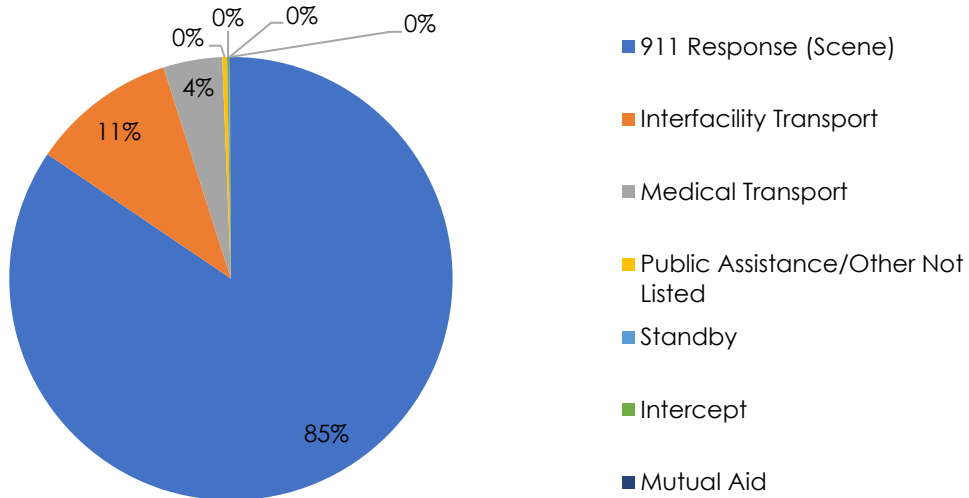


Most EMS calls reported in CY 2020 were incidents requiring emergency or immediate response by the EMS agency to the scene.

## EMS RESPONSE SERVICES

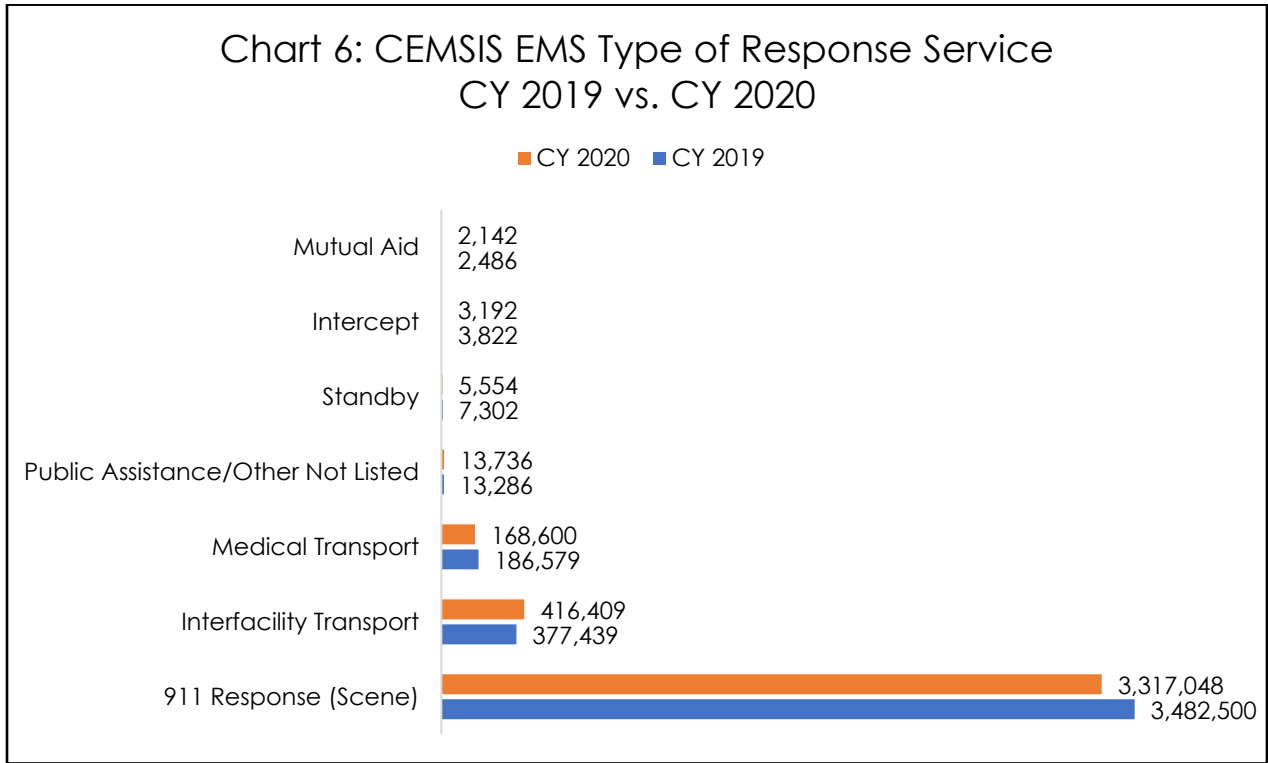
There were over 3.9 million type of service responses reported for EMS calls in 2020 in the state that could document these numbers. Eighty four percent (84%) of the calls were 911 responses to the scene of an emergency.

Chart 5: CEMSYS EMS Type of Resonse Services  
CY 2020



Interfacility Transport representing 416,409 or 11% of all calls, was the second most common type of service requested.

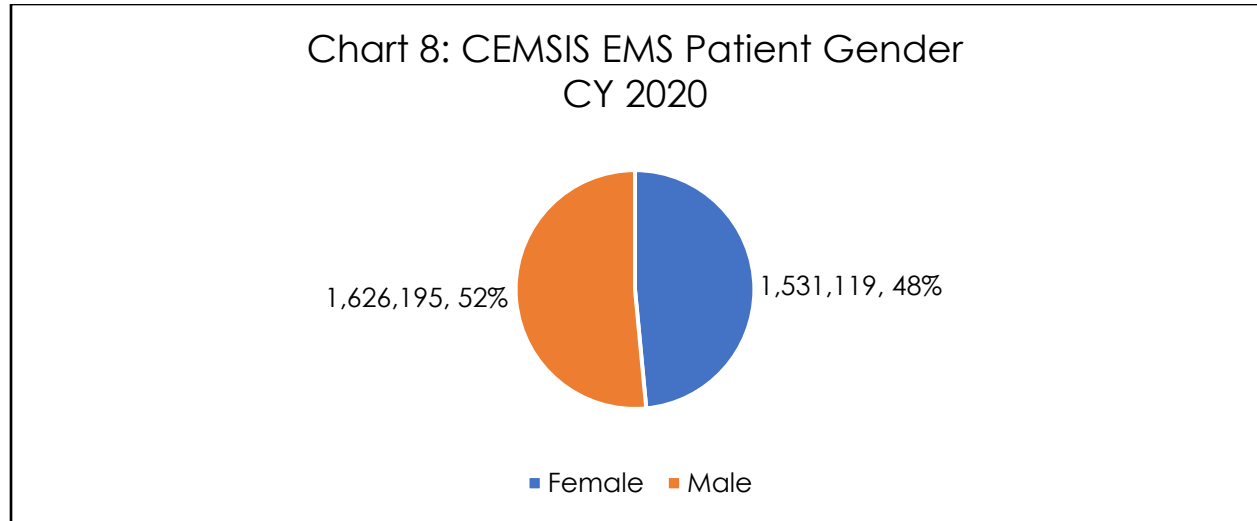
EMS responses requesting the remaining services were significantly lower, representing either 4% or less than 1% of the total EMS calls in CY 2020.



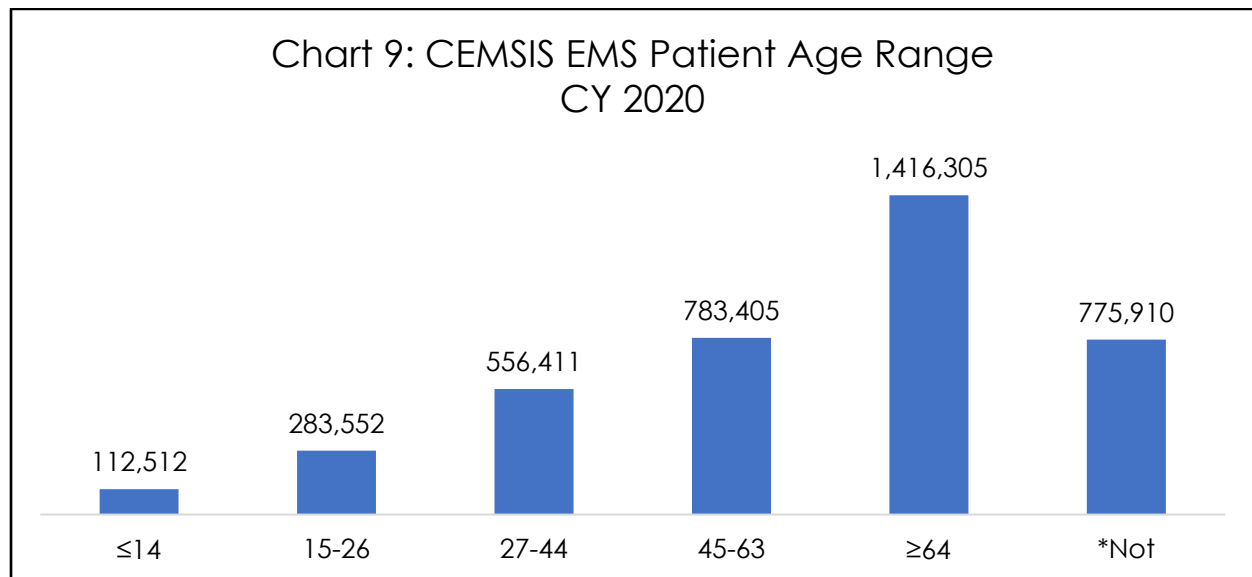
For comparative purposes, CY 2019 EMS data has been included in this chart.



## PATIENT CHARACTERISTICS



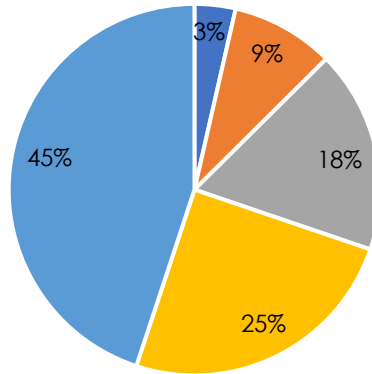
For analytical purposes, "Not Values" data totals have been excluded from this chart due to the lack of specific gender information. \*Not includes Not Applicable, Not Recorded, Not Reported, and Unable to Determine totals (n=770,781)



The age ranges chosen here are based on the previous Annual EMS reports. Including Transports by Age supports efforts to collect data for the Emergency Medical Services for Children program, which provides funds to help improve EMS services for patients aged 0 through 14 years. It also organizes data for patients aged 64 and over to support public health efforts aimed at older persons.

Chart 9: CEMIS EMS Patient Age Range  
CY 2020

■ ≤14 ■ 15-26 ■ 27-44 ■ 45-63 ■ ≥64



*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=775,910)*

## PATIENT PRIMARY SYMPTOM

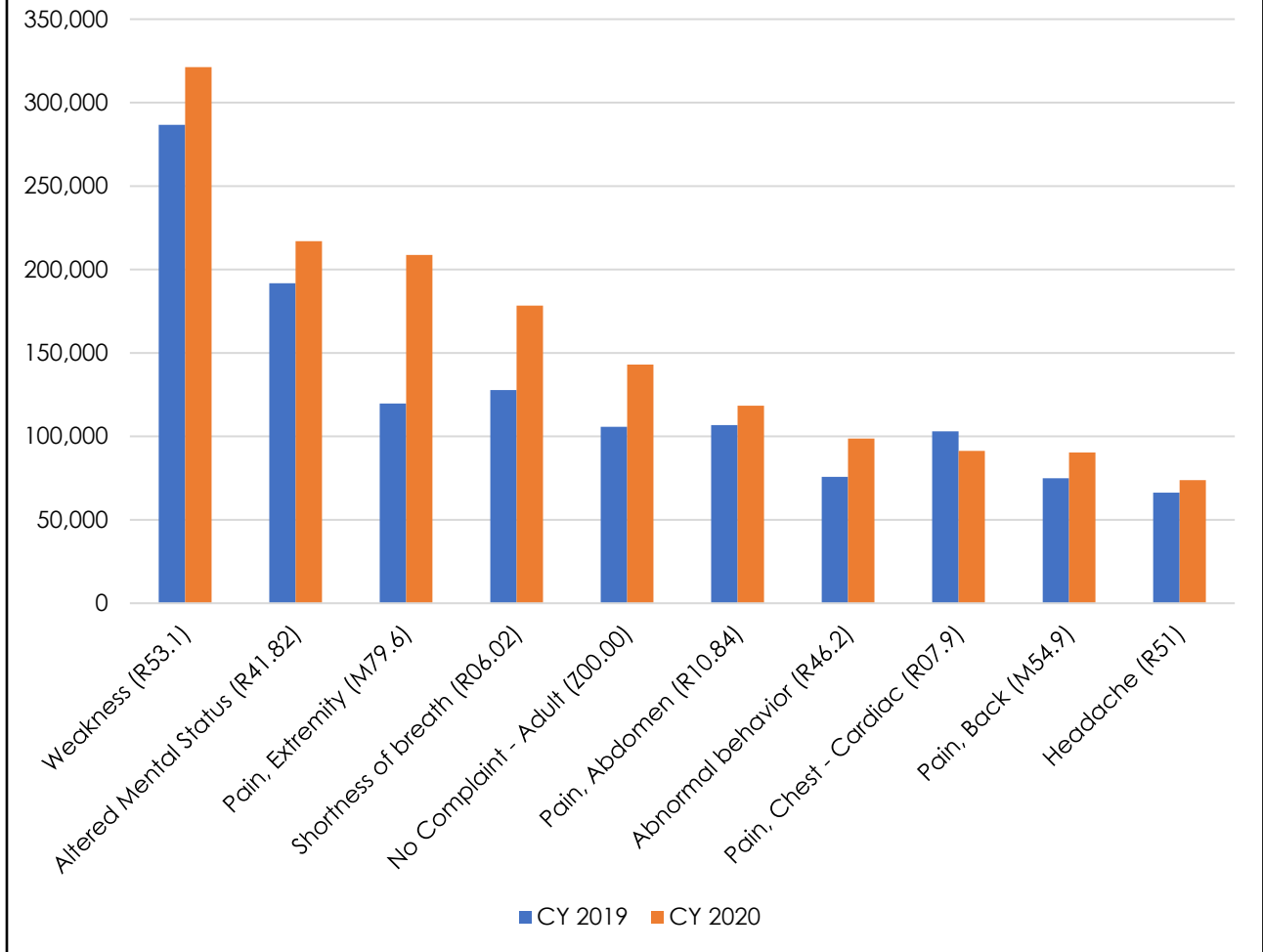
EMS responses reporting weakness as being the primary symptom experienced by the patient was most reported in CY 2020.

<b>Table 5: CEMSIS EMS Top 10 Patient Primary Symptom CY 2020</b>	
<b>Patient Primary Symptom</b>	<b>CY 2020</b>
Weakness (R53.1)	321,276
Altered Mental Status (R41.82)	216,980
Pain, Extremity (M79.6)	208,743
Shortness of breath (R06.02)	178,370
No Complaint - Adult (Z00.00)	143,016
Pain, Abdomen (R10.84)	118,351
Abnormal behavior (R46.2)	98,746
Pain, Chest - Cardiac (R07.9)	91,302
Pain, Back (M54.9)	90,370
Headache (R51)	73,744

*For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (n=1,291,554)*

*For comparative purposes, CY 2019 EMS data has been included in this chart.*

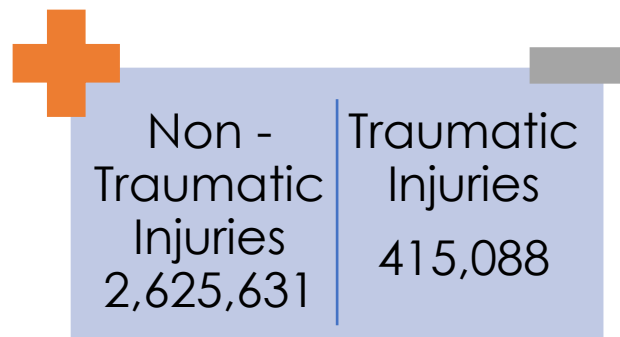
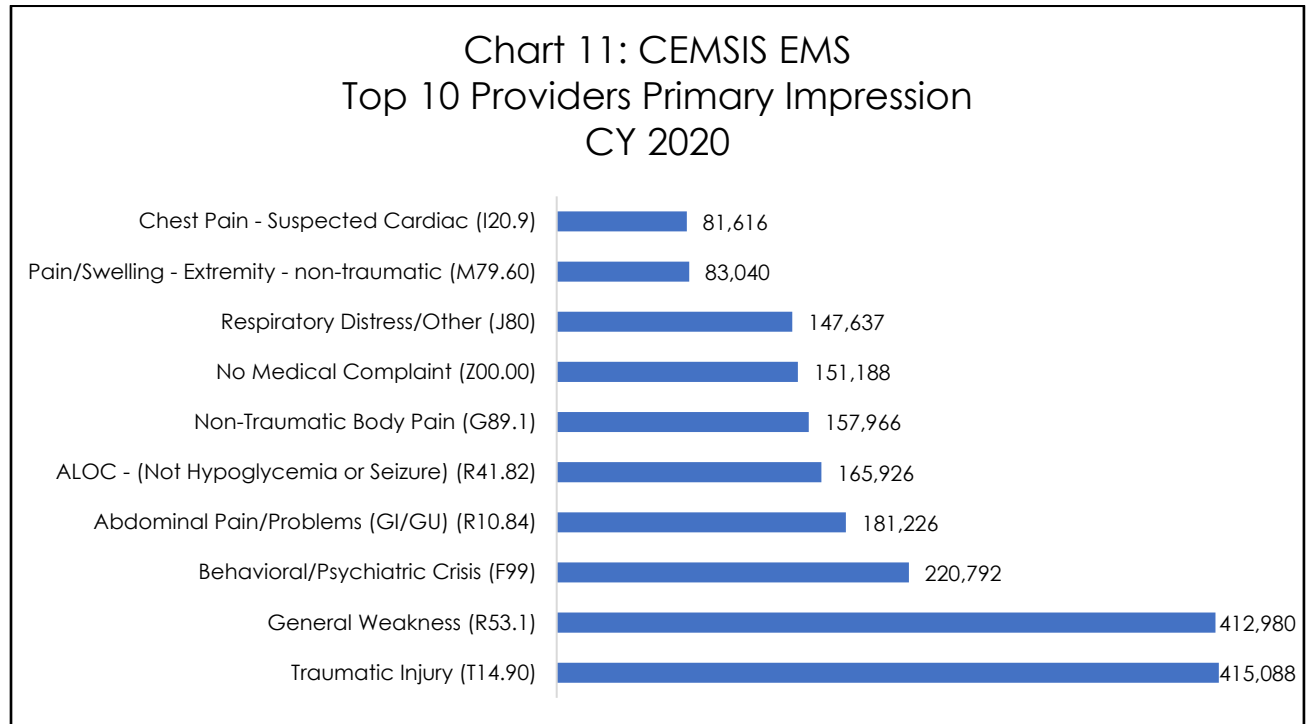
Chart 10: CEMSI EMS  
 Top 10 Patient Primary Symptom  
 CY 2019 vs. CY 2020



9/10 the top 10 patient primary symptoms were all reported between 10%-43% more in CY 2020 than in CY 2019.

## PROVIDERS PRIMARY IMPRESSION

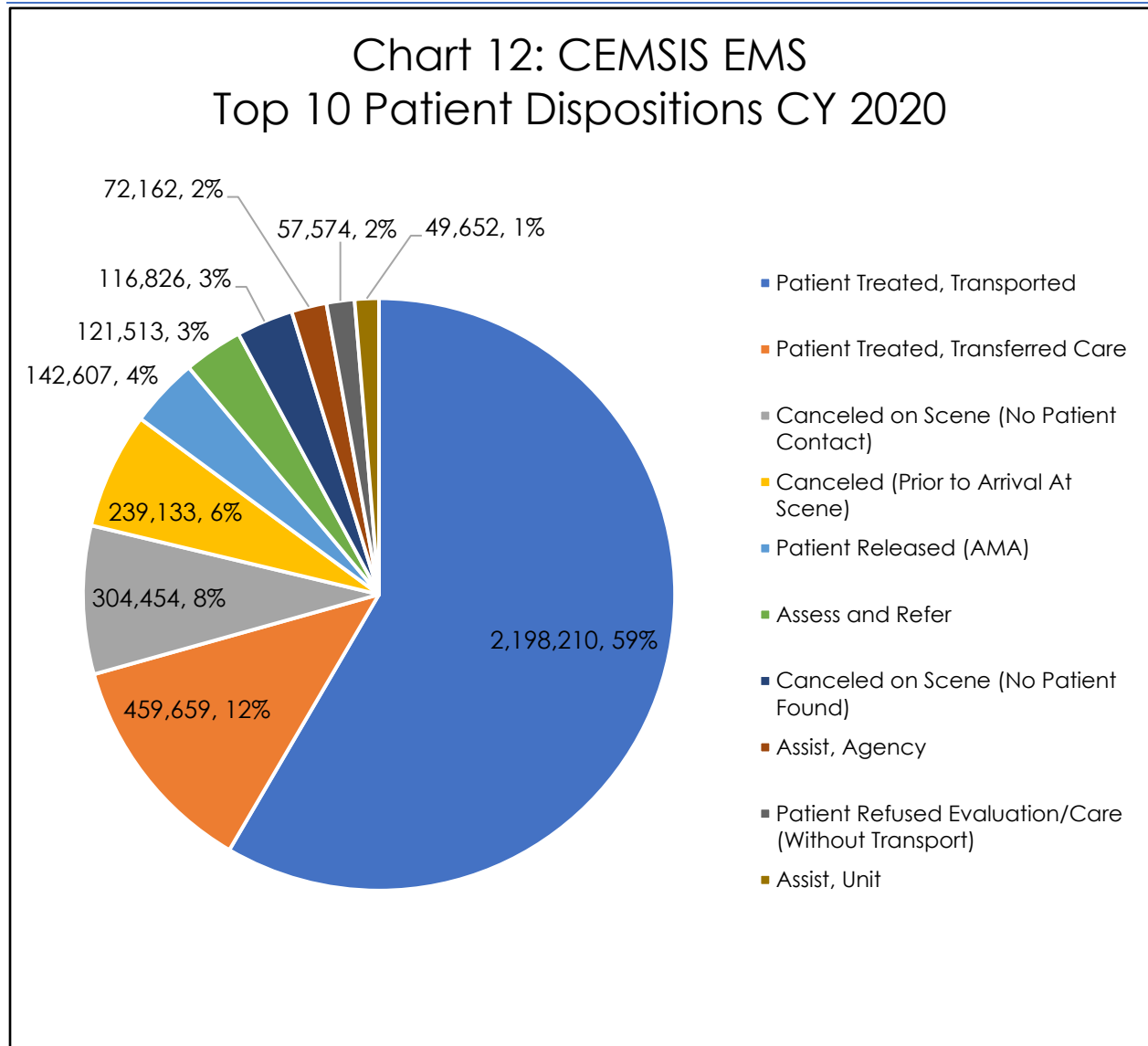
The EMS personnel's impression of the patient's primary problem or most significant condition which led to the management given to the patient (treatments, medications, or procedures).



In CY 2020, providers reported patients having more medical non-traumatic related injuries than traumatic by 533% (2,210,543).

## PATIENT DISPOSITION

Patients treated and transported by the responding EMS unit represented the most common reported disposition treatment of patients in CY 2020.



## CAUSE OF INJURY

In CEMSIS CY 2020, there were over 3.9 million causes of injuries 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 in CEMSYS CY 2020.

To provide an abbreviated analysis of the causes of injuries, we have organized the data into the top 10 general categories:

- **Accidental** includes injuries suspected as happening by chance, unintentionally or unexpectedly such as hit or struck by another person, discharge of firearm, etc.
- **Animal** includes incidents reporting some form of contact with an animal resulting in bite, injury, death, etc.
- **Assault** includes injuries by bodily and blunt force, sexual assault, abuse, stabbing, etc.
- **Motor Vehicle** includes in auto-pedestrian crashes, machinery accident, motorcycle crash, traffic and non-traffic, car, and occupant crashes, etc.
- **Contact** includes injuries that patients received due to contact with various objects, machinery, vapors, undetermined items, etc.
- **Fall** includes injuries slipping, tripping, intentional, unintentional, falling from various levels, objects, and falls caused by another incident, etc.
- **Exposure** includes electrocution, fire, burn, smoke, excessive heat, drugs, materials, etc.
- **Firearm** includes suicide, accidental, intentional, assault, self-harm, etc.
- **Injury** includes intentional self-harm with explosion, assault, unspecified harm, various contacts, objects, etc.
- **Pedestrian** includes scooter, bicycle injuries involving a crash, traffic, and non-traffic, fall, etc.

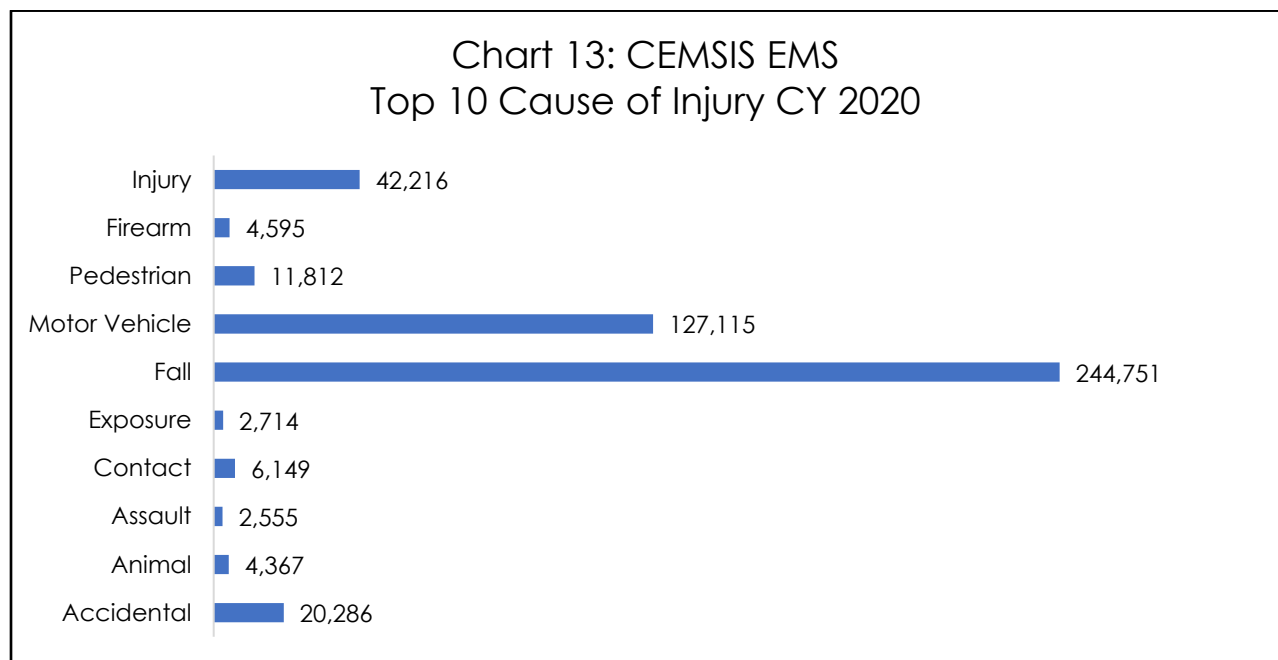
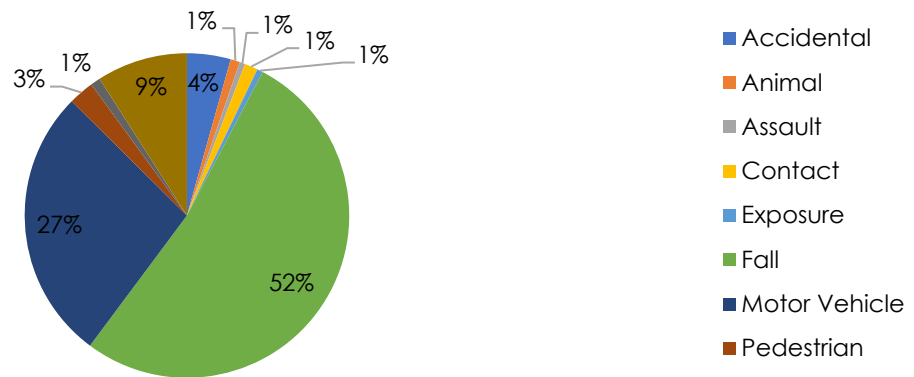


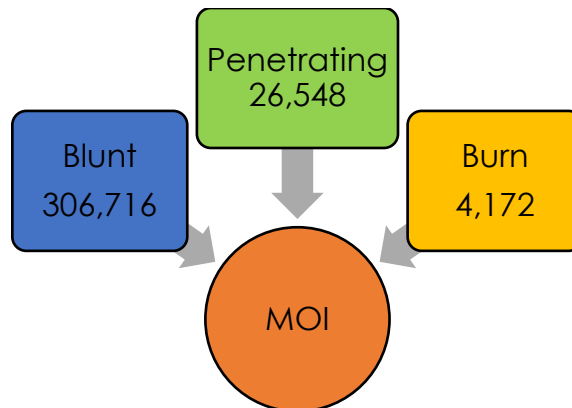
Chart 14: CEM SIS EMS  
Top 10 Cause of Injury CY 2020



Injuries suspected as being caused by or involving the patient falling was the most common cause of injury in CEM SIS CY 2020, representing 422,751 or 52% of the total 846,560 top 10 cause of injuries listed above. Motor Vehicle involved injuries represented the second highest reported, representing 127,115 or 27%.

## MECHANISM OF INJURY

The predominant mechanism of injury of EMS patients in CY 2020 was blunt force trauma.



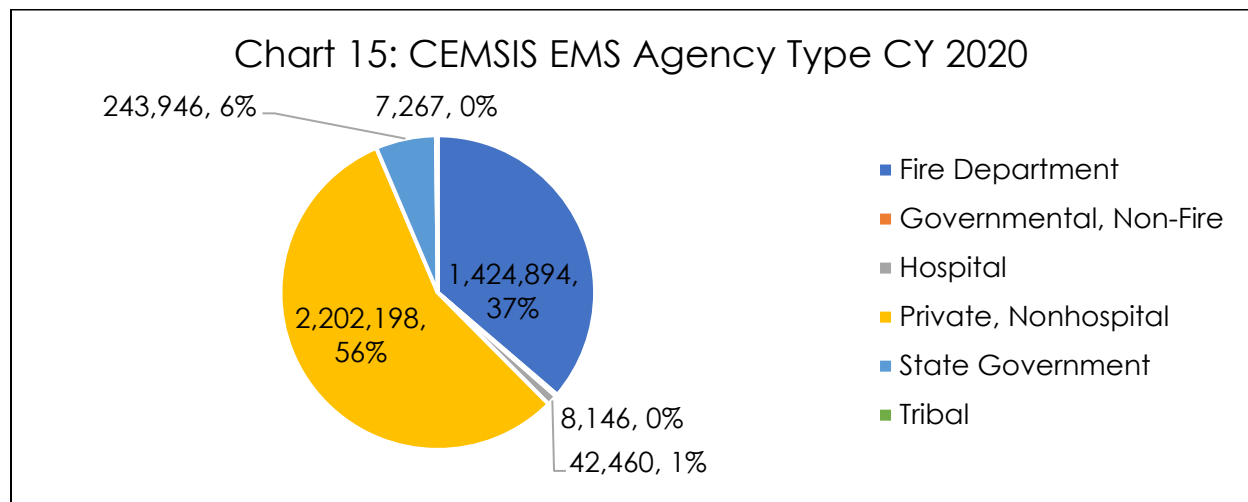
MOI's reported as "Not Values" (n=3,443,679) and/or "Other" (n=147,804) represented the largest total of reported MOI's in EMS patients in CY 2020. However, for analytical purposes, these data values have been excluded from this illustration due to lack of information.



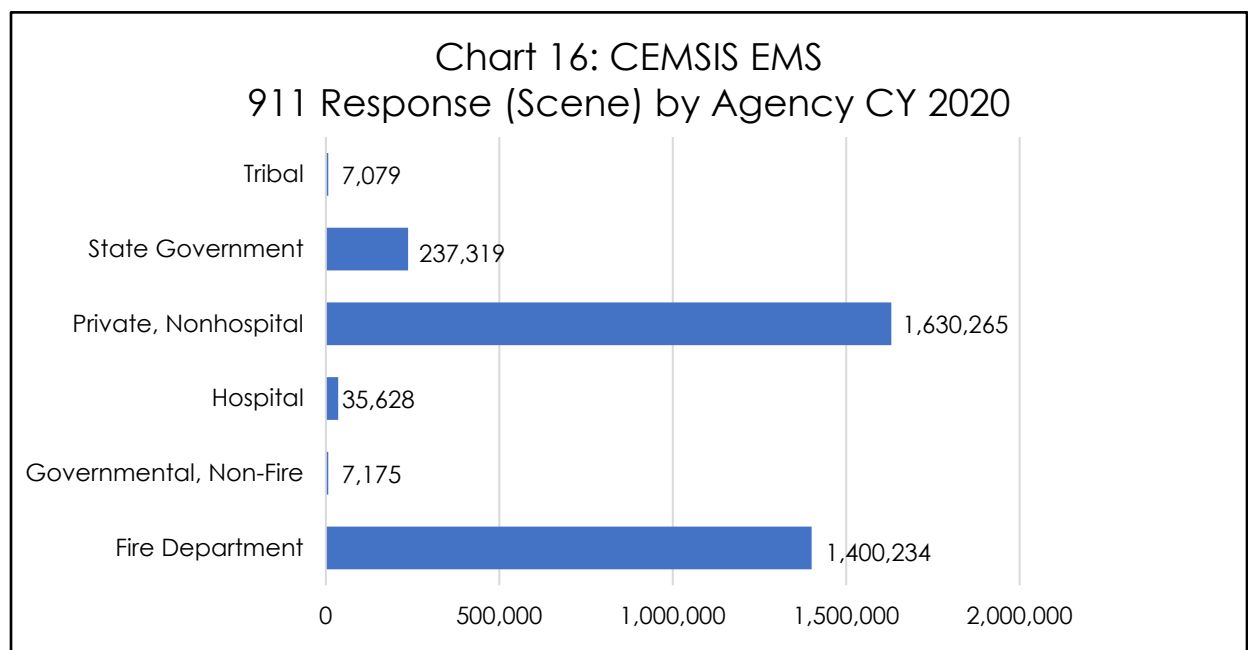
# EMS ORGANIZATIONS

## 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 the specific EMS Agency Number assigned to them.



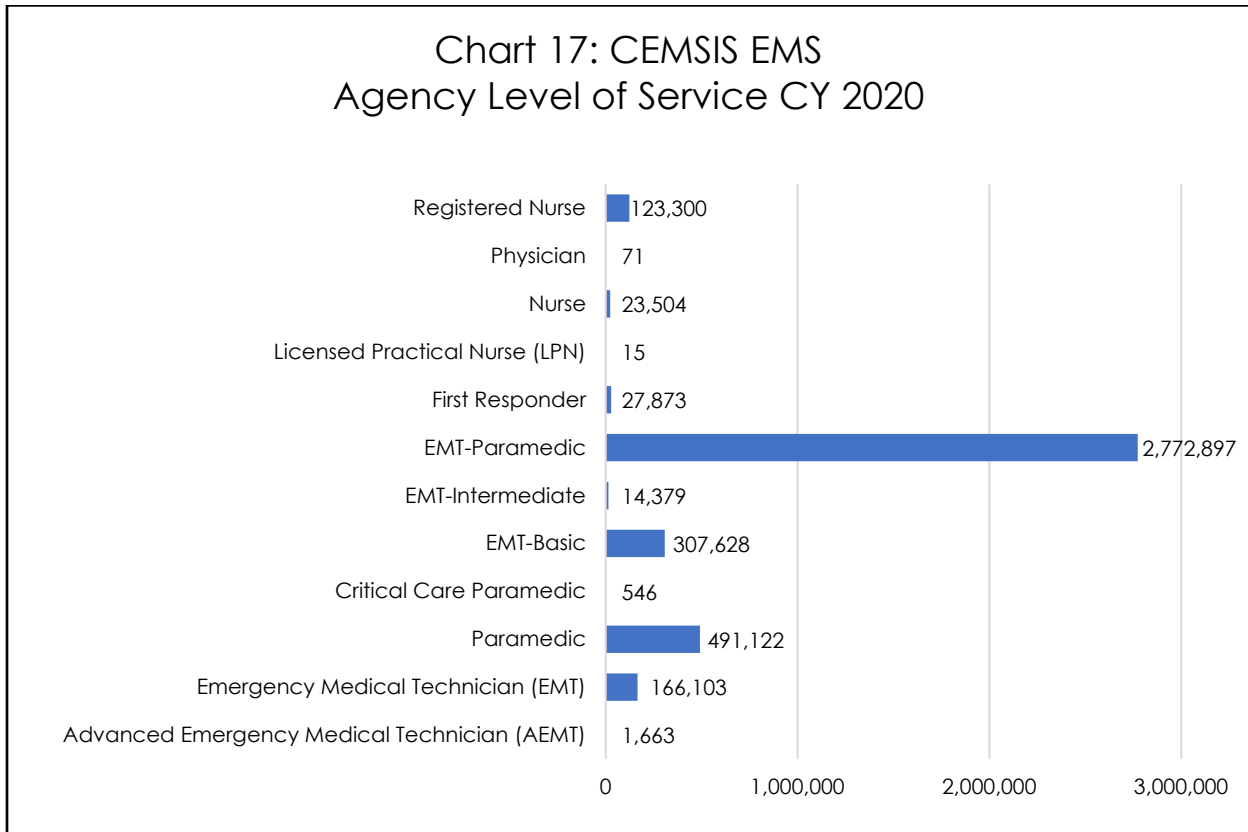
## AGENCY ORGANIZATION RESPONSES



For analytical purposes, "Not Values" data totals have been excluded from these charts due to the lack of information. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (n=1,009)

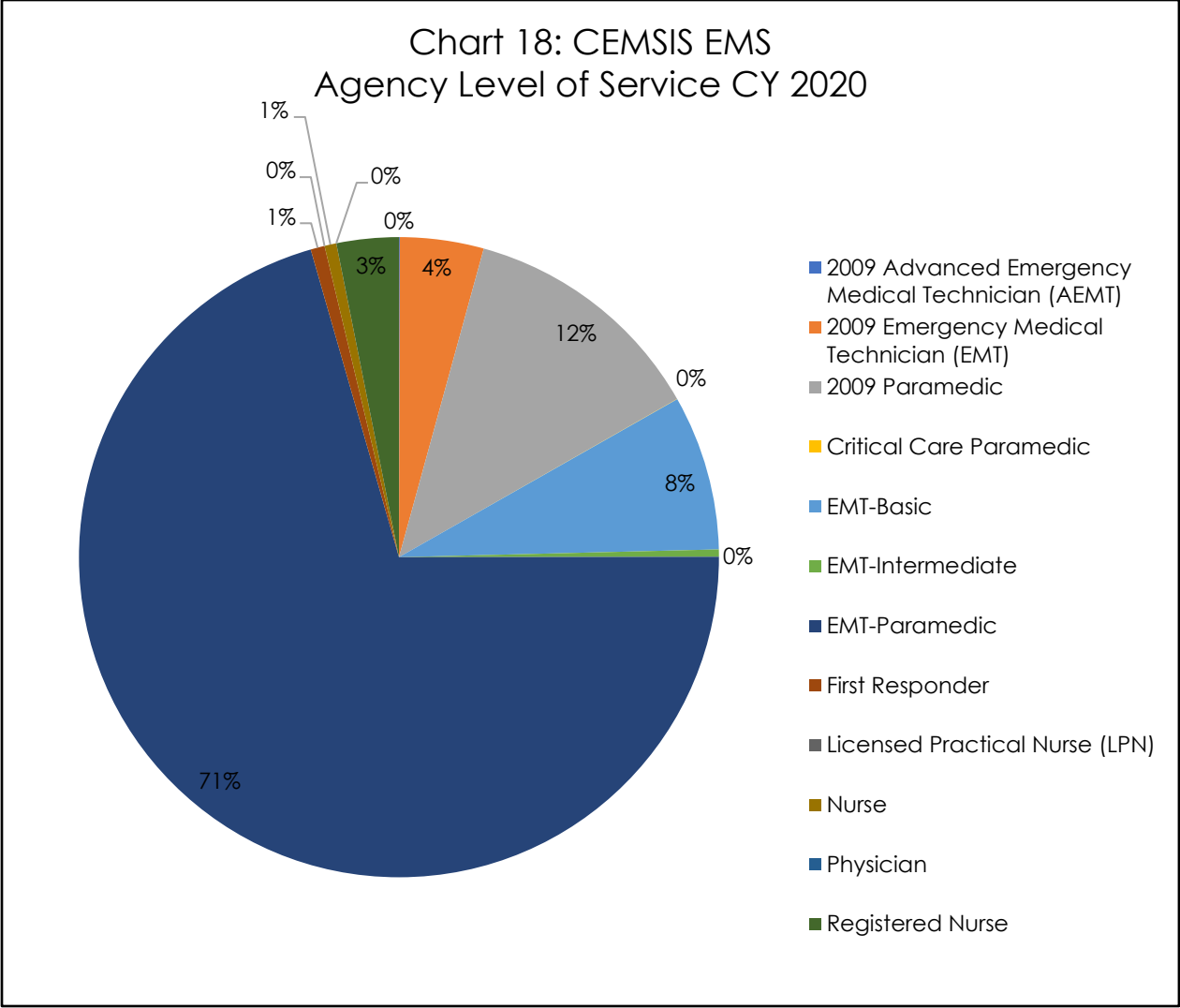
## AGENCY LEVEL OF SERVICE

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, EMSA plans on combining this list to show only one value for paramedic, EMT, etc.

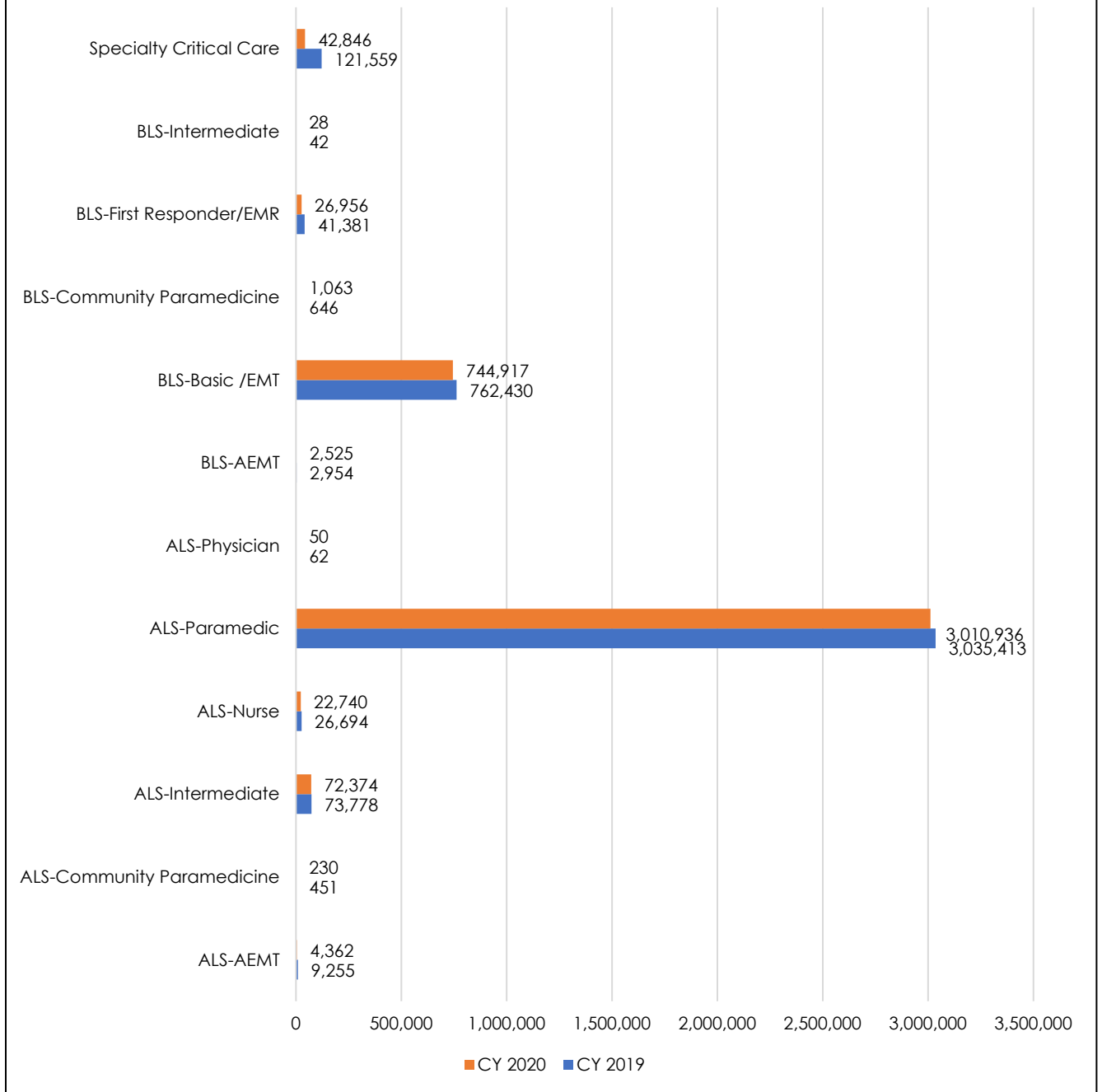
Agencies providing EMS-Paramedic care level care responded to the most EMS incidents reported in CY 2020, representing 71% (2,772,897).



## 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 19: CEMSI EMS Response Units Level of Care  
CY 2020 vs. CY 2019

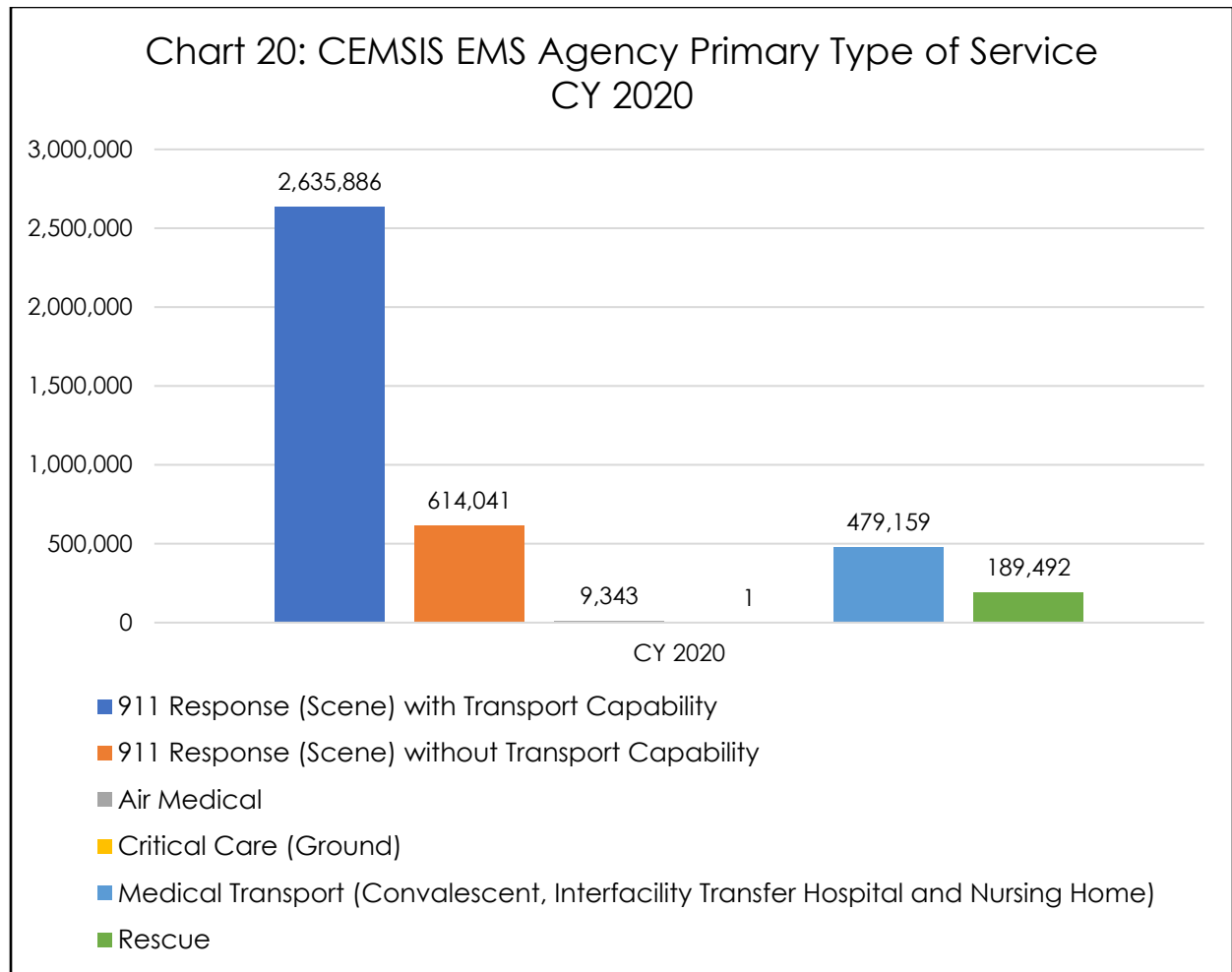


For comparative purposes, CY 2019 EMS data has been included in this chart.

For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (CY 2019 n=102, CY 2020 n=74)

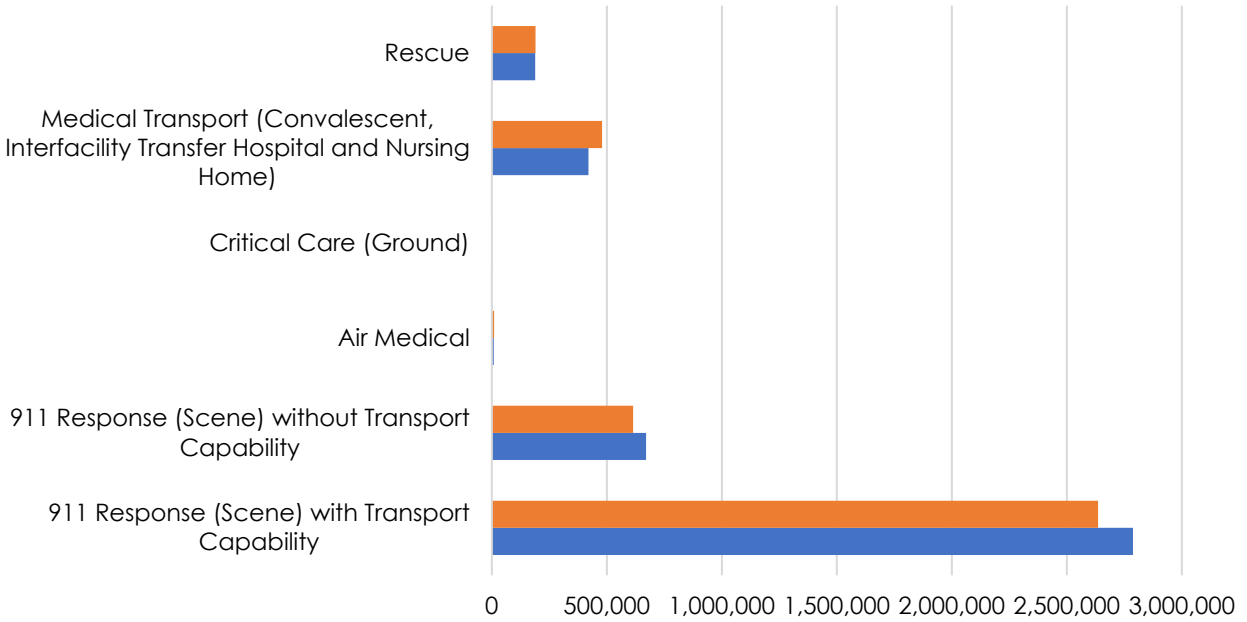
## AGENCY PRIMARY TYPE OF SERVICE

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



*For comparative purposes, CY 2019 EMS data has been included in this chart.*

Chart 21: CEMSIS EMS  
Agency Primary Type of Service  
CY 2019 vs. CY 2020



	911 Response (Scene) with Transport Capability	911 Response (Scene) without Transport Capability	Air Medical	Critical Care (Ground)	Medical Transport (Convalescent, Interfacility Transfer Hospital and Nursing Home)	Rescue
■ CY 2020	2,636,049	614,045	9,343	1	479,165	189,492
■ CY 2019	2,787,188	670,452	8,052	19	420,247	188,734

# EMS TRANSPORTS

## EMS TRANSPORT RESPONSES

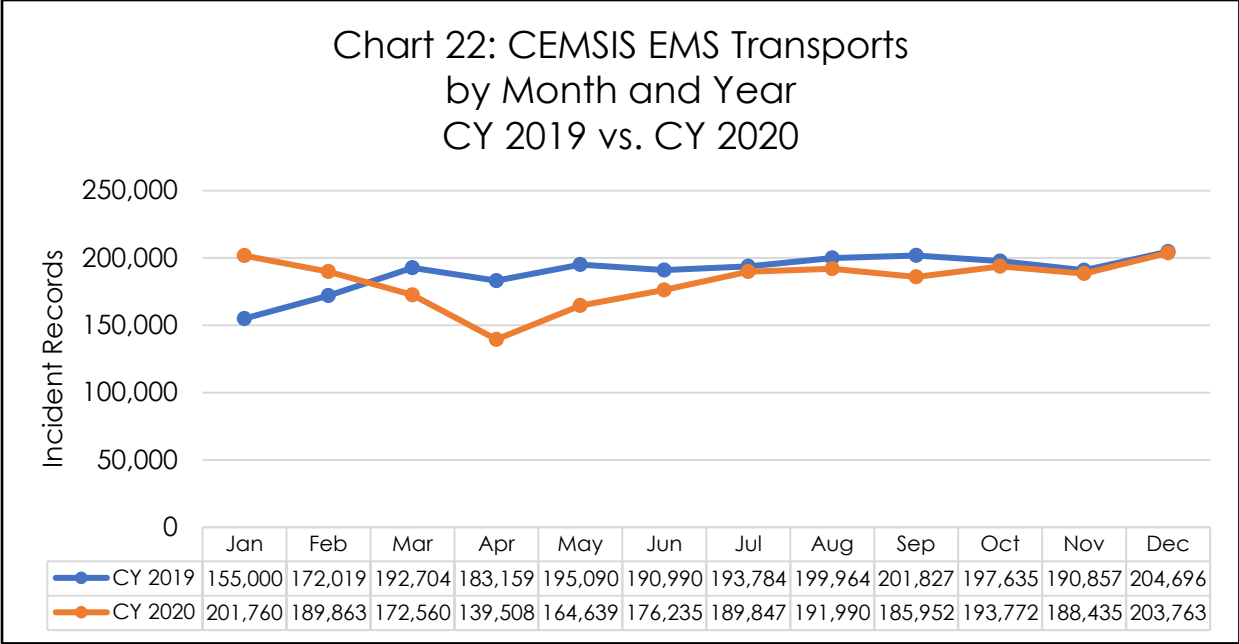
**Table 6: CEMSIS EMS Transports  
by Month and Year  
CY 2020**

**2,198,324  
EMS  
Transports**

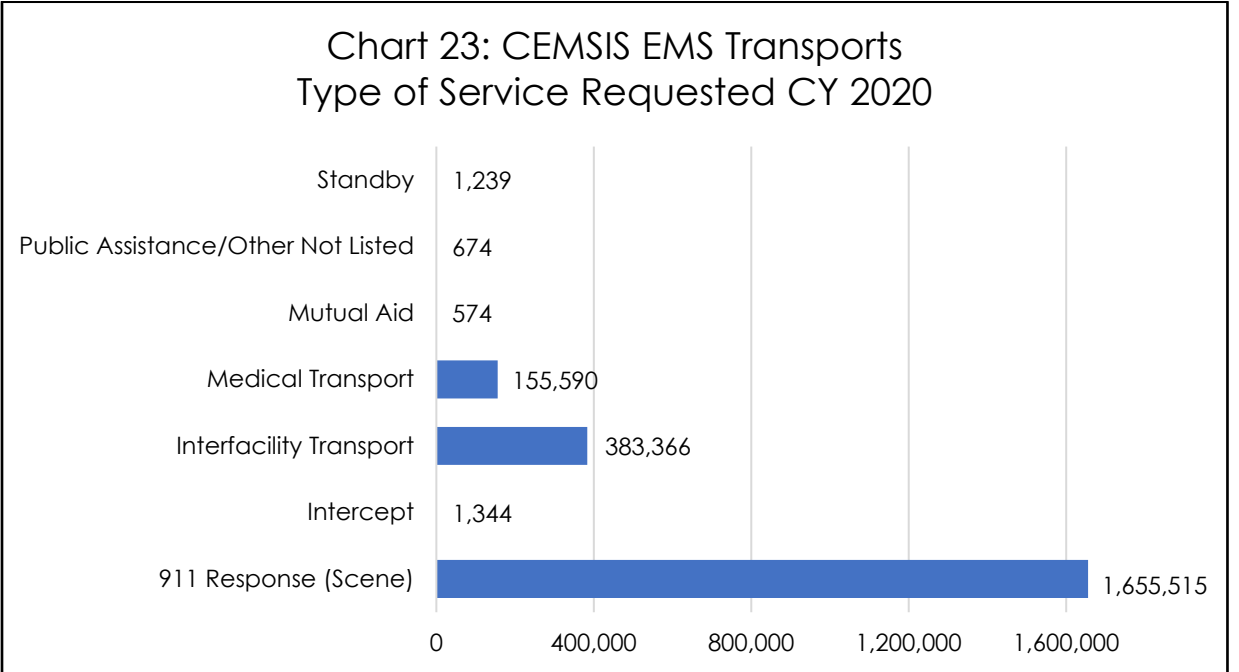
Month	CY 2020
January	201,760
February	189,863
March	172,560
April	139,508
May	164,639
June	176,235
July	189,847
August	191,990
September	185,952
October	193,772
November	188,435
December	203,763



COVID-19 had a notable impact on EMS call volume trends in 2020 throughout the state and country.

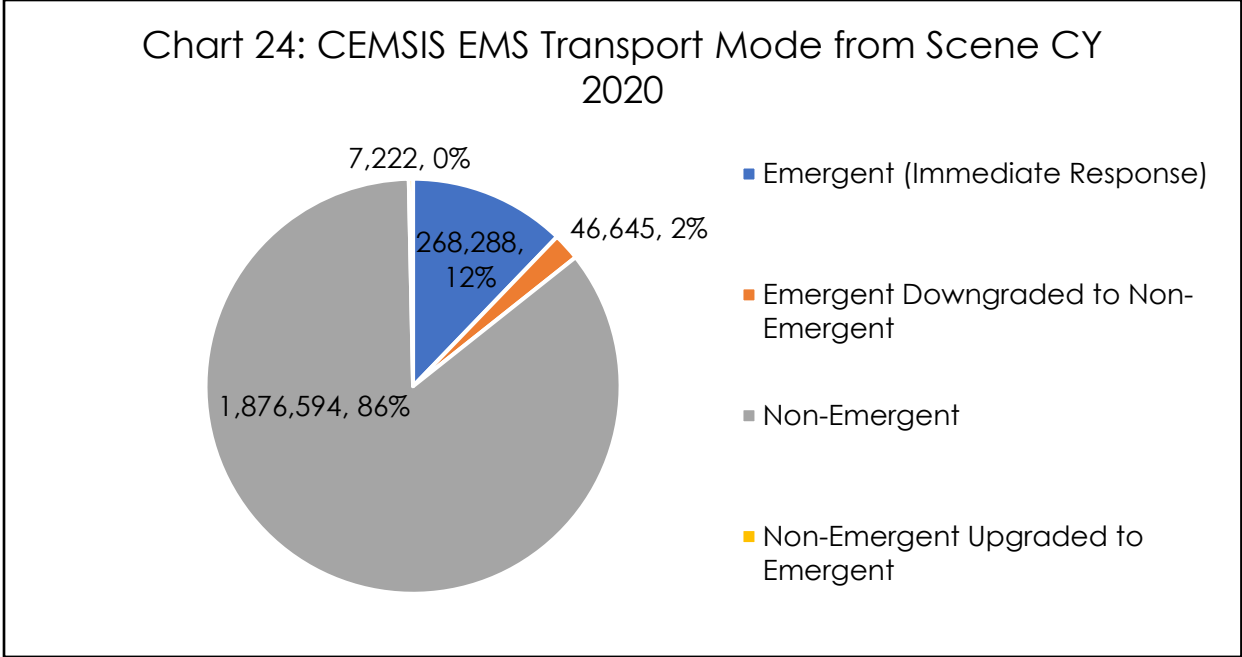


The highest total of EMS transports in CY 2020 was reported in December representing 9% and the lowest total reported was in April, representing 6% of transports. CY 2019 also reported the most transports in December but reported the lowest amount in January.



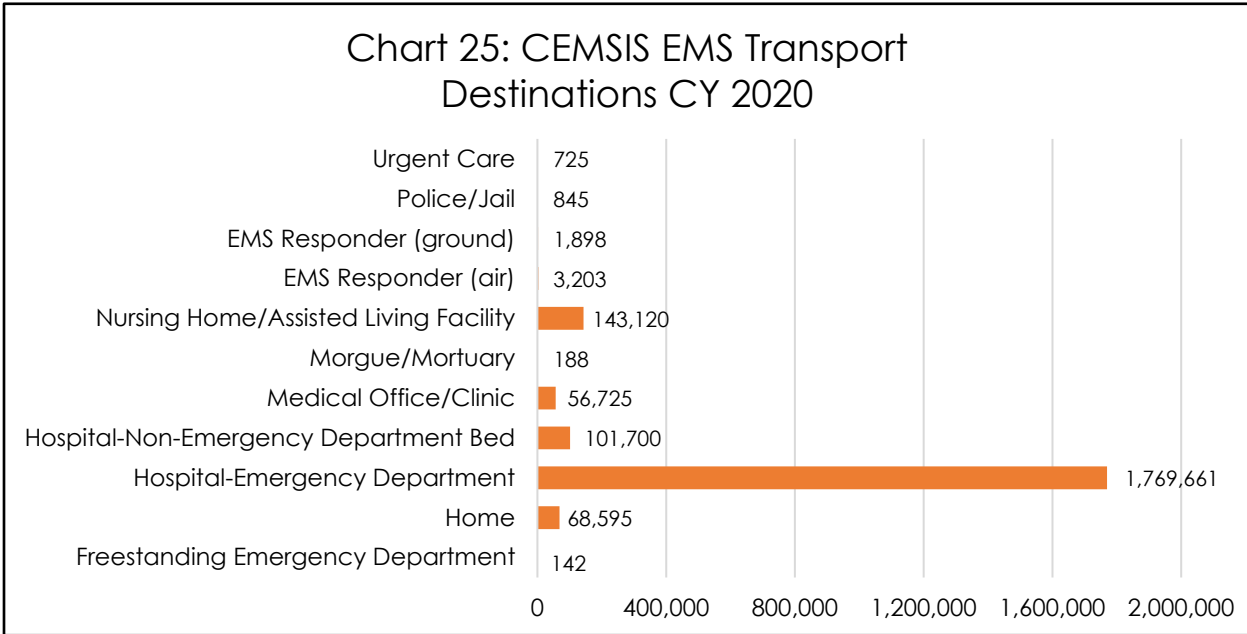
911 EMS transports was the predominant in CY 2020.





For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (n=575)

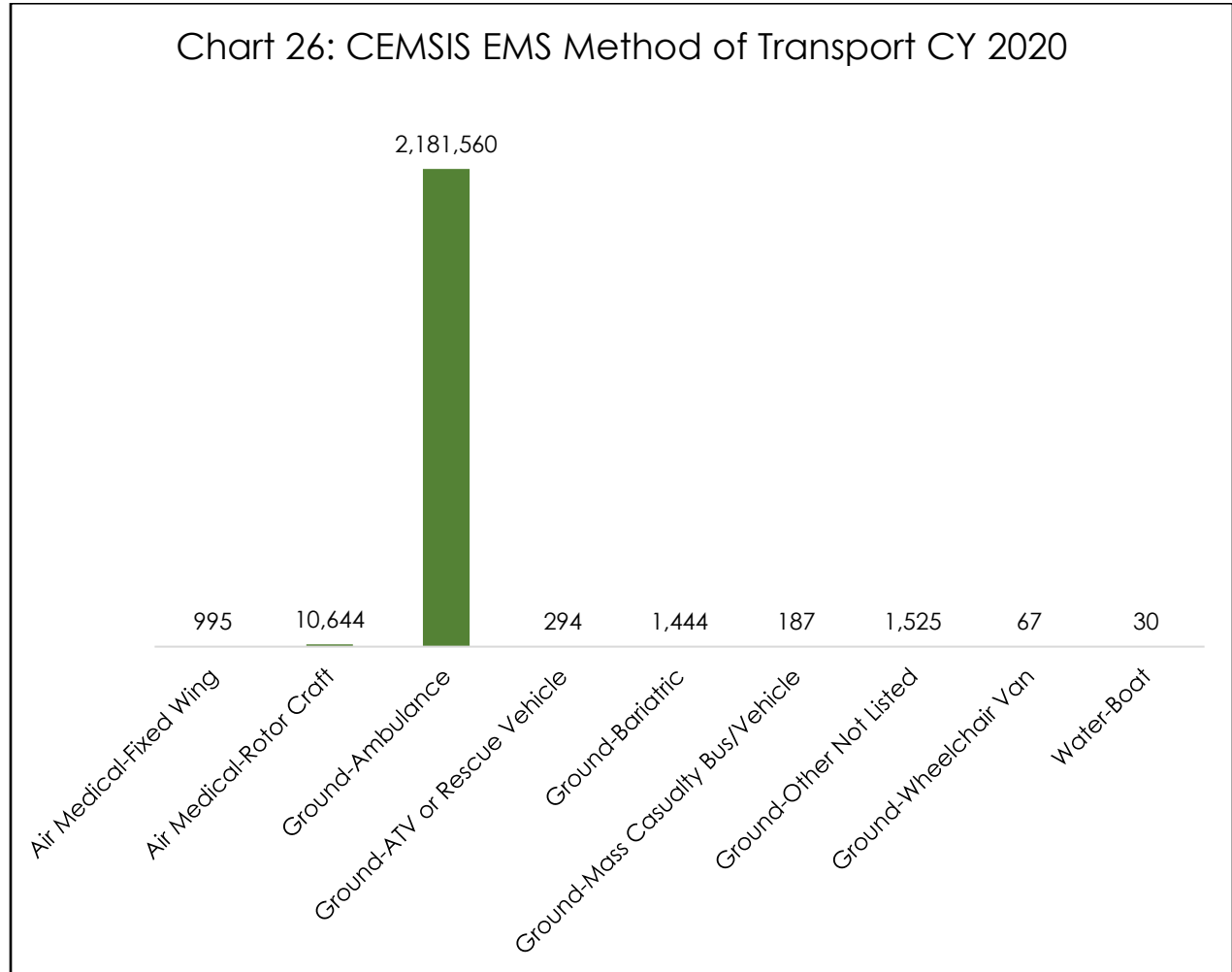
## EMS TRANSPORT DESTINATIONS



For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (n=11,837)

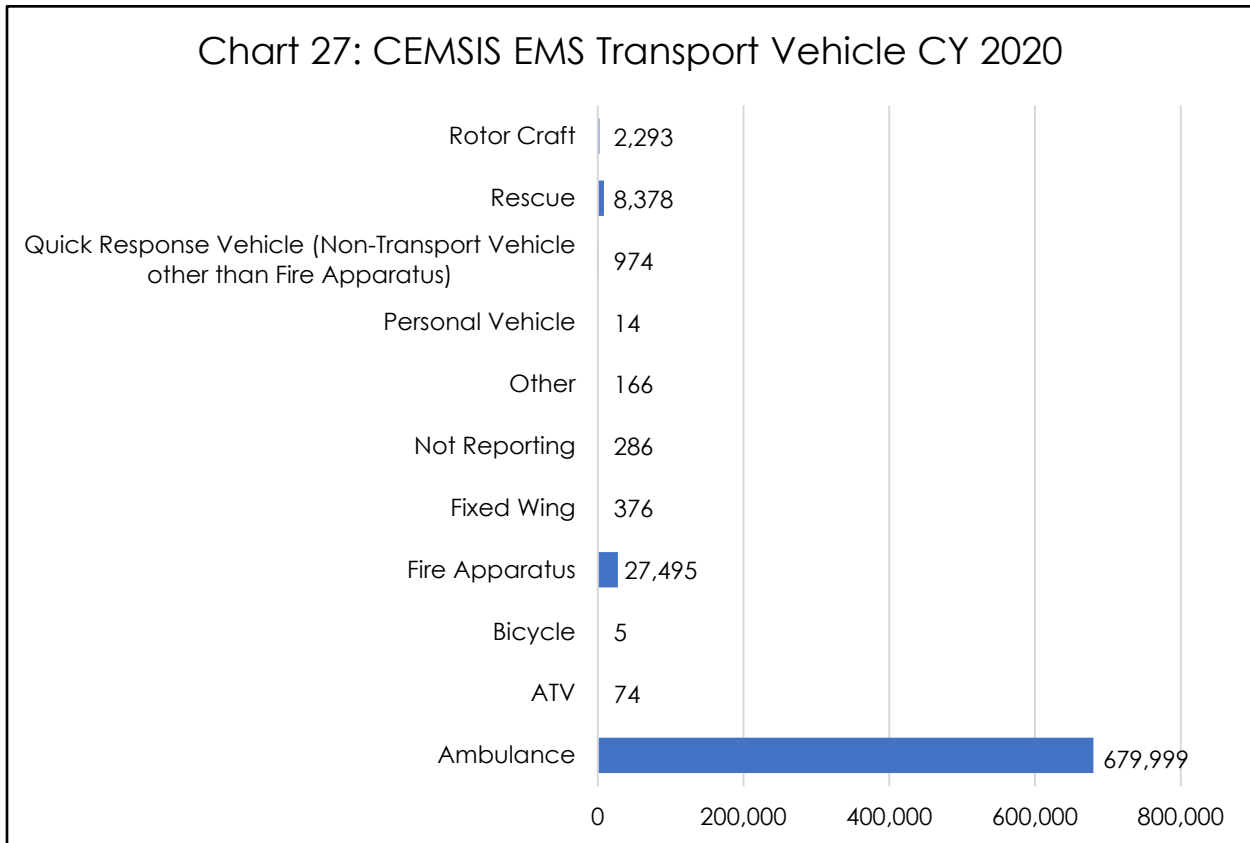
## METHOD OF TRANSPORT

EMS transports reporting the patient as being treated and transported by Ground-Ambulance providers was the predominant in CY 2020.



For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (n=1,578)

## EMS TRANSPORT VEHICLE

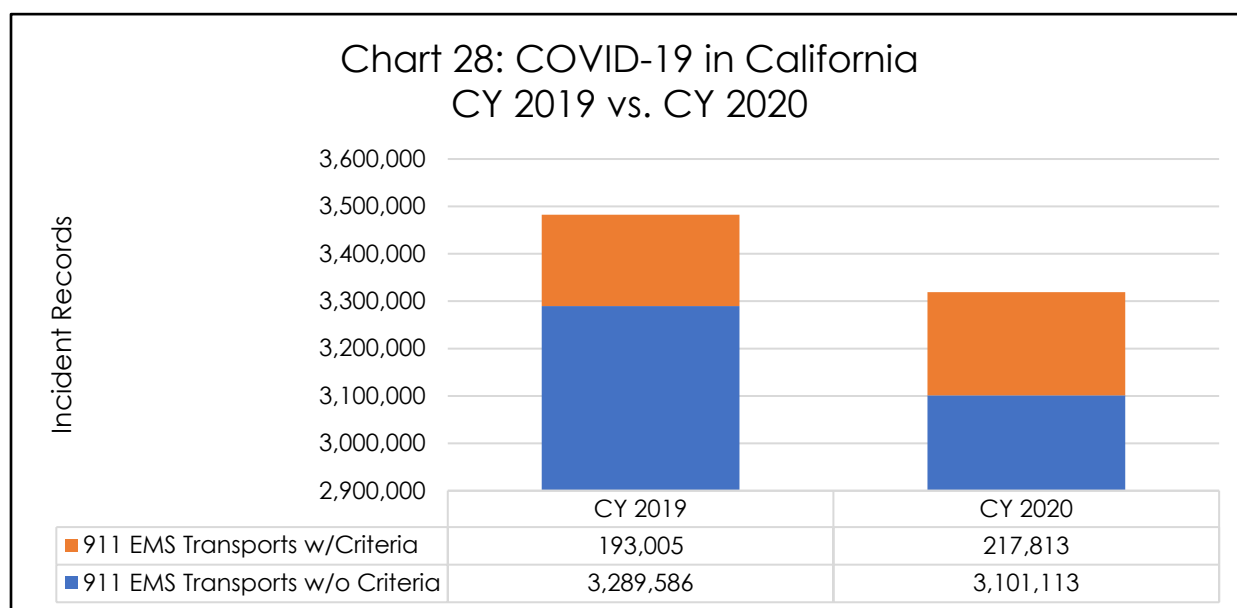


For analytical purposes, "Not Values" data totals have been excluded from this table due to the lack of information and low values. \*Not includes Not Applicable, Not Recorded, and Not Reported totals (n=1,478,264)

# SECTION 3: COVID-19 SNAPSHOT

In CY 2020, there were a total 3,318,926 911 EMS transports within the State of California represented by the 32 LEMSAs or 57 counties. Of those incidents, 217,813 records had some or all of the following presenting criteria:

1. **Disposition Incident Patient Disposition (eDisposition.12)** equals Patient Treated, Transported AND Response Type Of Service Requested (eResponse.05) equals 911 Response (Scene)
2. **Situation Provider Primary Impression (eSituation.11)** is in Influenza due to unidentified influenza virus (J11), Influenza due to unidentified influenza virus with unspecified type of pneumonia (J11.00), Influenza due to unidentified influenza virus with other respiratory manifestations (J11.1), Influenza due to unidentified influenza virus with gastrointestinal manifestations (J11.2), Influenza due to unidentified influenza virus with other manifestations (J11.89), Acute respiratory distress syndrome (J80), Acute bronchospasm (J98.01), Functional diarrhea (K59.1), Cough (R05), Other chest pain (R07.89), Fever (R50.9), Chills (without fever) (R68.83), **OR Situation Provider Secondary Impression List (eSituation.12)** contains Contact with and (suspected) exposure to other viral communicable diseases (Z20.828), **OR Situation Primary Symptoms (eSituation.09)** is in Cough (R05), Fever (R50.9), Hemoptysis (R04.2)



For comparative purposes, CY 2019 EMS data has been included in this chart.

**Table 7: COVID-19 in California by Month and Year  
CY 2019 vs. CY 2020**

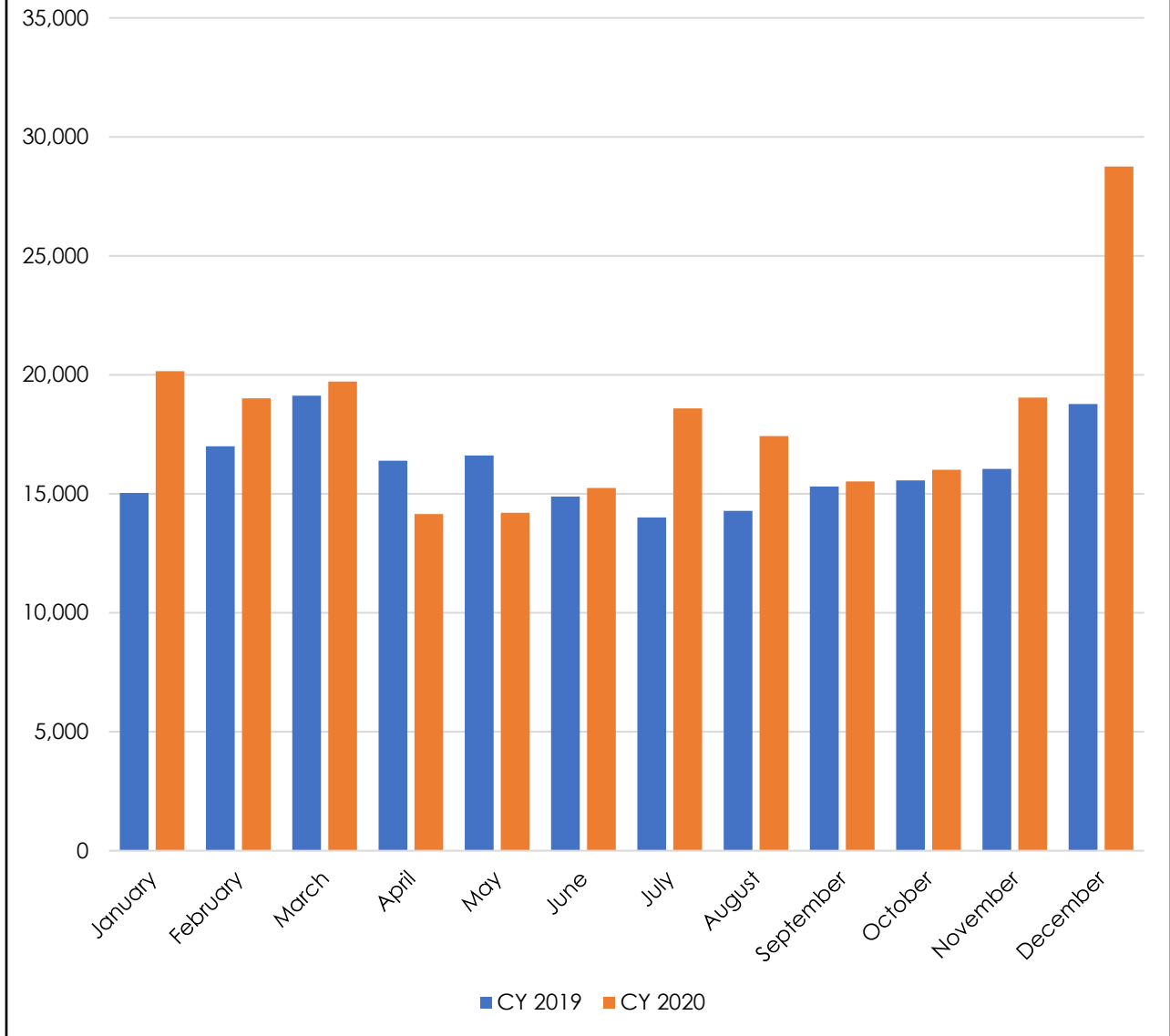
Month	CY 2019	CY 2020	Total Change (n%)
January	15,033	20,152	5,119 (25%)
February	16,998	19,012	2,014 (11%)
March	19,125	19,716	591 (3%)
April	16,387	14,149	-2,238 (-16%)
May	16,608	14,203	-2,405 (-17%)
June	14,881	15,242	361 (2%)
July	14,008	18,588	4,580 (25%)
August	14,281	17,425	3,144 (18%)
September	15,302	15,518	216 (1%)
October	15,560	16,012	452 (3%)
November	16,049	19,042	2,993 (16%)
December	18,773	28,754	9,981 (35%)
<b>Grand Total:</b>	<b>193,005</b>	<b>217,813</b>	<b>24,808 (11%)</b>

*For comparative purposes, CY 2019 EMS data has been included in this chart.*

We saw a 24,808 or 11% increase in records submitted meeting the COVID-19 criteria in CY 2020 compared to those reported in CY 2019.

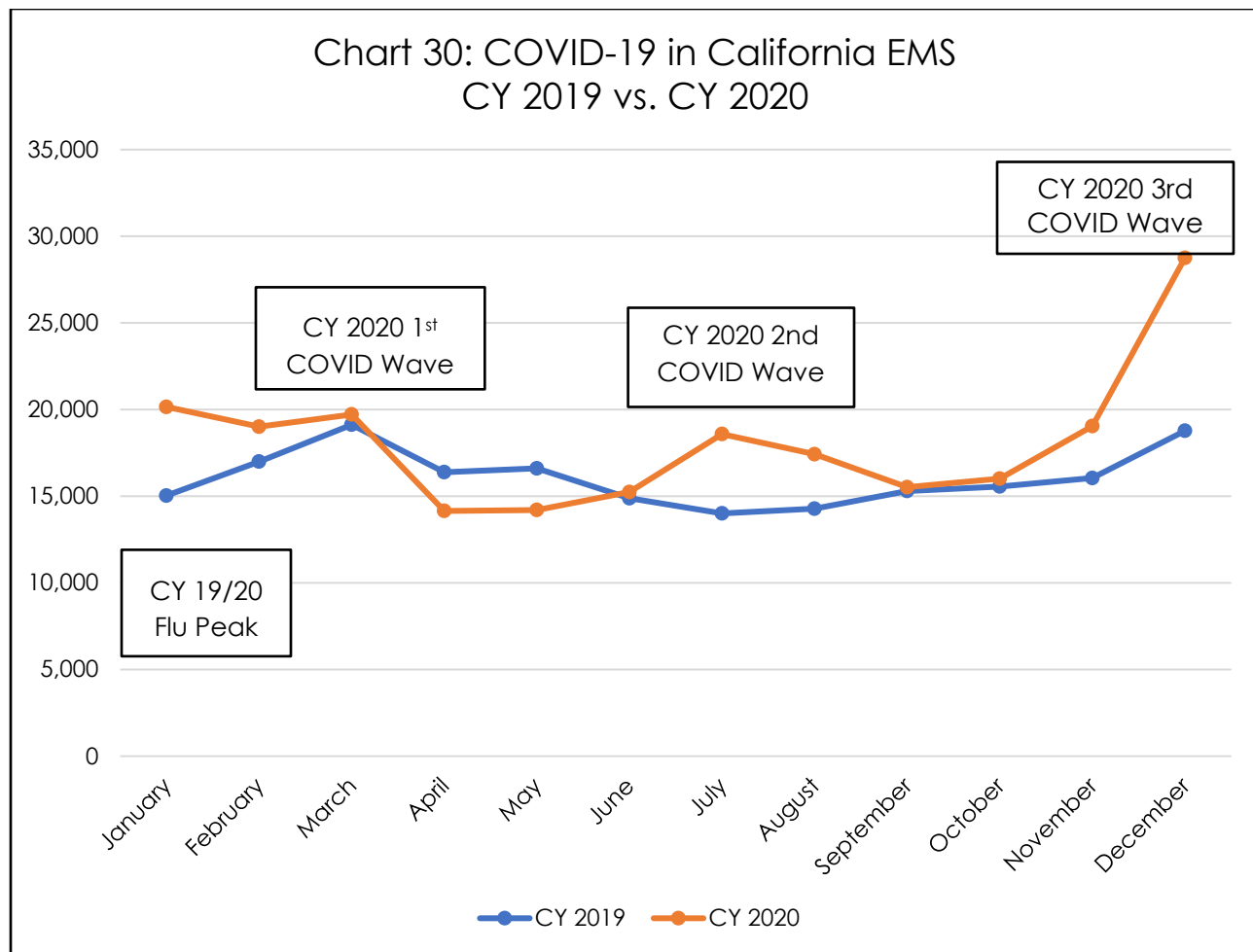
April and May of CY 2020 were the only two months that reported a significant decrease in records compared to April and May of CY 2019.

Chart 29: COVID-19 in California  
by Month and Year  
CY 2019 vs. CY 2020



*For comparative purposes, CY 2019 EMS data has been included in this chart.*

January 2020, July 2020, and December 2020 represented the highest increase in records compared to the same months in CY 2019.



The graph shows in 2019, there were flu peaks around March 2019 and December 2019, which is consistent with the flu season every year.

In 2020, the first COVID wave happened in March, which was significantly higher than the flu peak in 2019; the second COVID wave around July was a little lower than the previous peak; and the third and highest-peaking COVID wave came in December.

If you have any questions or comments about the COVID-19 charts, please contact EMSA Adrienne Kim at [Adrienne.Kim@emsa.ca.gov](mailto:Adrienne.Kim@emsa.ca.gov) or (916) 431-3742.