

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Care Committee (EMCC)
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

EMERGENCY MEDICAL CARE COMMITTEE (EMCC)

**Thursday, November 16, 2023
2:00 pm – 4:00 pm**

**Hybrid Meeting via Teams Virtual Teleconference or in person
at EMS Agency, 2nd Floor Conference Room,
700 Empey Way San Jose, CA. 95128**

All reports and supporting material are available for review on the Santa Clara County EMS Agency website at emsagency.sccgov.org and in the EMS Agency's offices at least one week prior to the meeting. (📄 Indicates supporting documentation attached. 🚑 Indicates committee action required).

Purpose of the Emergency Medical Care Committee (EMCC)

The purpose of the Emergency Medical Care Committee (EMCC) as specified in the California Health and Safety Code Section 1797.274 and 1797.276 is to review the operations of each of the following at least annually:

1. Ambulance services operating within the county.
2. Emergency medical care offered within the county, including programs for training large numbers of people in cardiopulmonary resuscitation and lifesaving first aid techniques.
3. First aid practices in the county.

The EMCC shall convene to provide the Santa Clara County EMS Agency with its observations and recommendations relative to its review of the items above in addition to providing feedback related to the EMS System Strategic Plan, policy, education and training, quality improvement, public access, and EMS system operations.

The EMCC will also make recommendations related to the use of EMS Trust Fund for the funding of Category C: Stakeholder Projects consistent with *Santa Clara County Prehospital Care Policy EMS Reference #812 Trust Fund Guide and Application*.

Recommendations made by the EMCC, in the form of meeting minutes, will be provided to the Health Advisory Commission by the Chair and will be published to the EMS Agency website, and available for public review.

AGENDA

1. **Call to Order** 📄 ✍️
Anirudh Sreekrishnan, Chair and Health Advisory Commissioner
2. **Members Introductions and Announcements**
Anirudh Sreekrishnan, Chair and Health Advisory Commissioner
3. **Public Comment**
Anirudh Sreekrishnan, Chair and Health Advisory Commissioner

This portion of the meeting is reserved for persons desiring to address the EMS Committee on a Committee-related matter not on the agenda. Speakers are limited to two (2) minutes. The law does not permit Committee action or extended discussion on any items not on the agenda except under special circumstances. Statements that require a response may be placed on the agenda for the next regular meeting of the Committee.

Consent Items ✍️

Introduction of Items Scheduled for Consent

Patricia Natividad, Sr. Management Analyst

Items 4 - 9 may be accepted as one motion. Item 4 – 9 is for informational purposes.

4. **EMCC May 18, 2023 Meeting Minutes**
5. **Items Approved by the Board of Supervisors and/or Board Committees**
Copies of Board and Board Committee approved reports are provided for reference and information purposes. 📄 [Page 6](#)
6. **EMS Trust Fund Status Report** 📄 [Page 104](#)
Accept written report on the financial status of the EMS Trust Fund
7. **Santa Clara County Exclusive Operating Area Report** 📄 [Page 105](#)
8. **Non-911 Ambulance Services Report** 📄 [Page 108](#)
9. **HHS Facilities Report** 📄 [Page 109](#)

Regular Items

10. Health Advisory Commission and Items Referred by the Commission to the EMCC

Receive verbal report from Anirudh Sreekrishnan, Chair and Health Advisory Commissioner

11. Personnel

- A. Receive report on EMT Certification, Paramedic Accreditation, and Credentialing [Page 110](#)
Isaac Quevedo, EMS Specialist
- B. Receive report on EMS Investigations and Enforcement [Page 111](#)
Daniel Franklin, EMS Specialist
- C. Receive report on Medical Volunteers for Disaster Response Program
[Page 112](#)
Michael Cabano, Assistant EMS Director

12. Equipment and Supplies

- A. Receive report [Page 114](#)
Jason Weed, EMS Specialist

13. Data Systems




- A. Receive report [Page 115](#)
Christopher Duncan, EMS Specialist

14. Clinical Care and Patient Outcome



- A. Receive report from EMS Agency Medical Director
Dr. Ken Miller, EMS Medical Director
- B. Receive report on Emergency Medical Dispatch Quality Improvement
Dr. Ken Miller, EMS Medical Director
- C. Receive report on Specialty Center Quality Improvement [Page 122](#)
Lisa Vajgrt-Smith, Specialty Programs Nurse Coordinator
- D. Receive report on Prehospital Patient Care Quality Improvement [Page 126](#)
John Sampson, EMS Specialist

- E. Receive report on Prehospital Care Policy Revision Activities 
[Page 129](#) *Daniel Franklin, EMS Specialist*


15. Education and Training

- A. Receive report – Provider Education  [Page 131](#)
Dustin Gonzalez, EMS Specialist
- B. Receive report – Public Education  [Page 133](#)
Dustin Gonzalez, EMS Specialist
- C. Receive report - EMS Education Programs  [Page 135](#)
Dustin Gonzalez, EMS Specialist

16. Transportation/Facilities

- A. Receive report on Bypass  [Page 136](#)
Jackie Lowther, EMS Director
- B. Receive report on APOT  [Page 140](#)
Jackie Lowther, EMS Director

17. Preparedness

- A. Receive report on Disaster and Significant events  [Page 144](#) *Michael Cabano, Assistant EMS Director*

18. EMS Annual Report

- A. Receive EMS Annual Report
Jackie Lowther, EMS Director
<https://bit.ly/2022EMSAnnualReport>



19. EMS Trust Fund Update

- A. Receive Report
Patricia Natividad, Senior Management Analyst

20. EMCC Member Requests for Future Agenda Items / Announcements

Anirudh Sreekrishnan, Chair and Health Advisory Commissioner

Voting and non-voting members may request items for inclusion in future agendas or present announcements not requiring EMCC action.

21. EMS Stakeholder Requests for Future Agenda Items / Announcements

Anirudh Sreekrishnan, Chair and Health Advisory Commissioner

Members of the public or EMS System may request items for inclusion in future agenda or present announcements not requiring EMCC action.

22. Next Meeting and Adjourn

Anirudh Sreekrishnan, Chair and Health Advisory Commissioner

May 16, 2024 from 2:00-4:00 pm Hybrid via Teams Teleconference or in person at EMS Agency, 2nd Floor Conference Room, 700 Empey Way San Jose, CA. 95128.

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95126
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: October 31, 2023

To: Santa Clara County EMS Committee Members

From: Patricia Natividad
Senior Management Analyst

Subject: Summary of Approved or Pending Board of Supervisors and Health and Hospital Committee Items

Summary of Health and Hospital Committee Approved Items:

Director's Report, County of Santa Clara Health System – May 24, 2023

The Health and Hospital Committee has requested the Deputy County Executive/Director of County of Santa Clara Health System present monthly reports regarding emerging issues and items of interest to the public and to the Committee. The Committee also requested verbal as well as written updates on operations for the departments comprising the Health System. The report provides an update on the County's Ambulance Provider's response times to ambulance calls, First Responder compliance, Paramedic Staffing update, Behavior Health distribution, Ambulance Patient Offload Times, and the Timely Submission of EMS Charts for Time Sensitive Injuries are provided as attachments this month.

The Emergency Medical Services Department Monthly Update report is attached.

Director's Report, County of Santa Clara Health System – June 21, 2023

The Health and Hospital Committee has requested the Deputy County Executive/Director of County of Santa Clara Health System present monthly reports regarding emerging issues and items of interest to the public and to the Committee. The Committee also requested verbal as well as written updates on operations for the departments comprising the Health System. The report provides an update on the County's Ambulance Provider's response times to ambulance calls, First Responder compliance, Behavioral Health distribution, Paramedic Staffing update, Ambulance Patient Offload Times, and an update on Pediatric Receiving Centers designation are provided as attachments this month.

The Emergency Medical Services Department Monthly Update report is attached.

Director's Report, County of Santa Clara Health System – August 23, 2023

The Health and Hospital Committee has requested the Deputy County Executive/Director of County of Santa Clara Health System present monthly reports regarding emerging issues and items of interest to the public and to the Committee. The Committee also requested verbal as well as written updates on operations for the departments comprising the Health System. The report provides an update on the County's Ambulance Provider's response times to ambulance calls, First Responder compliance, Behavioral Health distribution, Ambulance Patient Offload Times and Trauma Program update are provided as attachments this month.

The Emergency Medical Services Department Monthly Update report is attached.

Director's Report, County of Santa Clara Health System – September 27, 2023

The Health and Hospital Committee has requested the Deputy County Executive/Director of County of Santa Clara Health System present monthly reports regarding emerging issues and items of interest to the public and to the Committee. The Committee also requested verbal as well as written updates on operations for the departments comprising the Health System. The report provides an update on the County's Ambulance Provider's response times to ambulance calls, First Responder compliance, Paramedic Staffing, Behavioral Health distribution, Ambulance Patient Offload Times and an update on Abuse and Neglect are provided as attachments this month.

The Emergency Medical Services Department Monthly Update report is attached.

Annual Report on EMS Agency and EMS System – September 27, 2023

Receive report from Emergency Medical Services Agency (EMS) relating to the status of the EMS Agency and EMS System for Calendar Year 2022.

This report is for informational purposes only; there is no impact to the General Fund. The County does not provide any direct funding in support of the services provided by the 911 emergency medical services system because the cost of the Santa Clara County Emergency Medical Services (EMS) System is paid by system providers, such as hospitals and ambulance companies, individuals who use these services and their medical insurers.

During their meeting on December 14, 2010, the Board of Supervisors requested that the EMS Agency provide regular updates to the Health and Hospital Committee (HHC) regarding the performance of the County Exclusive Operating Area 911 Ambulance Provider, Rural/Metro of California. On November 22, 2011, the HHC requested that the

EMS Agency provide an update in February 2012, and then provide semi-annual reports. On June 8, 2016, the HHC authorized the EMS Agency to modify the timeline of the report submission, transitioning from a semi-annual report to an annual report, which would cover a full calendar year. This report provides the requested information, including the status of the EMS System and highlights of some activities of the EMS Agency during Calendar Year 2022.

The EMS Agency does publicly post annual and quarterly performance reports to its website so that the people of Santa Clara County are able to view response time compliance reports, hospital performance data including hours of emergency department diversion and other quality indicators.

This plan supports the County of Santa Clara Health System's Strategic Road Map as it relates to the Core Objectives by allowing for a seamless coordination of EMS services throughout the County.

The complete approved legislative file and report is attached.

Director's Report, County of Santa Clara Health System – October 11, 2023

The Health and Hospital Committee has requested the Deputy County Executive/Director of County of Santa Clara Health System present monthly reports regarding emerging issues and items of interest to the public and to the Committee. The Committee also requested verbal as well as written updates on operations for the departments comprising the Health System. The report provides an update on the County's Ambulance Provider's response times to ambulance calls, First Responder compliance, Behavioral Health distribution and Ambulance Patient Offload Times are provided as attachments this month.

The Emergency Medical Services Department Monthly Update report is attached.

Summary of Board of Supervisors Approved Items:

Proclamation for Emergency Medical Services Week – May 16, 2023

Adopt Proclamation declaring the week of May 21 through May 27, 2023, as "Emergency Medical Services Week" in Santa Clara County. (Emergency Medical Services)

National Emergency Medical Services Week brings together local communities and medical personnel to publicize safety and honor the dedication of those who provide the day-to-day lifesaving services of medicine's "front line."

2023 will mark the 48th annual EMS Week. The theme for 2023 is “Where Emergency Care Begins.”

The complete approved legislative file and proclamation is attached.

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

To: Health and Hospital Committee
From: Jackie Lowther RN, Director Emergency Medical Services
Subject: Emergency Medical Services Department Monthly Update
Date: May 24, 2023

Through this memo, the Emergency Medical Services (EMS) Agency provides its monthly update to the Health and Hospital Committee (HHC).

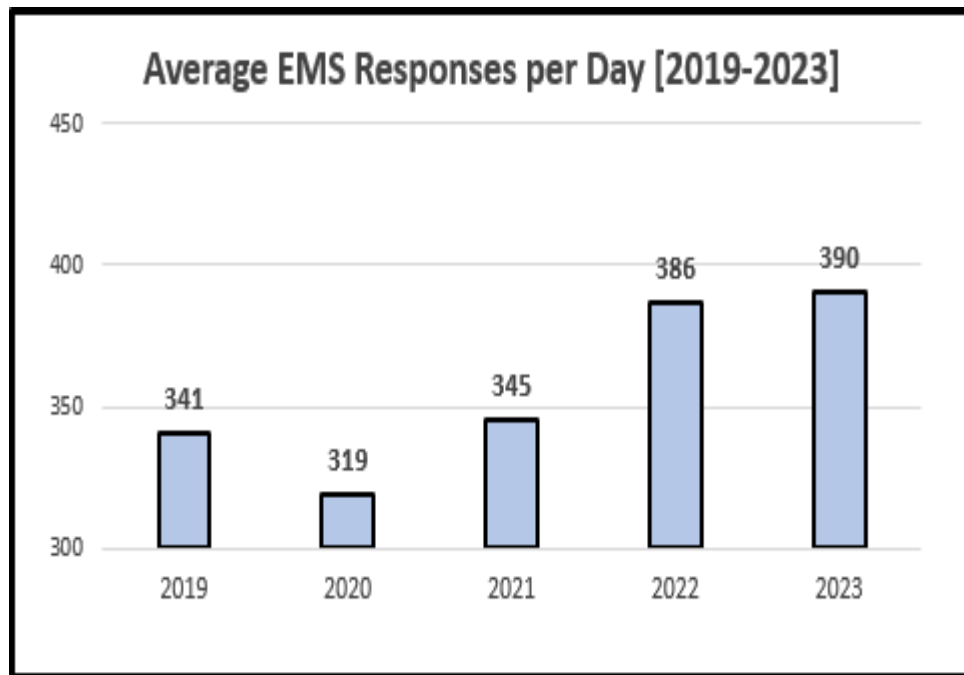
Contract Ambulance Performance

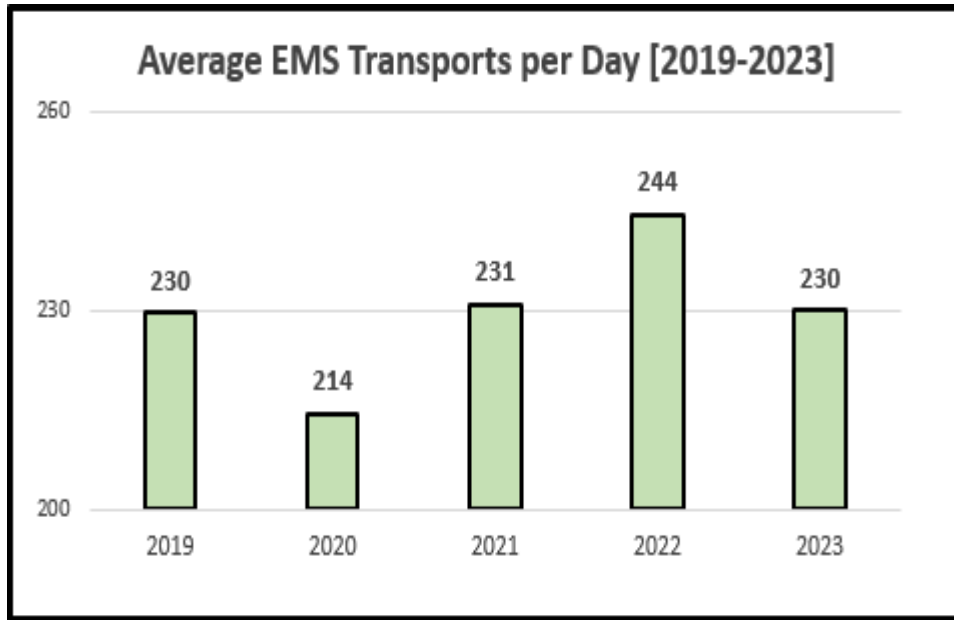
Since January 2022, Rural Metro/AMR has had multiple challenges meeting their contract obligations, intermittently. The EMS Agency has reported to the HHC Rural Metro/AMR’s plan of correction for their lack of consistent deployment. Currently, there is a national shortage of paramedics and emergency medical technicians (EMTs). Santa Clara County has seen an unprecedented increase in calls for service, compounded with inconsistent volume, which creates difficulty in planning deployment strategies. Rural Metro/AMR continues to utilize supplemental staffing, aggressive recruiting, scholarships, sign on bonuses, and use of private and fire resources to purchase unit hours. Several of these plans are long term solutions, and EMS is working collaboratively with Rural Metro/AMR to come up with solutions that will create results, immediately. Rural Metro/AMR is discussing solutions with their labor unions about varying resolutions on staffing plans.

The County’s Ambulance Provider (Rural Metro/AMR) is required to meet the response times to ambulance calls as described in the current agreement with the County. Compliance is achieved when ninety percent (90.00%) or more of responses in each response priority (code of response) and in each zone meet the specified response time requirements. The following chart compares overall Code 3 response time compliance for a six-month period, ending March 2023. Overall, Code 3 response compliance met the ninety percent (90.00%) standard for the second time since April 2022.

Emergency Ambulance CODE 3 Performance	Oct 22	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23
Overall	86.34%	84.42%	84.34%	88.20%	90.56%	90.41%
Zone 1	82.93%	80.68%	83.69%	88.63%	90.09%	90.39%
Zone 2	87.27%	85.74%	86.07%	89.11%	91.42%	90.44%
Zone 3	86.94%	84.90%	85.19%	87.96%	91.45%	90.92%
Zone 4	86.81%	84.81%	84.15%	87.42%	88.84%	90.24%
Zone 5	87.45%	85.50%	79.07%	89.17%	93.04%	88.85%

The following charts indicate the average number of daily responses and transports for the current and last four years. In the first quarter of 2023 (through March 31), daily responses are trending upward from 2022 data and transports are trending downward from 2022 data.





FIRST RESPONDER COMPLIANCE

Compliance is measured by several key performance indicators that include response time requirements based on population density; designated response areas; type of response priority (RLS: red lights & siren or non-RLS: non-red lights & siren); total number of responses; total number of late responses; and total number of responses exempted (removed) from compliance calculations. Compliance is achieved when ninety (90.00) percent or more of the responses meet the specified response time requirement in each response priority within each designated response area. The chart below provides the requested on-time response by zone by month for the period October 2022 through March 2023.

First Responder CODE 3 Performance	Oct 22	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23
Gilroy, City of	95.05%	95.37%	88.34%	91.48%	97.22%	93.01%
Milpitas, City of	94.52%	93.62%	97.17%	95.45%	92.98%	95.66%
Morgan Hill, City of	97.65%	97.68%	95.07%	95.93%	95.09%	97.73%
Mountain View, City of	98.66%	95.57%	98.13%	95.77%	98.06%	97.24%
San Jose, City of	90.26%	91.73%	92.18%	91.06%	90.58%	91.09%
Santa Clara, City of	98.89%	98.11%	99.59%	98.48%	91.57%	98.09%
Santa Clara County Central FPD	96.31%	97.15%	96.71%	97.32%	97.63%	97.12%
South Santa Clara County FPD	97.00%	93.22%	90.83%	94.78%	100.00%	91.43%
Sunnyvale, City of	95.11%	94.13%	92.10%	92.76%	94.10%	89.42%

Paramedic Staffing Update

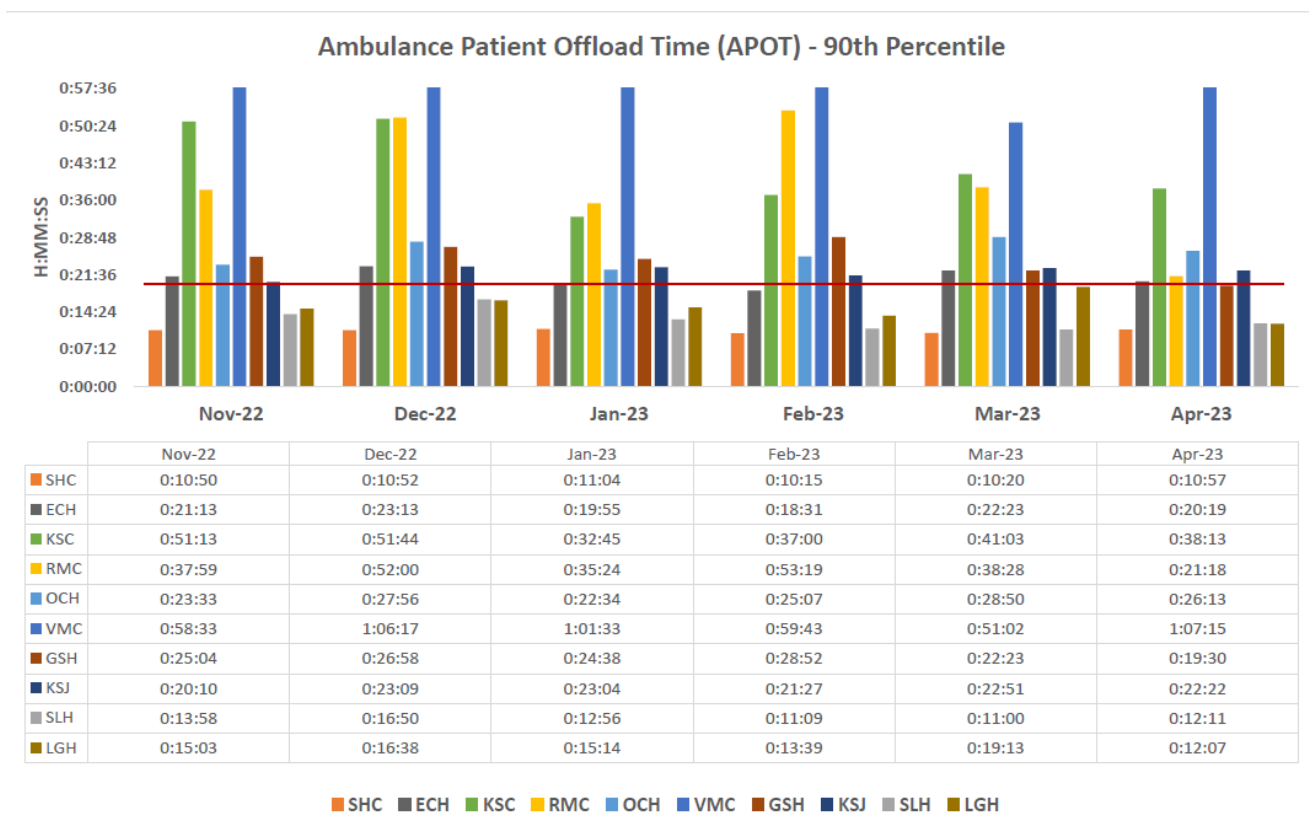
During the month of April, Rural Metro/AMR reported that there were no resignations from their Santa Clara County operations. Throughout the month of April, three paramedics were recruited to Rural Metro/AMR, and currently there are 24 interns in their scholarship program.

AMBULANCE PATIENT OFFLOAD UPDATE

The role hospitals play in ensuring that 9-1-1 ambulances are available for the next 9-1-1 call is critical. Ambulance offload delay, the time it takes to transfer a patient to an Emergency Department stretcher for the Emergency Department (ED) staff to assume responsibility for the care of the patient, may have more impact on ambulance turnaround time than ambulance bypass. Ambulance patient offload times (APOT) are calculated for all hospitals that receive patients in Santa Clara County. In 2015, the Health and Safety Code 1797.120 required the California Emergency Medical Services Authority to develop a standard methodology for calculation of, and reporting by, a local EMS Agency of ambulance patient offload time. The EMS Agency has placed significant effort into working with hospital administrators focusing on the time it takes to get ambulances back into service once they have arrived in their EDs. Decreases in offload delays will improve the time patients receive definitive care, better pain control and antibiotics, when needed.

Over the last two years, the EMS system as well as the hospitals have seen unprecedented changes and have been required to pivot and adapt to changes necessitated by the COVID-19 pandemic. Patient volume variations continued over the last six months for EMS as well as many hospitals' emergency departments. In October 2020, to help hospitals in Santa Clara County facilitate compliance with APOT, a daily report was sent to designated personnel of all patients held greater than 20 minutes. All emergency departments have worked diligently throughout these continual, challenging times to improve ambulance patient offload times and work collaboratively with the EMS Agency. The EMS Agency officially changed the benchmark for offload times to 20 minutes in August of 2021 to align with the State EMS Authority, which has had this benchmark in place since 2015. In April, four out of ten hospitals met California State EMS Authority's target of 20-minute offload times, with the combined ambulance patient offload time of all hospitals at 85.05% of the time. Seven out of ten hospitals offloaded under 25 minutes, eight out of ten offloaded in 30 minutes or less, and nine hospitals offloaded in less than 40 minutes.

The hospitals that have APOT times greater than 20 minutes have been working on a plan to improve times. The hospitals send the EMS Agency updates on a regular basis whenever there are obstacles to achieving these improvements. Delays are multifactorial, but overwhelmingly ED overcrowding is a key factor, whether because of high volume/high acuity of patients or the inability to move admitted patients through care and discharge. In addition, many hospitals are asserting an increase in staffing shortages in multiple areas. These delays have been causing a continual crisis in the field compounded by decreased deployment numbers by the ambulance provider. For the month of April, it's noteworthy the longest offload time was one hour and 7 minutes and this hospital also received 13% (i.e., largest percentage among hospitals tracked) of all Behavioral Health patients, as shown in the second graph on page 6.

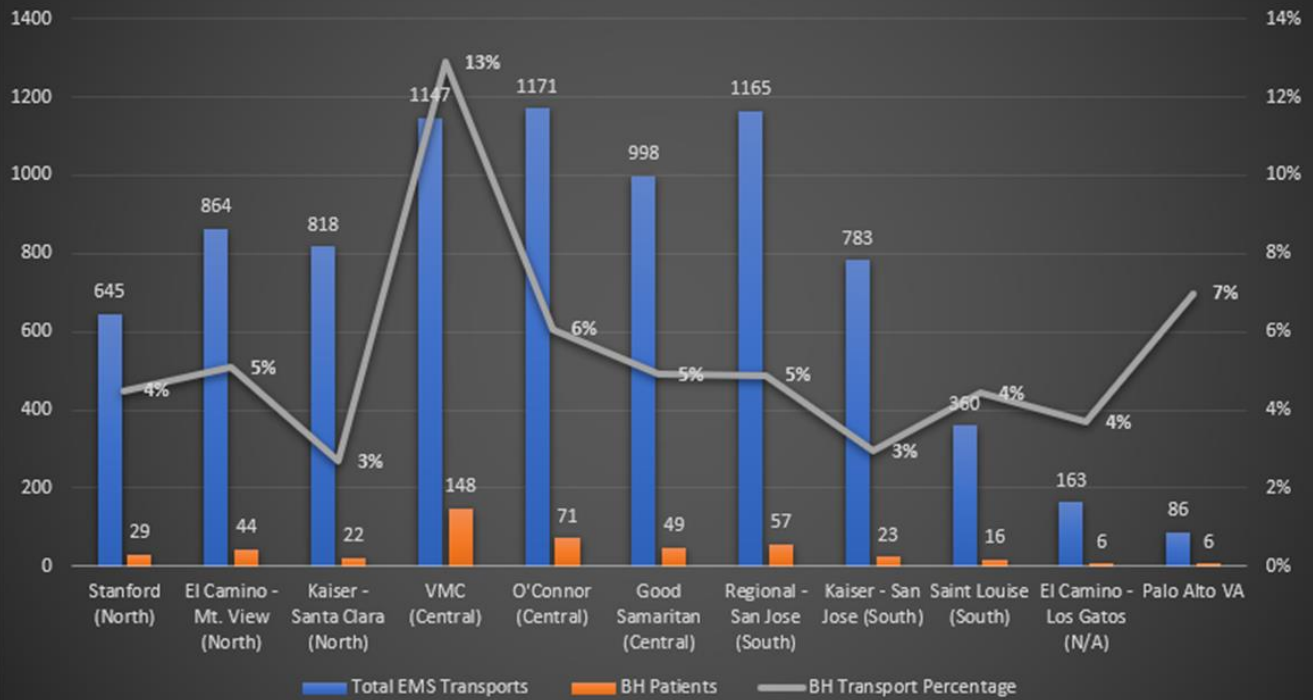


	SHC	ECH	KSC	RMC	OCH	VMC	GSH	KSJ	SLH	LGH
Nov-22	0:10:50	0:21:13	0:51:13	0:37:59	0:23:33	0:58:33	0:25:04	0:20:10	0:13:58	0:15:03
Dec-22	0:10:52	0:23:13	0:51:44	0:52:00	0:27:56	1:06:17	0:26:58	0:23:09	0:16:50	0:16:38
Jan-23	0:11:04	0:19:55	0:32:45	0:35:24	0:22:34	1:01:33	0:24:38	0:23:04	0:12:56	0:15:14
Feb-23	0:10:15	0:18:31	0:37:00	0:53:19	0:25:07	0:59:43	0:28:52	0:21:27	0:11:09	0:13:39
Mar-23	0:10:20	0:22:23	0:41:03	0:38:28	0:28:50	0:51:02	0:22:23	0:22:51	0:11:00	0:19:13
Apr-23	0:10:57	0:20:19	0:38:13	0:21:18	0:26:13	1:07:15	0:19:30	0:22:22	0:12:11	0:12:07

EMS Behavioral Health Patient Distribution by ED n=2585



Apr 2023 Behavioral Health (BH) Patient Distribution n=471



TIMELY SUBMISSION OF EMS CHARTS FOR TIME SENSITIVE INJURIES

During the calendar year (CY) of 2022, Santa Clara County Ambulance charted 141,763 patient care reports (PCR) that detailed a response to a 911 incident location. Of these responses, 97,123 charts were submitted detailing a transport to an acute care facility. This represents an approximately 69% transport rate for CY-2022.

During the first quarter of calendar year 2023 (CY-23 Q1), Santa Clara County Ambulance has charted 34,713 patient care reports (PCR) that detailed a response to a 911 incident location. Of these responses, 23,584 charts were submitted detailing a transport to an acute care facility. This represents an approximately 68% transport rate for CY-23 Q1.

The majority of the transported 911 patients are lower acuity and do not require sophisticated treatments in the prehospital setting. However, some patients require immediate intervention by prehospital providers with emergent transport to specialized care centers where highly trained physicians, nurses, and technicians rapidly triage and treat these specialty patients.

In these scenarios, information regarding the patient's condition, medical history, or any emergency medications administered by EMS are all verbally reported at the time of patient transfer into the hospital specialty center. This data is also manually collected and entered into the electronic EMS Prehospital Care Record (PCR). The PCR is most often started on the scene at the patient's side, whenever safe to do so, by the EMS providers administering care. The PCR is then constantly updated by other EMS providers while simultaneous care is being provided on scene, or during transport, and is then concluded after patient care has been transferred to the center. The EMS provider is extremely adept at verbally reporting the patient's conditions, treatments provided, or medications given to the hospital care team upon transferring patient care. The provider is equally skilled in written documentation of these very same facts into the PCR.

In some scenarios of this patient care continuum, it is crucial that the specialized care center has immediate direct access to this written EMS chart (PCR). However, nothing will ever replace the value of the face-to-face report that is provided with every patient transfer of care. The County EMS Data System does allow all this to occur electronically and with great ease. To accomplish all of this, the EMS provider must "Post" the collected data from their remote offline tablet to the online County EMS Data System. Once the crew has named the facility in their chart, and has completed a "Post," the PCR data is made available to the facility through the Hospital Hub.

Although the chart may not be fully finalized or completed, the data collected at the patient’s side may prove to be invaluable to the specialty care team providing specialty treatment for the patient.

This report measures the time, in minutes, between “At Patient’s Side Date/Time” and the “First Post Date/Time.” It is important to note that “At Patient’s Side Date/Time” is a nationally recognized EMS value that is required to be collected on every EMS patient. In contrast, “First Post Date/Time” is a value that is unique to the specific software in use by the County EMS Agency. This same report may not be able to be duplicated for other PCR systems that share or send data into the larger County EMS Data System. This report includes any patient who was transported by 911 County Ambulance and those patients who were declared as a Trauma Alert, Stroke Alert, or STEMI (ST-Segment Elevation Myocardial Infarction) Alert patient. The graph below represents calendar year 2022 quarterly PCR data.

Timely Submission of EMS Charts for Time Sensitive Injuries - Quarterly					
CY 22 - Q1					
TRAUMA	Time to Post	STROKE	Time to Post	STEMI	Time to Post
Median	79 minutes	Median	66.5 minutes	Median	73 minutes
Maximum	829 minutes	Maximum	611 minutes	Maximum	806 minutes
90th Percentile	206.4 minutes	90th Percentile	207.1 minutes	90th Percentile	221 minutes
N - Value	830 count	N - Value	290 count	N - Value	65 count
CY 22 - Q2					
TRAUMA	Time to Post	STROKE	Time to Post	STEMI	Time to Post
Median	79 minutes	Median	67 minutes	Median	74 minutes
Maximum	927 minutes	Maximum	510 minutes	Maximum	860 minutes
90th Percentile	200.3 minutes	90th Percentile	155.6 minutes	90th Percentile	220.6 minutes
N - Value	878 count	N - Value	298 count	N - Value	143 count
CY 22 - Q3					
TRAUMA	Time to Post	STROKE	Time to Post	STEMI	Time to Post
Median	80 minutes	Median	66 minutes	Median	65.5 minutes
Maximum	947 minutes	Maximum	873 minutes	Maximum	611 minutes
90th Percentile	217 minutes	90th Percentile	198 minutes	90th Percentile	174 minutes
N - Value	904 count	N - Value	402 count	N - Value	101 count
CY 22 - Q4					
TRAUMA	Time to Post	STROKE	Time to Post	STEMI	Time to Post
Median	76 minutes	Median	67 minutes	Median	69 minutes

Maximum	910 minutes	Maximum	707 minutes	Maximum	527 minutes
90th Percentile	219.7 minutes	90th Percentile	187.2 minutes	90th Percentile	150.8 minutes
N - Value	884 count	N - Value	415 count	N - Value	113 count
CY 23 - Q1					
TRAUMA	Time to Post	STROKE	Time to Post	STEMI	Time to Post
Median	80 minutes	Median	66 minutes	Median	72 minutes
Maximum	914 minutes	Maximum	899 minutes	Maximum	412 minutes
90th Percentile	230.8 minutes	90th Percentile	163 minutes	90th Percentile	210.8 minutes
N - Value	822 count	N - Value	431 count	N - Value	103 count

Report Inclusion Criteria:

- Date range: 1/1/2022 – 3/31/2023
- Agency = 911-Santa Clara County Ambulance
- Incident Status = Sent to CEMESIS
- Incident type must detail a Trauma Alert, Stroke Alert, or STEMI Alert

Report Exclusion Criteria:

- Incomplete or missing time values used to calculate Time to First Post
- Any chart denoting cardiac arrest
- Charts that were not completed on Elite Field
- Time to First Post (in minutes) greater than 1,000 minutes
- Time to First Post (in minutes) that were negative values are adjusted to “0” value

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

To: Health and Hospital Committee
From: Jackie Lowther RN, Director Emergency Medical Services
Subject: Emergency Medical Services Department Monthly Update
Date: June 21, 2023

Through this memo, the Emergency Medical Services (EMS) Agency provides its monthly update to the Health and Hospital Committee (HHC).

Contract Ambulance Performance

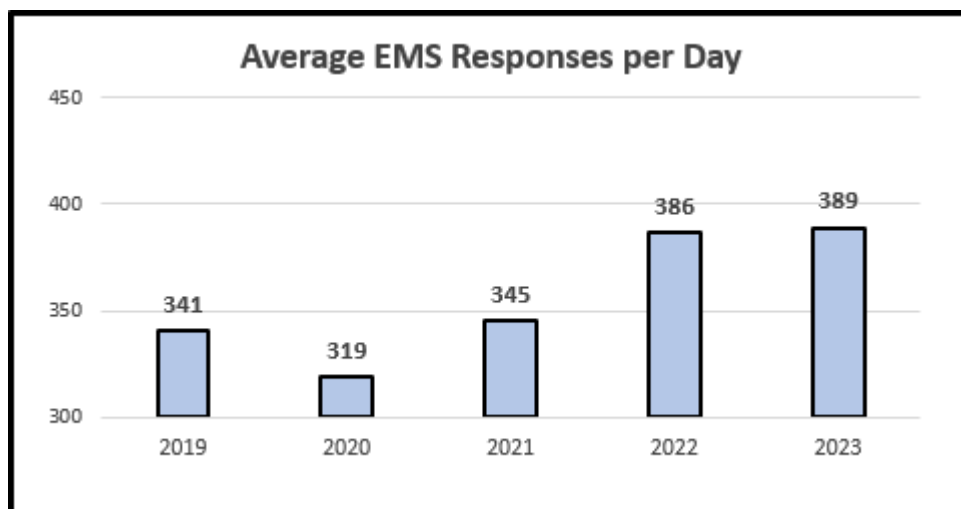
The EMS Agreement and subsequent amendments (Agreement) identified the minimum monthly response times standards and compliance requirements. The agreement (Section 4.1) states that Rural/Metro/AMR shall operate the ambulance service system to achieve compliance ninety percent (90.00%) or more of responses in each response priority (code of response) and in each zone meet the specified response time requirements. Since February 2022, Rural/Metro/AMR has failed to meet the minimum compliance standards in several separate compliance categories.

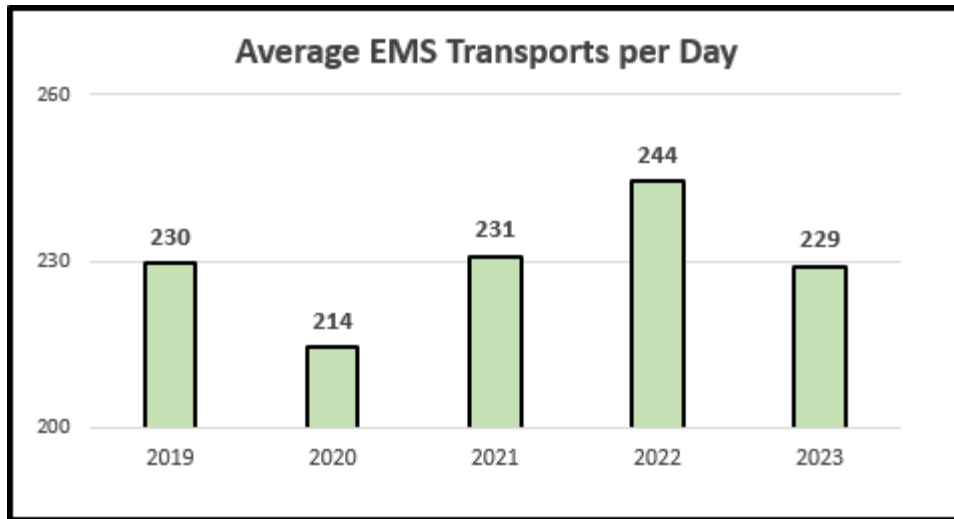
Rural Metro/AMR has had multiple challenges meeting their contract obligations, intermittently. The EMS Agency has reported to the HHC Rural Metro/AMR's plan of correction for their lack of consistent deployment. Currently, there is a national shortage of paramedics and emergency medical technicians (EMTs). Santa Clara County has seen an unprecedented increase in calls for service, compounded with inconsistent volume, which creates difficulty in planning deployment strategies. Rural Metro/AMR continues to utilize aggressive recruiting, scholarships, sign on bonuses, and use of private and fire resources to purchase unit hours. Several of these plans are long term solutions, and EMS is working collaboratively with Rural Metro/AMR to come up with solutions that will create results, immediately. Rural Metro/AMR has settled their contract with their labor unions about various resolutions on staffing plans that will be implemented in July. The EMS Agency will monitor for changes.

The following chart compares overall Code 3 response time compliance for a six-month period, ending April 2023. Overall, Code 3 response compliance met the ninety percent (90.00%) standard for the third time since April 2022.

Emergency Ambulance CODE 3 Performance	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23
Overall	84.42%	84.34%	88.20%	90.56%	90.41%	90.45%
Zone 1	80.68%	83.69%	88.63%	90.09%	90.39%	90.56%
Zone 2	85.74%	86.07%	89.11%	91.42%	90.44%	90.95%
Zone 3	84.90%	85.19%	87.96%	91.45%	90.92%	90.57%
Zone 4	84.81%	84.15%	87.42%	88.84%	90.24%	90.02%
Zone 5	85.50%	79.07%	89.17%	93.04%	88.85%	90.26%

The following charts indicate the average number of daily responses and transports for the current and last four years. In the first quarter of 2023 (through March 31), daily responses are trending upward from 2022 data and transports are trending downward from 2022 data.





FIRST RESPONDER COMPLIANCE

Compliance is measured by several key performance indicators that include response time requirements based on population density; designated response areas; type of response priority (RLS: red lights & siren or non-RLS: non-red lights & siren); total number of responses; total number of late responses; and total number of responses exempted (removed) from compliance calculations. Compliance is achieved when ninety (90.00) percent or more of the responses meet the specified response time requirement in each response priority within each designated response area. The chart below provides the requested on-time response by zone by month for the period November 2022 through April 2023. It is important to acknowledge all of the first responder agencies for their continued support during low system levels to provide quality care to the people of Santa Clara County.

First Responder CODE 3 Performance	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23
Gilroy, City of	95.37%	88.34%	91.48%	97.22%	93.01%	96.42%
Milpitas, City of	93.62%	97.17%	95.45%	92.98%	95.66%	96.37%
Morgan Hill, City of	97.68%	95.07%	95.93%	95.09%	97.73%	96.28%
Mountain View, City of	95.57%	98.13%	95.77%	98.06%	97.24%	98.67%
San Jose, City of	91.73%	92.18%	91.06%	90.58%	91.12%	92.13%
Santa Clara, City of	98.11%	99.59%	98.48%	91.57%	98.09%	98.77%
Santa Clara County Central FPD	97.15%	96.71%	97.32%	97.63%	97.12%	97.97%
South Santa Clara County FPD	93.22%	90.83%	94.78%	100.00%	92.31%	94.74%
Sunnyvale, City of	94.13%	92.10%	92.76%	94.10%	89.42%	91.84%

Paramedic Staffing Update

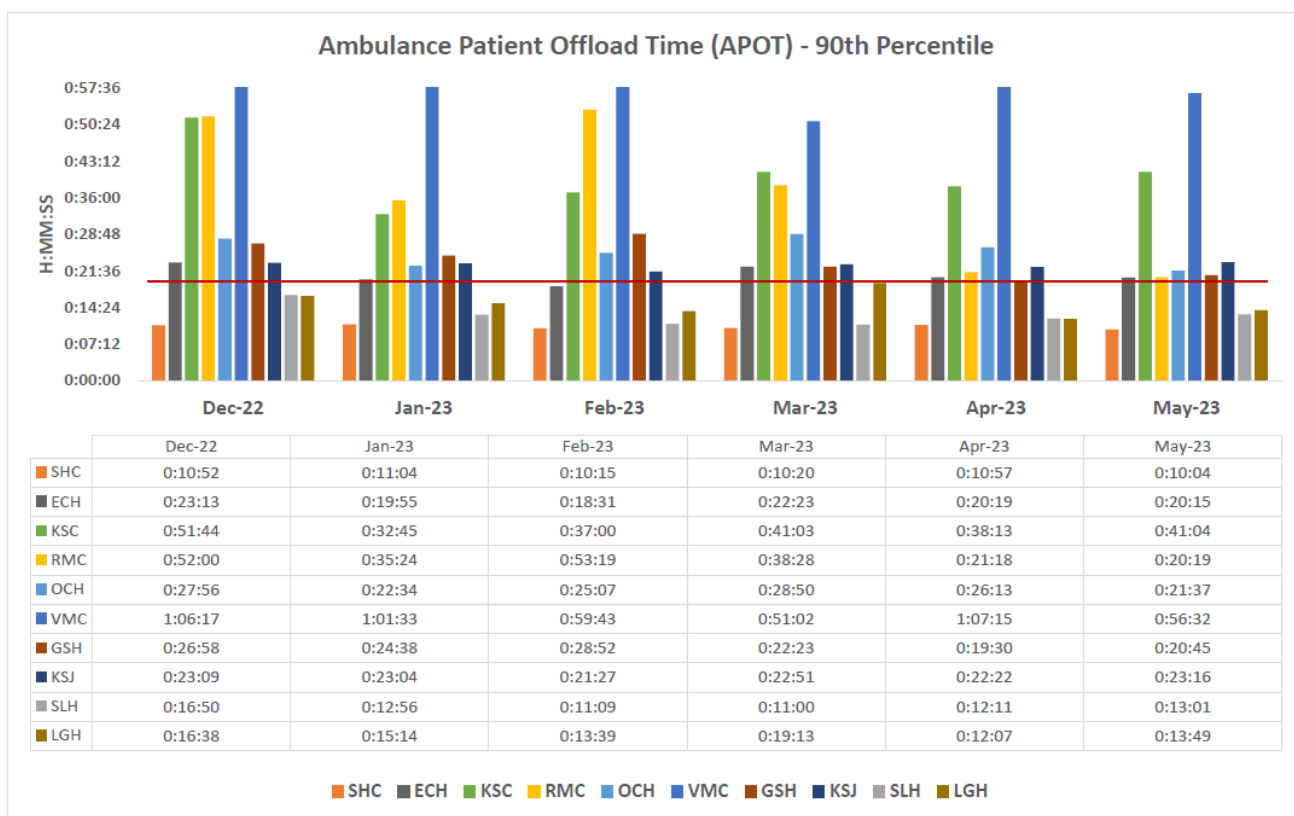
During the month of May, Rural Metro/AMR reported that there were two resignations from their Santa Clara County operations. Throughout the month of May, six paramedics were onboarded to Rural Metro/AMR, and currently there are 56 EMTs attending a Paramedic program on scholarship provided by AMR. In addition to the scholarships, there are 21 active interns from 6 different paramedic programs completing their final internship. Four EMTs have completed the program and are awaiting licensure.

AMBULANCE PATIENT OFFLOAD UPDATE

The role hospitals play in ensuring that 9-1-1 ambulances are available for the next 9-1-1 call is critical. Ambulance offload delay, the time it takes to transfer a patient to an Emergency Department stretcher for the Emergency Department (ED) staff to assume responsibility for the care of the patient, may have more impact on ambulance turnaround time than ambulance bypass. Ambulance patient offload times (APOT) are calculated for all hospitals that receive patients in Santa Clara County. In 2015, the Health and Safety Code 1797.120 required the California Emergency Medical Services Authority to develop a standard methodology for calculation of, and reporting by, a local EMS Agency of ambulance patient offload time. The EMS Agency has placed significant effort into working with hospital administrators focusing on the time it takes to get ambulances back into service once they have arrived in their EDs. Decreases in offload delays will improve the time patients receive definitive care, better pain control and antibiotics, when needed.

Over the last two years, the EMS system as well as the hospitals have seen unprecedented changes and have been required to pivot and adapt to changes necessitated by the COVID-19 pandemic. Patient volume variations continued over the last six months for EMS as well as many hospitals' emergency departments. In October 2020, to help hospitals in Santa Clara County facilitate compliance with APOT, a daily report was sent to designated personnel of all patients held greater than 20 minutes. All emergency departments have worked diligently throughout these continual, challenging times to improve ambulance patient offload times and work collaboratively with the EMS Agency. The EMS Agency officially changed the benchmark for offload times to 20 minutes in August of 2021 to align with the State EMS Authority, which has had this benchmark in place since 2015. In May, three out of ten hospitals met California State EMS Authority's target of 20-minute offload times, with the combined ambulance patient offload time of all hospitals at 85.5% of the time. Eight out of ten hospitals offloaded under 25 minutes, nine out of ten offloaded in 45 minutes or less.

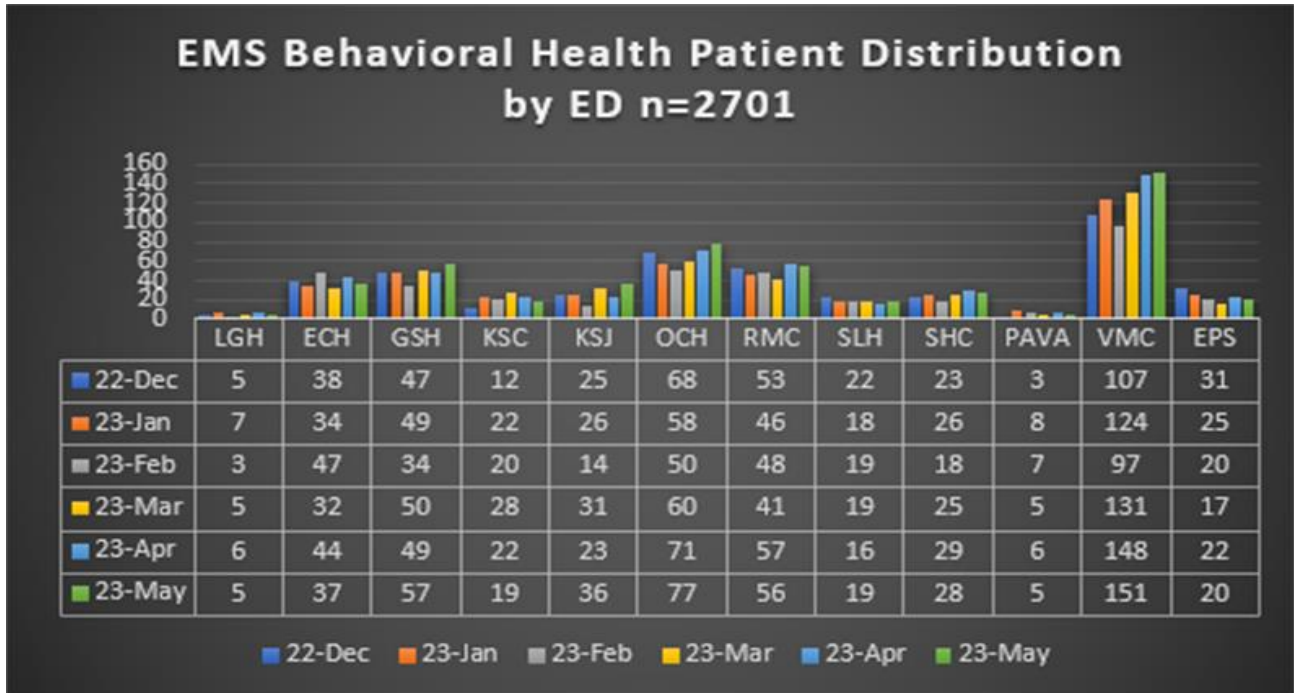
The hospitals that have APOT times greater than 20 minutes have been working on a plan to improve times. The hospitals send the EMS Agency updates on a regular basis whenever there are obstacles to achieving these improvements. Delays are multifactorial, but overwhelmingly ED overcrowding is a key factor, whether because of high volume/high acuity of patients or the inability to move admitted patients through care and discharge. These delays have been causing a continual crisis in the field compounded by decreased deployment numbers by the ambulance provider. For the month of May, it's noteworthy the longest offload time was 56 minutes and this hospital also received 13% (i.e., largest percentage among hospitals tracked) of all Behavioral Health patients, as shown on page 6.

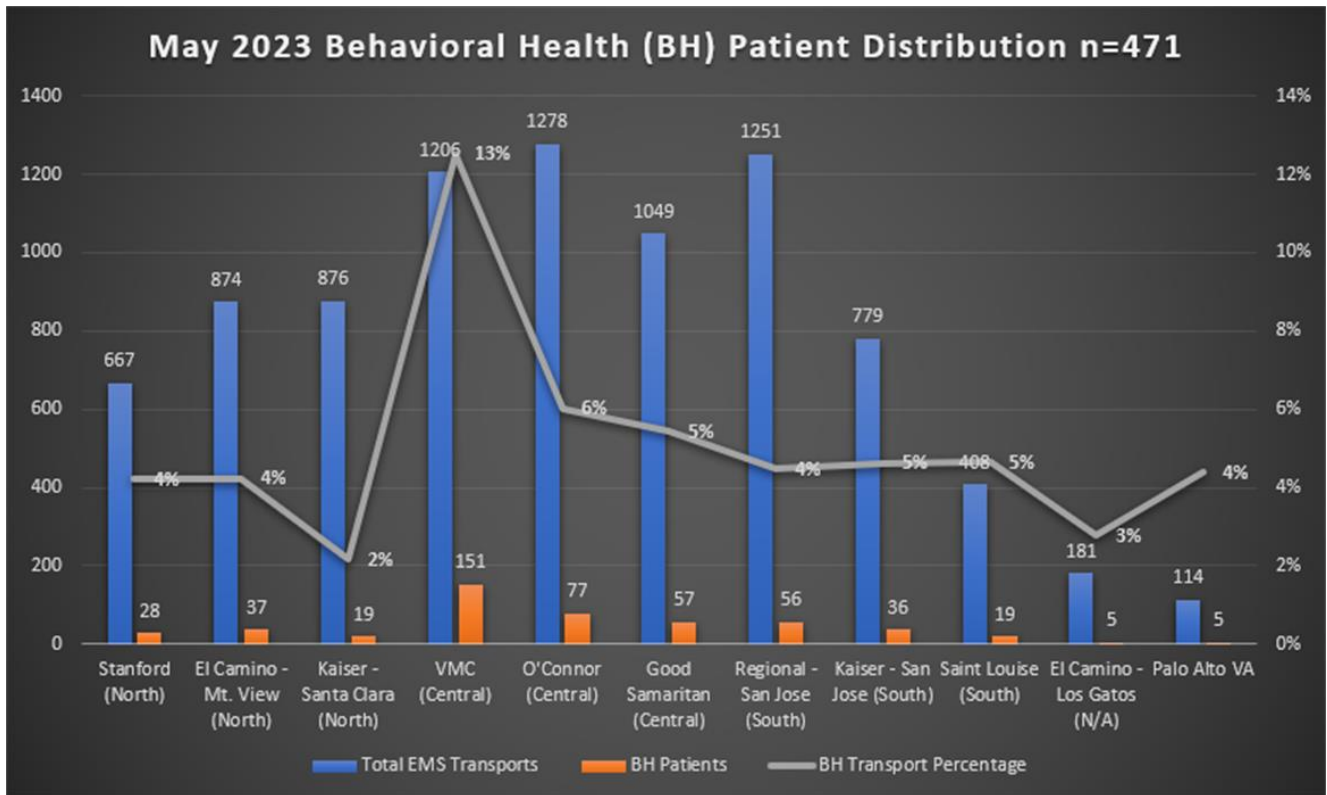


	SHC	ECH	KSC	RMC	OCH	VMC	GSH	KSJ	SLH	LGH
Dec-22	0:10:52	0:23:13	0:51:44	0:52:00	0:27:56	1:06:17	0:26:58	0:23:09	0:16:50	0:16:38
Jan-23	0:11:04	0:19:55	0:32:45	0:35:24	0:22:34	1:01:33	0:24:38	0:23:04	0:12:56	0:15:14
Feb-23	0:10:15	0:18:31	0:37:00	0:53:19	0:25:07	0:59:43	0:28:52	0:21:27	0:11:09	0:13:39
Mar-23	0:10:20	0:22:23	0:41:03	0:38:28	0:28:50	0:51:02	0:22:23	0:22:51	0:11:00	0:19:13
Apr-23	0:10:57	0:20:19	0:38:13	0:21:18	0:26:13	1:07:15	0:19:30	0:22:22	0:12:11	0:12:07
May-23	0:10:04	0:20:15	0:41:04	0:20:19	0:21:37	0:56:32	0:20:45	0:23:16	0:13:01	0:13:49

Behavioral Health (BH Distribution)

This chart shows all patients transported with the primary impression of Behavioral/Psychiatric Crisis, not necessarily a patient on a 5150. The May Behavioral Health Crisis patient volume was at its highest peak all year for 2023.





PEDIATRIC RECEIVING CENTER DESIGNATION

Santa Clara County Emergency Medical Services Agency has completed the Pediatric Receiving Center designation process for nine of the ten hospitals within the county, a significant step in the process of implementing the Santa Clara County Emergency Medical Services for Children (EMSC) Program. Since 2015, hospitals in Santa Clara County have been participating in the National Pediatric Readiness Project, conducting quality improvement assessments of their Emergency Departments to determine how prepared they are to effectively manage emergency care of pediatric patients. An EMSC Program takes the National Pediatric Readiness Project one step further by integrating prehospital and hospital pediatric care into the EMS Agency’s Plan through policy.

The state of California defines a Pediatric Receiving Center or PedRC as “a licensed general acute care hospital with, at a minimum, a permit for standby, basic, or comprehensive emergency services that has been formally designated as one of four types of PedRCs pursuant to sections 100450.218 through 100450.222, by the local EMS agency for its role in an EMS system.”¹

¹

[https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IAAB32B2AF9364332B05283B57737B61A&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IAAB32B2AF9364332B05283B57737B61A&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))

The overall goal for Santa Clara County EMS was to better direct pediatric patient 911 transports, ensuring they go to the most appropriate facility which is staffed, equipped, and prepared to administer emergency care.

The table below indicates each facility’s designation levels.

Facility Name	Designation Level	Facility Name	Designation Level
El Camino Health-Mnt View	General	Good Samaritan Hospital	Advanced
Saint Louise Hospital	General	Kaiser-Santa Clara	Comprehensive
O’Connor Hospital	General	Santa Clara Valley Medical Center	Comprehensive+ Pedi trauma
Kaiser-San Jose	General	Stanford Health/Lucile Packard	Comprehensive + Pedi trauma
Regional Medical Center	General		

*Pediatric Trauma capabilities are reviewed under the SCC EMS Trauma Program Policy and proper American College of Surgeons (ACS) review and designation

A General Receiving Center has all the appropriate staff, training, and equipment to handle pediatric emergencies and common care provided to this age group but does not have inpatient services should a child need to be admitted. An Advanced Receiving Center can provide more advanced pediatric emergency care and has inpatient services should a pediatric patient need to be admitted. Comprehensive Receiving Centers participate in research, physician and nurse training/residency programs and have subspecialty services to handle complex care for pediatric patients. The designation policy went into effect on July 1, 2022, after all EMS System partners were provided training.

Advanced Pediatric Receiving Center Attributes

- Hospitals that have both a neonatal intensive care unit (NICU) and pediatric intensive care unit (PICU).
- Typically can admit pediatric patients without transferring to another hospital.
- Preferred destination for critically ill or severely injured pediatric patients.
- From top to bottom: Stanford Health, Kaiser Santa Clara, Santa Clara Valley Medical Center, Good Samaritan Hospital.
- Heat Map shows incident (scene) locations for patients under the age of 15 who required 911 transport to a hospital from July 1, 2022, to December 31, 2022.

- The County would benefit from an Advanced Pediatric Receiving Center in the east San Jose area. Regional Medical Center in East San Jose is currently designated as a General Pediatric Receiving Center only. They lack both a NICU and PICU.
- 911 ambulance crews have been trained to bypass General Pediatric Receiving Centers and to transport their patient to an Advanced Pediatric Receiving Center when their patient meets critically ill criteria.

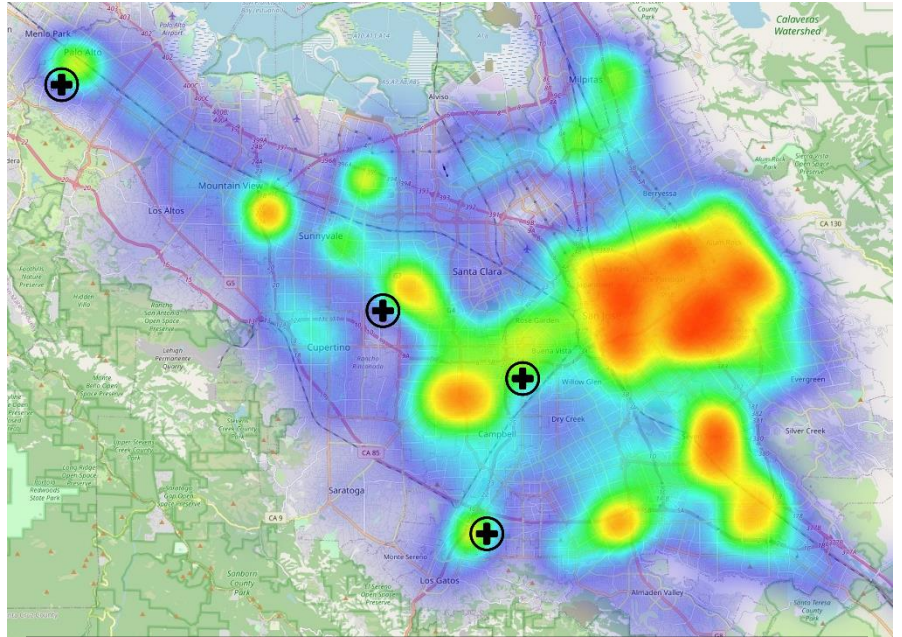


Photo of Santa Clara County Advanced Pediatric Centers on heat map showing geographic area of where pediatric calls originate.

Pediatric Data Collection – July – December 2022

Time period:	2022		July - December															
	GSH		SHC		VMC		KSC		STH		OCH		SLH		RSJ		ECH	
911 Pediatric Arrivals (under 15)	224		154		379		175		142		103		72		111		112	
ED Disposition																		
Admitted	29	13%	52	34%	98	26%	25	14%	2	1%	0	0%	0	0%	0	0%	2	2%
Expired	2	1%	2	1%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Discharged	169	75%	94	61%	229	60%	129	74%	121	85%	79	77%	50	69%	95	86%	88	79%
Left Against Medical Advice	1	0%	4	3%	12	3%	2	1%	1	1%	1	1%	0	0%	0	0%	0	0%
Transferred	19	8%	1	1%	23	6%	3	2%	12	8%	12	12%	16	22%	10	9%	18	16%
Unknown	4	2%	1	1%	16	4%	16	9%	6	4%	11	11%	6	8%	6	5%	4	4%
EMS Primary Impression (Top 20)																		
Abdominal Pain / Problems	3	1%	4	3%	5	1%	4	2%	5	4%	4	4%	0	0%	6	5%	3	3%
Airway Obstruction	4	2%	2	1%	2	1%	0	0%	0	0%	2	2%	1	1%	1	1%	2	2%
Allergic Reaction	7	3%	8	5%	4	1%	15	9%	3	2%	0	0%	1	1%	3	3%	10	9%
ALOC	4	2%	2	1%	6	2%	2	1%	1	1%	0	0%	1	1%	2	2%	0	0%
Behavioral/Psychiatric Crisis	14	6%	5	3%	20	5%	1	1%	5	4%	0	0%	3	4%	4	4%	4	4%
Cardiac Arrest	2	1%	2	1%	4	1%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%
Cold/Flu Symptom	10	4%	2	1%	12	3%	4	2%	5	4%	11	11%	1	1%	1	1%	5	4%
Dizziness / Vertigo	4	2%	0	0%	0	0%	0	0%	1	1%	4	4%	0	0%	0	0%	0	0%
Fever	22	10%	7	5%	20	5%	20	11%	12	8%	14	14%	5	7%	10	9%	9	8%
Headache - Non Traumatic	2	1%	1	1%	1	0%	2	1%	1	1%	2	2%	2	3%	1	1%	0	0%
Nausea / Vomiting	3	1%	4	3%	2	1%	1	1%	1	1%	5	5%	0	0%	2	2%	2	2%
No Medical Complaint / Findings	3	1%	4	3%	14	4%	7	4%	4	3%	1	1%	3	4%	1	1%	3	3%
Non-Traumatic Body Pain	2	1%	0	0%	4	1%	0	0%	0	0%	0	0%	1	1%	2	2%	1	1%
Overdose/Poisoning/Ingestion	2	1%	1	1%	8	2%	4	2%	2	1%	4	4%	6	8%	4	4%	2	2%
Pain/Swelling - Extremity	0	0%	2	1%	4	1%	2	1%	2	1%	2	2%	0	0%	1	1%	1	1%
Respiratory Distress	38	17%	47	31%	34	9%	21	12%	21	15%	10	10%	6	8%	6	5%	11	10%
Seizure	60	27%	28	18%	61	16%	44	25%	41	29%	17	17%	24	33%	22	20%	40	36%
Submersion/Drowning	3	1%	0	0%	1	0%	1	1%	2	1%	0	0%	1	1%	0	0%	1	1%
Syncope / Near Syncope	11	5%	3	2%	9	2%	12	7%	8	6%	5	5%	2	3%	2	2%	2	2%
Traumatic Injury	22	10%	26	17%	145	38%	30	17%	21	15%	16	16%	11	15%	33	30%	9	8%

Pediatric Receiving Centers Data Summary

- The three hospitals that had the lowest number of secondary pediatric transports out of their hospitals were the three comprehensive receiving centers. This was the expected outcome.
- The number one reason that children under the age of 15 are transported by 911 ambulance, in Santa Clara County, is seizure (1 out of every 4 pediatric transports). These numbers are not surprising. Approximately 5% of all children will experience a seizure at some point in their childhood. It is usually related to fever, but can be very frightening to others to witness, especially a first-time seizure. First-time seizures are an appropriate time to utilize the 911 system.
- Seizure was followed closely by injury (also about 1 out of every 4 pediatric transports). This is also not surprising as injury is one of the top reasons that children go to hospitals nationwide.

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

To: Health and Hospital Committee
From: Jackie Lowther RN, Director Emergency Medical Services
Subject: Emergency Medical Services Department Monthly Update
Date: August 23, 2023

Through this memo, the Emergency Medical Services (EMS) Agency provides its monthly update to the Health and Hospital Committee (HHC).

Contract Ambulance Performance

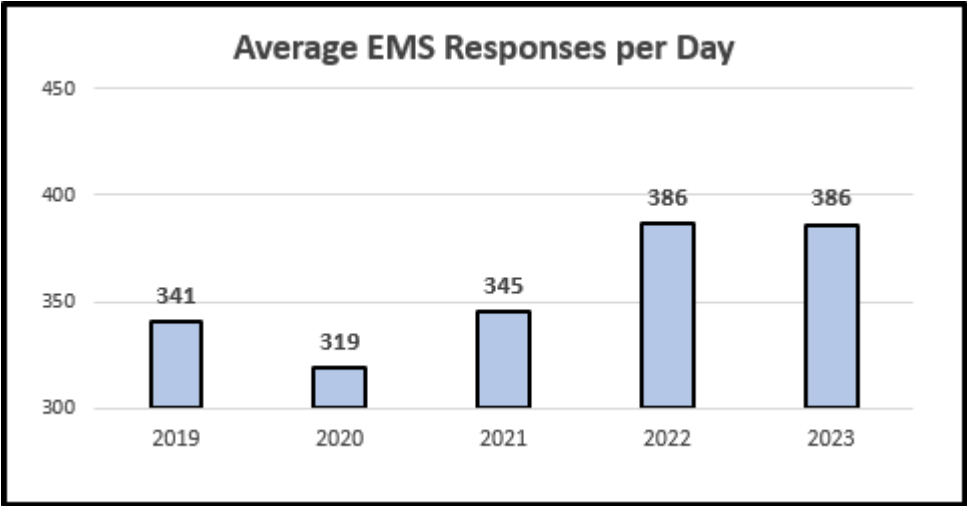
The EMS Agreement and subsequent amendments (Agreement) identified the minimum monthly response times standards and compliance requirements. The agreement (Section 4.1) states that Rural/Metro/AMR shall operate the ambulance service system to achieve compliance ninety percent (90.00%) or more of responses in each response priority (code of response) and in each zone meet the specified response time requirements. Since February 2022, Rural/Metro/AMR has struggled to meet the minimum compliance standards in several separate compliance categories.

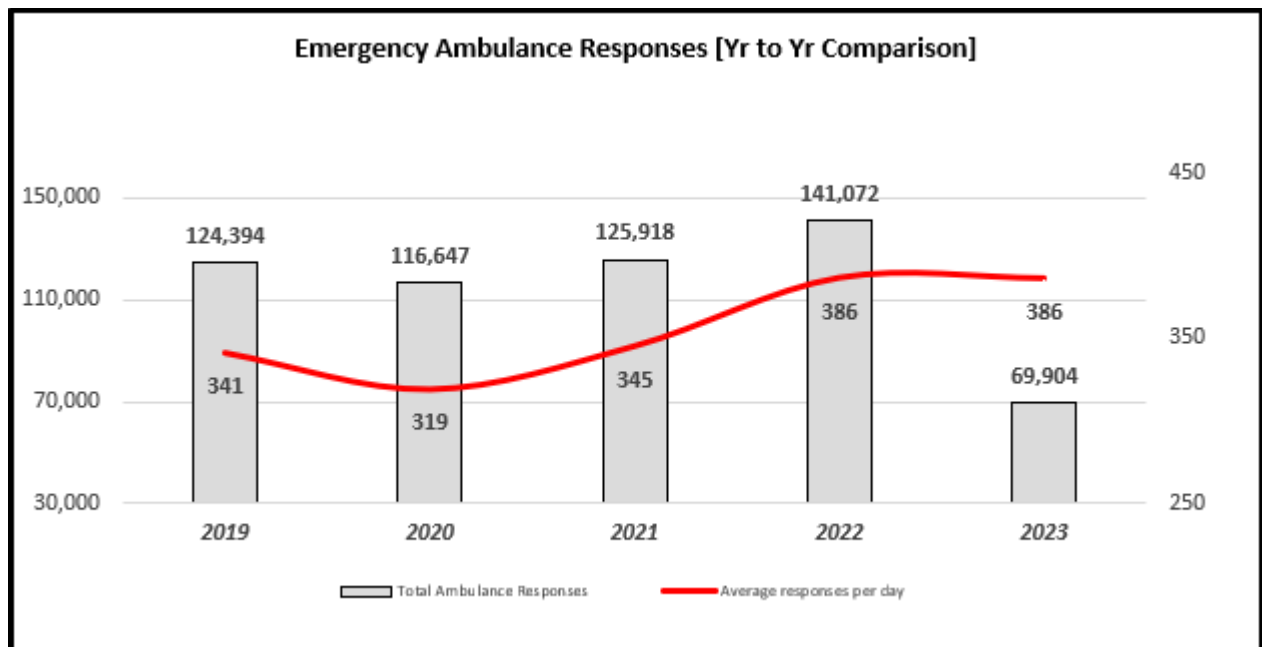
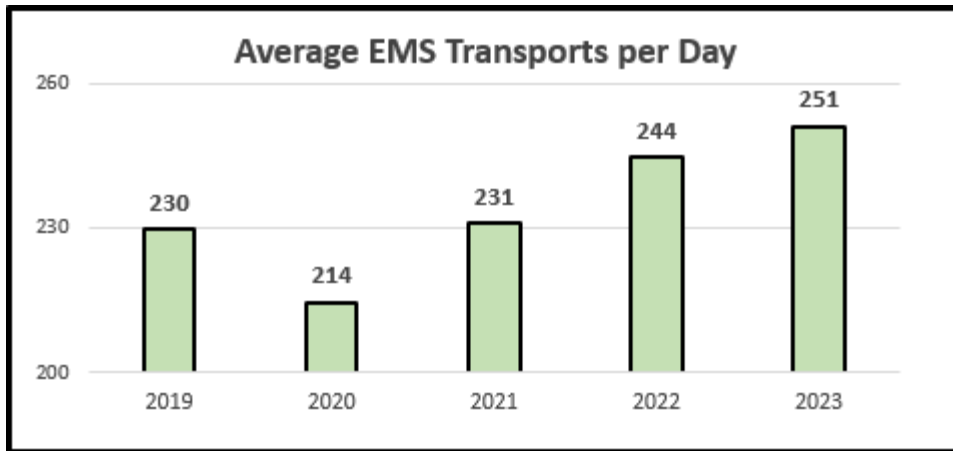
Rural Metro/AMR has had multiple challenges meeting their contract obligations, intermittently, since January 2022. The EMS Agency has reported to the HHC Rural Metro/AMR's plan of correction for their lack of consistent deployment. Currently, there is a national shortage of paramedics and emergency medical technicians (EMTs). Santa Clara County has seen an unprecedented increase in calls for service, compounded with inconsistent volume, which creates difficulty in planning deployment strategies. Rural Metro/AMR has settled their contract with their labor unions about various resolutions on staffing plans that were implemented in July. The EMS Agency will monitor for changes.

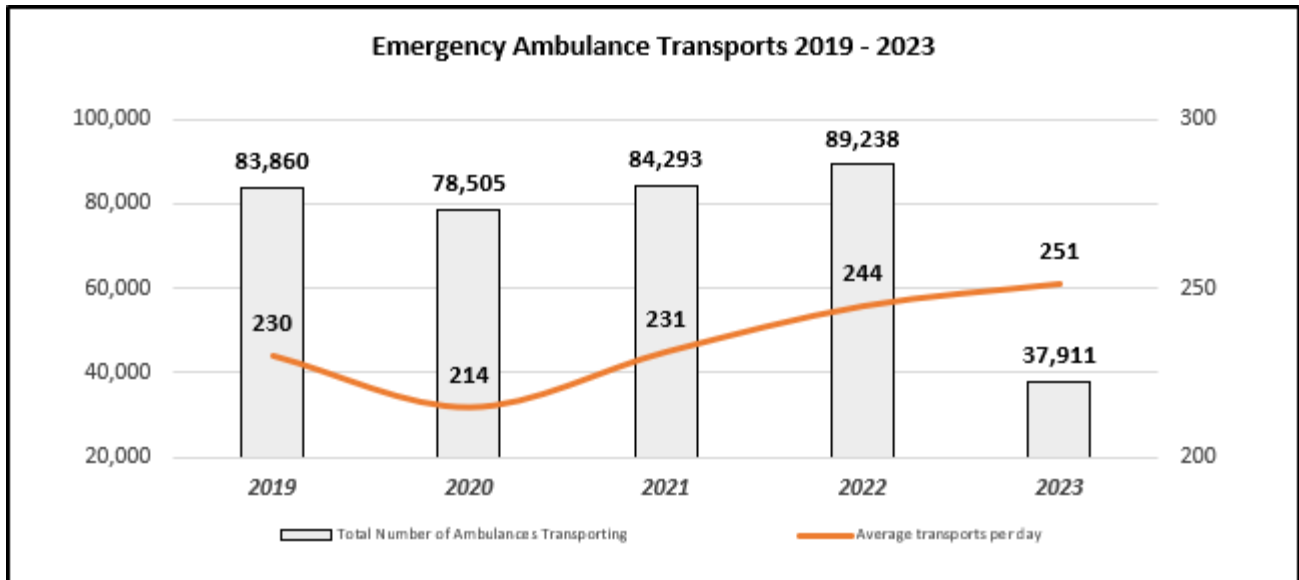
The following chart compares overall Code 3 response time compliance for a six-month period, ending June 2023. Code 3 response compliance met the ninety percent (90.00%) standard for the fifth time since April 2022.

Emergency Ambulance CODE 3 Performance	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23
Overall	88.20%	90.56%	90.41%	90.45%	90.24%	91.87%
Zone 1	88.63%	90.09%	90.39%	90.56%	89.92%	91.17%
Zone 2	89.11%	91.42%	90.44%	90.95%	90.17%	93.29%
Zone 3	87.96%	91.45%	90.92%	90.57%	90.20%	92.72%
Zone 4	87.42%	88.84%	90.24%	90.02%	90.57%	90.39%
Zone 5	89.17%	93.04%	88.85%	90.26%	89.95%	91.88%

The following charts indicate the average number of daily responses and transports for the current and last four years. In the first quarter of 2023 (through March 31), daily responses are trending upward from 2022 data and transports are trending downward from 2022 data.







FIRST RESPONDER COMPLIANCE

Compliance is measured by several key performance indicators that include response time requirements based on population density; designated response areas; type of response priority (RLS: red lights & siren or non-RLS: non-red lights & siren); total number of responses; total number of late responses; and total number of responses exempted (removed) from compliance calculations. Compliance is achieved when ninety (90.00) percent or more of the responses meet the specified response time requirement in each response priority within each designated response area. The chart below provides the requested on-time response by zone by month for the period January 2023 through June 2023. It is important to acknowledge all of the first responder agencies for their continued support during low system levels to provide quality care to the people of Santa Clara County.

First Responder CODE 3 Performance	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23
Gilroy, City of	91.48%	97.22%	93.01%	96.42%	94.32%	95.15%
Milpitas, City of	95.45%	92.98%	95.66%	96.37%	92.09%	95.61%
Morgan Hill, City of	95.93%	95.09%	97.73%	96.28%	97.57%	97.11%
Mountain View, City of	95.77%	98.06%	97.24%	98.67%	96.44%	95.47%
San Jose, City of	91.06%	90.58%	91.12%	92.13%	91.87%	92.61%
Santa Clara, City of	98.48%	91.57%	98.09%	98.77%	96.71%	99.00%
Santa Clara County Central FPD	97.32%	97.63%	97.12%	97.97%	96.25%	97.14%
South Santa Clara County FPD	94.78%	100.00%	92.31%	94.74%	93.13%	88.14%
Sunnyvale, City of	92.76%	94.10%	89.42%	91.84%	91.99%	91.68%

Paramedic Staffing Update

In the last week of June through July, AMR onboarded a total of twenty-eight (28) Employees, twelve (12) of which are Paramedics. They continue to invest in the local workforce and have fifty-two (52) active employees that have been provided paramedic school scholarships. Since training and education has a delayed return on investment of eighteen (18) to twenty-four (24) months, AMR is beginning to realize the benefits of this program. Of the active scholarship recipients, fourteen (14) of them have recently completed all program requirements and are awaiting state licensure. Immediately upon successful credentialing, these employees will begin the training process and transition to fulfill Paramedic vacancies.

The investment in scholarships has not diminished other short and midterm strategies. AMR is actively recruiting external candidates and continues to offer a sign-on bonus. To fulfill short term vacancies, they continue to utilize travel paramedics that are state and locally credentialed. As mentioned previously, they have collaborated with Fire agencies within the county by establishing a safety net ambulance agreement in Gilroy which includes providing an ambulance for system surge capacity.

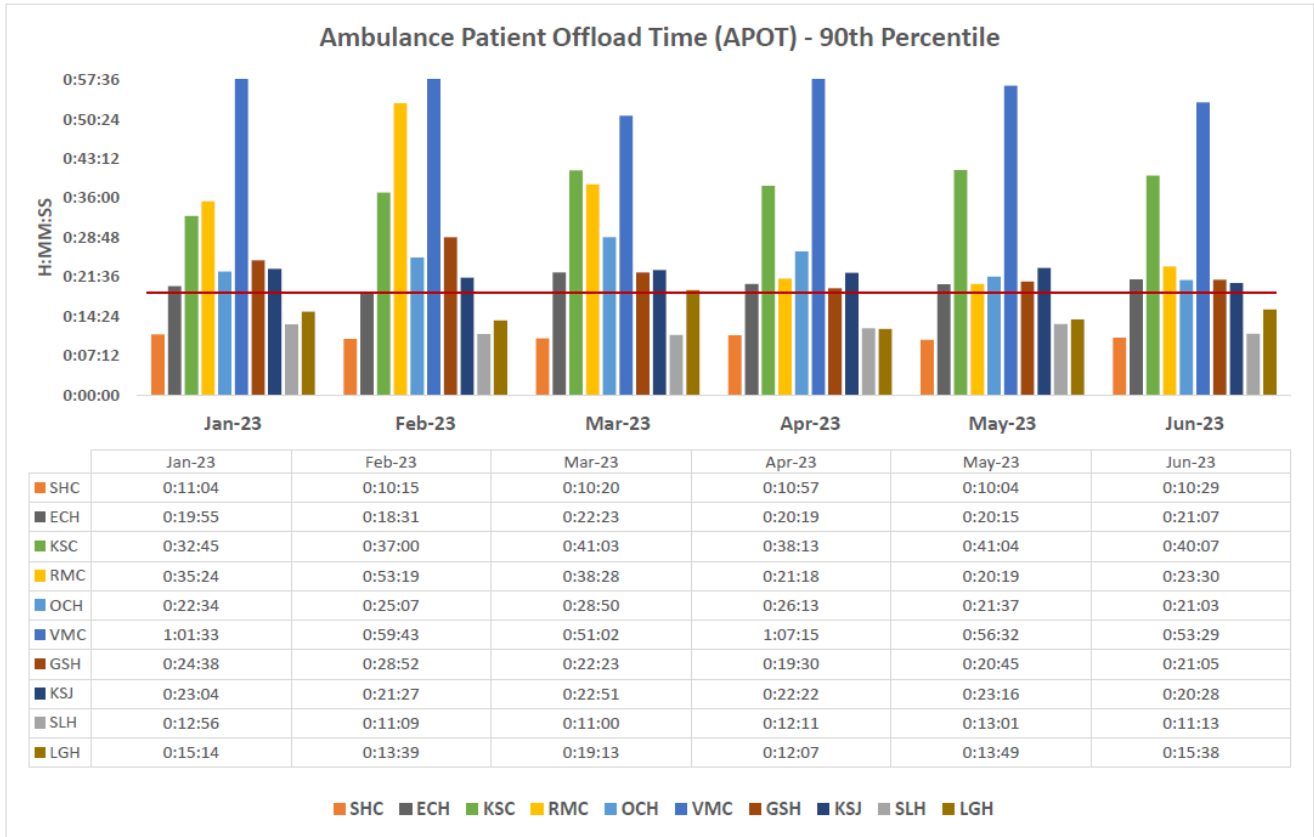
AMBULANCE PATIENT OFFLOAD UPDATE

The role hospitals play in ensuring that 9-1-1 ambulances are available for the next 9-1-1 call is critical. Ambulance offload delay, the time it takes to transfer a patient to an Emergency Department stretcher for the Emergency Department (ED) staff to assume responsibility for the care of the patient, may have more impact on ambulance turnaround time than ambulance bypass. Ambulance patient offload times (APOT) are calculated for all hospitals that receive patients in Santa Clara County. In 2015, the Health and Safety Code 1797.120 required the California Emergency Medical Services Authority to develop a standard methodology for calculation of, and reporting by, a local EMS Agency of ambulance patient offload time. The EMS Agency has placed significant effort into working with hospital administrators focusing on the time it takes to get ambulances back into service once they have arrived in their EDs. Decreases in offload delays will improve the time patients receive definitive care, better pain control and antibiotics, when needed.

Over the last two years, the EMS system as well as the hospitals have seen unprecedented changes and have been required to pivot and adapt to changes necessitated by the COVID-19 pandemic and the aftermath. Patient volume variations

continued over the twelve months for EMS as well as many hospitals' emergency departments. In October 2020, to help hospitals in Santa Clara County facilitate compliance with APOT, a daily report was sent to designated personnel of all patients held greater than 20 minutes. All emergency departments have worked diligently throughout these continual, challenging times to improve ambulance patient offload times and work collaboratively with the EMS Agency. The EMS Agency officially changed the benchmark for offload times to 20 minutes in August of 2021 to align with the State EMS Authority, which has had this benchmark in place since 2015. In June, three out of ten hospitals met California State EMS Authority's target of 20-minute offload times, with the combined ambulance patient offload time of all hospitals at 85.9% of the time. Eight out of ten hospitals offloaded under 25 minutes, nine out of ten offloaded in 40 minutes or less.

The hospitals that have APOT times greater than 20 minutes have been working on a plan to improve times. The hospitals send the EMS Agency updates on a regular basis whenever there are obstacles to achieving these improvements. Delays are multifactorial, but overwhelmingly ED overcrowding is a key factor, whether because of high volume/high acuity of patients or the inability to move admitted patients through care and discharge. These delays have been causing a continual crisis in the field compounded by decreased deployment numbers by the ambulance provider. For the month of June, it's noteworthy the longest offload time was 53 minutes and this hospital also received 13% (i.e., largest percentage among hospitals tracked) of all Behavioral Health patients, as shown on page 9.



	SHC	ECH	KSC	RMC	OCH	VMC	GSH	KSJ	SLH	LGH
Jan-23	0:11:04	0:19:55	0:32:45	0:35:24	0:22:34	1:01:33	0:24:38	0:23:04	0:12:56	0:15:14
Feb-23	0:10:15	0:18:31	0:37:00	0:53:19	0:25:07	0:59:43	0:28:52	0:21:27	0:11:09	0:13:39
Mar-23	0:10:20	0:22:23	0:41:03	0:38:28	0:28:50	0:51:02	0:22:23	0:22:51	0:11:00	0:19:13
Apr-23	0:10:57	0:20:19	0:38:13	0:21:18	0:26:13	1:07:15	0:19:30	0:22:22	0:12:11	0:12:07
May-23	0:10:04	0:20:15	0:41:04	0:20:19	0:21:37	0:56:32	0:20:45	0:23:16	0:13:01	0:13:49
Jun-23	0:10:29	0:21:07	0:40:07	0:23:30	0:21:03	0:53:29	0:21:05	0:20:28	0:11:13	0:15:38

Bypass

Bypass is a management process that bypasses a hospital to the next closest facility. This may be used temporarily by local hospitals when the patient load exceeds emergency department or specialty center resources.

Facility bypass should be a last resort and utilized only when emergency department/specialty center resources continue to be overwhelmed after internal procedures to manage the situation have been implemented.

The chart below shows the cumulative hours for bypass from January 2023 through June 2023. The EMS Agency monitors the use of hospital bypass on a continuous basis

and works closely with each hospital's emergency department management as well as Hospital Administrations to address surge times.

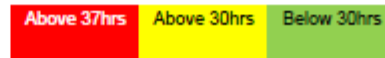
County. The data includes but, does not differentiate specialty center status (TRAUMA, STROKE, STEMI, BURN)

Page 1 of 2

Table 2: Total Monthly Hours of Emergency Department on "AMBULANCE" Bypass

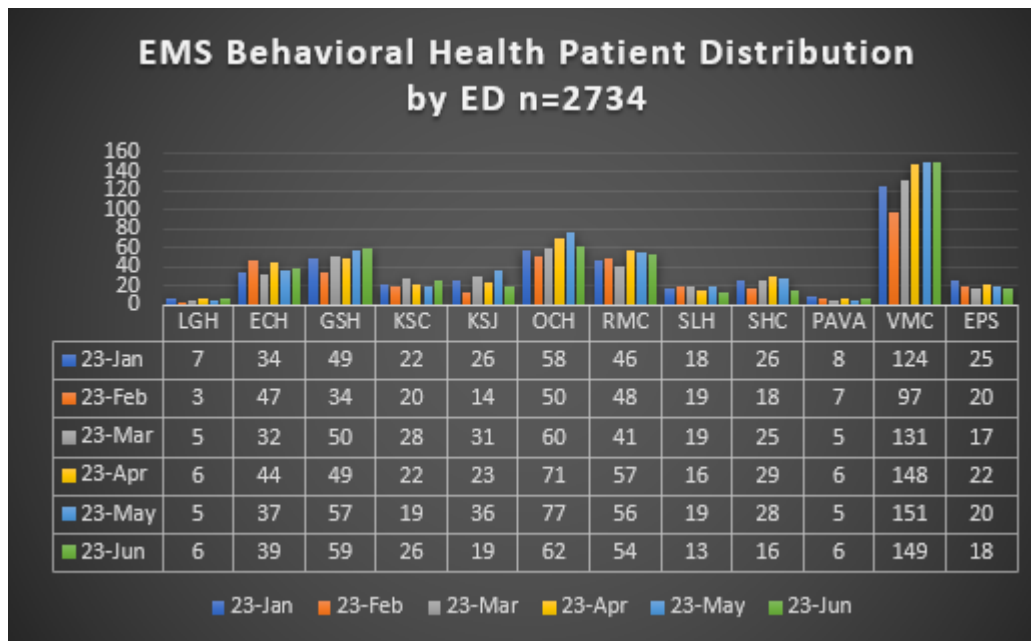
Hospital (Diversion Zone)	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Total
Stanford (North)	0.00	0.00	0.00	1.00	1.00	1.01	3.01
El Camino - Mt. View (North)	27.11	25.07	46.29	34.73	55.38	45.02	233.60
Kaiser - Santa Clara (North)	24.07	28.83	26.87	38.15	43.38	41.28	202.58
VMC (Central)	38.00	29.72	30.12	30.06	31.15	27.85	186.90
O'Connor (Central)	18.08	16.05	48.34	22.07	18.07	17.04	139.65
Good Samaritan (Central)	4.95	8.19	6.69	0.00	0.00	4.03	23.86
Regional - San Jose (South)	10.58	27.10	13.04	0.02	2.02	3.00	55.76
Kaiser - San Jose (South)	27.86	18.06	30.11	44.18	45.19	22.08	187.48
Saint Louise (South)	32.14	5.02	13.03	10.03	19.07	6.48	85.77
El Camino - Los Gatos (N/A)	16.74	6.02	26.10	35.75	23.18	13.99	121.78
Total	199.53	164.06	240.59	215.99	238.44	181.78	1,240.39

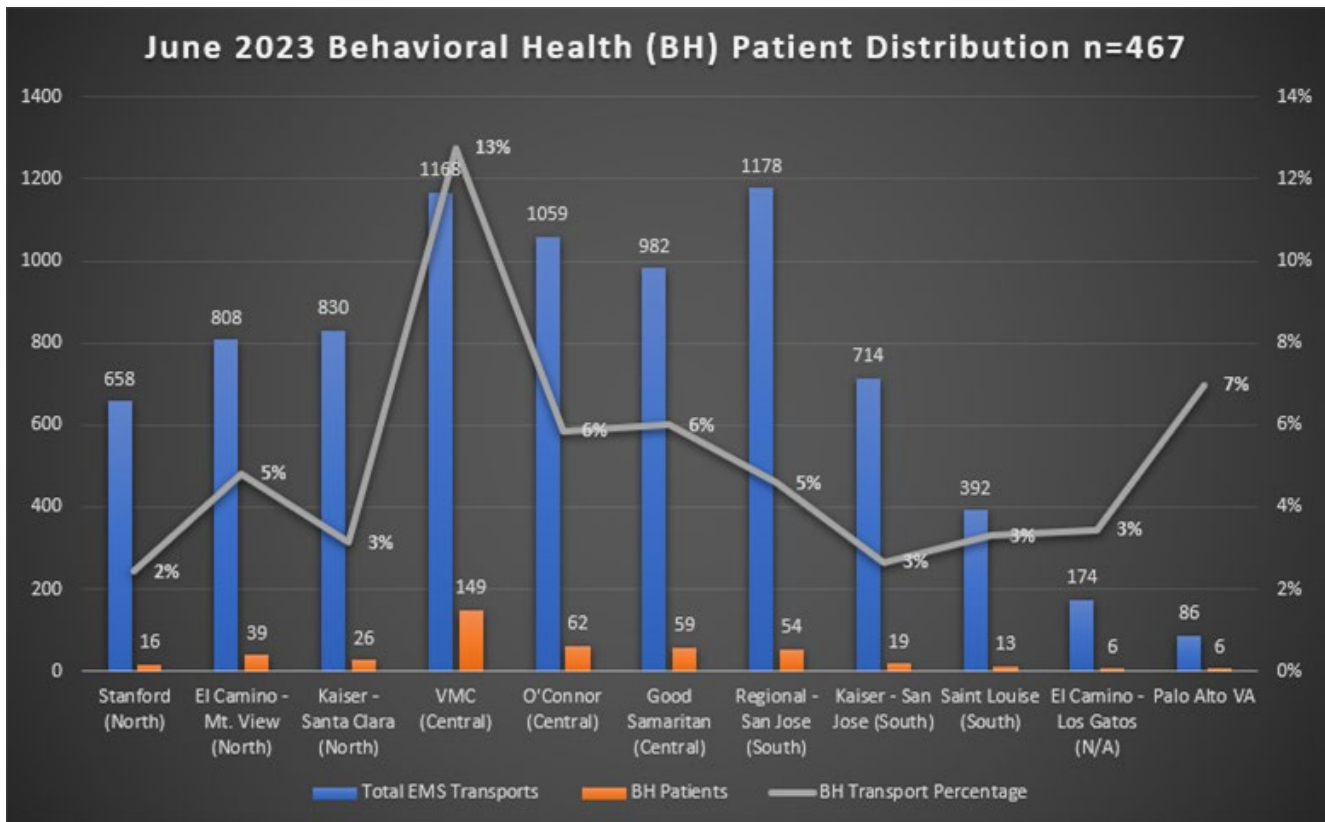
Color Legend for ED Ambulance Bypass Only



Behavioral Health (BH Distribution)

This chart shows *all* patients transported with the primary impression of Behavioral/Psychiatric Crisis, not necessarily a patient on a 5150. The May Behavioral Health Crisis patient volume was at its highest peak all year for 2023.





TRAUMA

Santa Clara County possesses a mature trauma program having three trauma centers to serve patients in the county since 1986. Regional Medical Center is verified as a Level II Adult Trauma Center by the American College of Surgeons (ACS). While Santa Clara Valley Medical Center, is verified as Level I Adult Trauma Center and a Level II Pediatric Trauma Center. Stanford Health/Lucile Packard Children’s Hospital are verified as a Level I Adult Trauma Center and Level I Pediatric Trauma Center.

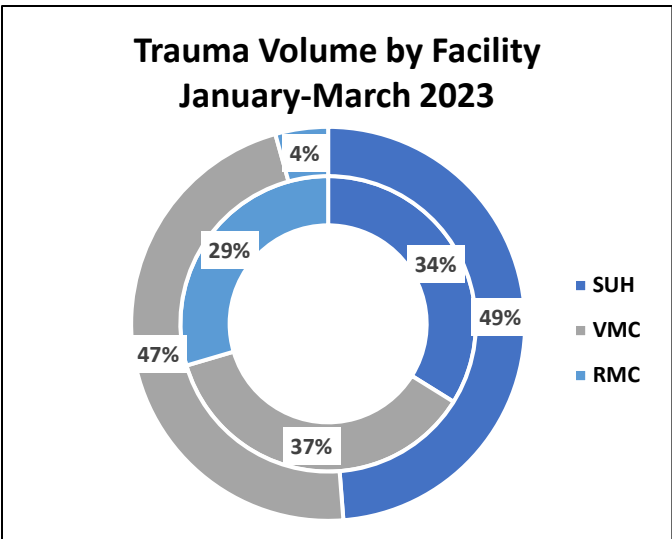
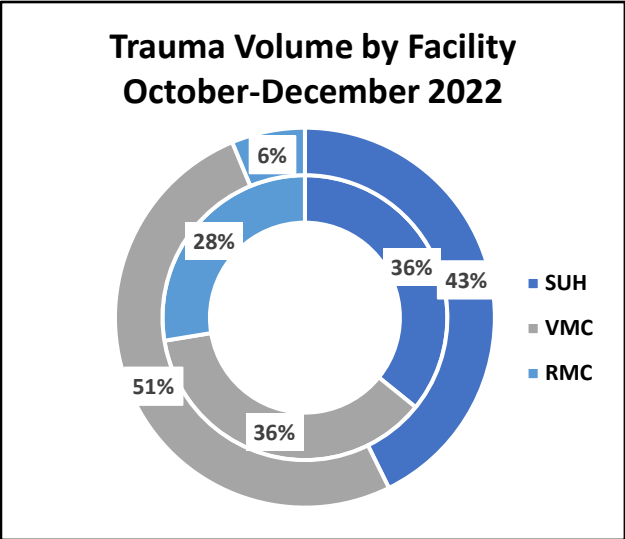
Santa Clara County Trauma Centers underwent their American College of Surgeons (ACS) Trauma verification visits in December 2022 and April 2023. These visits occur triennially to ensure the hospitals are meeting the required standards set-fourth by the ACS. Regional Medical Center participated in their verification survey December of 2022. Santa Clara Valley Medical Center’s visit occurred in April 2023, and was a combined visit for both the adult and pediatric trauma programs. Lastly, one week later, the adult and pediatric trauma visits were performed separately for Stanford Health and Lucile Packard Children’s Hospital. The reviewers found no deficiencies in any of the programs and granted continuations of the designated trauma levels for the next three years. Each report offers in-depth overviews of each program highlighting areas in which each trauma center strives as well as areas they can improve as part of focusing

on the new standards published by ACS in 2022. The EMS Agency was able to participate in these visits to ensure the trauma designation requirements set by California Emergency Medical Services Agency were also being met. The EMS Agency will be working with the trauma program managers to ensure EMS policies align with the new ACS standards for the next review window.

The Trauma Centers collectively treat more than 9,600 patients annually. More than 90% of the patients being treated are adults, while 9% are children under the age of fifteen (15). Each hospital has a designated catchment zone, in which EMS directs patients to the appropriate Trauma Center based on location of injury in order not to delay care over long transport times. This means adult trauma volume (inner ring of charts below) tends to be evenly distributed between the three hospitals, Regional Medical Center (RMC) having slightly lower volumes. The pediatric patient volume (outer ring of chart below) is shared equally between Valley Medical Center (VMC) and Stanford Health (SUH). Regional Medical Center occasionally receives patients less than fifteen (15) years of age, they may stabilize and transfer or treat and discharge.

Chart 1(below): Outer ring: Volume of Pediatric trauma patients per trauma center, shown as percentage. Inner ring: Volume of Adult trauma patients per trauma center, shown as a percentage. October 1, 2022-December 31, 2023

Chart 2 (below): Outer ring: Volume of Pediatric trauma patients per trauma center, shown as percentage. Inner ring: Volume of Adult trauma patients per trauma center, shown as a percentage. January 1, 2023-March 31, 2023



Falls has been the leading cause of traumas since 2019, when the volume surpassed motor vehicle collisions. Falls are the leading cause of injury for patients less than fifteen (15) years and those over sixty-five (65) years. The number of falls increases threefold or those over the age of seventy-six (76) years. The case fatality rate for fall injuries has also historically been low. However, when reviewing fourth quarter (Q4 2022) 2022 data, falls and pedestrian accidents had greater case fatality rates than other injuries. Gun Shot Wounds (GSW) has historically been a low frequency injury with a very high case fatality rate as noted in the next quarter's data quarter one, (Q1,2023) 2023. The number of fall and pedestrian injuries as well as associated case fatality rates are being monitored to re-focus EMS training and community prevention education.

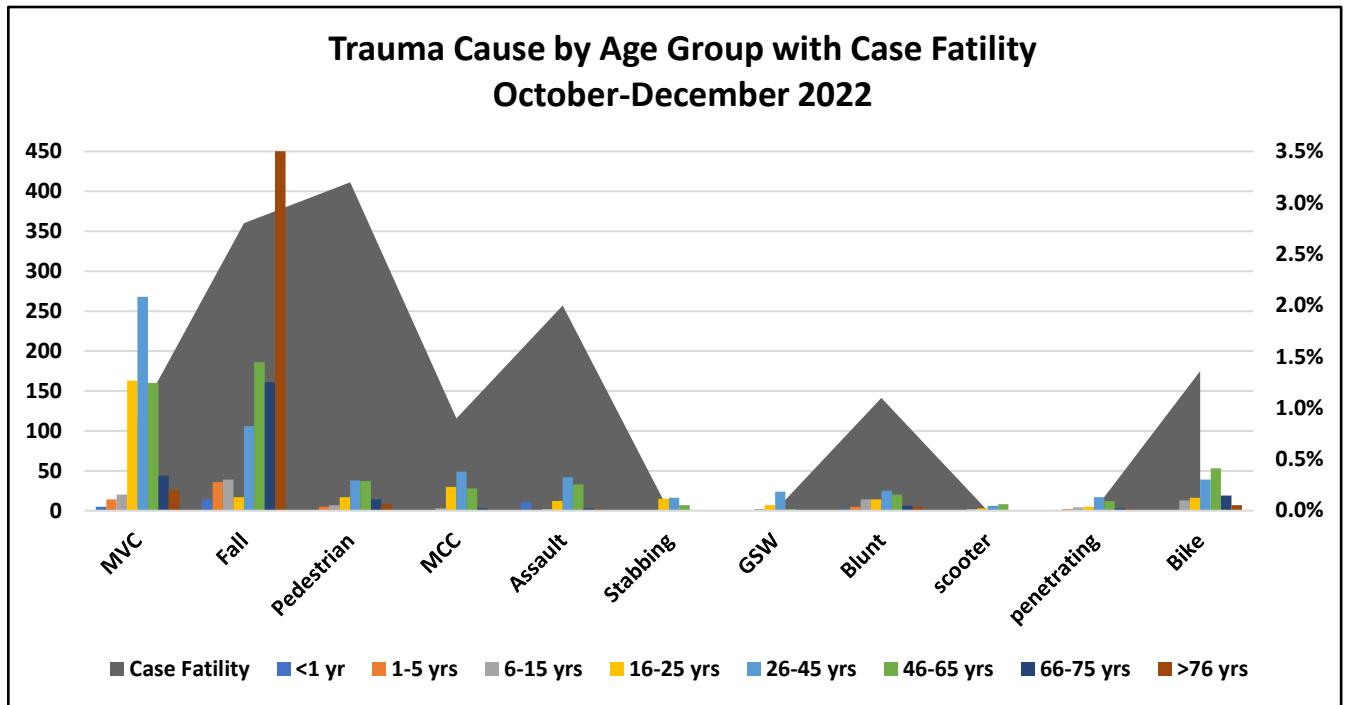


Chart 3 (above): Axis 1: Trauma Injury causes shown by age group. Axis 2: Case Fatality rate by trauma cause. October 1, 2022, through December 31, 2022

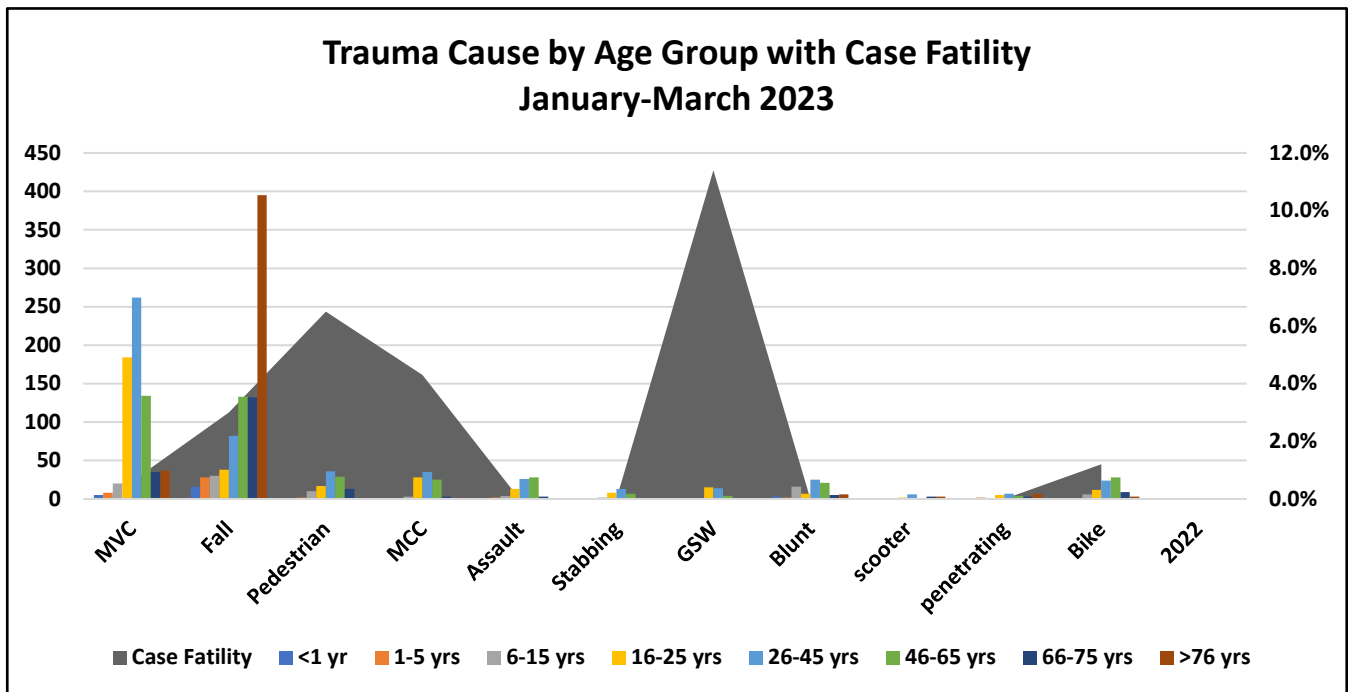


Chart 4 (above): Axis 1: Trauma Injury causes shown by age group. Axis 2: Case Fatality rate by trauma cause. January 1, 2023, through March 31, 2023.

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

To: Health and Hospital Committee
From: Jackie Lowther RN, Director Emergency Medical Services
Subject: Emergency Medical Services Agency Monthly Update
Date: September 27, 2023

This memo provides the Emergency Medical Services (EMS) Agency provides its monthly update to the Health and Hospital Committee (HHC).

Contract Ambulance Performance

In the beginning of August, it was determined that the FirstWatch system was not capturing all the response time intervals related to emergency ambulance response. A review of the FirstWatch data determined that three subgroups of ambulance types were not being tracked in the FirstWatch system. Those subgroups included the following:

1. AMR paramedic ambulances with a “R” designator (i.e.: M15R). The “R” designator is used to remind the 911 dispatchers to post the ambulance at its home post.
2. AMR basic life support (BLS) ambulances. These ambulance units use an “A” designator (i.e.: A91) to differentiate them from AMR’s paramedic ambulances which a use an “M” designator prior to the unit number (i.e.: M32).
3. Fire Department ambulances responding in lieu of AMR’s ambulances (i.e.: GI49, MH58, MI86, SC92, SJ3, S20, SJ26). These are the designators County Communications uses in their CAD system to distinguish the fire department ambulances from the AMR ambulances.

FirstWatch was contacted and began work on updating the system’s programming to track the missing ambulances’ response times. To date, over 7,500 missing responses were added back into the FirstWatch system. For some unknown technical reason,

FirstWatch has not been able to add the following ambulance IDs (GI49, MH58, SC92, SJ3, S20, SJ26) into the system. Work continues to resolve this issue.

The 7,500 missing responses will require additional review. When FirstWatch can add the missing fire department responses (approximately 2,500), those responses will require review as well. Based on the number of responses requiring review by AMR and the EMS Agency, it is likely to take the entire month of September to the response time date from January through August. Upon completion response time compliance reports will be corrected to reflect the outcome of the compliance review.

FIRST RESPONDER COMPLIANCE

Compliance is measured by several key performance indicators that include response time requirements based on population density; designated response areas; type of response priority (RLS: red lights & siren or non-RLS: non-red lights & siren); total number of responses; total number of late responses; and total number of responses exempted (removed) from compliance calculations. Compliance is achieved when ninety (90.00) percent or more of the responses meet the specified response time requirement in each response priority within each designated response area. The chart below provides the requested on-time response by zone by month for the period February 2023 through July 2023. It is important to acknowledge all of the first responder agencies for their continued support during low system levels to provide quality care to the people of Santa Clara County.

First Responder CODE 3 Performance	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23
Gilroy, City of	97.22%	93.01%	96.42%	94.32%	95.15%	94.33%
Milpitas, City of	92.98%	95.66%	96.37%	92.09%	95.61%	94.62%
Morgan Hill, City of	95.09%	97.73%	96.28%	97.57%	97.11%	96.31%
Mountain View, City of	98.06%	97.24%	98.67%	96.44%	95.47%	97.63%
San Jose, City of	90.58%	91.12%	92.13%	91.87%	92.61%	91.81%
Santa Clara, City of	91.57%	98.09%	98.77%	96.71%	99.00%	98.09%
Santa Clara County Central FPD	97.63%	97.12%	97.97%	96.25%	97.14%	96.39%
South Santa Clara County FPD	100.00%	92.31%	94.74%	93.13%	88.14%	95.62%
Sunnyvale, City of	94.10%	89.42%	91.84%	91.99%	91.68%	94.96%

Paramedic Staffing

Since May 2023, AMR has on-boarded a total of twenty-seven (27) Paramedics.

There are forty-four (44) EMT's actively attending a Paramedic program on a scholarship provided by AMR. Recently, they hired eight (8) EMT's that are currently attending Foothill's Paramedic program who will be supported through the educational process and provided internships. Additionally, there are six (6) current employees who have completed the paramedic program and are waiting state licensure.

AMA continues to offer a sign-on bonus to recruit Paramedic's and have recently implemented a new collective bargaining agreement that provides extremely competitive wages and employment benefits.

There was one Paramedic resignation in August.

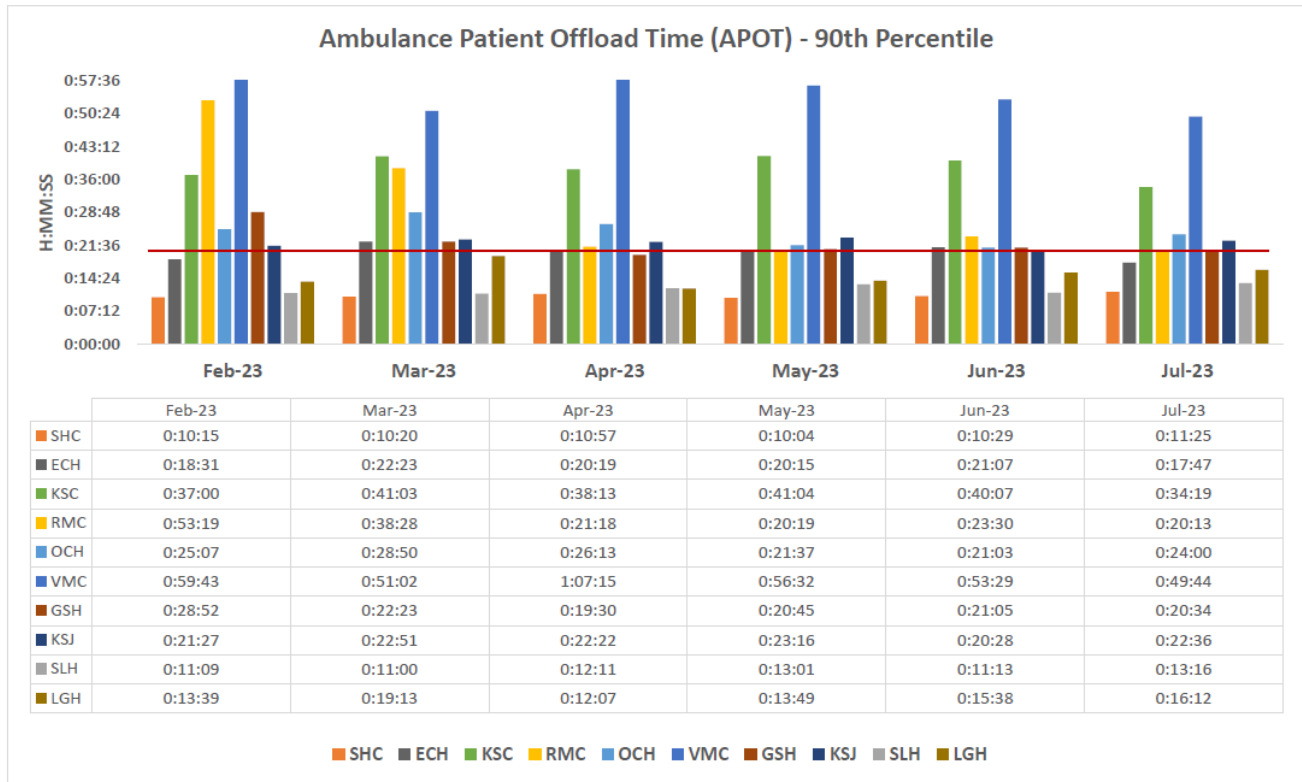
AMBULANCE PATIENT OFFLOAD

The role hospitals play in ensuring that 9-1-1 ambulances are available for the next 9-1-1 call is critical. Ambulance offload delay, the time it takes to transfer a patient to an Emergency Department stretcher for the Emergency Department (ED) staff to assume responsibility for the care of the patient, may have more impact on ambulance turnaround time than ambulance bypass. Ambulance patient offload times (APOT) are calculated for all hospitals that receive patients in Santa Clara County. In 2015, the Health and Safety Code 1797.120 required the California Emergency Medical Services Authority to develop a standard methodology for calculation of, and reporting by, a local EMS Agency of ambulance patient offload time. The EMS Agency has placed significant effort into working with hospital administrators focusing on the time it takes to get ambulances back into service once they have arrived in their EDs. Decreases in offload delays will improve the time patients receive definitive care, including better pain control and antibiotics, when needed.

Over the last two years, the EMS system as well as the hospitals have seen unprecedented changes and have been required to pivot and adapt to changes necessitated by the COVID-19 pandemic and the aftermath. Patient volume variations continued over the twelve months for EMS as well as many hospitals' emergency departments. In October 2020, to help hospitals in Santa Clara County facilitate compliance with APOT, a daily report was sent to designated personnel of all patients held greater than 20 minutes. All emergency departments have worked diligently

throughout these continual, challenging times to improve ambulance patient offload times and work collaboratively with the EMS Agency. The EMS Agency officially changed the benchmark for offload times to 20 minutes in August of 2021 to align with the State EMS Authority, which has had this benchmark in place since 2015. In July, four out of ten hospitals met California State EMS Authority's target of 20-minute offload times, with the combined ambulance patient offload time of all hospitals at 86.5% of the time. Eight out of ten hospitals offloaded under 25 minutes, nine out of ten offloaded in 35 minutes or less.

The hospitals that have APOT times greater than 20 minutes have been working on a plan to improve times. The hospitals send the EMS Agency updates on a regular basis whenever there are obstacles to achieving these improvements. Delays are multifactorial, but overwhelmingly ED overcrowding is a key factor, whether because of high volume/high acuity of patients or the inability to move admitted patients through care and discharge. These delays have been causing a continual crisis in the field compounded by decreased deployment numbers by the ambulance provider. For the month of July, it is noteworthy that the longest offload time was 49.44 minutes and this hospital also received 12% (i.e., largest percentage among hospitals tracked) of all Behavioral Health patients, as shown on page 9.



	SHC	ECH	KSC	RMC	OCH	VMC	GSH	KSJ	SLH	LGH
Feb-23	0:10:15	0:18:31	0:37:00	0:53:19	0:25:07	0:59:43	0:28:52	0:21:27	0:11:09	0:13:39
Mar-23	0:10:20	0:22:23	0:41:03	0:38:28	0:28:50	0:51:02	0:22:23	0:22:51	0:11:00	0:19:13
Apr-23	0:10:57	0:20:19	0:38:13	0:21:18	0:26:13	1:07:15	0:19:30	0:22:22	0:12:11	0:12:07
May-23	0:10:04	0:20:15	0:41:04	0:20:19	0:21:37	0:56:32	0:20:45	0:23:16	0:13:01	0:13:49
Jun-23	0:10:29	0:21:07	0:40:07	0:23:30	0:21:03	0:53:29	0:21:05	0:20:28	0:11:13	0:15:38
Jul-23	0:11:25	0:17:47	0:34:19	0:20:13	0:24:00	0:49:44	0:20:34	0:22:36	0:13:16	0:16:12

Bypass

Bypass is a management process that bypasses a hospital to the next closest facility. This may be used temporarily by local hospitals when the patient load exceeds emergency department or specialty center resources.

Facility bypass should be a last resort and utilized only when emergency department/specialty center resources continue to be overwhelmed after internal procedures to manage the situation have been implemented.

The chart below shows the cumulative hours for bypass from February 2023 through July 2023. The EMS Agency monitors the use of hospital bypass on a continuous basis

and works closely with each hospital's emergency department management as well as Hospital Administrations to address surge times.

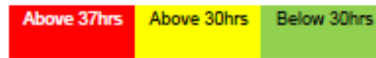
County. The data includes but, does not differentiate specialty center status (TRAUMA, STROKE, STEMI, BURN)

Page 1 of 2

Table 2: Total Monthly Hours of Emergency Department on "AMBULANCE" Bypass

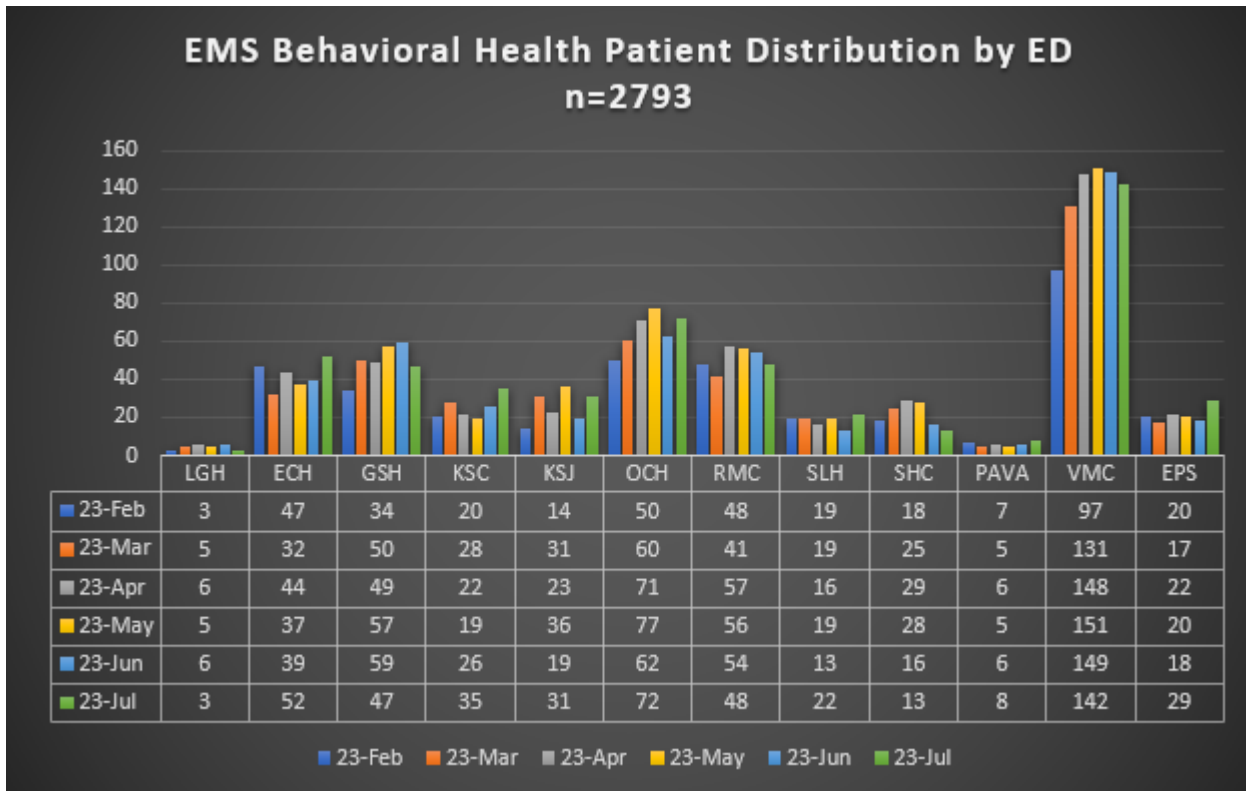
Hospital (Diversion Zone)	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Total
Stanford (North)	0.00	0.00	1.00	1.00	1.01	0.00	3.01
El Camino - Mt. View (North)	25.07	46.29	34.73	55.38	45.02	14.16	220.65
Kaiser - Santa Clara (North)	28.83	26.87	38.15	43.38	41.28	20.07	198.58
VMC (Central)	29.72	30.12	30.06	31.15	27.85	15.03	163.93
O'Connor (Central)	16.05	48.34	22.07	18.07	17.04	32.14	153.71
Good Samaritan (Central)	8.19	6.69	0.00	0.00	4.03	0.00	18.91
Regional - San Jose (South)	27.10	13.04	0.02	2.02	3.00	18.62	63.80
Kaiser - San Jose (South)	18.06	30.11	44.18	45.19	22.08	35.18	194.80
Saint Louise (South)	5.02	13.03	10.03	19.07	6.48	9.03	62.66
El Camino - Los Gatos (N/A)	6.02	26.10	35.75	23.18	13.99	15.05	120.09
Total	164.06	240.59	215.99	238.44	181.78	159.28	1,200.14

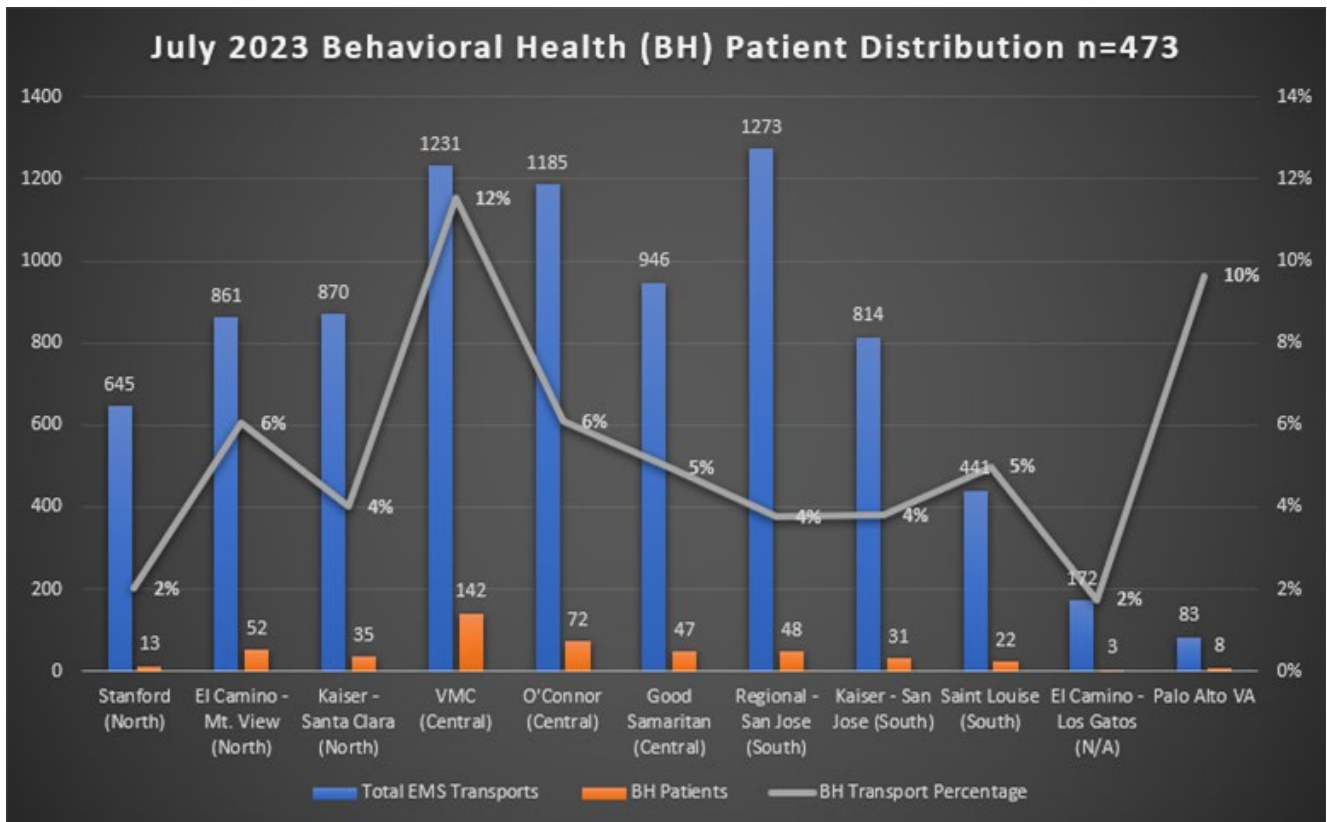
Color Legend for ED Ambulance Bypass Only



Behavioral Health (BH Distribution)

This chart shows all patients transported with the primary impression of Behavioral/Psychiatric Crisis, not necessarily a patient on a 5150. The May Behavioral Health Crisis patient volume was at its highest peak for 2023.





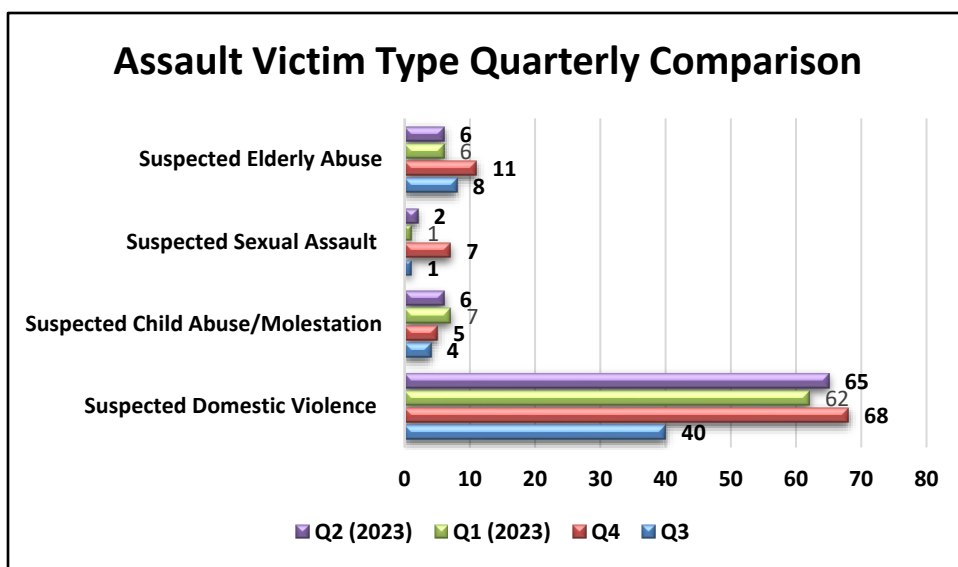
ABUSE AND NEGLECT

During the June 4, 2019, Board of Supervisors meeting, Supervisor Chavez requested that the EMS Agency provide a report relating to Sexual Assault Response Team (SART) protocols, a sexual assault tracking mechanism for emergency medical services responders, SART training timelines for all first responders countywide, and updates regarding communication between the SART and Emergency Medical Services. In addition to SART, the EMS Agency also wanted to focus on all mandatory reportable events required by first responders. Training was presented on October 1, 2019 to all 911 and non-911 responder Program Managers, who in turn were responsible for training all system providers by December 31, 2019. The last SART report was provided to the Board of Supervisors on March 29, 2021 in an EMS SART Protocol Update.

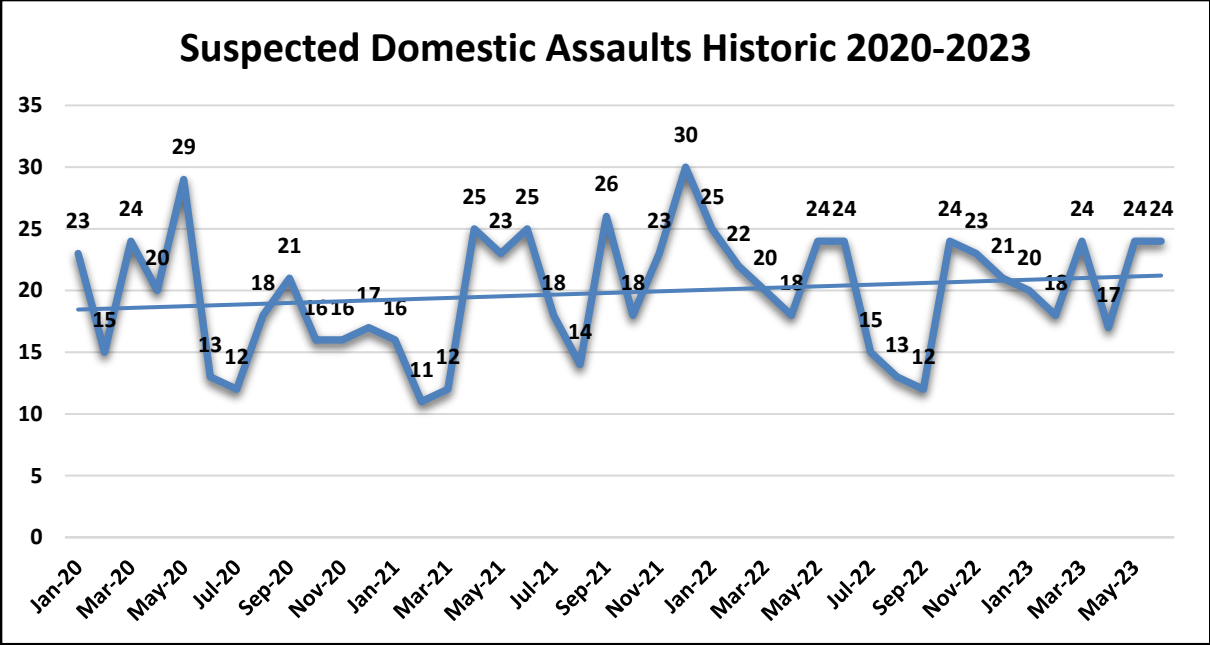
The documentation module was implemented January 1, 2020. Each patient is assessed for signs and symptoms of abuse. The providers collect necessary data regarding suspected patient abuse, neglect, or domestic violence. The data is linked to values of “Cause of Injury” accidental Injury “hit, struck, other” by another person, asphyxiation

– mechanical suffocation, injury from blunt object (assault), stabbing/cut/laceration (assault), firearm injury, maltreatment/abuse, sexual abuse. The EMS Agency began to receive data in February 2020, and we were able to present our first report to HHC in April of 2020. This report evaluates the overall data in Santa Clara County for the fourth quarter of 2022, compared to first, second and third quarter 2022; further analysis of any patterns and trends throughout the county will continue.

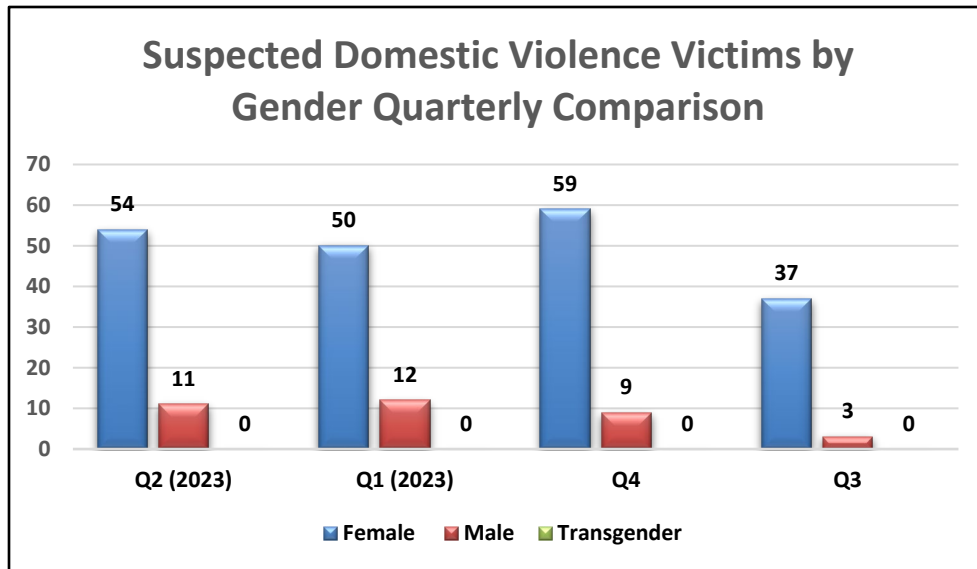
In addition, the Santa Clara County EMS Agency finalized the Assault/Abuse/Domestic Violence protocol which went out for public comment in May of 2021 and became effective in January 2022. These guidelines provide standards for identification of suspected abuse and the requirements for prehospital personnel when incidents of child, elder or dependent adult, or domestic violence are reported or reasonably suspected. Currently, all medics have been trained on these requirements; this policy includes parameters and resources for all field personnel.



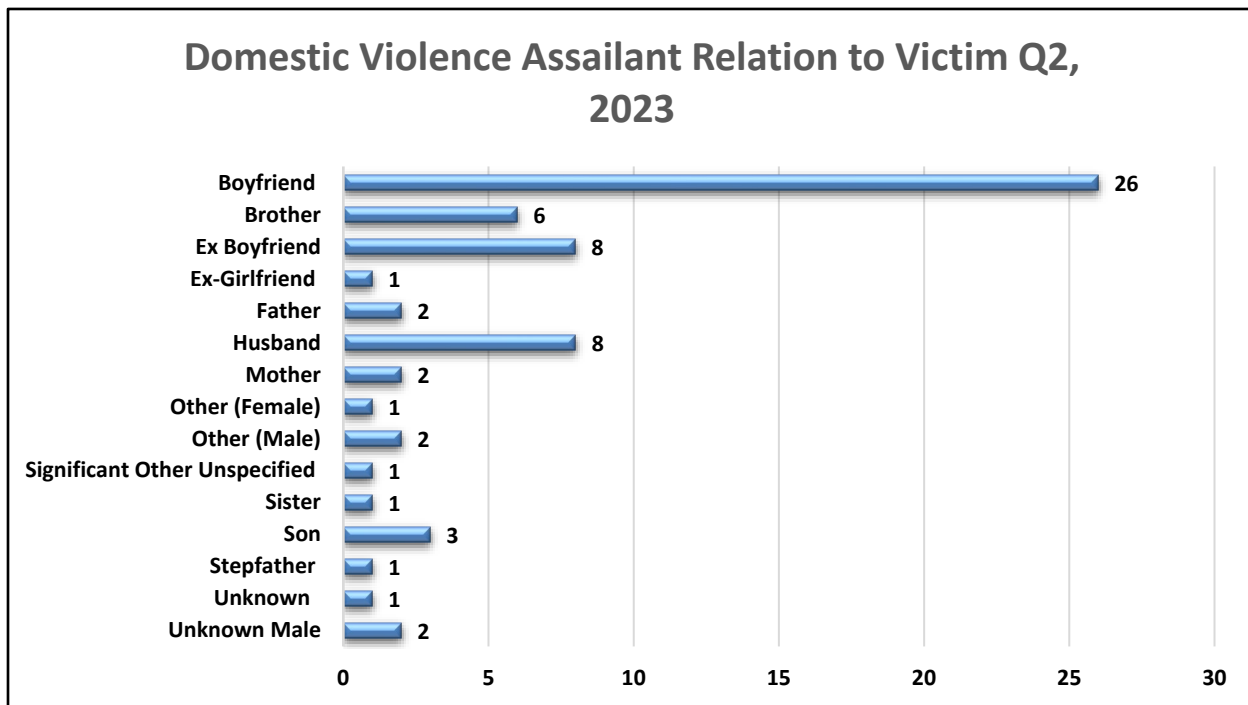
Quarter 2 (Q2) (2023) showed an increase in suspected domestic violence cases from Q1. Q2 had a 4.83% increase from Q1 (2022) suspected domestic violence cases. The 65 (sixty-five) total cases seen in Q2 sits above the historic median of 62 (sixty-two) cases. In addition to the increase of suspected domestic violence cases, Q2 showed an increase in suspected sexual assault cases at 2 (two) cases. Suspected elderly abuse victim cases saw no change from the 6 (six) cases seen in Q1. Suspected child abuse/molestation was the only demographic that had a decrease of 14.28%% decrease or 1(one) case decrease over Q1.



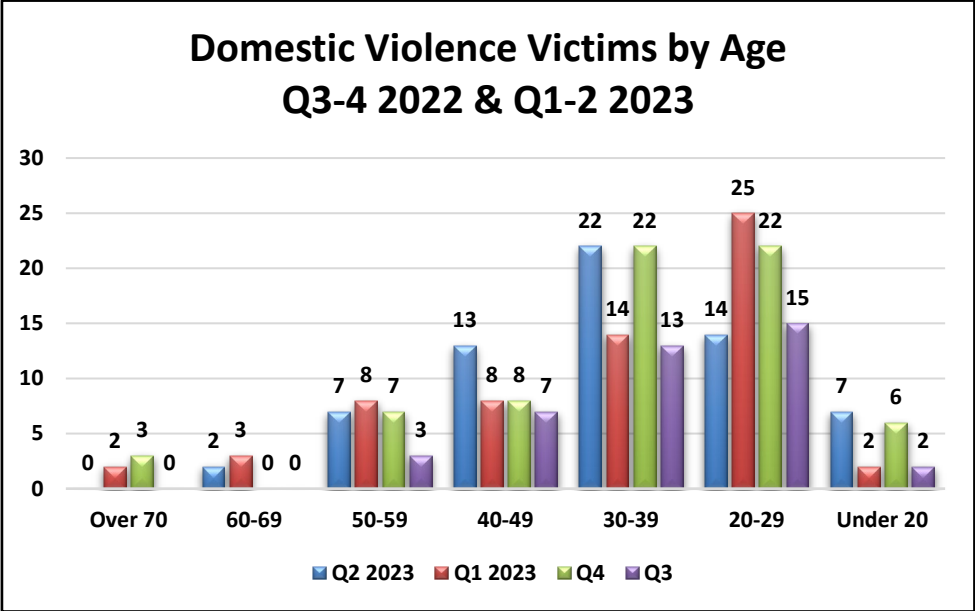
This graph illustrates the historic suspected domestic violence cases from the start of data collection in January 2020. Q2 suspected case count of 65 was above the quarterly average of 60 (sixty) suspected cases. The addition of Q2 case count has adjusted to an increased projection since the beginning of data collection.



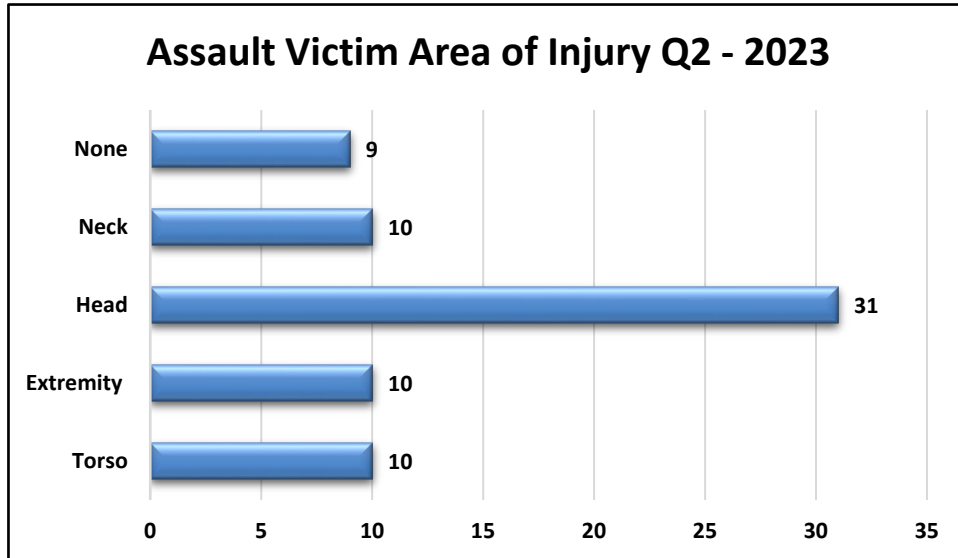
This graph illustrates the recorded gender of the suspected assault victims treated by Emergency Medical Services. In Q2 the female gender made up 83% of the suspected victims. The male gender made up 17% of the suspected victims. The female gender consistently has been the predominant gender.



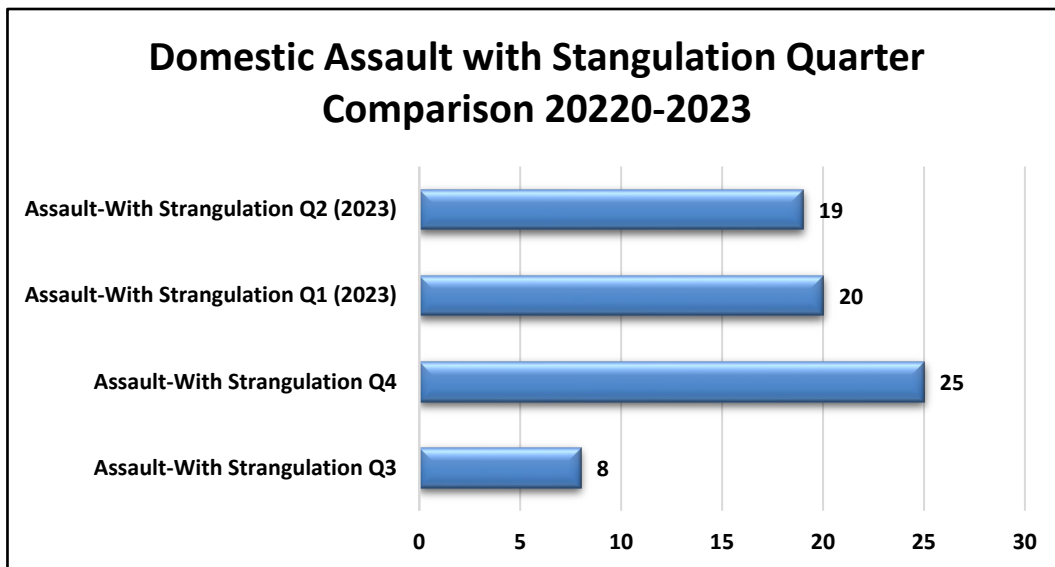
The assailant gender for Q2 continued to be predominately male, with the most frequent suspected abuser being a boyfriend, ex-boyfriend, and husband. This has continued throughout the period of data collection.



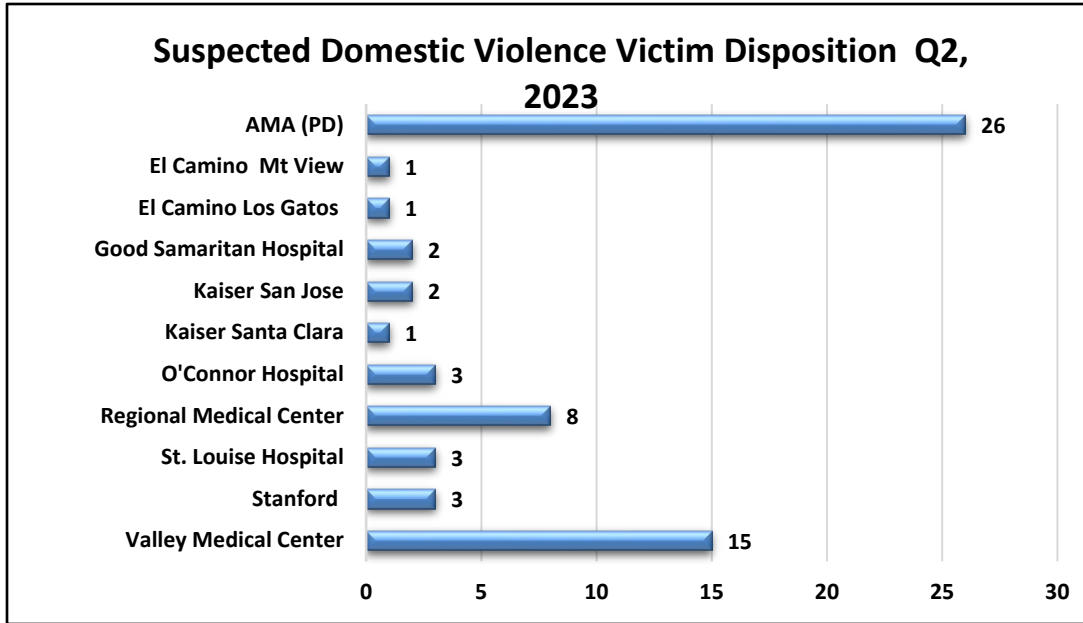
The graph above illustrates the suspected domestic violence victims by age group. Through Q2, the most at-risk age groups are 20-29 (76 cases) and 30-39 (71 cases). When comparing domestic violence cases between all age groups, we generally see a reduction comparing the age groupings in sequential order, except for the 60 and 70 and older demographics with their low case volume. The 30-39 demographic showed a 6.57% reduction in cases when compared to the 20-29 demographic. The 40-49 demographic showed a 49.29% reduction in cases when compared to the 30-39 demographic. The 50-59 demographic showed a 30.55% reduction from the 40-49 demographic.



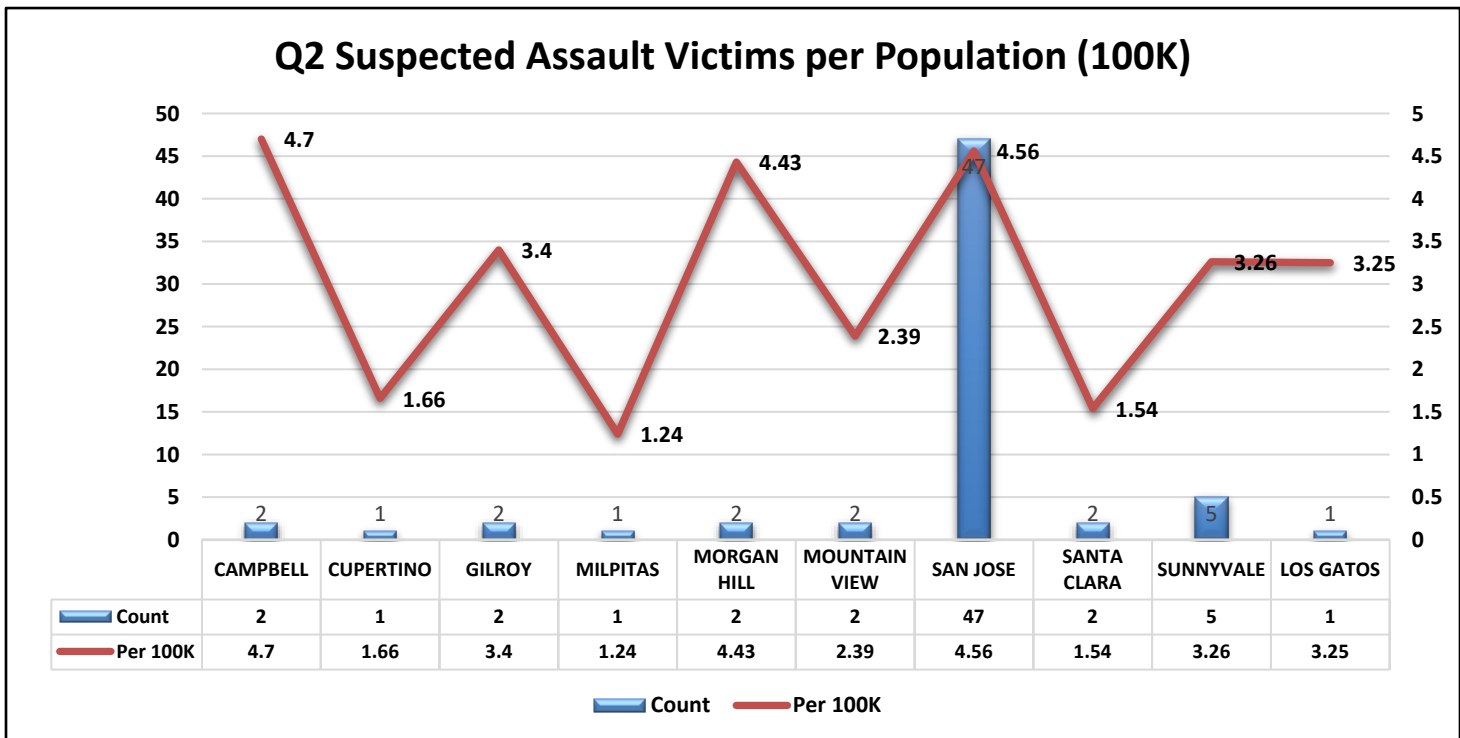
The above graph illustrates the total areas of injury from all assault victims for Q2. Please note this total will not match up with the number of victims since the victim may be injured in multiple locations or have no reported injuries.



The above graph illustrates the number of domestic assaults with strangulation for Q2. Q2 saw a 5% decrease from Q1. The average age of these victims was 32 (thirty-two) years of age. The youngest victim was 12 (twelve) while the oldest victim was 64 (sixty-four) years of age. Sixteen of these victims were female while three were male. The suspected aggressor in most of these cases was male however three suspected aggressors were female.



The graph above illustrates each suspected domestic violence victims' disposition from Q2. Against Medical Advice (AMA) with the presence of law enforcement has consistently been the most frequent disposition over the three years of data collection. Valley Medical Center received most of the transported victims followed by Regional Medical Center.



This graph illustrates the physical count of suspected domestic violence events that Emergency Medical Services responded to and that numbers incident rate per hundred thousand one (100K) population. This adjustment better depicts the impact on the community rather than the physical count, in which the City of San Jose would be at a statistical disadvantage due to gross population. With the incident rate adjustment, Campbell had the most domestic violence responses per one hundred thousand (100K) 100k. San Jose had the most physical responses at 47 (forty-seven).

Mathematical Work Reference:

Population Adjustment:

$$PA = \frac{E}{P} \times 100,000$$

E= Events

P= Population

Percentage Change:

$$\frac{(V2 - V1)}{V1} \times 100 = PC$$

County of Santa Clara
Santa Clara Valley Health & Hospital System
Emergency Medical Services



117619

DATE: September 27, 2023
TO: Health and Hospital Committee
FROM: Jackie Lowther, EMS Director
SUBJECT: Annual Report on EMS Agency and EMS System

RECOMMENDED ACTION

Receive report from Emergency Medical Services Agency (EMS) relating to the status of the EMS Agency and EMS System for Calendar Year 2022.

FISCAL IMPLICATIONS

This report is for informational purposes only; there is no impact to the General Fund. The County does not provide any direct funding in support of the services provided by the 911 emergency medical services system because the cost of the Santa Clara County Emergency Medical Services (EMS) System is paid by system providers, such as hospitals and ambulance companies, individuals who use these services and their medical insurers.

REASONS FOR RECOMMENDATION

During their meeting on December 14, 2010, the Board of Supervisors requested that the EMS Agency provide regular updates to the Health and Hospital Committee (HHC) regarding the performance of the County Exclusive Operating Area 911 Ambulance Provider, Rural/Metro of California. On November 22, 2011, the HHC requested that the EMS Agency provide an update in February 2012, and then provide semi-annual reports. On June 8, 2016, the HHC authorized the EMS Agency to modify the timeline of the report submission, transitioning from a semi-annual report to an annual report, which would cover a full calendar year. This report provides the requested information, including the status of the EMS System and highlights of some activities of the EMS Agency during Calendar Year 2022.

The EMS Agency does publicly post annual and quarterly performance reports to its website so that the people of Santa Clara County are able to view response time compliance reports, hospital performance data including hours of emergency department diversion and other quality indicators.

This plan supports the County of Santa Clara Health System's Strategic Road Map as it relates to the Core Objectives by allowing for a seamless coordination of EMS services throughout the County.

CHILD IMPACT

The recommended action will have no/neutral impact on children and youth.

SENIOR IMPACT

The recommended action will have no/neutral impact on seniors.

SUSTAINABILITY IMPLICATIONS

The recommended action will have no/neutral sustainability implications.

BACKGROUND

The EMS 2022 Annual Report provides data on many aspects of the prehospital portion of the system. Response time performance by the fire departments and County Ambulance (operated by Rural/Metro) is included to provide a longer term illustration of monthly reports that are provided to the EMS Agency.

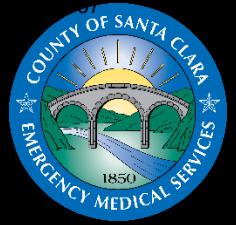
CONSEQUENCES OF NEGATIVE ACTION

The HHC would not receive the information requested from the EMS Agency.

ATTACHMENTS:

- EMS Annual Report 2022 Final Draft_9-27-2023 HHC (PDF)

Santa Clara County
Emergency Medical
Services



Annual Report 2022

700 Empey Way
San Jose, CA 95128

408-794-0600

www.sccemsagency.org



Table of Contents

Mission Statement & Values	3
Director’s Report	4
Training & Education	5
EMS Personnel Certification	9
Investigations & Enforcement	10
Inspections & Permitting	11
Response Performance	12
911 Communications	14
Disaster Response & Preparedness	16
Data Systems	18
Patient Destination	20
Ambulance Patient Off-load Times & ED Bypass	21
Specialty Care & Special Interest	22
• Emergency Medical Care for Children	
• Stroke Care	
• STEMI Care	
• Trauma Care	
• Victims of Abuse & Domestic Violence	
EMS Trust Fund	32
Future of EMS	33
From the EMS Medical Director	35
Acknowledgements	36

Our Mission

The Santa Clara County Emergency Medical Services Agency is an essential service dedicated to ensuring the provision of quality patient care to the people of Santa Clara County through collaboration, facilitated regulation and system management.

Our Values

1

Dignity and Respect: We treat people with dignity and respect.

2

Progressive Innovation: We are dedicated to the continuous improvement of our processes and systems based on science, data, and best practices.

3

Professionalism and Objectivity: We treat all individuals and organizations professionally, fairly, and without prejudice.

4

Leadership: We lead through collaboration and facilitation to ensure accountability, the provision of quality patient care, while ensuring fiscal and operational stability.

5

Participation: We value the contributions of the public, other agencies, and organizations in the development, implementation, and evaluation of the Santa Clara County EMS System.



Director's Report

On behalf of the Santa Clara County Emergency Medical Service Agency (SCCEMSA), I am pleased to present the Annual Report for 2022. SCCEMSA is an essential service dedicated to ensuring the provision of quality patient care to the people of Santa Clara County through collaboration, facilitated regulation, and system management. The residual effects of COVID continued to materialize with the initial omicron wave remaining in January and February 2022. The EMS agency has maintained our special relationships with the community and our healthcare partners to address the challenges, by providing exceptional pre-hospital medical care to the residents and visitors of Santa Clara County during these demanding times. Together, we have achieved remarkable milestones and faced numerous challenges head-on, all while striving to fulfill our mission of providing clinically superior and culturally competent care. This past year has been extraordinary in many ways, marked by record breaking call volume that put our skills and resilience to the ultimate test. SCCEMSA also continued to explore ways to expand our skills and stay ahead of the constantly changing landscape of pre-hospital emergency medicine.

Key findings of this report include the following:

- SCCEMSA conducted re-designation site surveys in 2022 for all ten Stroke Receiving Centers, eight STEMI Receiving Centers and one Trauma Center.

- SCCEMSA established the EMS for children (EMSC) program in July 2022, designating nine hospitals for the preferred designation for critically ill or severely injured pediatric patients.
- Convened a paramedic training workgroup to examine mitigations of current workforce shortages.
- Successfully submitted 294,000 electronic patient care records into the California Emergency Medical Services Information System (CEMSIS), achieving a submission rate of 99.47%.
- Conducted a stakeholder group analysis of potential EMS Service Model in preparation for the development and release of a future Request for Proposal (RFP).

I extend my deepest gratitude to our dedicated staff, and the unwavering support of our stakeholders. Together, we have risen above challenges, set new records, and made a lasting impact on the lives of those we serve. As we move forward, let us continue to evolve a cost-effective, collaborative, and outcome-based EMS delivery system that produces clinically superior and culturally competent care.

I look forward to collaborating with all our stakeholders and County leadership in the future.



Jackie Lowther, RN, MSN, MBA

EMS Training and Education Overview



The Training and Education Unit serves the educational needs of the public, current and future EMS providers in Santa Clara County.

The goal of provider education is to ensure and enhance the knowledge, skills, and abilities of current EMTs and Paramedics working in Santa Clara County and beyond.

The Training and Education unit works with the current and prospective EMS Training Programs located in Santa Clara County to meet the needs of future EMTs and Paramedics.

Public education and outreach efforts taken on by the EMS agency work to prevent illness and injury through health education.

EMS Training and Education- Provider Education



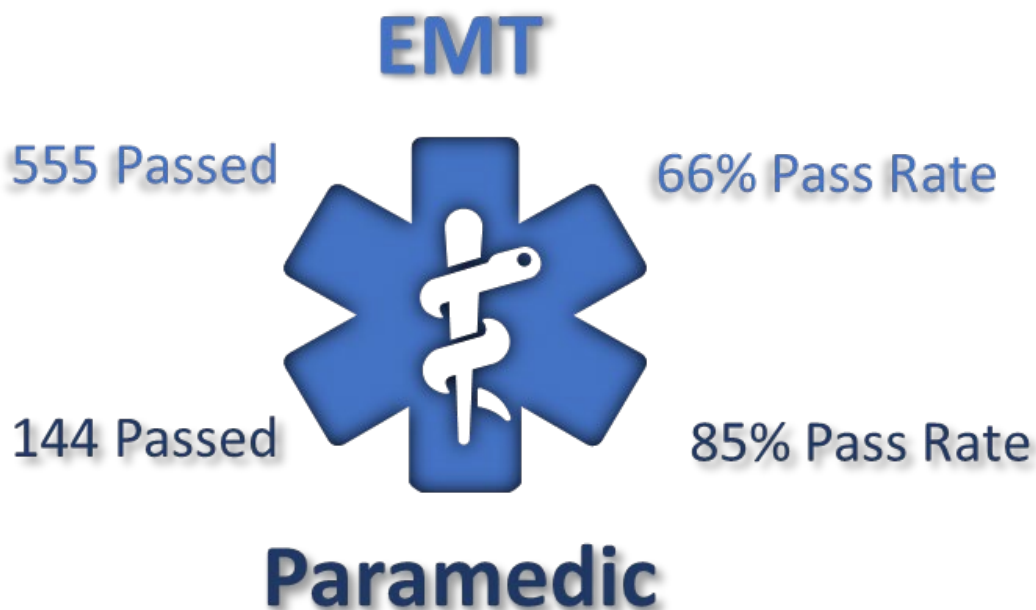
The Local System Orientation Exam is administered to ensure providers are knowledgeable in the protocols and policies specific to SCCEMSA.



The exam is administered to personnel who are new to SCCEMSA or are returning after a lapse in employment. In 2022, 699 tests were successfully passed by EMTs(555) and Paramedics(144). 1,015 total tests were administered.



Successful completion of the exam is a requirement of the credentialing process for EMS system providers.

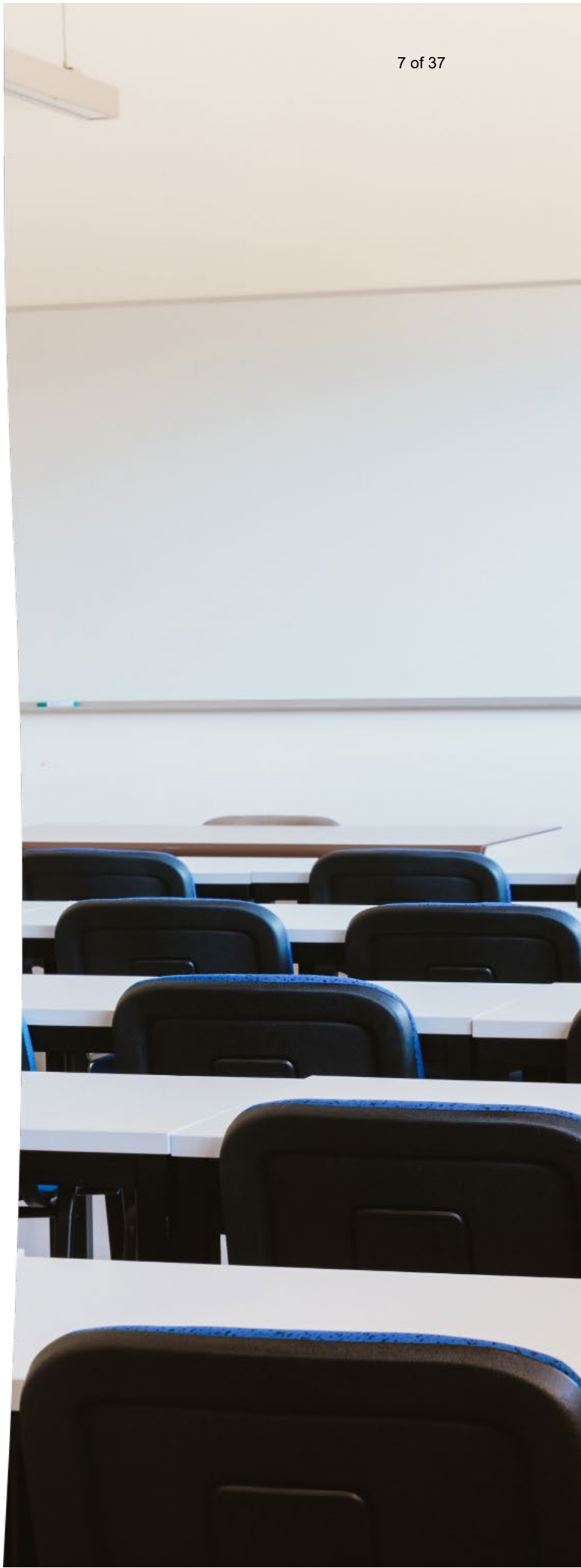


EMS Training and Education- Continuing Education

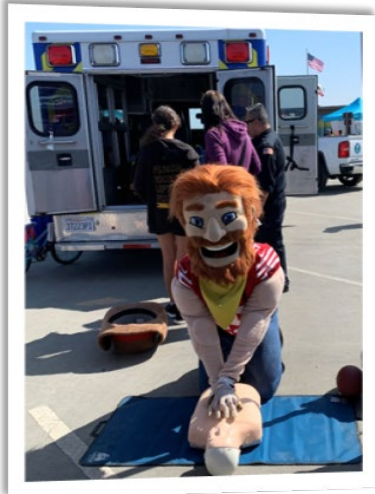
Continuing Education Providers are the backbone of EMS Education in any EMS System. They provide the education to current EMTs and Paramedics to maintain and enhance their knowledge, skills, and abilities to provide quality patient care.

There are 19 EMS Continuing Education (EMS CE) providers authorized by the EMS Agency. In 2022 those providers offered 1,719 courses.

The EMS Agency commends them for providing numerous quality educational opportunities. Without the continuing education provided, EMTs and Paramedics would not be able to meet the requirements to maintain their certification or licensure.



EMS Training and Education- Public Education



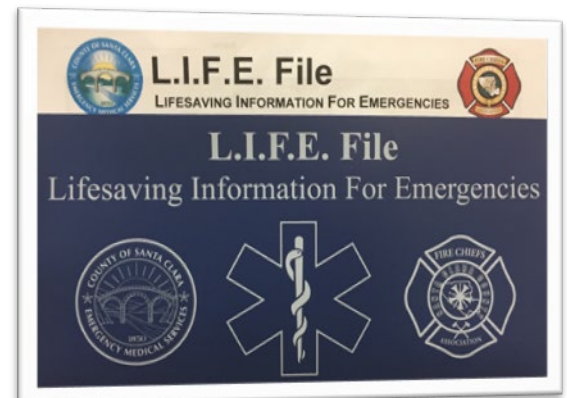
Hands Only CPR

CPR is a lifesaving intervention. Bystanders providing chest compressions until rescuers arrive can make a significant difference in survival rates.

SCCEMSA is active in training the public in Hands Only CPR at large community events such as the annual Day on the Bay event with more than 150 participants trained and other smaller events.

L.I.F.E. File

The Lifesaving Information For Emergencies File is a magnetic envelope that can be placed on a refrigerator or other visible place to provide rescuers important information when responding to a medical emergency. SCCEMSA provides these files at no cost to the public and distributes them at community events or upon request. More than 7,000 files have been distributed in 2022.



Stroke Education

SCCEMSA is committed to educating the public on the signs of stroke. Stroke is the leading cause of disability and one of the leading causes of death in the United States. We hope that through education disability and death can be reduced/prevented due to stroke. In Spring 2022, each of the Stroke Centers distributed 5,000 cards to community centers, grocery stores and schools.

EMS Personnel Certification

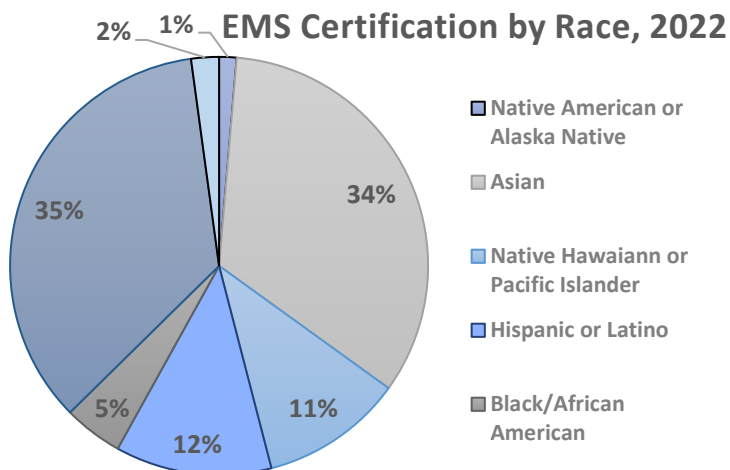
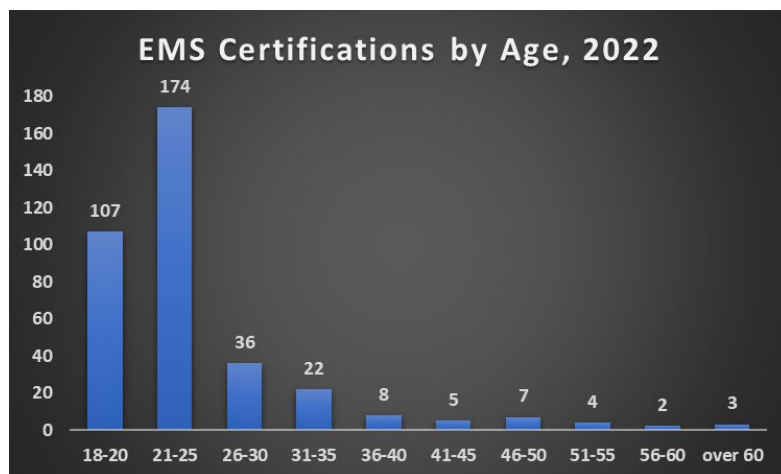
Total Licensed Personnel, 2022



EMT	2,847
Paramedic	751
Registered Nurse	184
Mobile Intensive Care Nurse	44

Within the EMS System there are Emergency Medical Technicians (EMT), Paramedics, Critical Care Transport Registered Nurses (CCT-RN), Mobile Intensive Care Nurses (MICN), Emergency Field Supervisors (EFS) and EMS Duty Chiefs. When a new provider enters the EMS System, they are required to submit an application to SCCEMSA, complete a Department of Justice and FBI background check and submit the required completed training documents. Once an individual completes the application and examination process, they are provided an EMS System Identification Badge and are eligible to work in our EMS System. Every two years, EMS personnel must recertify with the EMS Agency.

The average age of the EMS workforce in the United States is 36 years old. As with other healthcare professions, the EMS workforce is facing an aging crisis with many experienced providers retiring. The EMS system has the advantage of workers entering at a younger age by being offered training programs in high school and community college. In 2022, 368 initial certifications were issued, and 86% of these were to individuals under the age of 30.

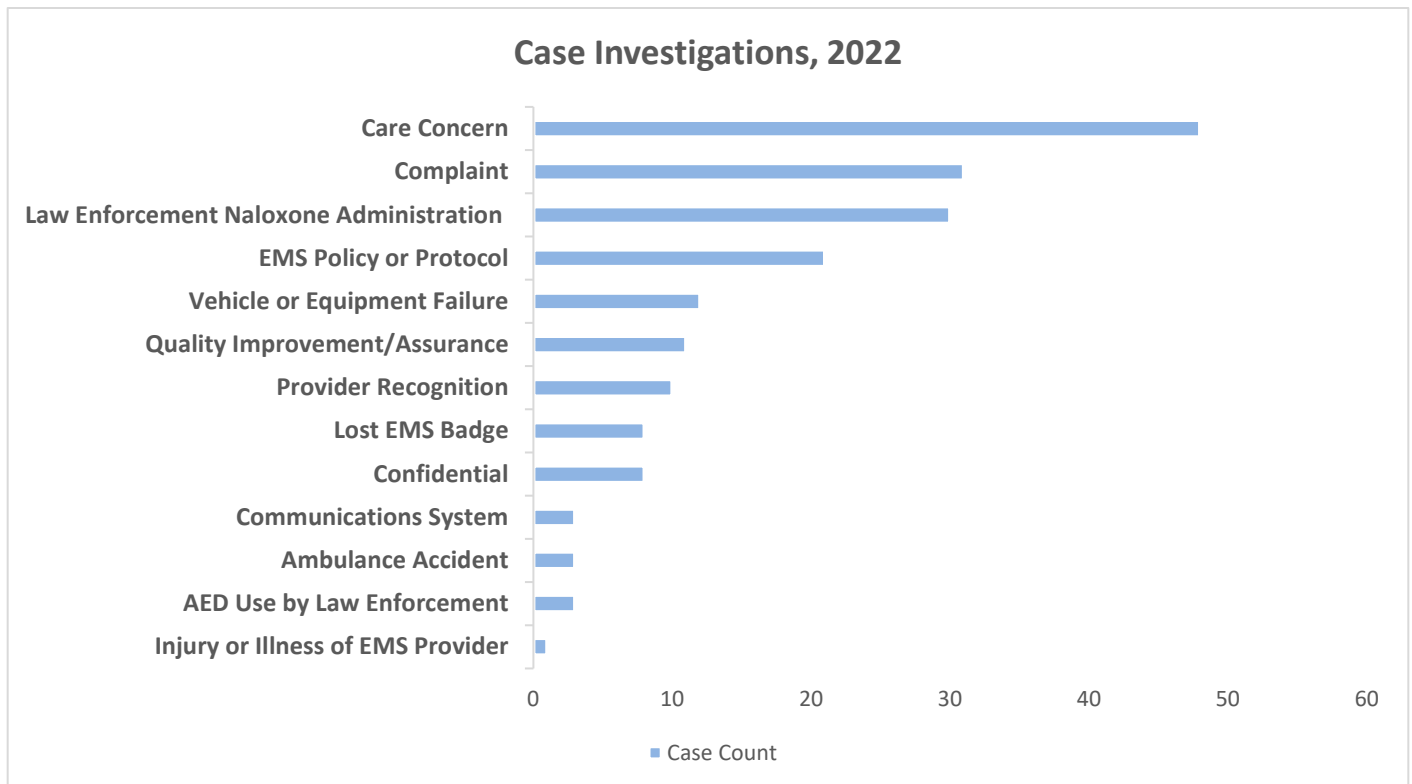


Having a diverse workforce that resembles that of the community is essential to providing the best care possible. It ensures EMS providers are more likely to understand community needs, offers language and cultural parity and breakdown bias. This leads to a more positive patient experience. The diversity of new EMS certifications closely resembles that of Santa Clara County, with 35% White and 34% Asian and 5% Black/African American. However, there is a lower percentage of Hispanic/Latino providers which is 12% compared to 25% of the population.

Investigations and Enforcement

SCCEMSA is responsible for ensuring that emergency medical personnel who are credentialed through the agency and work in the EMS System uphold established laws and regulations. If an issue arises, the EMS Agency will work with the individual's employer to ensure that a formal investigation is completed. Depending on the issue, SCCEMSA may be required to refer the case to the State EMS Authority. Upon completion of an investigation, the SCCEMSA Medical Director may take action against a holder's certification, which may include denial, suspension, revocation, or placing the certification on probation.

SCCEMSA conducted 189 formal investigations in 2022.



Inspections and Permitting

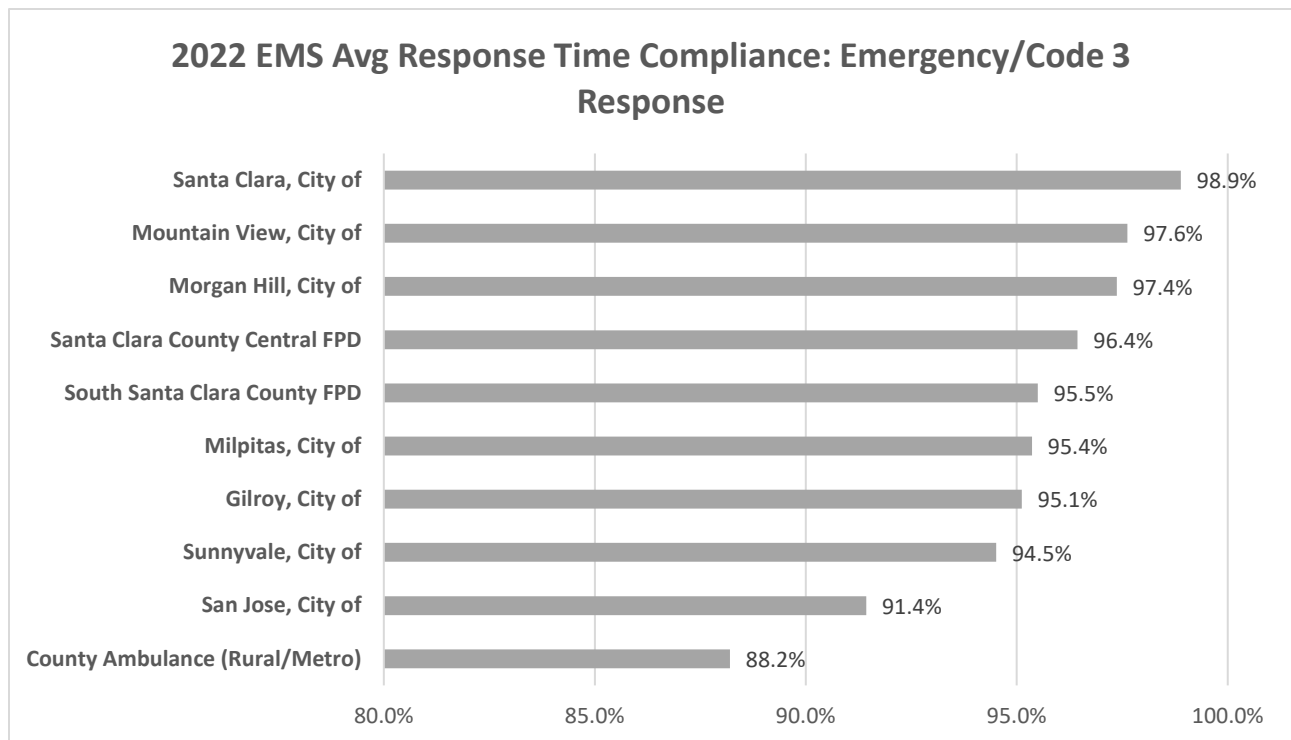
SCCEMSA inspects all emergency medical vehicles entering the EMS System, collects vehicle maintenance audit reports and performs provider initiated or random audits. The purpose of these audits is to ensure that all emergency medical vehicles in the system are safe and meet the required standards for each level of service.

In 2022, EMS Agency staff collected monthly mileage and inspection reports for 56 County Ambulances and conducted 22 inspections.

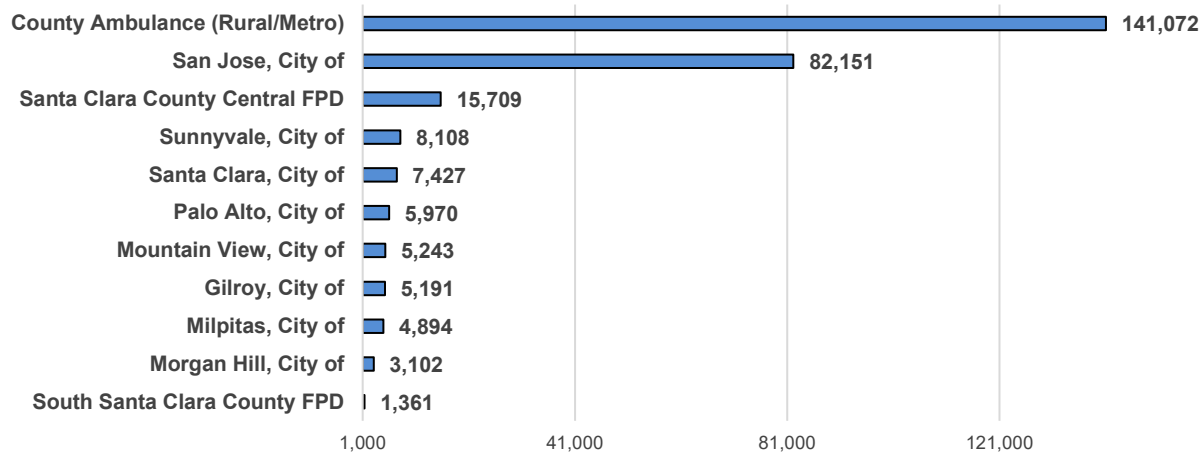
Provider	Levels of Service	Santa Clara County Ambulances
American Medical Response - IFT	CCT, BLS	14
CALSTAR	Air	2
Falcon Critical Care Transport	CCT, BLS	21
Gilroy Fire Department	ALS	1
Milpitas Fire Department	ALS	1
Morgan Hill Fire Department	ALS	1
NORCAL Ambulance	CCT, BLS	18
ProTransport-1	CCT, ALS, BLS	28
Royal Ambulance	CCT, BLS	43
Rural/Metro (County Ambulance)	ALS	61
San Jose Fire Department	ALS	5
Santa Clara City Fire Department	ALS	1
Stanford Life Flight	Air	1
Westmed Ambulance	CCT, ALS, BLS	31

Response and Transport Performance

The County currently maintains ten (10) agreements for emergency medical services. Response time performance is a key performance indicator for assessing compliance with the agreement requirements. Response time performance is measured monthly. The minimum performance standards for response time performance are 90%. The following chart measured month-to-month average Code 3 (lights and sirens) response performance for 2022.

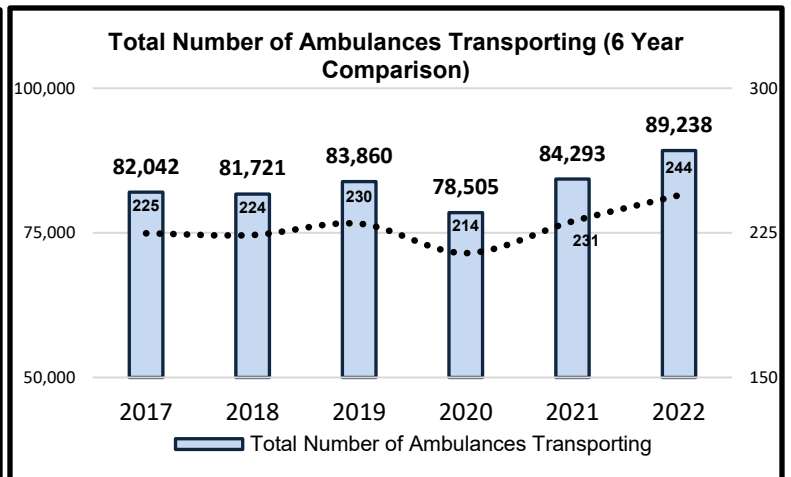
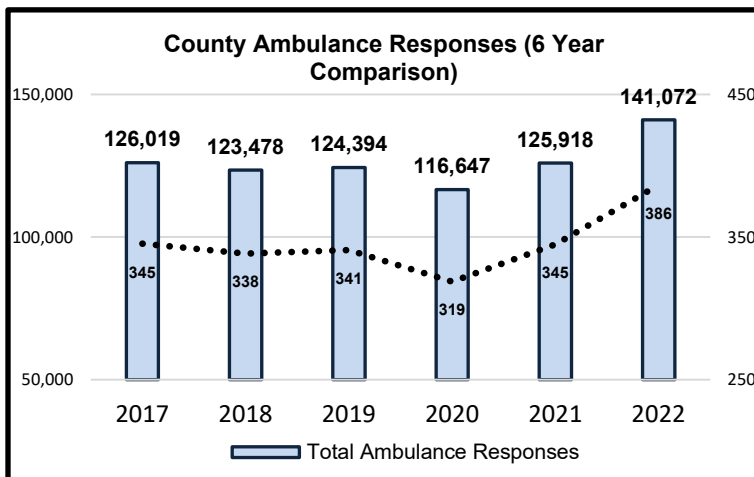


EMS Responses by Agency, 2022



Response and Transport Performance

Another key performance indicator used to measure system performance is response and transport utilization. In 2022, the County Emergency Ambulance provider responded to 141,072 calls for service. Those responses resulted in 89,238 ambulance transports to local hospitals, which averaged to 244 transports per day. From an average daily perspective (24 hour), the County Emergency Ambulance provider responded to 386 calls for service. From a narrower perspective, there were 16 responses per hour, or one response every 3 minutes and 45 seconds. In 2022, ambulance responses increased by 12% from the previous year and transport utilizations increased by 6% from the previous year.



911 County Communications

Over the course of the past four years, SCCEMSA has been actively collaborating with Santa Clara County 911 Communications on the development and implementation of a new computer-aided dispatch system (CAD). This new CAD system holds the potential to significantly enhance the tracking of resources and ambulance responses within the EMS system. Moreover, it is expected to contribute to more informed decision-making regarding EMS responses by leveraging data collected from the new system.

The rollout of the new CAD system is slated to take place in September 2023, marking a significant milestone in the ongoing efforts of SCCEMSA and Santa Clara County 911 Communications.



911 County Communications

Within the EMS system, a total of 370 radios are currently deployed by SCCEMSA. These radios are distributed among various stakeholders, including non-911 ambulance providers, air providers, hospital safety officers, and EMS agency staff. Notably, all radios are programmed to operate on the 700 MHz digital system, ensuring efficient and reliable communication.



Moreover, SCCEMSA has allocated 49 radios for future providers, preserving them for upcoming needs. With the remaining radios, seven radio caches have been established. These caches are strategically positioned to be utilized during times of disaster or preplanned large-scale events, effectively bolstering communication capabilities and response coordination.

Disaster Medical Response and Preparedness



Medical-Health Operational Area Coordinator (MHOAC) Program

The Medical-Health Operational Area Coordinator (MHOAC), in cooperation with the Public Health Department, SCCEMSA, Environmental Health and Behavioral Health are responsible for ensuring Medical-Health disaster planning, response, mitigation, and recovery for their respective operational area. SCCEMSA is responsible for the day-to-day operations and management of the MHOAC Program.

Continued Response

The MHOAC managed medical-health response operations for COVID-19, Monkeypox, and RSV surges in 2022. They supported incident management, polled facility beds and metrics, and approved and reviewed resource requests. The MHOAC attended after-action reviews, revised the State Multi-Agency Coordination Guide, and managed the distribution of rapid antigen tests for essential personnel. More than 38,340 tests were allocated to public safety personnel.



Medical Volunteers for Disaster Response (MVDR) Program

The MVDR Program participated in community outreach events in 2022, providing Hands Only CPR Training and Public Education. The County did not see a significant increase in volunteer numbers. The County has two sets of rostered volunteers in the State of California Disaster Health Volunteers (DHV) database: spontaneous volunteers and MVDR Program members. The membership is diverse and spans a large range of medical capabilities and support functions.

MEMBERSHIP TYPE	ACTIVE VOLUNTEERS
Medical Volunteers for Disaster Response (MVDR)	94
Disaster Health Volunteers (DHV)	137
Total	231

EMS All Hazards Coordination

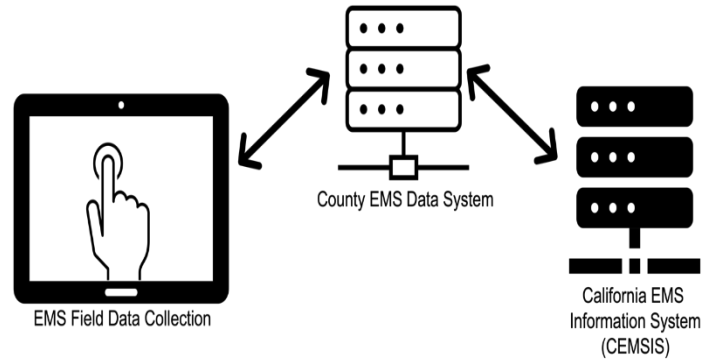
In 2022, The EMS All Hazards Coordination included the following activities:

- Managed and coordinated the EMS-Fire Mobile Vaccination Program for in-home medically fragile patients through April 2022.
- Coordinated Medical-Health Situational Status Reporting to the Region and State.
- Increased visibility of the Medical Health Operational Area Coordinator Program.
- Refined resource requesting process and goods storage for all Medical-Health mutual aid within the Operational Area.
- Developed and submitted requests in response to State Homeland Security Grants Program.
- Conducted equipment training and maintenance.
- Coordinated the establishment of a working group to review response to Incidents of Mass Violence.
- Facilitated training all response personnel in the County's Core100.
- Facilitated the delivery of the Operational Response to Mass Casualty Incidents Course for the Operational Area and Region.
- Managed a three-day power system failure at Valley Medical Center in San Jose.



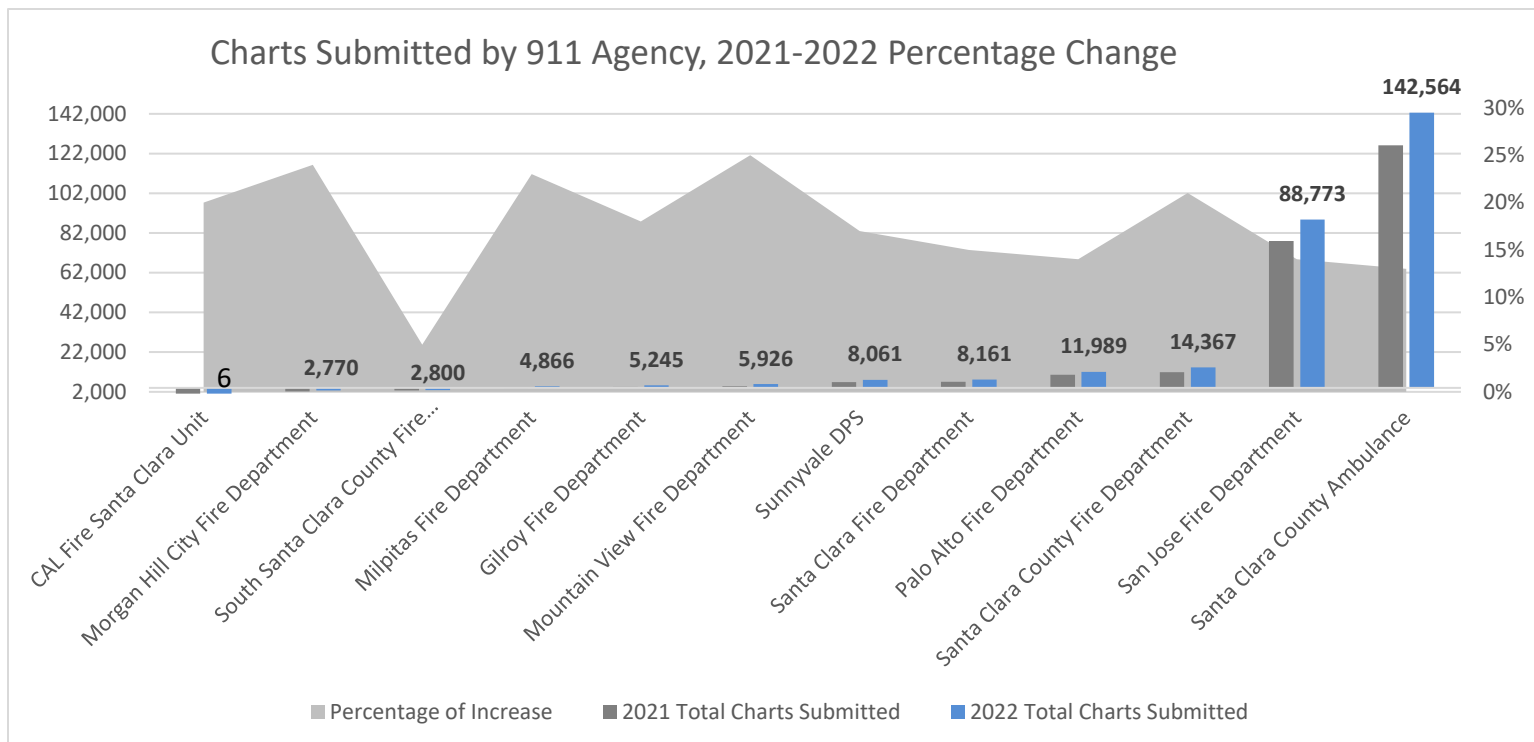
Data Systems

The SCCEMSA Data System has received a total of 362,036 charts within the calendar year of 2022. This includes all charts documenting any inter-facility ground or air ambulance transport and all charts documenting any 911 incident within the Operational Area (OA) of Santa Clara County. Overall, this is a 13.9% increase from 2021.



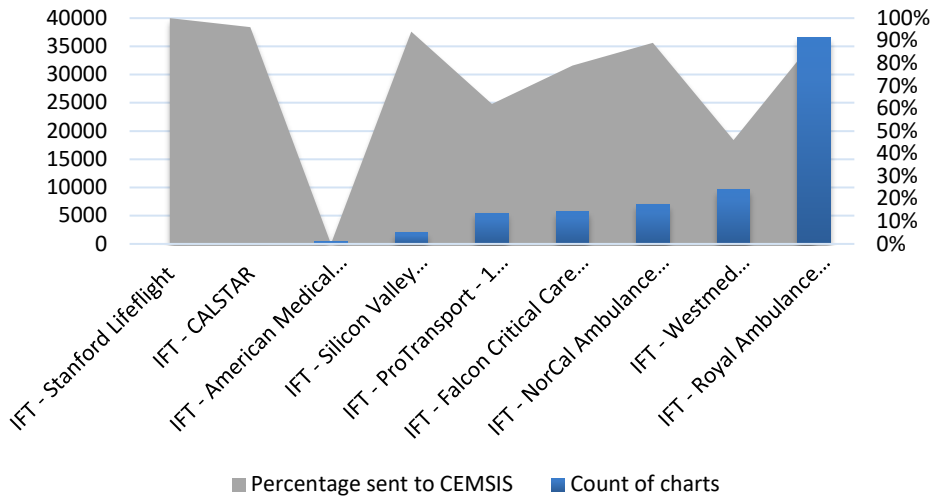
911 System Data Collection and CEMSIS Submission

The SCCEMSA Data System has received 295,518 charts documenting 911 incidents within the OA during 2022. Of those 911 charts submitted to the EMS Data System, 294,045 (99.47%) charts have been successfully submitted to the California EMS Information System (CEMSIS). Once the data transfer of each chart has been successfully received by CEMSIS. The State in turn submits this data to the National EMS Information System (NEMSIS). There has been a 14.2% increase in submission to both the SCCEMSA EMS Data System and CEMSIS when comparing 2021 and 2022.



Non-911 System Data Collection and CEMSIS Submission

Charts Submitted by IFT Agency, 2022

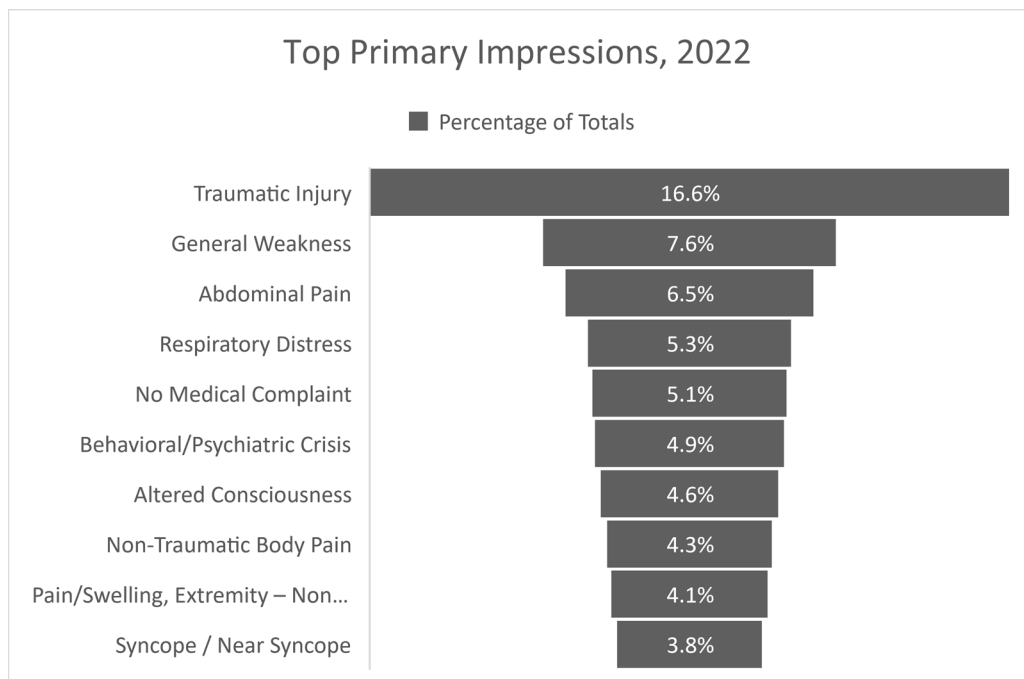


SCCEMSA has been focused on submitting 911 incidents to CEMSIS. Inter-facility transports (IFTs) are a vital component of the EMS system, and the agencies are working to improve the submission rate for non-911 incidents. In 2022, the total charts submitted to the County EMS Data System were 66,518, while only 53,333 were sent to CEMSIS or 80% of the total.

911 System Primary Impression

CEMSIS requires a concise category describing the primary reason for a medical encounter to be documented in every patient chart. There are a total of sixty-four (64) values allowed by CEMSIS. This table displays the top ten primary impressions documented and successfully submitted to CEMSIS during 2022. Traumatic Injury has remained the number one impression for several years in a row.

Top Primary Impressions, 2022

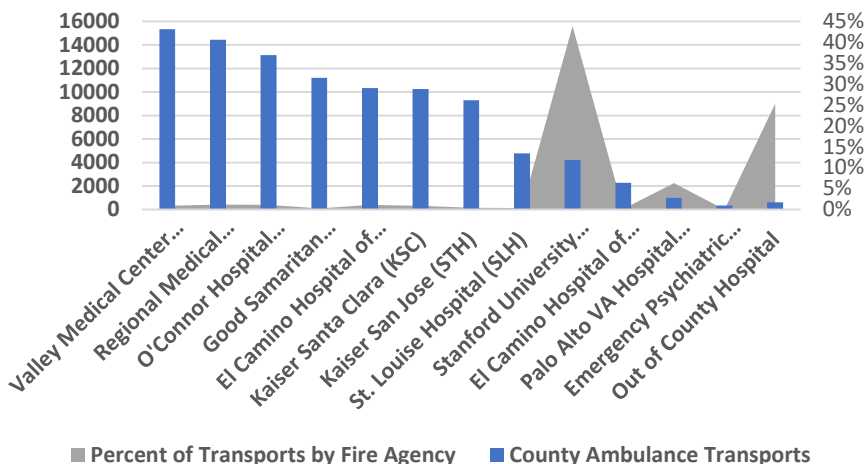


Patient Destination

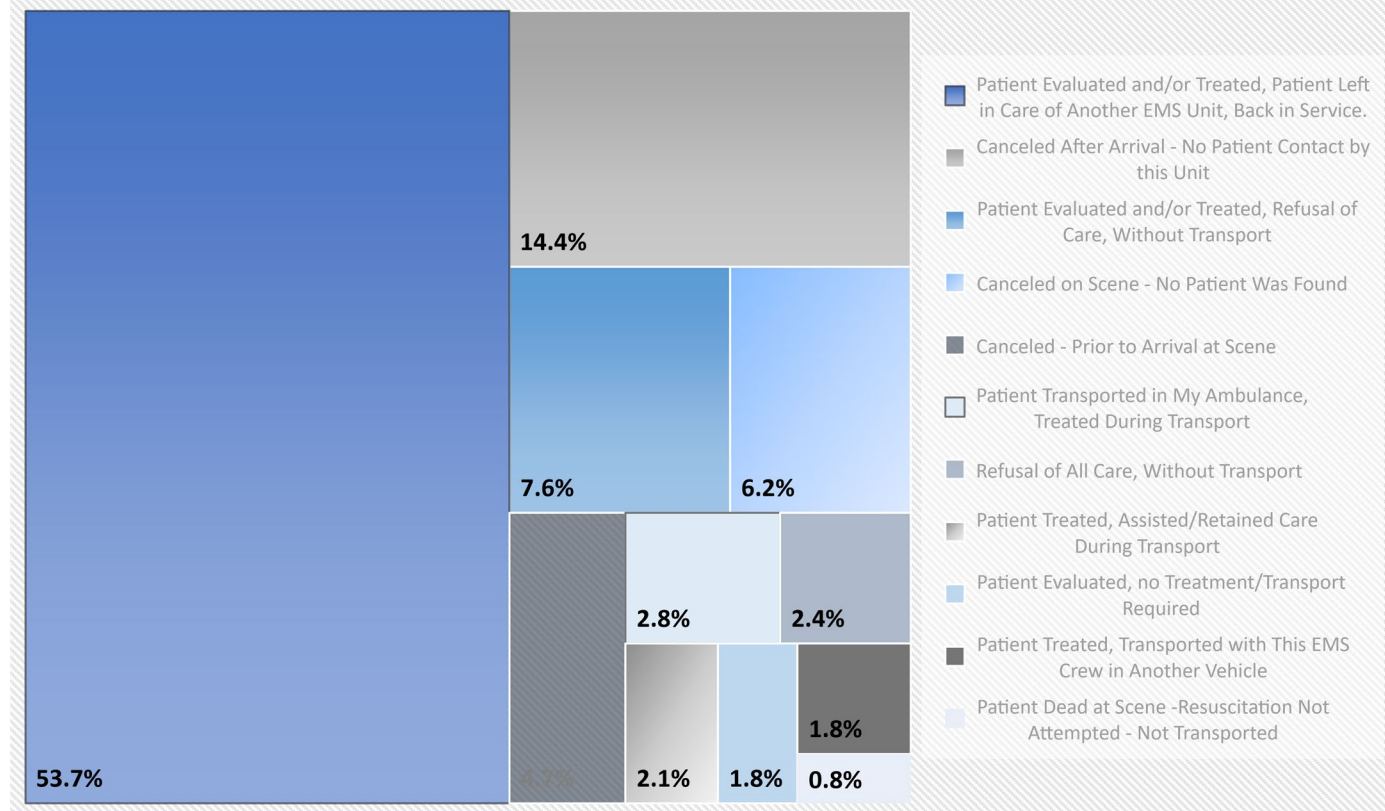
Santa Clara County Fire Agencies are often first response to the scene, but not all have transport ambulances; after it is determined a patient needs transport, care will be handed over to County Ambulance for transport. In 2022, 53% of patient care was transferred from fire, 14% of responses were cancelled without contact, and 7% refused transport.

During 2022, there were 101,524 total patient contacts documented. County ambulance provided care for 97,201 while the Fire Agency's accounted for an additional 4,323 patients. The volume of Fire Agency transports is consistent with agencies that have Fire based ambulances.

911 Patient Destination for County Ambulance and Fire Agencies, 2022



Fire First Response to Patient Disposition, 2022

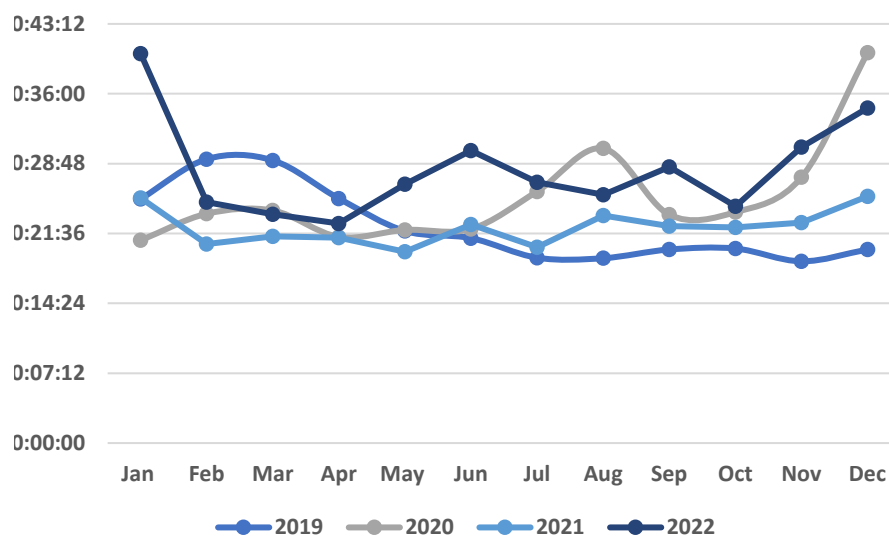


Ambulance Patient Off-load Times

Hospitals play a critical role in ensuring that 9-1-1 ambulances are available for the next call. The time it takes to offload a patient to an Emergency Department bed impacts the ambulance's ability to respond to another call. This time, known as Ambulance Patient Offload Time (APOT), is recorded, and tracked for all hospitals in Santa Clara County.

In 2021, the target average ambulance patient offload time (APOT) for each emergency department was changed from 25 minutes to 20 minutes, in alignment with the State EMS Authority's standards. For 2022, the aggregate average rose to 28:18 minutes, which is six minutes higher than the previous year, and the highest average over the last four years. Emergency Departments experienced higher patient volumes in January, November, and December 2022, which directly correlates with longer APOT times and more bypass hours.

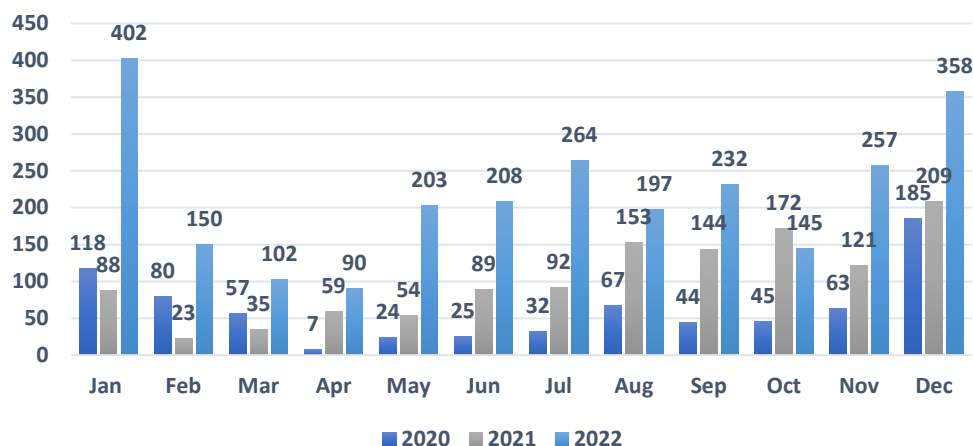
Aggregated APOT 4-Year Comparison



ED Bypass

Hospitals can temporarily bypass EMS patients when their patient load exceeds emergency department or specialty center resources. Ambulances will proceed to the next closest or most appropriate facility. Bypass status can last for no more than 60 minutes.

Aggregate Ambulance Bypass Hours by Month, 2000-2022



This chart displays the total hours for all hospitals in Santa Clara County. There is a comparison by month for 2020, 2021 and 2022. January 2022, there were four times the hours of the previous years at 402. Similarly, November and December 2022, saw more than double the number of hours in past years at 257 and 358 respectively. This correlates with COVID, influenza and RSV surge experienced in the region.

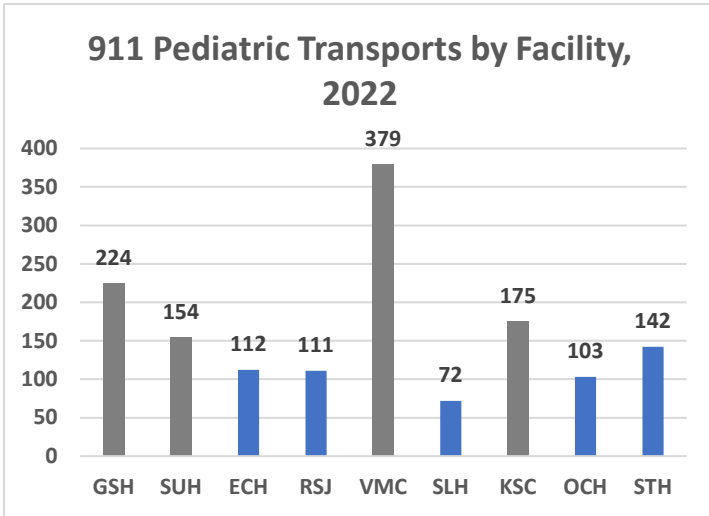
Specialty Care Programs and Special Interest Projects

Specialty Care Program. There are 11 hospitals in Santa Clara County that receive emergency ambulance transports. SCCEMSA has developed guidelines for first responders to ensure that patients are transported to the most appropriate facility for their condition. In some cases, this may be a specialty center such as a trauma center, stroke center, STEMI center, or burn center. The following is an overview of the hospitals in our EMS System and the specialty care that each provides.

	Emergency Department	SAFE Center	Psychiatric Care	STEMI Receiving Center	Primary Stroke Receiving Center	Comprehensive Stroke Receiving Center	Adult Trauma Center	Burn Center	Pediatric Trauma Center	General Pediatric Receiving Center	Advanced Pediatric Receiving Center
Santa Clara County Receiving Center	✓										
El Camino Health-Los Gatos (LGH)	✓						✓				
El Camino Health-Mountain View (ECH)	✓			✓	✓			✓		✓	
Good Samaritan Hospital (GSH)	✓			✓	✓			✓			✓
Kaiser San Jose Medical Center (KSJ)	✓						✓			✓	
Kaiser Santa Clara Medical Center (KSC)	✓							✓	✓		✓
O'Connor Hospital (OCH)	✓						✓			✓	
Palo Alto Veterans Administration Hospital (PAVH)	✓			✓							
Regional Medical Center of San Jose (RSJ)	✓					✓		✓	✓	✓	
Saint Louise Regional Medical Center (STH)	✓						✓			✓	
Santa Clara Valley Medical Center (VMC)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stanford Health & Lucile Packard Children's Hospital (SUH)	✓	✓	✓	✓	✓			✓	✓	✓	✓

Special Interest Projects. SCCEMSA participates in special initiatives at the request of government officials, partner agencies or the director. These may be short or long-term projects that involved collecting data for surveillance, monitoring grants or other funds awarded to the agency or community outreach campaigns. Some of these projects are highlighted in the next section.

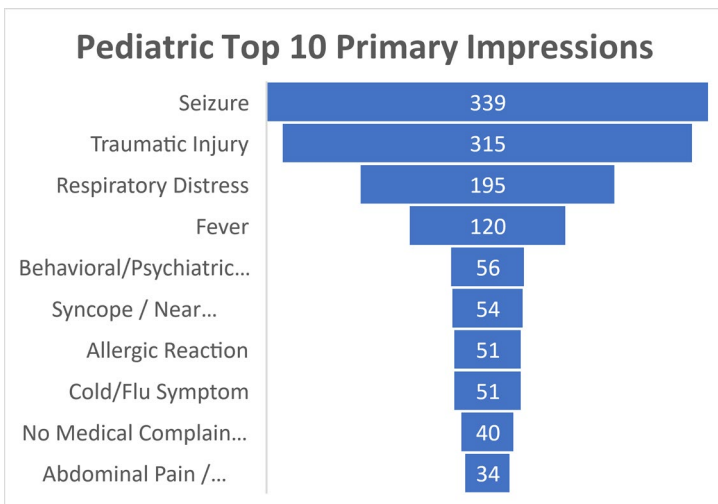
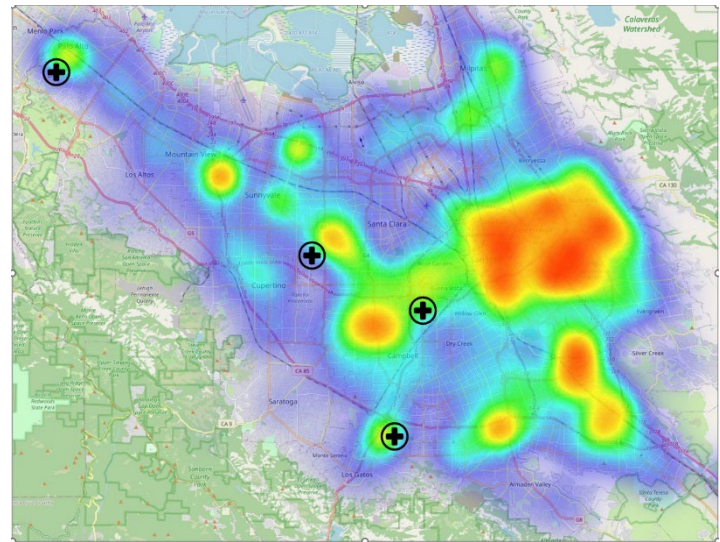
Emergency Medical Care for Children (EMSC)



In July of 2022, nine hospitals participated in the designation process to become a pediatric receiving center for SCCEMSA. The goal was to identify hospitals with the appropriate equipment, staff, and training to receive critically ill or injured children, so that EMS can transport to the facilities most prepared to care for these patients under 15 years of age. Four hospitals (indicated in grey) achieved Advanced Receiving Center designation and five hospitals (indicated in blue) achieved General Receiving Center designation. This graph provides the volume of patients received after designation was established.

Incident Location for Children Under 15 Years

- This heat map shows incident (scene) locations for patients under the age of 15 who require 911 transport to a hospital from July 1, 2022, to December 31, 2022
- Hospitals with Advanced Pediatric Receiving Centers can admit patients to their PICU or NICU. From top to bottom: Stanford Health, Kaiser Santa Clara Medical Center, Good Samaritan Hospital
- 911 ambulance crews have been trained to bypass General Pediatric Receiving Centers to transport their patient to an Advanced Pediatric Receiving Center when their patients meet critically ill criteria.



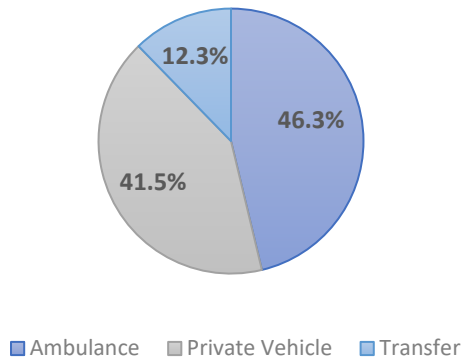
Primary Impressions, 2022

The initial assessment by the EMS provider helps determine a primary impression or reason for the medical encounter. The EMSC program monitors Primary Impression data to guide policy development, EMS training, and community education. Seizures, Traumatic Injury, which can include non-trauma related injuries, and Respiratory Distress account for more than 60% of the transport volume since the EMSC program was initiated. The EMSC Committee will continue to trend this data to develop a parent community education campaign for 2023.

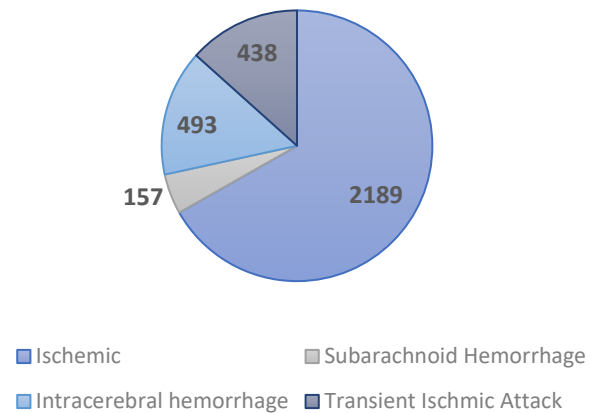
Stroke System

A Stroke is a serious medical emergency that happens when the blood supply to part of the brain is cut off. This can happen because of a blood clot (ischemic) or a bleed (hemorrhagic) in different parts of the brain (intracerebral/subarachnoid). A transient ischemic attack is a brief blockage of blood supply to the brain, often a warning sign for an ischemic stroke. The sooner the symptoms are recognized, and treatment begins the less damage is likely to happen. EMS transport for a stroke provides the opportunity for early assessment and delivery to the correct Emergency Department for treatment. Community education continues to focus on EMS activation for stroke symptoms. In Santa Clara County, 67% of diagnosed strokes were ischemic, similar to the national average.

Mode of Arrival for Stroke Patients, 2022



Type of Stroke, 2022



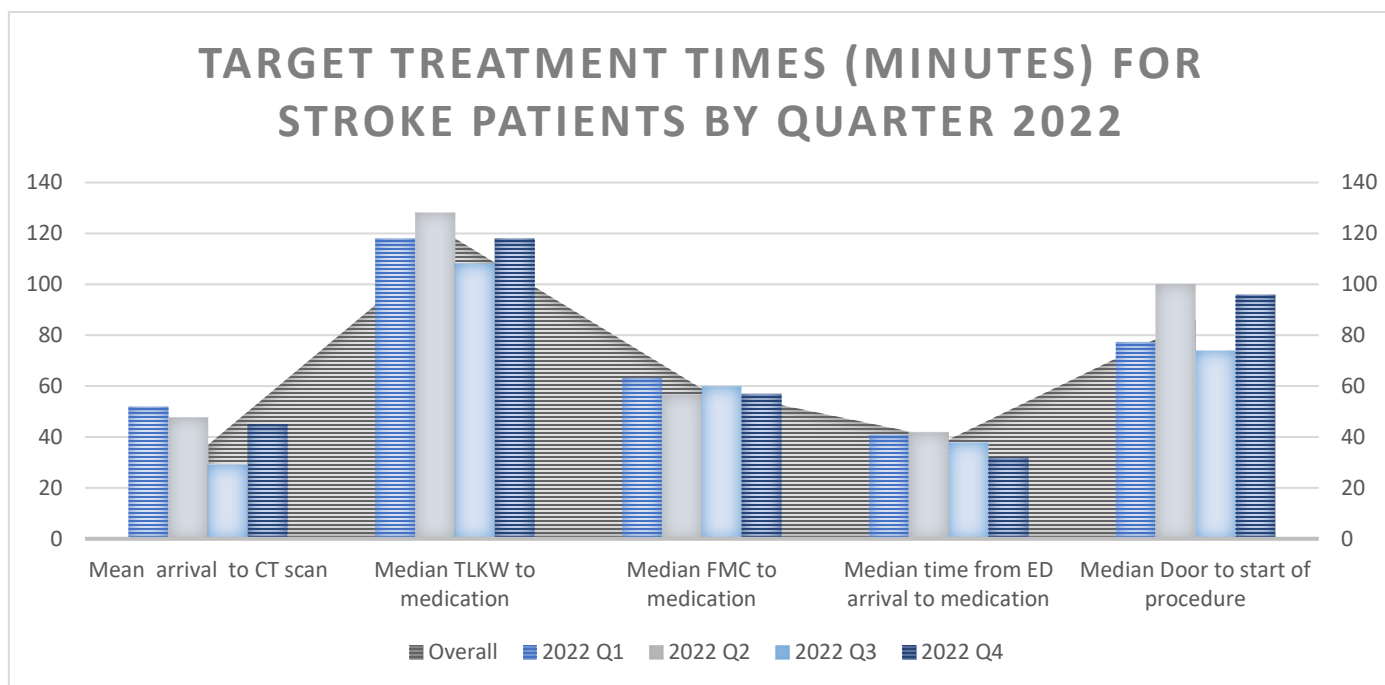
In 2022, SCCEMSA conducted site visits to verify hospitals meet the standards to receive and care for patients experiencing a stroke. There are different levels of designation based on the ability to provide more advanced treatment, ongoing care, and rehabilitative services. Five hospitals were re-designated as Primary Stroke Centers, capable of rapidly diagnosing and treating ischemic strokes with a medication known as a thrombolytic. Two hospitals were designated as Thrombectomy-capable Stroke Centers, offering additional care through advanced imaging and the ability to perform a procedure to remove a clot in the brain. Three hospitals were designated as Comprehensive Stroke Centers, able to provide the highest-level care, treat hemorrhagic strokes and have rehabilitative services.

Stroke System

There is a narrow treatment window for ischemic stroke patients, in which a medication to dissolve the clot (thrombolytic) may be given. Establishing when the patient was last known well (TLKW) or seen well, is critical in guiding treatment options. The benchmark is to treat patients within 4.5 hours from the TLKW. Due to this short time, often a small number of stroke patients receive this medication. In Santa Clara County, 12.8% of stroke patients receive a thrombolytic and 6.2% of patients undergo a thrombectomy.

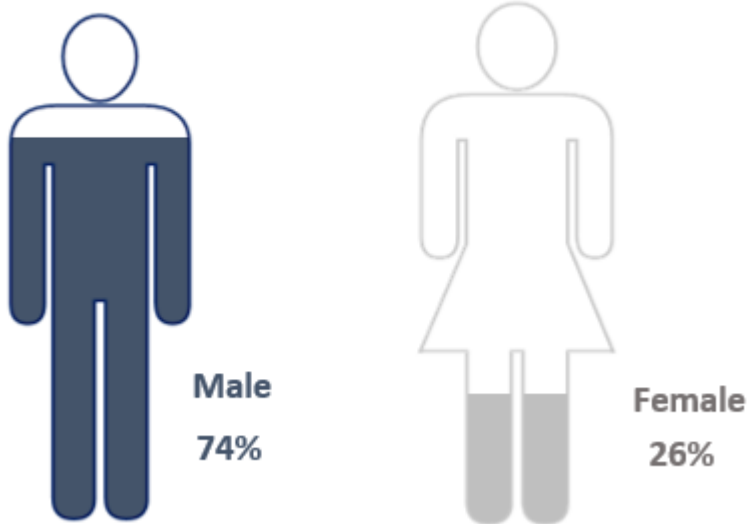
All patients receive a CT scan prior to receiving the medication. The target time from arrival to receiving the CT is 20 minutes. After the CT scan is read, the medication to dissolve the clot may be given. The target benchmark is to administer the medication within 60 minutes, 50% of the time. Some patients may benefit from more advanced care, in which the clot is removed (thrombectomy). The goal is to perform this procedure within 8 hours of TLKW and within 90 minutes of patient arrival. All these benchmarks are tracked as part of ongoing quality improvement and for re-designation.

The graph below provides the aggregate times for each quarter of 2022. The average time from patient arrival to receiving a CT scan is 37 minutes, 17 minutes above the target time. The median TLKW to receiving medication is 118 minutes. The median first medical contact by EMS (FMC) to medication is 59 minutes, whereas the median time from ED arrival to receiving medication is 39 minutes, 89% of all patients received medication within 60 minutes of arrival. SCCEMSA reviews FMC to medication time to determine if EMS activation improves treatment times compared to those arriving by private vehicle. Lastly, for patients receiving a thrombectomy, the median time from ED arrival to the start of the procedure is 86 minutes.

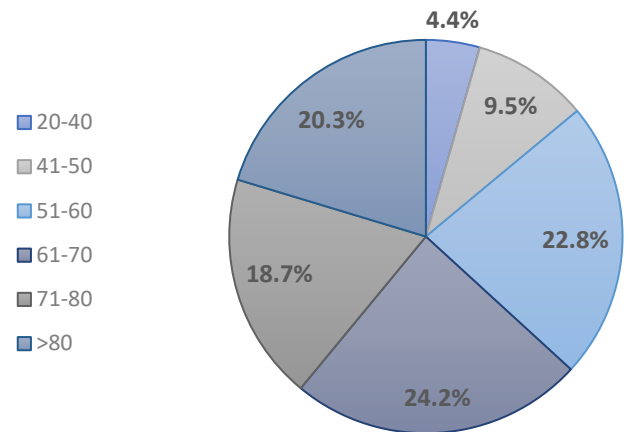


STEMI Patient Demographics

STEMI Patients by Sex, 2022



STEMI Patients by Age Group, 2022

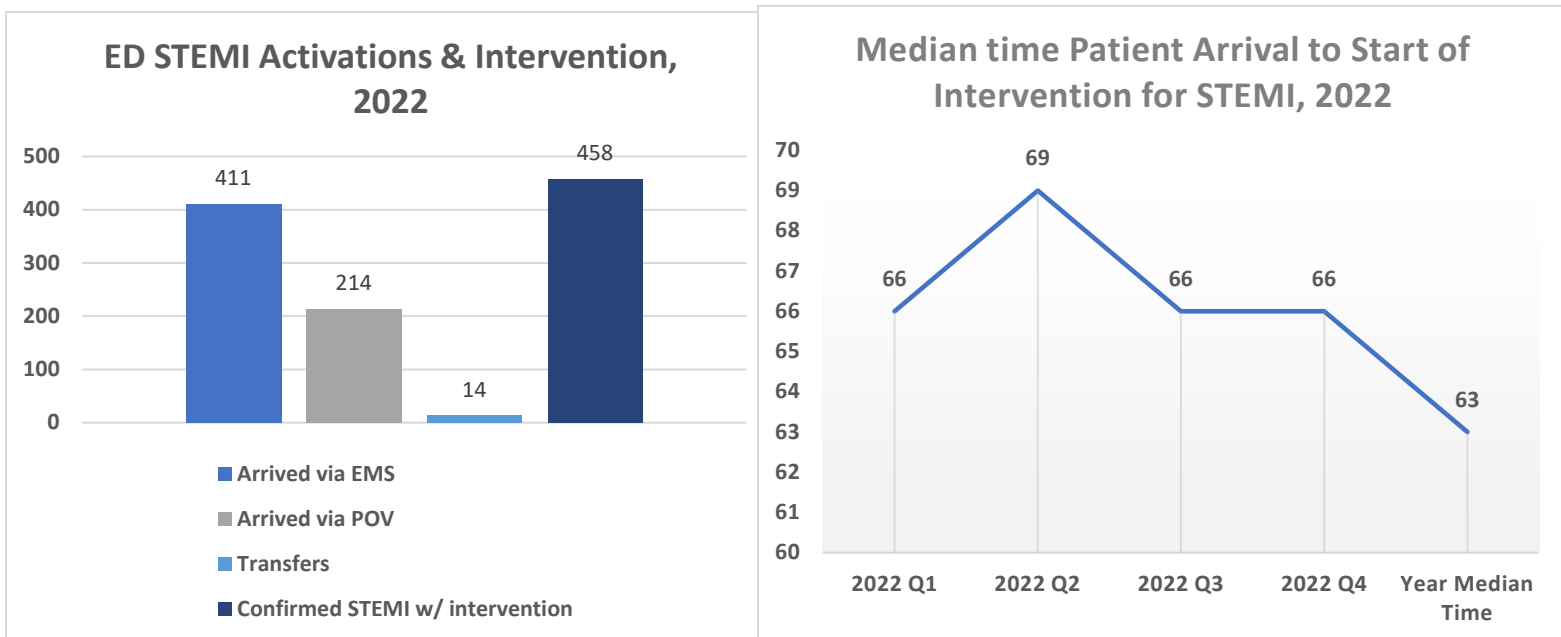


ST-Elevation Myocardial Infarction (STEMI)

A STEMI is a type of heart attack that occurs when a blood clot completely blocks an artery that supplies blood to the heart muscle. This blockage causes the heart muscle to die from lack of oxygen. STEMIs are the most serious type of heart attack and require immediate medical attention. These types of heart attacks occur more often in males and older adults. In 2022, 74% of patients evaluated in Santa Clara County STEMI receiving centers were male and 89% were over the age of 50 years. The largest age group was 61-70 years (25%) followed by 51-60 years (23.7%).

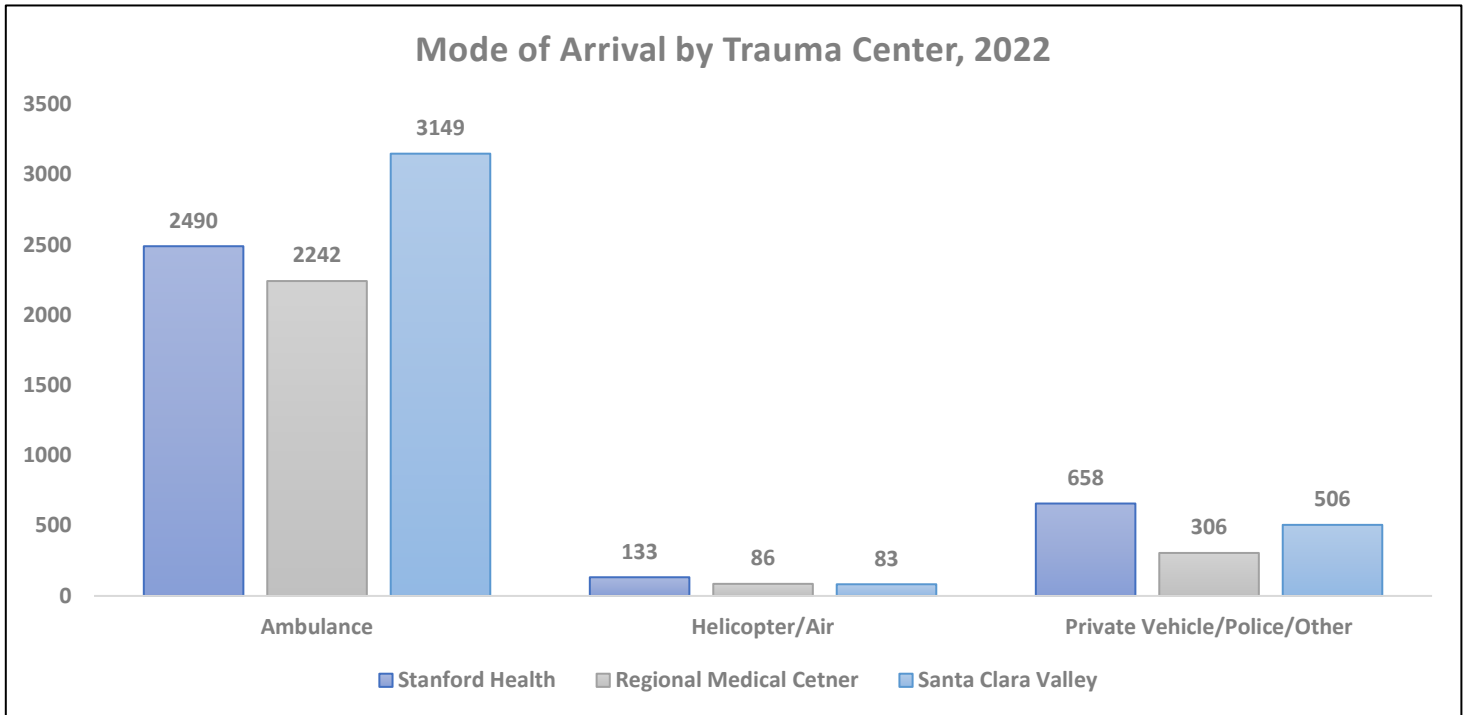
Santa Clara County has eight hospitals that are designated to receive STEMI patients for immediate evaluation and treatment. In 2022, the EMS agency conducted site visits to verify hospitals meet the standards to receive and care for patients with a ST-elevation MI.

STEMI System



Early recognition of a ST-elevation MI on a 12-lead ECG offers the ability to quickly treat a patient by performing a percutaneous coronary intervention (PCI). During this procedure, the arteries of the heart are inspected for clots and blockages. If a clot is present a Cardiologist will remove it, whereas if a blockage is present, they will insert a balloon and a small stent to re-open the artery. This common intervention has national benchmarks to evaluate a STEMI receiving centers ability to rapidly manage care. The benchmark metric includes, measuring the time the patient arrives at the emergency department to when the balloon is inflated in the blocked artery. This is known as Door to Balloon time, with the goal time for each case being less than 90 minutes. In 2022, 639 patients were evaluated for STEMI signs and symptoms while 458 received PCI intervention. Of the patients receiving PCI intervention, 47% arrived by private vehicle while the rest arrived by ambulance. The median Door to Balloon for the eight STEMI receiving centers is detailed by quarter in the graph. In 2022, the median of 63 minutes was well below the national benchmark of 90 minutes.

Trauma System

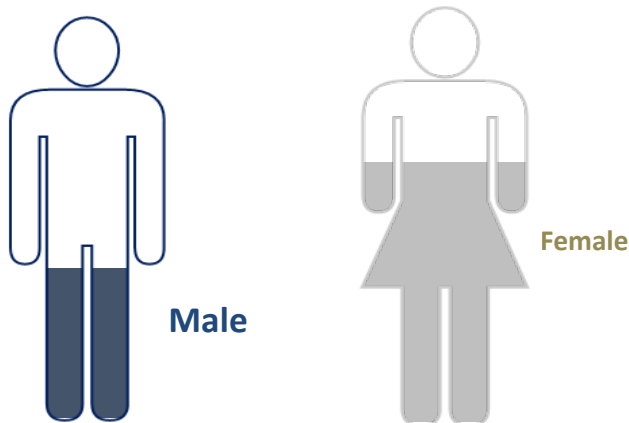


Santa Clara County has three designated trauma centers. The American College of Surgeons (ACS) designated Stanford Health Care as a Level I Adult and Pediatric Trauma Center, Santa Clara Valley Medical Center as a Level I Adult and Level II Pediatric Trauma Center and Regional Medical Center as a Level II Adult Trauma Center. In December 2022, Regional Medical Center underwent their redesignation process. The other trauma centers anticipate site visits in Spring 2023. Each of the trauma centers are assigned a catchment area to assist EMS in transporting to the closest trauma center with the goal of reduced transport times and improving trauma survival. Over 70% of the trauma patients seen, experienced the traumatic injury within Santa Clara County while 15% of trauma volume comes from neighboring San Mateo County. Stanford Health is the closest trauma center for this county and serves as their designated trauma center. Only 2% of the trauma volume comes from outside of the regional Bay Area.

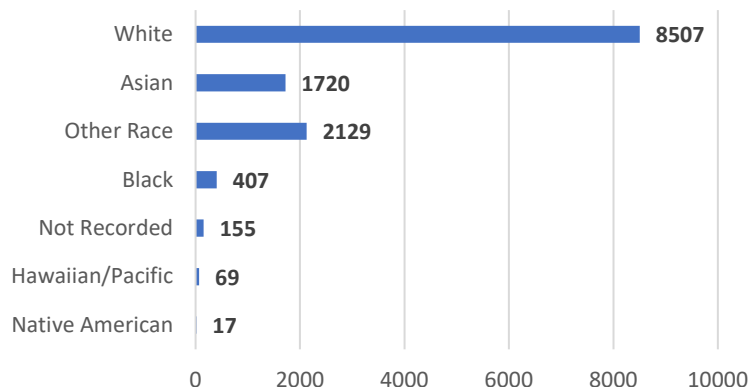
The Trauma System saw 9,653 patients in 2022, with more than 80% being transported by ambulance. Of these, 848 patients were pediatric patients less than 15 years old. The most prevalent type of trauma remains blunt injuries (9,042) followed by penetrating injuries (602) and burns (4).

Trauma Patient Demographics

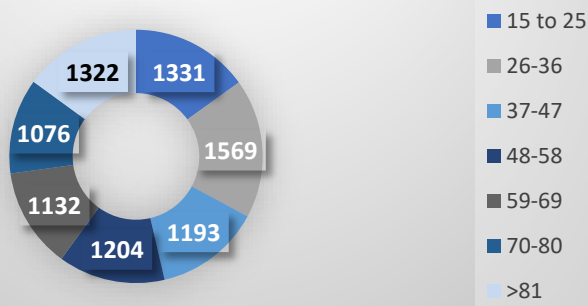
Trauma Patients by Sex, 2022



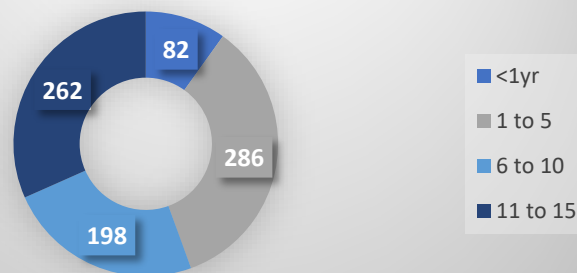
Race of Trauma Patient, 2022



Adult Trauma Patients by Age, 2022



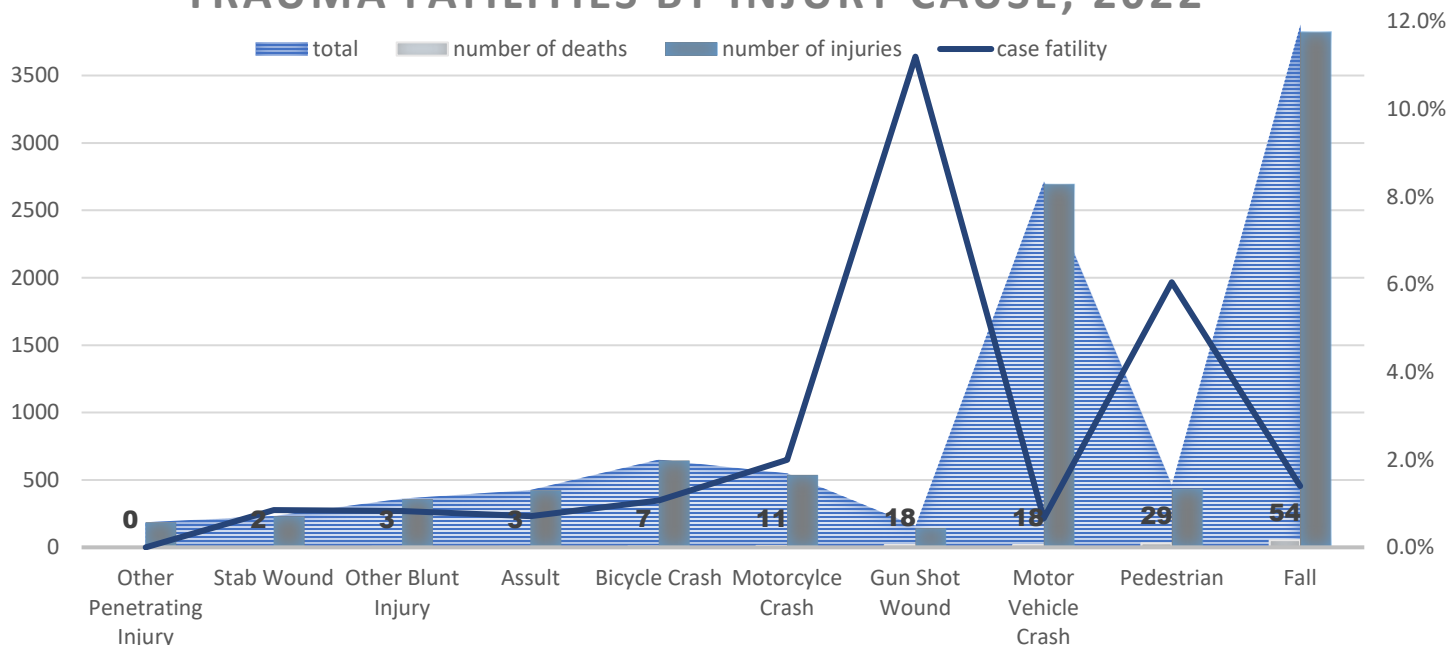
Pediatric Trauma Patients by Age, 2022



The demographics of a trauma patient can help SCCEMSA track trends and identify potential risk factors. This information can then be used to provide targeted care and lead prevention efforts. However, some demographics may remain static or match population data, which indicates that they are not necessarily a trend of concern but rather an expected result.

The dashboard above details the 2022 demographics. Females account for 62% of the trauma patient volume and age is evenly distributed across all sections. Pediatric patients ages 6 years to 15 years account for more 55% of the volume, with children less than one are the smallest portion at 10%. The Trauma registry collects Hispanic/Latino or non-Hispanic as an ethnicity question secondary to race. Of all race information collected, 35% identify as being Hispanic/Latino ethnicity. More than 80% of trauma patients identify their race as white which is a significantly higher representation than the 49.7% identified in population census.

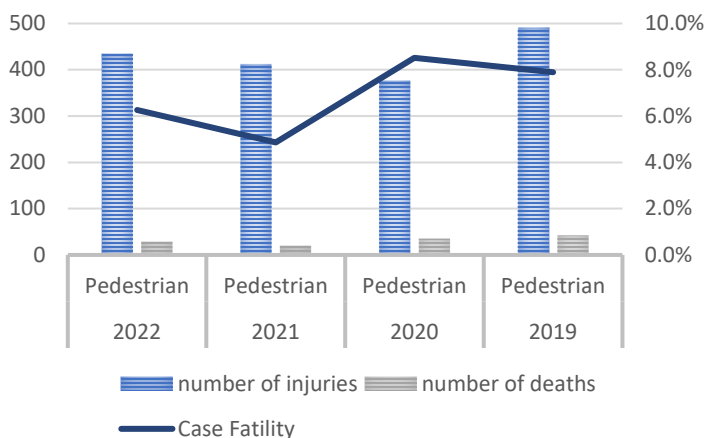
TRAUMA FATALITIES BY INJURY CAUSE, 2022



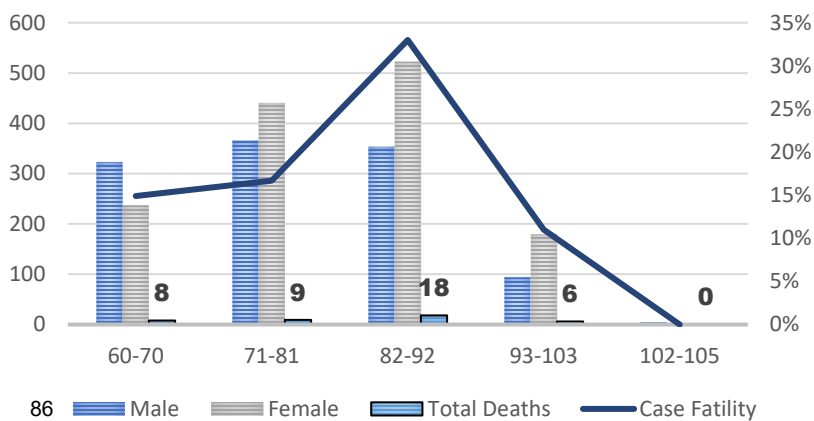
Trauma Mechanism of Injury and Case Fatality

Gun Shot Wound Trauma continues to have the highest case fatality yet a relatively low number of incidents (161) when compared to Falls, which has the highest number of incidents 3,874 incidents with a 1.4% case fatality. However, 41 of the 64 deaths occurred in patients over the age of 60, which yields a 33% case fatality in patients age 82-92. Pedestrian accidents with injury have the second highest case fatality at just over 65 in 435 incidents. Many local governments have noticed an increase incidence of pedestrian deaths, so this data has been trended over the last four years. Case fatality is lower than 2019 and 2021, but there is a 1.4% increase from 2021. Pedestrian accidents and falls are part of ongoing quality improvement initiatives at SCCEMSA.

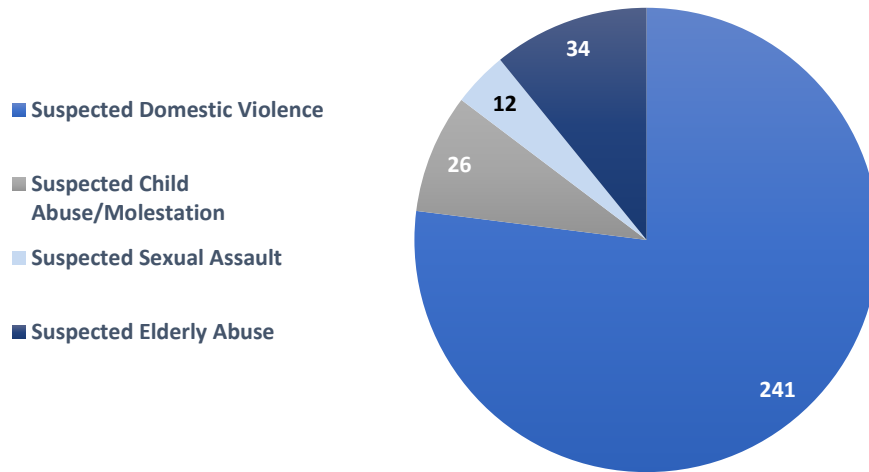
PEDESTRIAN TRAUMAS, 2019-2022



FALLS IN 60 YEARS AND OLDER, 2022



2022 Suspected Assault Victims Assessed by EMS n=313



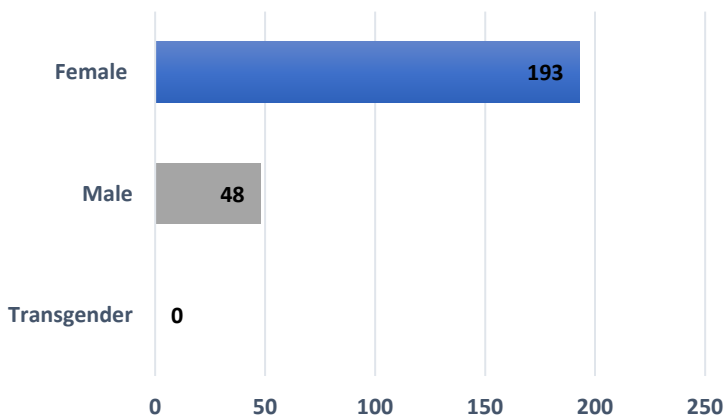
Victims of Abuse and Domestic Violence

SCCEMSA continues to report suspected assault data to monitor trends in the community. Suspected domestic assault continues to be the leading type of assault treated by EMS, followed by suspected elderly abuse. There was no increase in the number of domestic violence cases, however the suspected child abuse cases doubled over the previous year. Surveillance of domestic assaults with strangulation showed a slight increase to 66 cases from 64 cases in 2021.

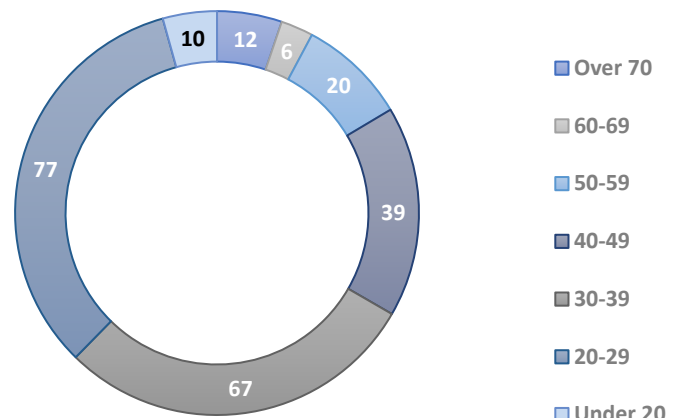
Victims who identify as female remain the most at risk for domestic violence. The number of people identifying as male, or transgender have both reduced.

In 2022, the most at-risk age group of domestic violence remains 20-29-year-old followed by 30-39-year-old with no significant change in the numbers reported for each age group.

2022 Suspected Domestic Violence Victims by Gender n=241



2022 Suspected Domestic Violence by Age



EMS Trust Fund

The EMS Trust Fund was created in 2000 with revenue from liquidated damages paid by Rural/Metro for failing to meet response time standards. Funds are used to fund projects that benefit the EMS System, such as:

- Category A: EMS System Reserve Investment (20% of revenue)
- Category B: EMS System Support-Training, Education and Recognition
- Category C: Benefit to EMS System Stakeholders
- Category D: Strategic Initiatives

In Fiscal Year 23, which runs From July 1, 2021, through June 30, 2022, Category C funds were allocated to fire departments for various projects, including:

- Hardware and software to support the County EMS System Data Project
- First Responder tactical gear and supplies
- CPR training equipment and software

Category D funds were used for reimbursement to Rural/Metro for training programs, maintenance of the EMS System Data Hub, and EMS operational costs.

Overall, the EMS Trust Fund is used to fund projects that improve the EMS System in Santa Clara County.

Future Emergency Ambulance Service System

The County is nearing the end of its current contract with its emergency ambulance service provider for its exclusive operating area (EOA). SCCEMSA recognized an opportunity to assess the County's current emergency ambulance service model and to identify action-oriented solutions that will improve the system to best serve people within the County.

To this end, two consulting firms were hired to assist SCCEMSA in coordinating EMS System Stakeholder involvement and secondly, to provide an extensive financial review of different emergency ambulance service models.

SCCEMSA identified a broad selection of administrators, services providers, and other system stakeholders to understand their perspectives regarding the County's emergency transport needs. The engagement process consisted of monthly meetings at which members reviewed system data and other existing models and heard from speakers including Behavioral Health Services Department representatives, as well as two sets of structured interviews to gather participant questions and priorities, respectively.

EMS System Stakeholders reviewed the following four emergency ambulance service transport models as implemented in four separate localities to determine the best fit for the County:

1. **Private Ambulance Service:** In this model, the EMS agency delegates service to a private company or companies; this is the current County model.
2. **Public Third Service:** In this model, the County has created an EMS Department (or "Third Service") for providing EMS services separate from the Fire and Police Departments, as in Travis County (Austin), TX.
3. **Combination or Alliance:** In the Combination or Alliance model, the EMS agency delegates service provision to a combination of local fire district(s) and private company(s) who coordinate service based on geographic regions, as in Contra Costa County, CA.
4. **Municipal Fire Service:** In this model, the Fire Department provides EMS services, providing initial medical response as well as hospital transport, as in the City & County of San Francisco, CA.

At the conclusion of the model review meetings, EMS System Stakeholders identified the anticipated strengths and challenges of each model, solicited the best fit and ranked EMS transport priorities. EMS System Stakeholders ranked the following priorities as most important for EMS transport in Santa Clara County

- Response times
- Equitable service delivery throughout County
- Alternative means of transport
- Transport to alternative destinations
- Use of both Advanced Life Support (ALS) and Basic Life Support (BLS) ambulances

The financial consultant conducted an in-depth costs analysis of the current provider. The study focused on vertical analysis of the various components of the provider's income and financial statements. Horizontal analysis of several years of financial data and comparing to determine growth rates of the various cost components. The analysis included comparison of financial performance benchmarks from other counties with similar economics. The consultant then applied those findings to the four different models. The following chart reflects the anticipated annual costs for each model.

	Private Ambulance Service	Combination or Alliance Service	Public Third Service	Municipal Fire Service
Total Cost Per Year	\$65M	\$65M to \$81M	\$75M	\$81
Net Cost, Including Revenue from Patient Billing	\$0	\$0 to \$15M	\$9M	\$15M
Net Cost per Capita, Estimate per Year	\$0	\$0 to \$8	\$5	\$8

From the EMS Medical Director

Dr. Kenneth Miller

The EMS system in Santa Clara County is large and complex with many and varied stakeholders. It is the totality of those stakeholders, their governance, and most importantly their practitioners that collectively provide quality patient care.

The trauma system is mature with many decades of practice and quality management. The stroke system has evolved substantially in the past 7 years. The ST-elevation myocardial infarction system is in evolution with ongoing refinement, and the EMS for Children Program is new in 2022. The introduction of a current generation computer-aided dispatch system in 2023 will improve communication efficiency during 911 EMS dispatches, responses, and incident management as well as improve 911 ambulance resource and data management.

EMS system data systems remain modern and continually mature with technologies. The development and integration of artificial intelligence systems has potential to assist EMS practitioners to incorporate clinical patient data into in-the-moment decision making.

The current configuration of the 911 EMS system is largely fire service- and public safety-based EMT and paramedic first response followed by private sector EMT and paramedic ambulance transport. Modern EMS operations and healthcare economics challenge that model. EMS systems, along with other open access healthcare portals like hospital emergency departments, have become and remain the safety net for persons uninsured or underinsured. Behavioral crisis and chronic mental disorders have become a substantial part of the EMS mission. Innovation in patient assessment, transport, and destination options as well as healthcare resource selection other than ambulance transport to acute care hospitals is necessary. Current State of California regulations substantially limit the scope of community paramedicine programs so that innovation will have to come from local EMS systems.

The challenges in modern EMS systems are great but the mission greater. Service to patients and community are core to the provision of emergency medical services systems.



The Employee Excellence Awards Program is an opportunity for Santa Clara County to acknowledge outstanding employees who represent extraordinary public service consistently through exemplary leadership, demonstration of the County's core values, and outstanding contributions to their agencies/departments/districts. Patricia Natividad was selected as the Employee Excellence Award recipient for the month of September 2022.

Patricia has been with Santa Clara County for 22 years and is relentless in her commitment to excellence, personal integrity, and a strong work ethic. She is a quiet professional who began her journey at the EMS Agency in 2001. During her tenure she has functioned in multiple roles continually demonstrating an advanced ability to excel and lead others in a professional manner. Until 2016, the EMS Agency reported to Public Health and had a great deal of assistance in areas such as HR, budget, Legislative filings, contracts, etc. When the EMS Agency became their own department in 2016 her job duties became all-inclusive, with no support. She handled the transition with ease and learned to multitask skillfully and patiently. Patricia took the added responsibility as a challenge and mastered it. Patricia exemplifies the Santa Clara County Mission and sets a very high standard for her work at the EMS Agency. She has the ability to effectively communicate with multiple agencies across the county. She now handles the Agency contracts, budget, HR matters, assists with all stakeholder contract issues, vendors, Trust Fund, grants, employees and putting out necessary fires.

Through her efforts Patricia fosters an environment of open and honest communication that has allowed people to challenge her and each other as they work through problems and opportunities. She recognizes the strengths of people, technical and personal style, and empowers people to make professional improvements. She has worked with multiple individuals to take classes, expand their knowledge base, and improve their work environment.

She is a valued member of the EMS Agency team, and her continued contributions are vital for us to continue to be successful in meeting our mission, vision, and values.

Congratulations Patricia!

Employee Excellence Award



Patricia Natividad
Senior Management
Analyst



Santa Clara
County EMS
Agency

Team Acknowledgement

The Santa Clara County EMS Agency has a dedicated team of professionals. They provide essential services to the EMS System to ensure the community is best served by our work. Thank you for all you do.

Jackie Lowther
Director

Dr. Kenneth Miller
Medical Director

Patricia Natividad
Senior Management
Analyst

Camille Ortiz
Executive Assistant

John Blain
EMS Specialist

Michael Cabano
EMS Specialist

Michael Clark
EMS Specialist

Jason Weed
EMS Specialist

John Sampson
EMS Specialist

David Sullivan
EMS Specialist

Christopher Duncan
EMS Specialist

Isaac Quevedo
EMS Specialist

Daniel Franklin
EMS Specialist

Dustin Gonzalez
EMS Specialist

Lisa Vajgrt-Smith
Specialty Programs Nurse
Coordinator

Richard Alameda
EMS Specialist

Aaron Herrera
EMS Specialist

Manuel Eilas
Office Specialist III

Evangelina Ortiz
Administrative Assistant

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

To: Health and Hospital Committee
From: Jackie Lowther RN, Director Emergency Medical Services
Subject: Emergency Medical Services Agency Monthly Update
Date: October 11, 2023

This memo provides the Emergency Medical Services (EMS) Agency provides its monthly update to the Health and Hospital Committee (HHC).

Contract Ambulance Performance

In the beginning of August, it was determined that the FirstWatch system was not capturing all the response time intervals related to emergency ambulance response. A review of the FirstWatch data determined that three subgroups of ambulance types were not being tracked in the FirstWatch system. Those subgroups included the following:

1. AMR paramedic ambulances with a “R” designator (i.e.: M15R). The “R” designator is used to remind the 911 dispatchers to post the ambulance at its home post.
2. AMR basic life support (BLS) ambulances. These ambulance units use an “A” designator (i.e.: A91) to differentiate them from AMR’s paramedic ambulances which a use an “M” designator prior to the unit number (i.e.: M32).
3. Fire Department ambulances responding in lieu of AMR’s ambulances (i.e.: GI49, MH58, MI86, SC92, SJ3, S20, SJ26). These are the designators County Communications uses in their CAD system to distinguish the fire department ambulances from the AMR ambulances.

FirstWatch was contacted and began work on updating the system’s programming to track the missing ambulances’ response times. To date, there remain approximately 4,000 missing responses that need to be added back into the FirstWatch system. For an unknown technical reason, FirstWatch is missing the following ambulance IDs (GI49, MH58, SC92, SJ3, S20, SJ26). Work continues to resolve this issue.

The 4,000 missing responses will require additional review. When FirstWatch can add the missing fire department responses, those responses will require review as well. Based on the number of responses requiring review by AMR and the EMS Agency, it is likely to take the rest of September and October to complete the response time data from January through August. Upon completion, response time compliance reports will be corrected to reflect the outcome of the compliance review. In addition, FirstWatch has not been able to capture data since the CAD (Computer Aided Dispatch) go live on September 12, 2023.

CAD (Computer Aided Dispatch)

Over the past five years the Santa Clara County EMS Agency has been working in conjunction with County Communication on the new computer aided dispatch system (CAD). The new CAD system enables better resource tracking and ambulance responses in the EMS system. This system also facilitates decisions related to EMS responses based on data collected. This project was due to be completed in late 2022, however multiple challenges caused continued delays.

On September 12, 2023, the County’s new 9-1-1 CAD system went “live”. The new CAD system implementation project was a culmination of hard work by many County departments. As with many new system implementations, the introduction of new software technology has required software upgrades to other programs such as the FirstWatch System used by the EMS Agency to track and report response compliance, will require a software upgrade. It is estimated that the FirstWatch System will not be functional to report current data until late October, early November.

FIRST RESPONDER COMPLIANCE

Compliance is measured by several key performance indicators that include response time requirements based on population density; designated response areas; type of response priority (RLS: red lights & siren or non-RLS: non-red lights & siren); total number of responses; total number of late responses; and total number of responses exempted (removed) from compliance calculations. Compliance is achieved when ninety (90.00) percent or more of the responses meet the specified response time requirement in each response priority within each designated response area. The chart below provides the requested on-time response by zone by month for the period March 2023 through August 2023. It is important to acknowledge all the first responder agencies for their continued support during low system levels to provide quality care to the people of Santa Clara County.

First Responder CODE 3 Performance	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23
Gilroy, City of	93.01%	96.42%	94.32%	95.15%	94.33%	92.91%
Milpitas, City of	95.66%	96.37%	92.09%	95.61%	94.62%	96.11%
Morgan Hill, City of	97.73%	96.28%	97.57%	97.11%	96.31%	95.20%
Mountain View, City of	97.24%	98.67%	96.44%	95.47%	97.63%	96.19%
San Jose, City of	91.12%	92.13%	91.87%	92.61%	91.81%	91.28%
Santa Clara, City of	98.09%	98.77%	96.71%	99.00%	98.09%	97.12%
Santa Clara County Central FPD	97.12%	97.97%	96.25%	97.14%	96.39%	98.89%
South Santa Clara County FPD	92.31%	94.74%	93.13%	88.14%	95.62%	91.23%
Sunnyvale, City of	89.42%	91.84%	91.99%	91.68%	94.96%	91.90%

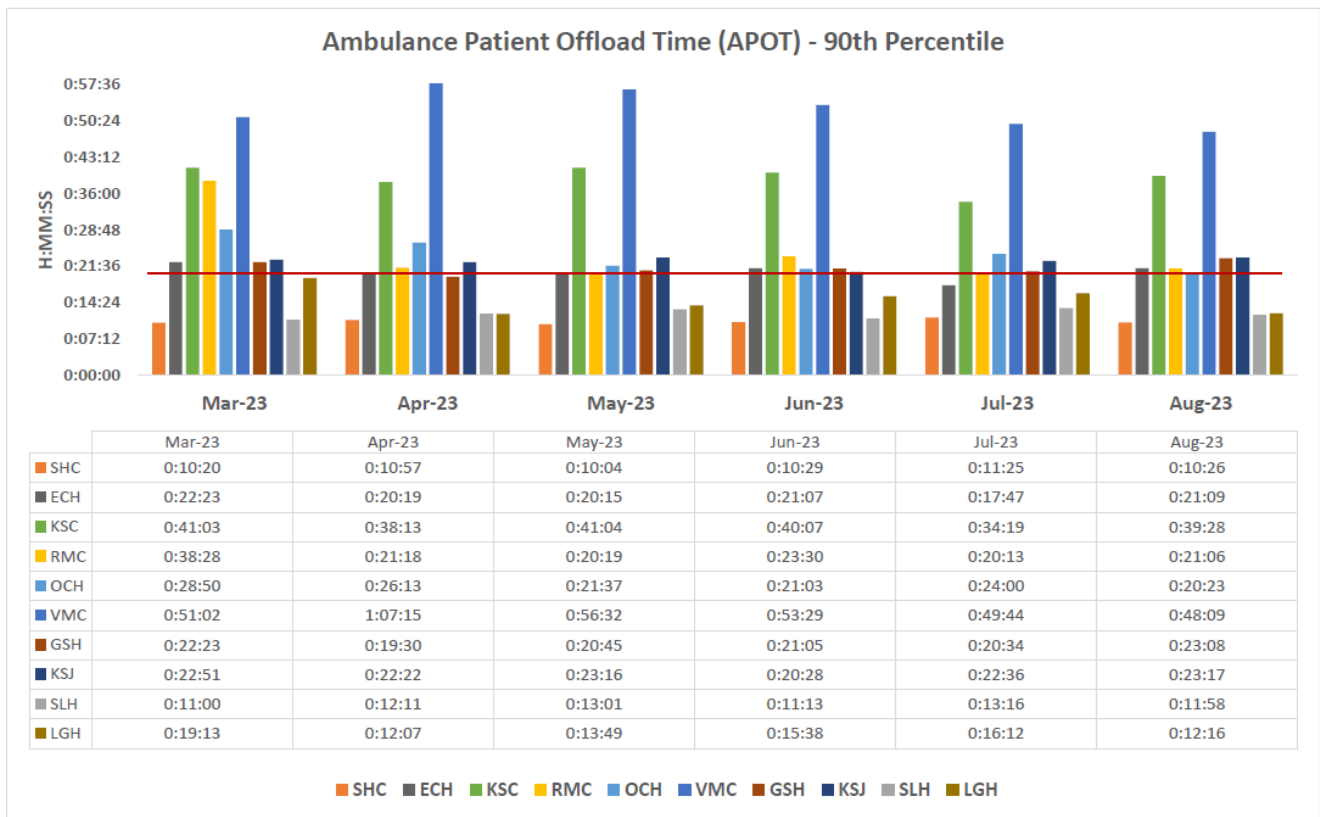
AMBULANCE PATIENT OFFLOAD

The role hospitals play in ensuring that 9-1-1 ambulances are available for the next 9-1-1 call is critical. Ambulance offload delay, the time it takes to transfer a patient to an Emergency Department stretcher for the Emergency Department (ED) staff to assume responsibility for the care of the patient, may have more impact on ambulance turnaround time than ambulance bypass. Ambulance patient offload times (APOT) are calculated for all hospitals that receive patients in Santa Clara County. In 2015, the Health and Safety Code 1797.120 required the California Emergency Medical Services Authority to develop a standard methodology for calculation of, and reporting by, a local EMS Agency of ambulance patient offload time. The EMS Agency has placed significant effort into working with hospital administrators focusing on the time it takes to get ambulances back into service once they have arrived in their EDs. Decreases in offload delays will improve the time patients receive definitive care, including better pain control and antibiotics, when needed.

Over the last two years, the EMS system as well as the hospitals have seen unprecedented changes and have been required to pivot and adapt to changes necessitated by the COVID-19 pandemic and the aftermath. Patient volume variations continued over the twelve months for EMS as well as many hospitals' emergency departments. In October 2020, to help hospitals in Santa Clara County facilitate compliance with APOT, a daily report was sent to designated personnel of all patients held greater than 20 minutes. All emergency departments have worked diligently throughout these continual, challenging times to improve ambulance patient offload times and work collaboratively with the EMS Agency. The EMS Agency officially changed the benchmark for offload times to 20 minutes in August of 2021 to align with the State EMS Authority, which has had this benchmark in place since 2015. In August, three out of ten hospitals met California State EMS Authority's target of 20-minute offload times, with the combined ambulance patient offload time of all hospitals at

86.1% of the time. Eight out of ten hospitals offloaded under 25 minutes, nine out of ten offloaded in 40 minutes or less.

The hospitals that have APOT times greater than 20 minutes have been working on a plan to improve times. The hospitals send the EMS Agency updates on a regular basis whenever there are obstacles to achieving these improvements. Delays are multifactorial, but overwhelmingly ED overcrowding is a key factor, whether because of high volume/high acuity of patients or the inability to move admitted patients through care and discharge. These delays have been causing a continual crisis in the field compounded by decreased deployment numbers by the ambulance provider. For the month of August, it is noteworthy that the longest offload time was 48.09 minutes and this hospital also received 10% (i.e., largest percentage among hospitals tracked) of all Behavioral Health patients, as shown on page 6.



	SHC	ECH	KSC	RMC	OCH	VMC	GSH	KSJ	SLH	LGH
Mar-23	0:10:20	0:22:23	0:41:03	0:38:28	0:28:50	0:51:02	0:22:23	0:22:51	0:11:00	0:19:13
Apr-23	0:10:57	0:20:19	0:38:13	0:21:18	0:26:13	1:07:15	0:19:30	0:22:22	0:12:11	0:12:07
May-23	0:10:04	0:20:15	0:41:04	0:20:19	0:21:37	0:56:32	0:20:45	0:23:16	0:13:01	0:13:49
Jun-23	0:10:29	0:21:07	0:40:07	0:23:30	0:21:03	0:53:29	0:21:05	0:20:28	0:11:13	0:15:38
Jul-23	0:11:25	0:17:47	0:34:19	0:20:13	0:24:00	0:49:44	0:20:34	0:22:36	0:13:16	0:16:12
Aug-23	0:10:26	0:21:09	0:39:28	0:21:06	0:20:23	0:48:09	0:23:08	0:23:17	0:11:58	0:12:16

Bypass

Bypass is a management process that bypasses a hospital to the next closest facility. This may be used temporarily by local hospitals when the patient load exceeds emergency department or specialty center resources.

Facility bypass should be a last resort and utilized only when emergency department/specialty center resources continue to be overwhelmed after internal procedures to manage the situation have been implemented.

The chart below shows the cumulative hours for bypass from March 2023 through August 2023. The EMS Agency monitors the use of hospital bypass on a continuous basis and works closely with each hospital's emergency department management as well as Hospital Administrations to address surge times.

Transport volume for August was 8,551 patients with 276 transports a day, a 30-patient increase from July (5.86% increase). August 2022 volume was 8,531 patients with 275 patients a day.

Table 2: Total Monthly Hours of Emergency Department on "AMBULANCE" Bypass

Hospital (Diversion Zone)	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Total
Stanford (North)	0.00	1.00	1.00	1.01	0.00	1.00	4.01
El Camino - Mt. View (North)	46.29	34.73	55.38	45.02	14.16	11.03	206.61
Kaiser - Santa Clara (North)	26.87	38.15	43.38	41.28	20.07	38.08	207.83
VMC (Central)	30.12	30.06	31.15	27.85	15.03	22.06	156.27
O'Connor (Central)	48.34	22.07	18.07	17.04	32.14	38.08	175.74
Good Samaritan (Central)	6.69	0.00	0.00	4.03	0.00	0.00	10.72
Regional - San Jose (South)	13.04	0.02	2.02	3.00	18.62	0.00	36.70
Kaiser - San Jose (South)	30.11	44.18	45.19	22.08	35.18	42.87	219.61
Saint Louise (South)	13.03	10.03	19.07	6.48	9.03	5.20	62.84
El Camino - Los Gatos (N/A)	26.10	35.75	23.18	13.99	15.05	26.48	140.55
Total	240.59	215.99	238.44	181.78	159.28	184.80	1,220.88

Color Legend for ED Ambulance Bypass Only

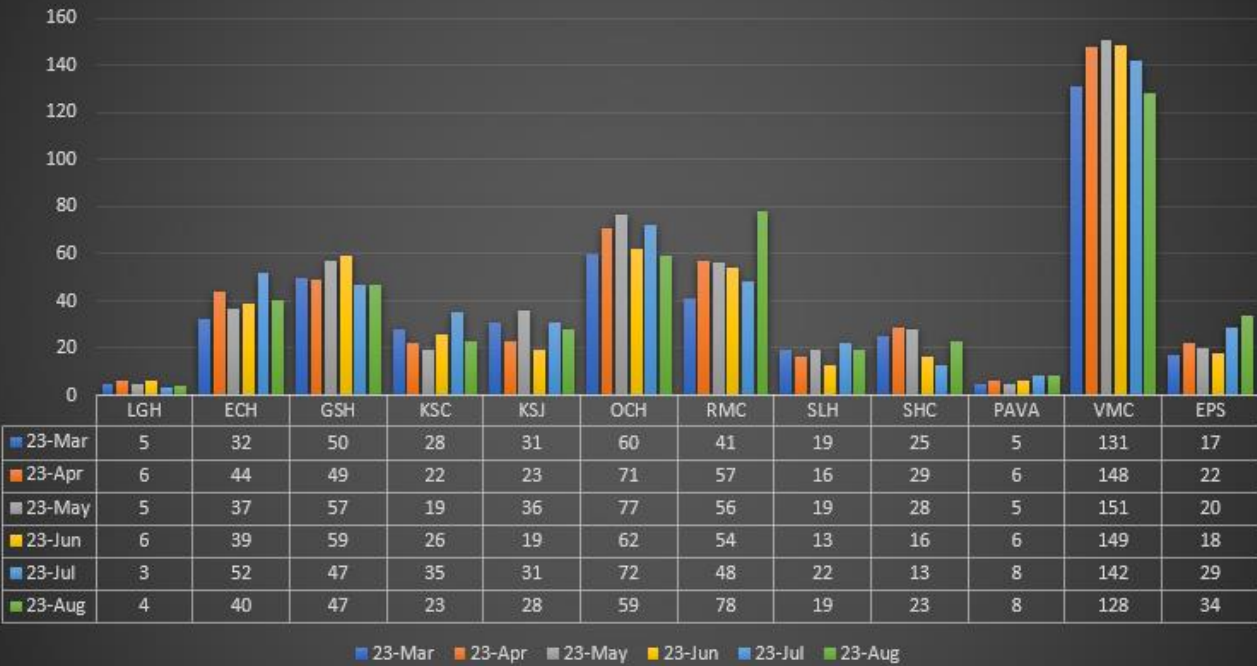
Above 37hrs	Above 30hrs	Below 30hrs
-------------	-------------	-------------

- Total ED bypass hours were 184.80, which was an increase of 25.52 hours (16.02% increase) from July. Three hospitals bypass hours were greater than 37.
- Total Stroke bypass hours were 75.45 which was a 4.97 hour decrease from July.
- Total STEMI hours were 85.17 which was a 107.13 hour decrease from July.

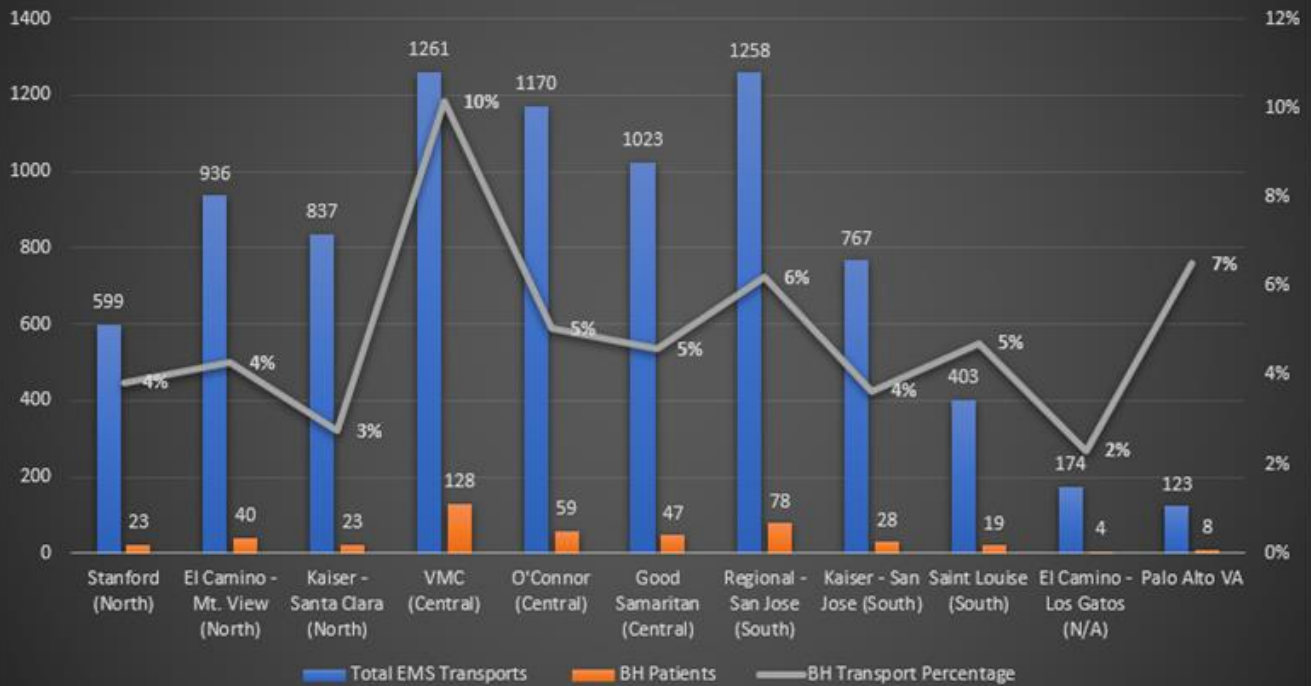
Behavioral Health (BH Distribution)

This chart shows all patients transported with the primary impression of Behavioral/Psychiatric Crisis, not necessarily a patient on a 5150. The May Behavioral Health Crisis patient volume was at its highest peak for 2023.

EMS Behavioral Health Patient Distribution by ED n=2907



Aug 2023 Behavioral Health (BH) Patient Distribution n=457



County of Santa Clara
Santa Clara Valley Health & Hospital System
Emergency Medical Services



115525

DATE: May 16, 2023
TO: Board of Supervisors
FROM: Jackie Lowther, EMS Director
SUBJECT: Proclamation for Emergency Medical Services Week

RECOMMENDED ACTION

Adopt Proclamation declaring the week of May 21 through May 27, 2023 as "Emergency Medical Services Week" in Santa Clara County. (Emergency Medical Services)

FISCAL IMPLICATIONS

There are no fiscal implications resulting from the recommended action.

REASONS FOR RECOMMENDATION

National Emergency Medical Services Week brings together local communities and medical personnel to publicize safety and honor the dedication of those who provide the day-to-day lifesaving services of medicine's "front line."

CHILD IMPACT

The recommended action will have no/neutral impact on children and youth.

SENIOR IMPACT

The recommended action will have no/neutral impact on seniors.

SUSTAINABILITY IMPLICATIONS

The recommended action will have no/neutral sustainability implications.

BACKGROUND

2023 will mark the 48th annual EMS Week. The theme for 2023 is "Where Emergency Care Begins."

CONSEQUENCES OF NEGATIVE ACTION

Failure to adopt this recommendation and proclaim May 21 through May 27, 2023 as “National Emergency Services Week” in Santa Clara County would result in a lost opportunity to recognize the many contributions and lifesaving efforts made by emergency medical professionals.

STEPS FOLLOWING APPROVAL

Upon adoption, the Clerk of the Board will notify Jackie Lowther at Jackie.Lowther@ems.sccgov.org.

ATTACHMENTS:

- EMS Week Proclamation(PDF)

PROCLAMATION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SANTA CLARA FOR EMERGENCY MEDICAL SERVICES WEEK

WHEREAS, emergency medical services is an essential service; and

WHEREAS, the members of emergency medical services teams are ready to provide lifesaving care to those in need 24 hours a day, seven days a week; and

WHEREAS, access to quality emergency care dramatically improves the survival and recovery rate of those who experience sudden illness or injury; and

WHEREAS, the emergency medical services system consists of physicians, nurses, emergency medical technicians, paramedics, firefighters, law enforcement officers, dispatchers, medical volunteers, and others; and

WHEREAS, the members of emergency medical services teams, whether career or volunteer, engage in thousands of hours of specialized training and continuing education to enhance their lifesaving skills; and

WHEREAS, the residents of Santa Clara County benefit daily from the knowledge and skills of these highly trained individuals; and,

WHEREAS, it is appropriate to recognize the value and accomplishments of emergency medical services providers by designating Emergency Medical Services Week.

//

//

//

//

//

//

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Santa Clara that the week of May 21-27, 2023, is proclaimed

EMERGENCY MEDICAL SERVICES WEEK

PASSED AND ADOPTED by the Board of Supervisors, the County of Santa Clara, State of California on this 16th Day of May, Two Thousand and Twenty-three by unanimous vote.

APPROVED AS TO FORM AND LEGALITY:



WESLEY DODD
Deputy County Counsel

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.885.4250 voice 408.885.3538 fax
www.sccemsagency.org

Date: October 31, 2023
To: Santa Clara County EMS Committee Members
From: Patricia Natividad
Senior Management Analyst
Subject: EMS Trust Fund – Liquidated Damages for Fiscal Year 2023

Monthly Liquidated Damages for Response Time

July 1, 2022 – June 30, 2023

Month / Year	Amount
July - 22	\$385,500.00
August - 22	\$384,100.00
September - 22	\$785,400.00
October - 22	<i>Pending</i>
November - 22	<i>Pending</i>
December - 22	<i>Pending</i>
January - 23	<i>Pending</i>
February – 23	<i>Pending</i>
March - 23	<i>Pending</i>
April - 23	<i>Pending</i>
May - 23	<i>Pending</i>
June - 23	<i>Pending</i>
Total for FY23	<i>Pending</i>
Average Monthly Total In Period	<i>Pending</i>

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County Emergency Medical Care Committee
From: John Blain, EMS Specialist
Subject: County Service Area Response Time Performance Reports

History and Issue

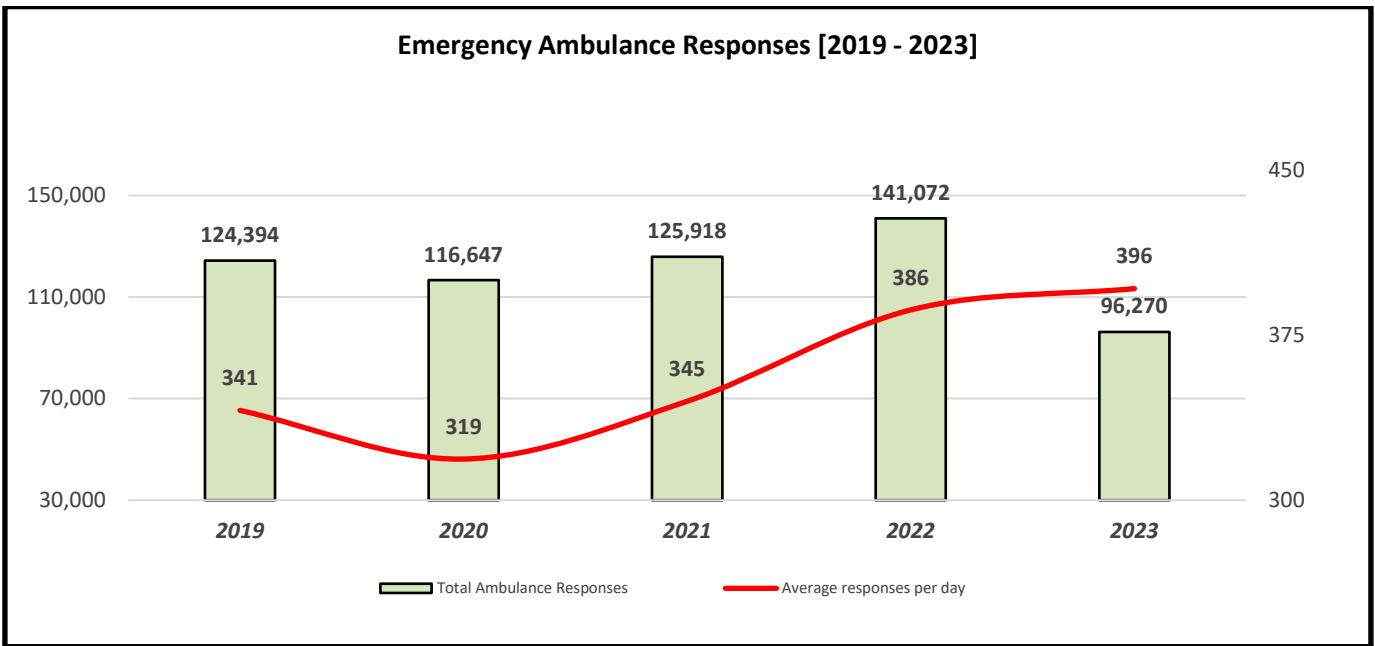
The County has entered into agreements with private and public entities to provide emergency medical response and advanced life support ambulance transportation services. Periodic response time compliance reports have been provided to the Emergency Medical Care Committee for the purpose of providing public review of those entities' performance and compliance with contractual response time requirements. The County has performance-based contracts with the following entities:

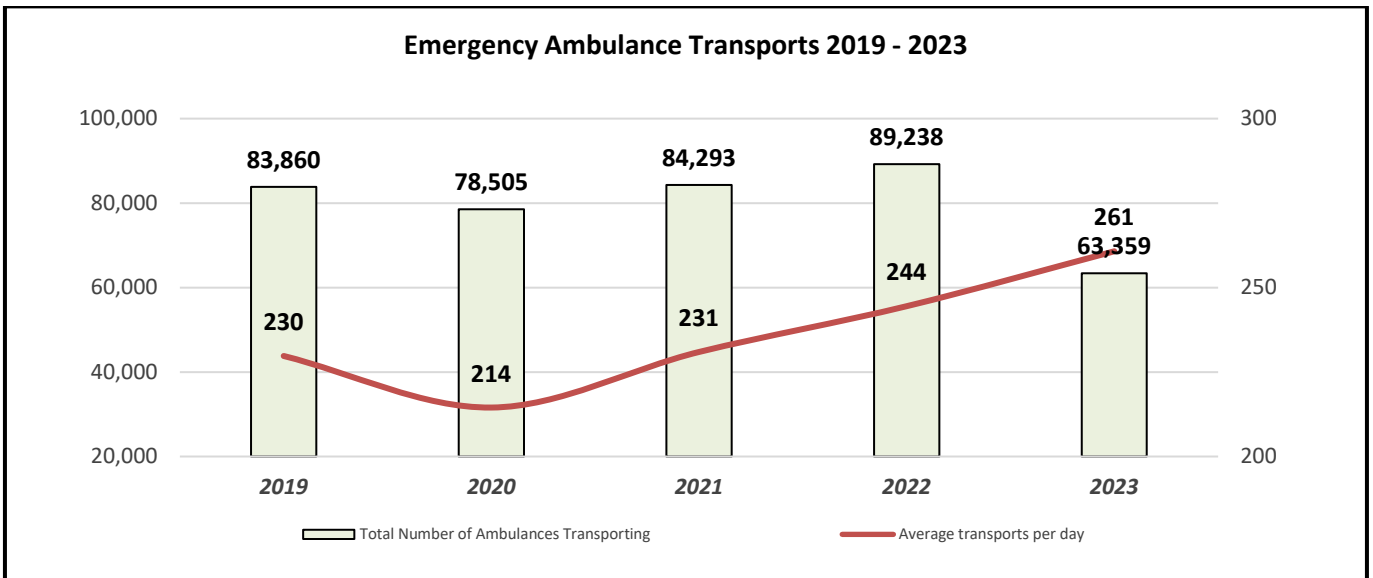
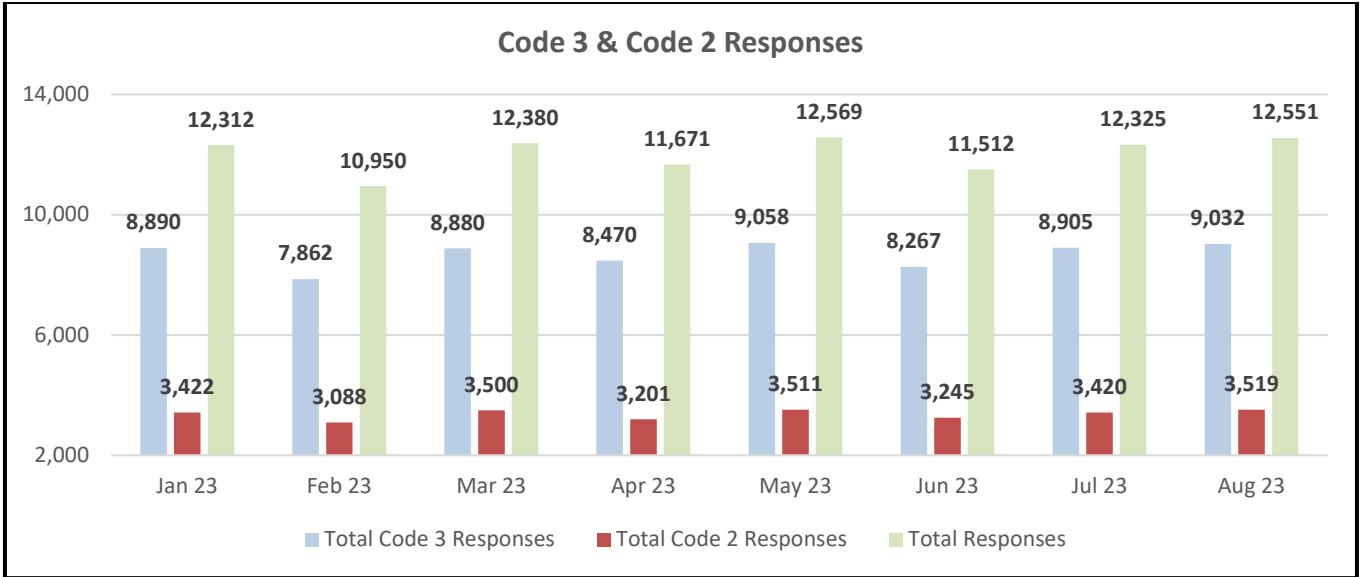
- County Ambulance Contracted Provider (Rural/Metro of California-AMR)
- Gilroy, *City of*
- Milpitas, *City of*
- Morgan Hill, *City of*
- Mountain View, *City of*
- San Jose, *City of*
- Santa Clara, *City of*
- Santa Clara County Central Fire Protection District
- South Santa Clara County Fire District
- Sunnyvale, *City of*

Context

Compliance is measured by several key performance indicators that include; response time requirements based on population density; designated response areas; type of response priority (red lights & siren or non-red lights & siren); total number of responses; total number of late responses; and total number of responses exempted (removed) from compliance calculations. Compliance is achieved when ninety (90.00%) percent or more of the responses meet the specified response time requirement in each response priority within each designated response area.

First Responder CODE 3 Performance	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23
Gilroy, City of	91.48%	97.22%	93.01%	96.42%	94.32%	95.15%	94.33%	92.91%
Milpitas, City of	95.45%	92.98%	95.66%	96.37%	92.09%	95.61%	94.62%	96.11%
Morgan Hill, City of	95.93%	95.09%	97.73%	96.28%	97.57%	97.11%	96.31%	95.20%
Mountain View, City of	95.77%	98.06%	97.24%	98.67%	96.44%	95.47%	97.63%	96.19%
San Jose, City of	91.06%	90.58%	91.12%	92.13%	91.87%	92.61%	91.81%	91.28%
Santa Clara, City of	98.48%	91.57%	98.09%	98.77%	96.71%	99.00%	98.09%	97.12%
Santa Clara County Central FPD	97.32%	97.63%	97.12%	97.97%	96.25%	97.14%	96.39%	98.89%
South Santa Clara County FPD	94.78%	100.00%	92.31%	94.74%	93.13%	88.14%	95.62%	91.23%
Sunnyvale, City of	92.76%	94.10%	89.42%	91.84%	91.99%	91.68%	94.96%	91.90%





County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: October 31, 2023
To: Santa Clara County Emergency Medical Care Committee
From: David Sullivan, EMS Specialist, Vehicle Permit Officer
Subject: Ambulance Services and Permitted Vehicles

Current ambulance providers (as of 10/31/23):

Provider	Levels of Service
American Medical Response - IFT	CCT, BLS
Bay Medic Ambulance	CCT, BLS
CALSTAR	Air
Falcon Critical Care Transport	CCT, BLS
Gilroy Fire Department	ALS
Milpitas Fire Department	ALS
Morgan Hill Fire Department	ALS
NORCAL Ambulance	CCT, BLS
ProTransport-1	CCT, ALS, BLS
Royal Ambulance	CCT, BLS
Rural/Metro (County Ambulance)	ALS
San Jose Fire Department	ALS
Santa Clara City Fire Department	ALS
Stanford Life Flight	Air
Westmed Ambulance	CCT, ALS, BLS

Number of ambulance resources (as of 10/31/23):

Provider	Santa Clara County Ambulances
American Medical Response - IFT	12 (decreased by 2)
Bay Medic Ambulance	4 (same as last report)
CALSTAR	2 (same as last report)
Falcon Critical Care Transport	24 (increased by 3)
Gilroy Fire Department	1 (same as last report)
Milpitas Fire Department	1 (same as last report)
Morgan Hill Fire Department	1 (same as last report)
NORCAL Ambulance	23 (increased by 5)
ProTransport-1	29 (increased by 1)
Royal Ambulance	42 (decreased by 1)
Rural/Metro (County Ambulance - 911)	64 (increased by 3)
San Jose Fire Department	5 (same as last report)
Santa Clara City Fire Department	2 (increased by 1)
Stanford Life Flight	1 (same as last report)
Westmed Ambulance	36 (increased by 5)

Number of field inspections of ambulances and fire apparatus, so far during CY2023:

Resource Type	Inspections
Ambulances, Fire Apparatus, and Quick Response Vehicles	77

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency

700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: October 31, 2023

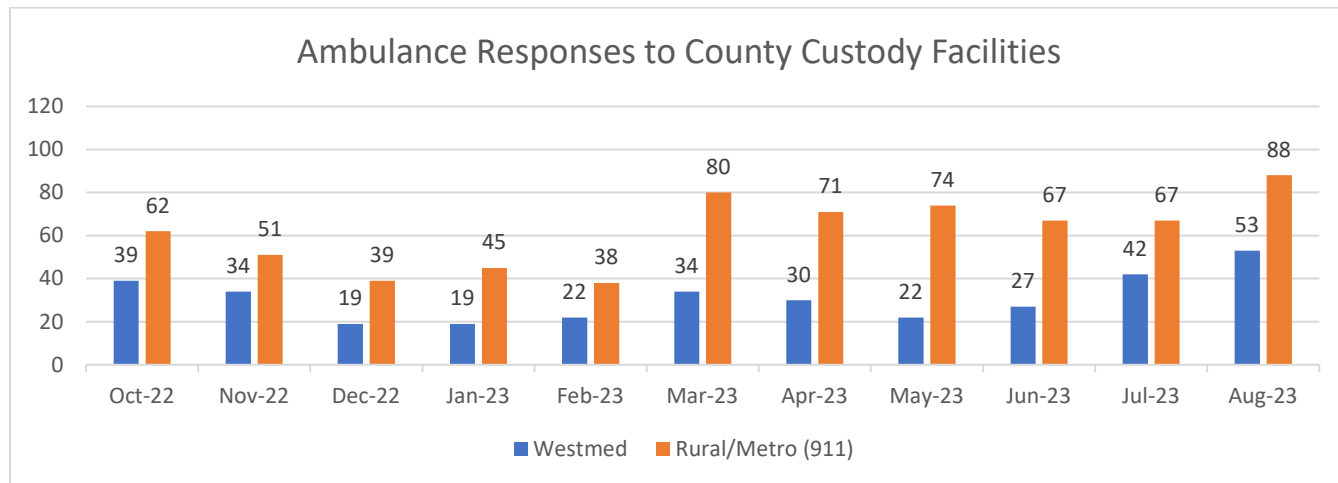
To: Santa Clara County Emergency Medical Care Committee

From: David Sullivan
EMS Specialist

Subject: Ambulance Responses to County Custody Facilities

History: Westmed Ambulance is the contracted ambulance provider for the Santa Clara County Custody Facilities. Occasionally, 911 ambulances are utilized due to patient condition or nature of the emergency.

Report: The following graph shows ambulance responses to the Main Jail and Elmwood Jail. This report reflects responses to the following addresses: 701 S Abel and 945 Thompson in Milpitas, and 150 W Hedding in San Jose combined.



County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency

700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County Emergency Medical Care Committee Members
From: Isaac Quevedo, EMS Specialist, Professional Standards Unit
Subject: Licensure Report from June 5, 2023 - October 31, 2023

History

The certification and credentialing process is a critical component of the Santa Clara County EMS Agency. The EMS Agency credentials (certifications and/or accreditations) Emergency Medical Technicians and accredits Paramedics & CCT-RNs to practice in the Santa Clara County EMS System.

The Santa Clara County EMS Agency released new application types through the ImageTrend Licensure Management System on June 5th, 2023. The new application types were developed with automation for the end user to navigate the applications with ease and allow for online payment.

Listed below are the number of certifications and accreditations processed since the release of the new application types.

Total EMT Certifications (Initial, Renewal, & Reinstatement) – 211
Average certification processing time: 9.59 days

Total EMT Accreditations (Initial & Renewal) – 493
Average accreditation processing time: 10.34 days

Total Paramedic Accreditations (Initial & Renewal) – 215
Average accreditation processing time: 6.59 days

Total CCT-RN Accreditations (Initial & Renewal) – 37
Average accreditation processing time: 10.51 days

End of report.

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: October 20, 2023
To: Santa Clara County EMCC Committee Members
From: Daniel Franklin, EMS Specialist
Subject: **Investigations and Enforcement**

System Variance Reporting

On May 1, 2023, the EMS Agency added an additional online option for submitting System Variance Reports. The form was made accessible through the EMS Agency website under System Variance Reporting in the 900 section of the Policy Manual, or through the “How Do I?” section found in the title bar of the website. This online option was added to give field personnel an easier means to submit the SVR in a field setting from a tablet or phone.

The link to the online option is:
<https://emsagency.sccgov.org/system-variance-reporting>

Investigations

192 Investigation cases have been processed from May 1, 2023, to September 30, 2023.
36 cases remain open currently.

Investigation Types	# of Cases	Open	Closed
AED Use by Law Enforcement	5	0	5
Ambulance Accident	7	1	6
Care Concern	36	14	22
Communications System	4	1	3
Complaint	47	9	38
Confidential	3	2	1
EMS Policy or Protocol	21	5	16
Injury or Illness of EMS Provider	0	0	0
Law Enforcement Naloxone Administration	42	2	40
Lost EMS Badge	14	0	14
Provider Recognition	3	0	3
Quality Improvement/Assurance	3	2	1
Vehicle or Equipment Failure	7	0	7
Totals	192	36	156



**MVDR MEMBERSHIP REPORT
OCTOBER 2023**

CURRENT MEMBERSHIP:

MEMBERSHIP TYPE	ACTIVE	REQUESTED CLOSURE
Medical Volunteers for Disaster Response (MVDR)	94	0
Disaster Health Volunteers (DHV)	137	0
TOTAL	231	0

EVENT PARTICIPATION:

MONTH	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER
EVENT	NorCal MRC Coordinators Meeting	NorCal MRC Coordinators Meeting	NorCal MRC Coordinators Meeting	-	-
	-	-	-	-	-
	-	-	-	-	-
PARTICIPANTS	1	1	1	-	-
	-	-	-	-	-
	-	-	-	-	-
TOTAL MONTHLY PARTICIPANTS	1	1	1	-	-



Event Summary:

Since the last membership report the MVDR Program Administrator has participated in several monthly regional meetings.

Over the next few months there will be a transition of the MVDR Program to a new Program Administrator and a process will begin for re-engagement and recruitment of new members.

Membership Summary:

There have been no membership changes since the last report, please see the table contained above.

Membership Level Definitions:

Level I: The program has little or no advanced knowledge of the member or prior training. Level I members require emergency credentialing and are last to be utilized to fill resource needs. Level I members are ineligible to deploy unless sworn in as Disaster Service Workers (DSW)

Level II: Basic volunteers who have expressed interest in the program prior to attendance. These members have registered with the DHV but have not participated in a new member orientation. These members are used to fill resource needs after Level III and Level IV volunteers. Level II members are ineligible to deploy unless sworn in as Disaster Service Workers (DSW).

Level III: Intermediate volunteers are primarily called into service in disaster events and will be attached to existing infrastructure. These individuals regularly participate in training and exercises. They have completed the core competencies and have been issued an MVDR ID.

Level IV: Level 4 members are the first called for deployments and are deployable with little or no advanced notice. They have completed advanced training classes in addition to frequent participation in training and exercises.

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County Emergency Medical Care Committee
From: Jason Weed, EMS Specialist, Communications/System Providers Unit
Subject: EMS System Initiatives: Equipment and Supplies

History

The Santa Clara County EMS Agency is providing an update related to newly acquired equipment for non-911 ambulance providers, hospitals and the EOA provider. The EMS Agency also is including a reminder for lost and stolen personnel protective gear.

Report

The new CAD system was launched on September 12, 2023, at 0500.

The EMS Agency has restocked the medical supplies in the MCI trailers throughout the county. The MCI trailer at Stanford is still needs cardboard splints, which have been ordered.

Reminder that any lost or stolen personnel protective gear (PPE) requires a police report, System Variance Report (SVR) and a report to the Northern California Regional Intelligence Center (NCRIC). The SVR should be completed with all pertinent details and emailed to the EMS Agency.

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency

700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

Date: October 31, 2023
To: Santa Clara County EMCC Committee Members
From: Chris Duncan
EMS Specialist
Subject: EMS Data Systems Update

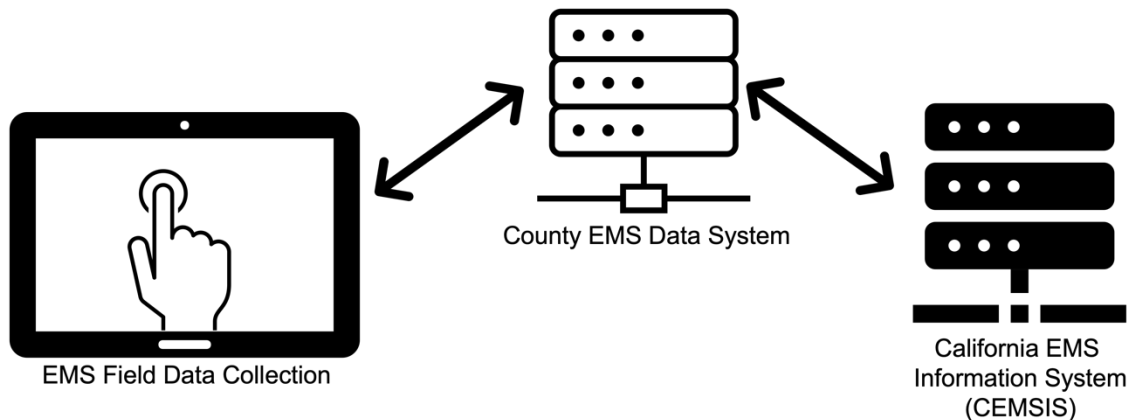
In the first two quarters of this calendar year, the Santa County EMS Agency Data System has received a total of 182,900 patient care records. This includes all charts documenting any inter-facility ground or air ambulance transport and all charts documenting any 911 incident within the Operational Area (OA) of Santa Clara County. For comparison in the calendar year of 2022 (CY-22) there were 295,518 charts submitted.

The following series of reports are limited to reporting period 1/1/2022-6/30/2023 (CY-23 Q1-2) and are focused solely on those patient care records that have been successfully submitted to California EMS Information System (CEMSIS).

911 System Data Collection and CEMSIS Submission

Each patient care record received by the County EMS Data System is submitted to the California EMS Information System. Some records may need to be submitted multiple times to ensure all criteria are met by each record. For this reporting period the Santa County EMS Agency Data System has received 147,482 records documenting 911 incidents within the OA.

Of those 911 records submitted to the EMS Data System, 145,961 (98.97%) charts have been successfully submitted to the California EMS Information System (CEMSIS). Once the data transfer of each record has been successfully received by CEMSIS, the State in turns submits this data to the National EMS Information System (NEMSIS).



Agency Name (dAgency.03) CY-23 Q1-Q2	Total Charts Submitted	Charts Sent to CEMISIS	Percentage of Total
911 - CAL Fire Santa Clara Unit	9	0	0.00%
911 - Gilroy Fire Department	2,473	2,463	99.60%
911 - Milpitas Fire Department	2,371	2,362	99.62%
911 - Morgan Hill City Fire Department	1,308	1,302	99.54%
911 - Mountain View Fire Department	3,099	3,096	99.90%
911 - Palo Alto Fire Department	6,059	5,990	98.86%
911 - San Jose Fire Department	44,476	44,299	99.60%
911 - Santa Clara County Ambulance	70,253	69,134	98.41%
911 - Santa Clara County Fire Department	7,458	7,453	99.93%
911 - Santa Clara Fire Department	4,561	4,519	99.08%
911 - South Santa Clara County Fire District	1,346	1,325	98.44%
911 - Sunnyvale DPS	4,069	4,018	98.75%
Total Charts	147,482	145,961	
% Charts Submitted to CEMISIS			98.97%

For each record that details a patient contact, a Primary Impression (eSituation.11) must be documented. This Primary Impression is a concise category which is set by CEMISIS, describing the problem or condition that is the primary reason for a medical encounter. There are a total of sixty-four (64) values allowed by CEMISIS. The table below displays the top ten primary impressions documented in any 911 chart successfully submitted for this reporting period. Traumatic Injury has remained the number one impression for several years in a row.

Top Ten Primary Impression (eSituation.11) – CY-23 Q1-Q2	Count of Charts	Percentage of Total
Traumatic Injury (T14.90)	17,293	16.14%
General Weakness (R53.1)	8,032	7.50%
Abdominal Pain / Problems (GI/GU) (R10.84)	7,026	6.56%
Respiratory Distress / Other (J80)	5,552	5.18%
No Medical Complaint / Findings (Z00.00)	5,409	5.05%
Behavioral/Psychiatric Crisis (F99)	5,369	5.01%
Non-Traumatic Body Pain (G89.1)	4,982	4.65%
ALOC - (Not Hypoglycemia or Seizure) (R41.82)	4,911	4.58%
Pain/Swelling - Extremity - Non Traumatic (M79.60)	4,697	4.38%
Syncope / Near Syncope (R55)	4,198	3.92%
Total Charts with Patient Contact Sent to CEMISIS	107,151	-

Each record submitted the provider must select a value for the Patient / Incident Disposition (eSituation.12). This value describes how each patient interaction or incident is concluded. The report below displays those 911 charts submitted by County Ambulance that were successfully submitted to CEMIS during this reporting period.

County Ambulance Patient Disposition (eDisposition.12) – CY-23 Q1-Q2	Count of Charts	Percentage of Total
Patient Transported in My Ambulance, Treated During Transport	46,385	67.09%
Canceled After Arrival - No Patient Contact by this Unit	9,666	13.98%
Canceled - Prior to Arrival at Scene	7,159	10.36%
Patient Evaluated and/or Treated, Refusal of Care, Without Transport	2,315	3.35%
Canceled on Scene - No Patient Was Found	1,458	2.11%
Refusal of All Care, Without Transport	414	0.60%
Patient Evaluated and/or Treated, Patient Left in Care of Another EMS Unit, Back in Service.	400	0.58%
Patient Evaluated, no Treatment/Transport Required	389	0.56%
Canceled Prior to En Route	355	0.51%
Patient Dead at Scene - Resuscitation Attempted - Not Transported	209	0.30%
Patient Dead at Scene -Resuscitation Not Attempted - Not Transported	109	0.16%
Standby - Public Safety, Fire, or EMS Operational Support Provided	77	0.11%
Standby - No Services or Support Provided	61	0.09%
Patient Transported in My Ambulance with a Refusal of Care	53	0.08%
Patient Treated, Then Transported by Private Vehicle	42	0.06%
Patient Treated, Then Transported by Law Enforcement	26	0.04%
Patient Treated, Transported with This EMS Crew in Another Vehicle	16	0.02%
Total	69,134	

The report below shows those 911 charts submitted by all Fire First Response Departments, including those departments that have Fire Base Ambulances, that were successfully submitted to CEMISIS during this reporting period.

Fire First Response Patient Disposition (eDisposition.12) – CY-23 Q1-Q2	Count of Charts	Percentage of Total
Patient Evaluated and/or Treated, Patient Left in Care of Another EMS Unit, Back in Service.	39,816	51.83%
Canceled After Arrival - No Patient Contact by this Unit	10,669	13.89%
Patient Evaluated and/or Treated, Refusal of Care, Without Transport	5,901	7.68%
Canceled on Scene - No Patient Was Found	5,111	6.65%
Canceled - Prior to Arrival at Scene	3,561	4.64%
Patient Transported in My Ambulance, Treated During Transport	2,889	3.76%
Patient Treated, Transported with This EMS Crew in Another Vehicle	2,086	2.72%
Refusal of All Care, Without Transport	1,732	2.25%
Patient Treated, Assisted/Retained Care During Transport	1,635	2.13%
Patient Evaluated, no Treatment/Transport Required	1,484	1.93%
Patient Dead at Scene -Resuscitation Not Attempted - Not Transported	567	0.74%
Patient Treated, Then Transported by Private Vehicle	318	0.41%
Standby - Public Safety, Fire, or EMS Operational Support Provided	298	0.39%
Patient Dead at Scene - Resuscitation Attempted - Not Transported	275	0.36%
Canceled Prior to En Route	222	0.29%
*Public Assist Only ("Lift Assist"/Non Medical Call)	97	0.13%
Patient Treated, Then Transported by Law Enforcement	89	0.12%
Standby - No Services or Support Provided	63	0.08%
Patient Transported in My Ambulance with a Refusal of Care	10	0.01%
*Assisted Only, Other Agency	3	0.00%
Total	76,827	

During this reporting period there were 49,602 records from the 911 EMS System that were successfully sent to CEMSIS documenting the transport of a patient. This includes all records submitted by County Ambulance and all Fire Departments with Fire Based Ambulances (including Palo Alto Fire). The table below is the breakdown down of the number of patient transports to each Approved Emergency Department during this reporting period.

911 Transport Destinations – CY-23 Q1-Q2	County Ambulance Transports	Fire Based Transports	Percentage of Total
Regional Medical Center (RSJ)	6,934	153	14.29%
Valley Medical Center (VMC)	6,730	189	13.95%
O'Connor Hospital (OCH)	6,509	307	13.74%
Good Samaritan Hospital (GSH)	5,902	47	11.99%
El Camino Hospital of Mt View (ECH)	4,952	122	10.23%
Kaiser Santa Clara (KSC)	4,656	233	9.86%
Kaiser San Jose (STH)	4,576	37	9.30%
St. Louise Hospital (SLH)	2,235	2	4.51%
Stanford University Hospital (SUH)	2,166	1,818	8.03%
El Camino Hospital of Los Gatos (LGH)	1,036	2	2.09%
Palo Alto VA Hospital (PAV)	490	64	1.12%
Emergency Psychiatric Services (EPS)	138	0	0.28%
Kaiser Fremont (KFF)	52	2	0.11%
Kaiser Redwood City (KRC)	46	132	0.36%
Washington Hospital (WTH)	42	2	0.09%
Hazel Hawkins Hospital (HHH)	12	0	0.02%
Sequoia Hospital (SEQ)	6	10	0.03%
Total	46,482	3,120	

NEMSIS Version 3.5

As previously reported during our May 2023 EMCC, the National EMS Information System (NEMSIS) will be undergoing a data dictionary update. The current data dictionary, referred to as Version 3.4 is evolving into Version 3.5. The deadline to begin submitting v3.5 data is January 1, 2024. The EMS Agency began transition planning over a year ago.

The EMS Agency has created and tested a new data entry run form that is NEMSIS v3.5 compliant. This new runform has been made available in the two “sandbox” or demonstration services for each provider service to begin instruction with their providers. Training to all users groups was made available at the Annual EMS Update Train the Trainer meeting in September 2023. The EMS Agency remains available for onsite or specific training for any user group to assist with this transition. Trainings have already occurred for a few fire departments.

In June of this year, State EMSA (CEMSIS) has announced they are fully prepared to receive the new NEMSIS 3.5 Data. Our EMS Agency has successfully submitted all necessary demographic files to CEMSIS. This ensures that each record sent from the County Data Hub will be accepted into CEMSIS as we fully transition to the new version.

The EMS Agency will continue working with all stakeholders to ensure an efficient runform is utilized to allow for ease of data entry by the various 911 field providers. The EMS Agency will continue building a wide variety of training documents, guidelines, and videos throughout the coming months. Most of this work will be completed in conjunction with the EMS 911 ePCR User’s QI Committee.

Options

- 1) Recommend to accept report
- 2) Recommend to NOT accept report
- 3) Other options, as determined by the EMS Committee

Recommendation

EMS Committee should accept the “EMS Data System Update”.

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: 16 November 2023
To: Santa Clara County EMCC Committee Members
From: Ken Miller MD PhD
Medical Director
Subject: EMCC Medical Director's Verbal Report

Report

Item #14: EMS System Initiatives: Clinical Care and Patient Outcome

- A.
 - a. Frequent 911 Users
 - b. APOD Reduction Pilot Project
- B.
 - a. 911 Nurse Navigator Pilot Project

Options

- 1) Recommend accepting report
- 2) Recommend to not accept report
- 3) Other options, as determined by the EMS Committee

Recommendation

EMCC Committee accept the November 16, 2023, EMCC Medical Director's report.

County of Santa Clara Emergency Medical Services System

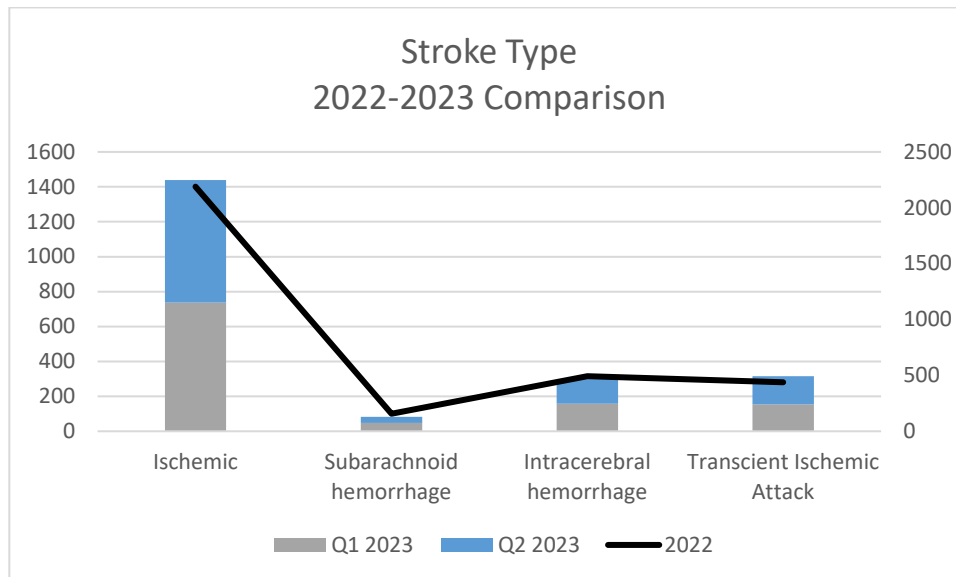


Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | emsagency.sccgov.org
www.facebook.com/SantaClaraCountyEMS

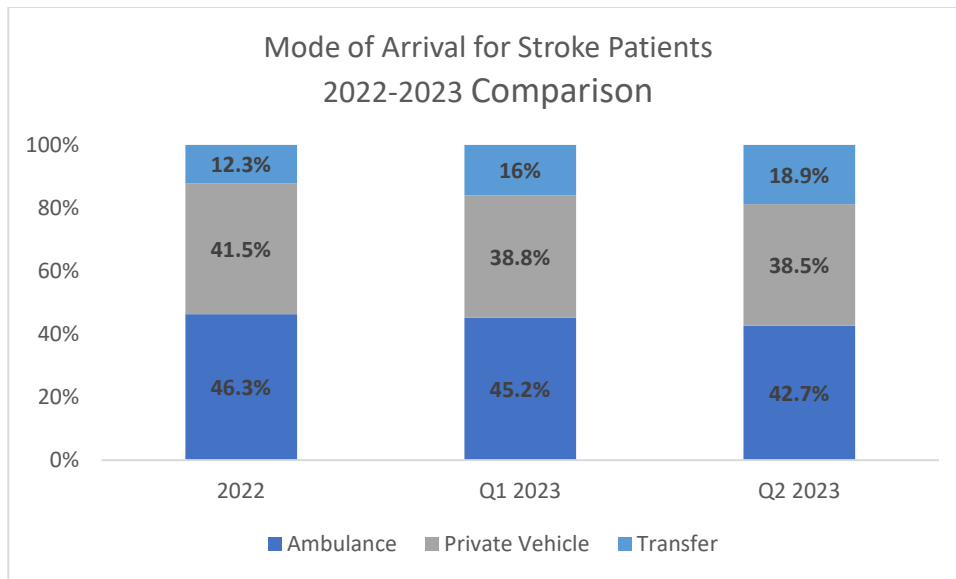
Date: October 31, 2023
To: Santa Clara County Emergency Medical Care Committee Members
From: Lisa Vajgrt-Smith, Specialty Programs Nurse Coordinator
Subject: Specialty Care Programs Report

Stroke System Report

From January 1, 2023, through June 30, 2023 (1st and 2nd quarter), 2,136 patients were evaluated and diagnosed as having a stroke in Santa Clara County Emergency Departments (ED). Consistent with previous years data and national trends, ischemic strokes remain the most common (67%) followed by intracerebral hemorrhages (14%) and transient ischemic attacks (14%).

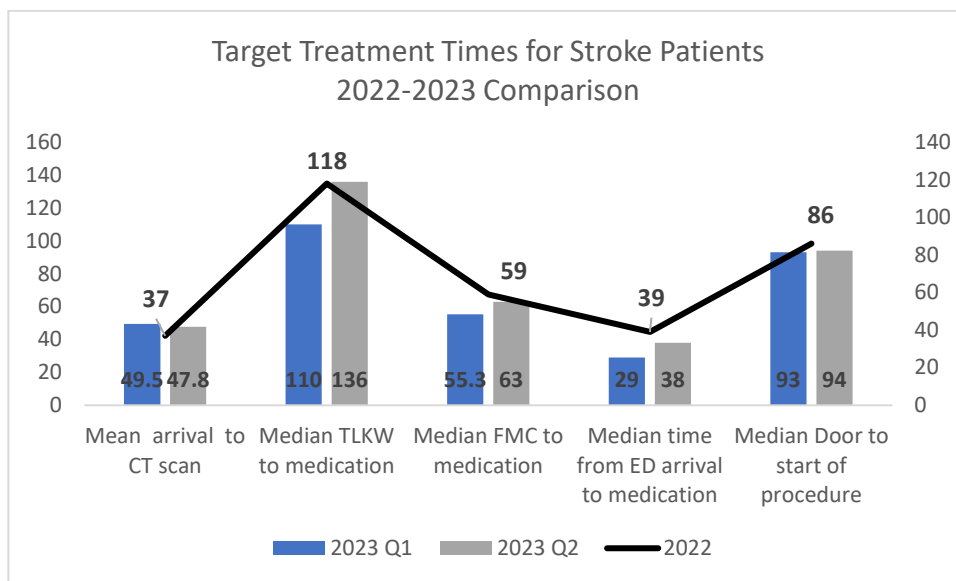


As the time from symptom onset to evaluation and diagnosis increases, treatment options for a stroke diminish. The goal is to administer life saving medication to ischemic stroke patients within four hours of symptom onset. Because of the, the healthcare system strongly encourages patients and family to utilize Emergency Medical Services (EMS) when a stroke is suspected as opposed to self-transport. Last year, SCCEMSA in partnership with the stroke centers led a post card distribution campaign to increase community awareness for stroke symptoms and activation of 9-1-1. Current data supports a slight reduction in the number of private vehicle transports to local EDs. Certain stroke patients may need advanced intervention and more specialized care necessitating a transfer from one of the five Primary Stroke Centers (PSC) to a Comprehensive Stroke Center (CSC). Occasionally, transfers may originate from outside of the county as well.



Several benchmarks in the stroke care pathway ensure that patients receive timely treatment and meet the medication treatment window of 4.5 hours from time last known well (TLKW) to administration of thrombolytics.

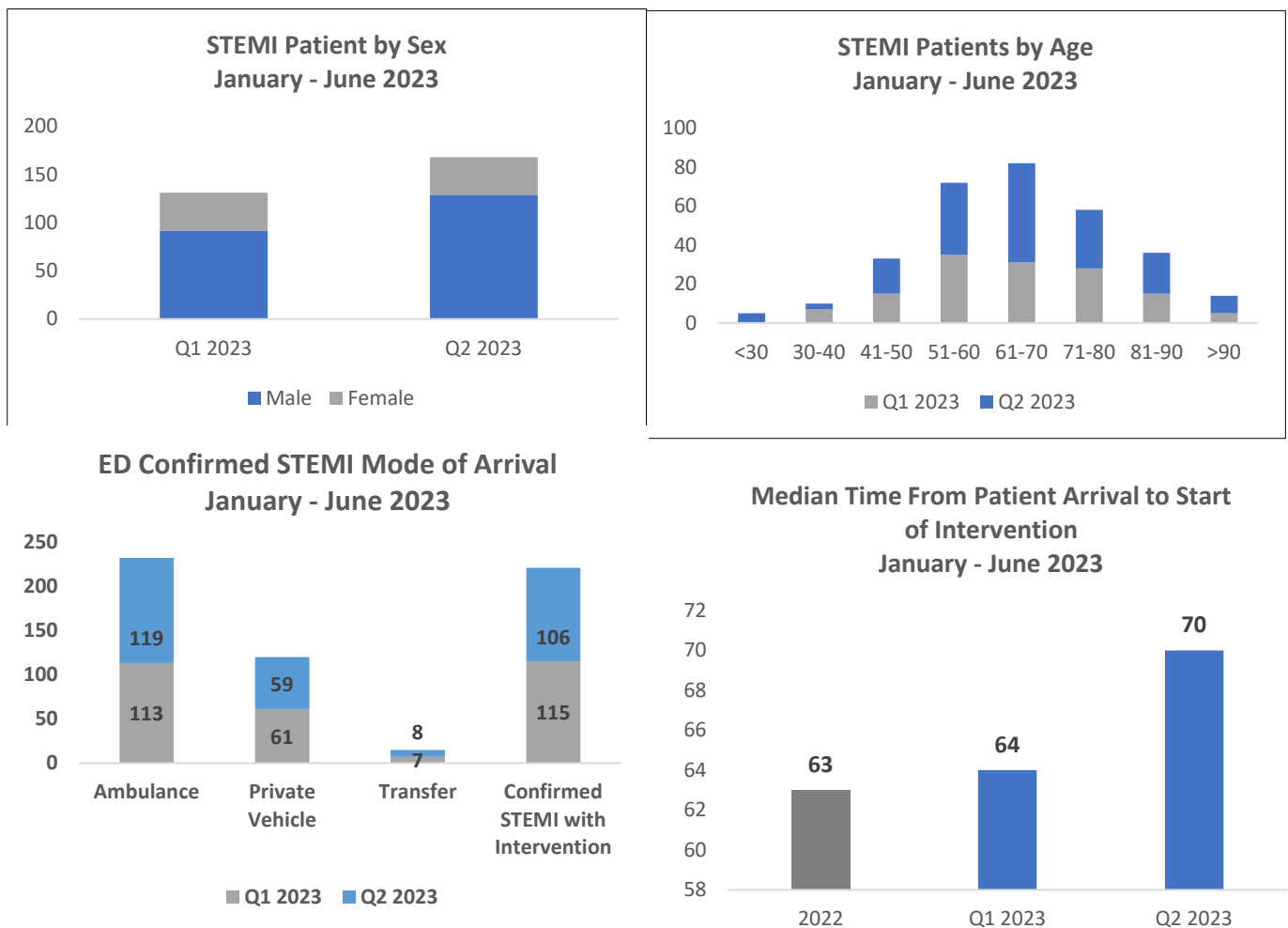
- The median time for all hospitals to achieve the goal of 20 minutes from emergency department (ED) arrival to head CT scan is currently 48.6 minutes.
- The benchmark for patients qualifying to receive a thrombolytic after arrival is 60 minutes for 75% of the care population; currently the median is 33.5 minutes for all hospitals.
- Some stroke patients require further intervention to remove a clot from a cerebral artery, known as a mechanical thrombectomy. Approximately 70 patients receive this treatment per quarter. The target time from patient arrival to the ED to the start of the procedure is 90 minutes. The current median time is 93.5 minutes for the five hospitals capable of performing this procedure.



Please refer to the Emergency Medical Services Agency 2022 Annual Report for a full comparison of data.

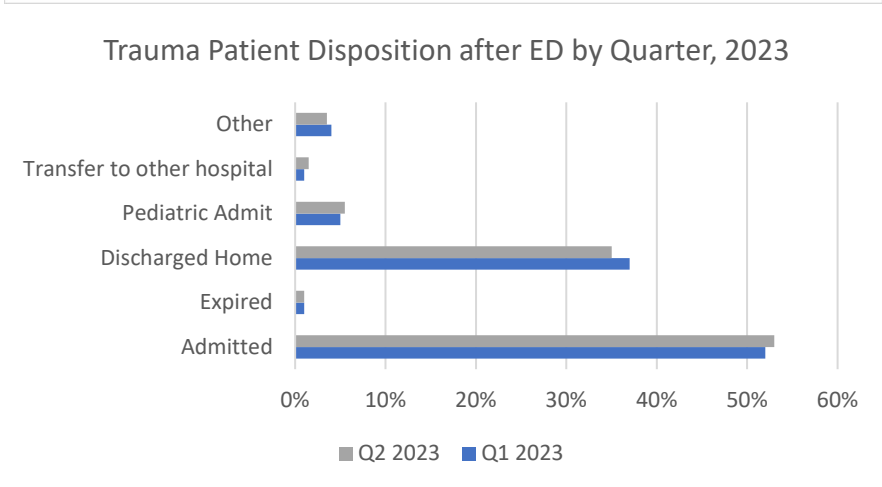
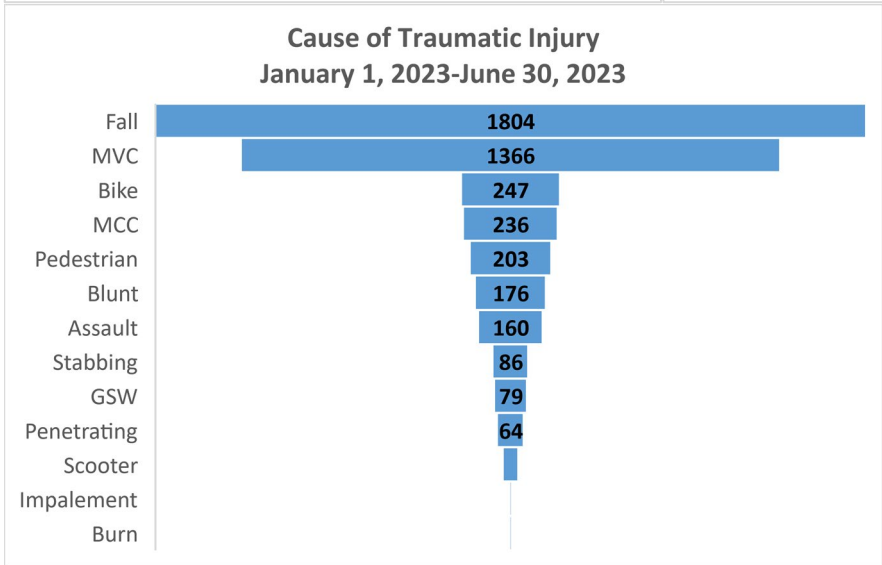
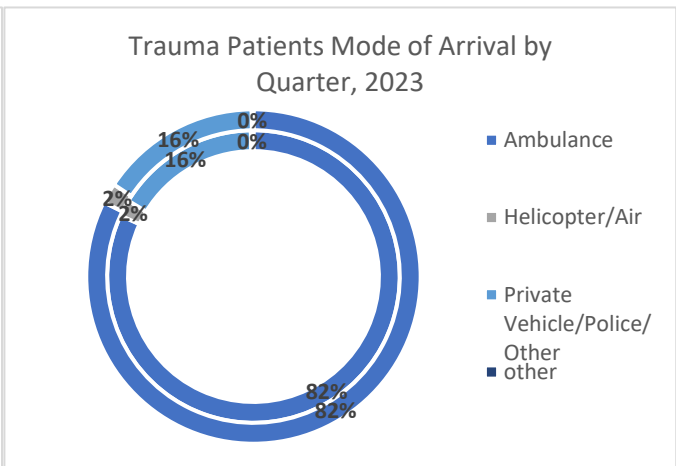
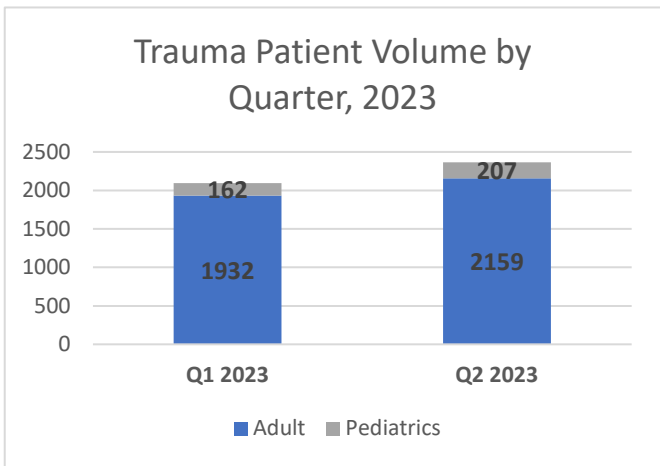
ST Elevation Myocardial Infarction (STEMI) System Report

Since January 1, 2023, to June 30, 2023, there have been 367 patients evaluated for an ST-elevation myocardial infarction (STEMI) in one of the eight STEMI receiving centers. Seventy percent of the patients diagnosed as a STEMI are male and the majority are between the ages of 51-70 years. Patients arriving to an ED by ambulance are not confirmed as a STEMI until after ED evaluation, Therefore the total count of STEMI patients arriving by EMS accounts for false activations. Whereas the total number of patients arriving by POV, and transfer are confirmed STEMI. SCEMSA requests that STEMI receiving centers enter data for all EMS patients to track the false positive rate and address provider interpretation gaps. The current false activation rate is estimated to be 30%-50%. There is a project underway to improve EMS activation for STEMI. The standard treatment for STEMI is for the patient to undergo a percutaneous coronary intervention (PCI) for the placement of a stent and/or removal of a clot in one of the main coronary arteries. The standard benchmark for care of a STEMI patient is to have the start of the PCI procedure occur within 90 minutes of arrival to the ED. The current median time for all eight hospitals is 67 minutes, well within the benchmark. Please refer to the Emergency Medical Services Agency 2022 Annual Report for a full comparison of data.



Trauma System Report

For the first two quarters of 2023, the trauma system saw a total of 4,091 adult patients and 369 pediatric trauma patients, Eighty-two percent of the patients were transported by EMS while 16% transported by private vehicle. The primary cause of injury remains falls, followed by motor vehicle accident, bicycle accidents, motorcycle accident and pedestrian accidents. The disposition after ED helps provide insight to the severity of the injury. More than 50% of patients are admitted, indicating their injuries were more severe and needed ongoing care and evaluation, while 35% are discharged home. Less than 1% of trauma patients transported to an ED, expire while in the ED. Please refer to the Emergency Medical Services Agency 2022 Annual Report for a full comparison of data.



EMS for Children

In June 2023, The EMS Authority (EMSA) has approved the Santa Clara EMS Agency's EMS for Children System Plan submitted in accordance with the California Code of Regulations, Title 22, Chapter 14, EMS for Children. The Santa Clara EMS Agency's EMS for Children system plan is compliant with the California EMS for Children Regulations. This was welcomed news as we continue to develop the EMS-C program.

In August 2023, Good Samaritan Hospital's designation level was changed from Advanced Pediatric Receiving Center to General Pediatric Receiving Center after the closure of its PICU.

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95126
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County Emergency Medical Care Committee
From: John Sampson, Dustin Gonzalez and David Sullivan, Prehospital CQI Unit

Two handwritten signatures are shown. The first is a cursive signature that appears to be "John Sampson". The second is the initials "D.S." written in a simple, blocky font.

Subject: Pre-Hospital QI reporting
History: Please see attached written report

Pre-Hospital QI unit staff realignment: EMS Specialist Dustin Gonzalez has joined the Pre-Hospital QI unit, replacing EMS Specialist David Sullivan. Specialist Sullivan will be joining the Special Operations Unit. Specialist Sullivan will however maintain his role with EMS for Children.

2024 Treatment Protocol Changes: The following protocol changes will become effective January 1st, 2024. These changes were the result of regularly scheduled protocol revisions that took place over the 2023 calendar year. All changes are the result of changing industry standards or identified treatment revision based on data surveillance and analysis.

700-A02 Seizure & 700-P02 Pediatric Seizure

- If BGL is less than 60mg/dl, treat for hypoglycemia (formerly 80 mg/dl).

700-A03 Hypoglycemia & 700-P03 Pediatric Hypoglycemia

- If BGL is less than 60mg/dl, treat for hypoglycemia (formerly 80 mg/dl).

700-S04 Routine Medical Care Adult & 700-S05 Routine Medical Care Pediatric

- If BGL is less than 60mg/dl, treat for hypoglycemia (formerly 80 mg/dl).

700-A06 Burns

- Clarified types of burns.
- Added Palmar method and updated reference images.
- Changed IVF admin & bolus.

700-P06 Pediatric Burns

- Ensured wording matched adult burn policy.
- Clarified types of burns.
- Added Palmar method and updated reference images.
- Changed IVF admin & bolus.

700-A07 Cardiac Arrest-

- This is a combination of 700-A07 and 700-A17 in one place.

700-A08 Chest Pain-Cardiac Ischemia

- Clarified use of oxygen.
- Added advanced notification wording and reference to Policy 501.
- Added placement of defibrillation pads
- Adjusted language for phosphodiesterase inhibitors to be more inclusive of all uses (not specific to ED in men).

700-A13 Stroke

- Updated GFAST box to add more clarifying verbiage.
- Revised language to match AHA (American Heart Association) standards with TLKW (Time Last Known Well) and anticoagulant history.
- Revised BG to 60 mg/dl.
- Added details to *Special Considerations* to assist with TLKW and patient historian.
- Added advanced notification wording and reference to Policy 501.

700-A15 Poisoning and Overdose

- Added "If ALS is on scene, Naloxone should be given IV or IM by ALS provider."
- Added the consideration if 12-lead ECG to the ALS treatment section.

700-A16 Trauma Care

- Pelvic Binding treatment verbiage to routine treatment section.
- Fluid bolus treatment verbiage added to ALS treatment section.
- Pain Management verbiage added to ALS treatment section.

700-P18 Neonatal Resuscitation

- Updated to current industry standards.
- Changed suction verbiage to only if needed.
- Additional detail regarding cord clamping procedure.
- Added oxygen titration based on SPO2 verbiage.

700-S06 Falls

- New protocol.
- Help identify falls that meet trauma criteria.
- For falls that do not meet trauma criteria-addresses cause of fall.
- Identifies concern for other specialties.
- Provider education/fall reduction program.

Procedures:

700-M08 Intraosseous Infusion

- Added pediatric dose of lidocaine to tibial IO site.

700-M09 12-lead ECG

- Improved directions to assist in obtaining quality EKGs.
- Added definition of STEMI.
- Cleaned up indications list.
- Updated image for EKG lead placement.
- Added image for STEMI identification.

Policies

402 EMS for Children QI

- New Policy outlining EMS for Children Quality Improvement.

600 - Field Pronouncement of Death

- Deleted "No shock was delivered" verbiage to field pronouncement guidelines.

602 - 911 EMS Patient Destination

- Added Stroke like symptoms, Return of Spontaneous Circulation (ROSC), Suspicion of child abuse to list of reasons to transport to advanced/comprehensive receiving center.
- Added Saint Louise to list of SAFE Centers.

603 Bypass

- Report planned STEMI/Stroke bypass using SVR.

605 Prehospital Trauma Triage

- New ACS (American College of Surgeons) Trauma Triage Guidelines
- Adjustments made to special considerations section.
- Burn Criteria to include high-voltage.

2024 Prehospital Quality Indicators: The 2024 indicators will be selected by the PCSQIC (Pre-Hospital Care Systems Quality Improvement Committee). The indicators will be selected at the final PCSQIC Committee meeting this December. The committee will focus on the monitoring of new or revised treatment protocols, monitoring of prehospital specialty care performance and elected data collection. A list of the selected indicators will be provided at the next EMCC committee meeting.

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: October 20, 2023
To: Santa Clara County Emergency Medical Care Committee
From: Daniel Franklin, EMS Specialist
Subject: Policy Development Report
History: Consistent with Santa Clara County Emergency Medical Services Prehospital Care Policy 109, the EMS Agency regularly updates policies and protocols. The following policies and protocols have been updated from May 1, 2023 to September 30, 2023.

Policy #	Policy Name	Effective Date	Change
201	EMT Certification	07/01/2023	Updated, Administrative Changes
204	Paramedic Internship Recognition	07/01/2023	Updated, Administrative Changes
205	Paramedic Accreditation	07/01/2023	Updated, Administrative Changes
617	EMS Accreditation	07/01/2023	Updated, Administrative Changes
700-S12	Medical Priority Dispatch System (MPDS) Card Approval	07/13/2023	Administrative Order 2023-003, 90-day pilot project in city of Mountain View. Effective until October 17, 2023
602	911 EMS Patient Destination	08/17/2023	Updated, Administrative Changes
700-A02	Seizure	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A03	Hypoglycemia	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A06	Burns	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A07	Cardiac Arrest	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A08	Chest Pain-Suspected Cardiac Ischemia	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A13	STROKE	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A15	Poisoning and Overdose	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-A16	Trauma Care	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023

Policy #	Policy Name	Effective Date	Change
700-M08	Intraosseous Infusion	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-M09	12-Lead Electrocardiogram	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-P02	Pediatric Seizure	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-P03	Pediatric Hypoglycemia	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-P06	Pediatric Burns	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-P07	Pediatric Cardiac Arrest	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-P18	Neonatal Resuscitation	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-S04	Routine Medical Care Adult	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-S05	Routine Medical Care Pediatric	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
700-S06	Falls	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
215	EMS Providers – Physician Medical Advisor Roles and Responsibilities	Postponed	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
306	Public Safety Answering Points (PSAP) Emergency Medical Dispatch Program Approval	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
307	Basic Life Support Public Safety Response Program Approval	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
600	Field Pronouncement of Death	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
602	911 EMS Patient Destination	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
603	Hospital Bypass	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023
605	Prehospital Trauma Triage	01/02/2024	Open Comment Period 07/13/23 to 08/13/23. Disposition and final Policy released 09/15/2023

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County EMCC Committee Members
From: Dustin Gonzalez, Nikolaas Bechler
EMS Specialists
Subject: **Provider Education**

EMS Update 2023

EMS Update Train the Trainer was held on September 19th to orient the EMS Program Managers and Training Officers to the curriculum for this year's annual update. Every EMT and Paramedic accredited in Santa Clara County will be completing the training which includes:

- EMS policy changes
- EMS treatment protocol changes
- National EMS Information System 3.5 and ePCR update
- High Risk/Low Frequency skills training
 - Assessment of pediatric patients
 - Medication administration for pediatric patients

EMS Continuing Education(CE)

The EMS Agency hosted or sponsored EMS Continuing Education for multiple events in the reporting period including:

- Mental Health First Aid
- Acute Stroke Care
- EMS Command and Control Quality Improvement Committee
- EMS Update Train the Trainer
- Advanced Burn Life Support

EMS Local System Orientation Exam

The EMS exam is designed to assess an individual's knowledge of Santa Clara County policies and procedures, treatment protocols, radio communications, hospital/facility destination policies, and other unique system features to ensure providers are prepared to enter service within our EMS System. The EMS Agency continues to administer exams weekly plus additional exams as needed. For the reporting period, the EMS Local System Orientation Exam has an 81% pass rate for EMTs and 91% pass rate for paramedics.

Test Date	Total Pass	Total Fail	EMT Pass	EMT Fail	Paramedic Pass	Paramedic Fail
26-Apr	9	3	7	2	2	1
3-May	9	0	0	0	9	0
5-May	15	4	11	4	4	0
9-May	14	5	11	5	3	0
11-May	1	0	1	0	0	0
19-May	13	4	9	4	4	0
23-May	17	3	11	3	6	0
26-May	7	4	6	4	1	0
30-May	0	1	0	1	0	0
7-Jun	24	0	24	0	0	0
8-Jun	1	0	1	0	0	0
13-Jun	18	3	18	3	0	0
16-Jun	18	2	16	2	2	0
21-Jun	20	3	18	3	2	0
29-Jun	9	2	9	2	0	0
30-Jun	15	3	12	3	3	0
5-Jul	16	3	12	3	4	0
6-Jul	14	5	9	5	5	0
11-Jul	13	6	12	6	1	0
25-Jul	26	4	24	3	2	1
27-Jul	9	1	5	0	4	1
28-Jul	13	3	10	3	3	0
2-Aug	13	1	10	0	3	1
7-Aug	11	0	3	0	8	0
10-Aug	17	2	17	2	0	0
11-Aug	17	7	11	6	6	1
16-Aug	12	6	8	4	4	2
24-Aug	10	0	10	0	0	0
25-Aug	22	0	12	0	10	0
30-Aug	12	3	8	3	4	0
8-Sep	17	3	16	2	1	1
14-Sep	6	3	6	3	0	0
Totals	418	84	327	76	91	8

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency

700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County EMCC Committee Members
From: Dustin Gonzalez, Nikolaas Bechler
EMS Specialists
Subject: **Public Education and Outreach**

The EMS Agency is committed to preventing disease and injury through public education and outreach efforts. The EMS Agency's main public education and outreach topics are:

- Stroke education/awareness
- Fall prevention
- Hands Only CPR
- L.I.F.E. File distribution
- EMS career awareness

The EMS Agency attended the following community events:

- Black Family Day February 25
- Thomas Russell Middle School Health Fair March 17th
- Latino College Preparatory Academy & Roberto Cruz Leadership Academy Career Fair March 28/30
- El Camino Hospital Stroke in the Park June 9th
- Parkview Senior Housing Health Fair June 16th
- Calero Reservoir Water and Wags July 9th
- South County Preparedness Fair September 23rd
- Senator Cortese Picnic by the Lake September 30th
- Day of the Girl Event at Regional Medical Center October 11th
- Supervisor Lee Day on the Bay October 14th
- Parkview Senior Housing 911 overview, fall prevention and stroke awareness presentation November 14th

During these community events, the EMS Agency provides "Hands Only CPR" training, distributes informational flyers on Stroke awareness, and L.I.F.E. File kits. During the reporting period the EMS Agency distributed over 5900 L.I.F.E. File kits.

The Latino College Preparatory Academy & Roberto Cruz Leadership Academy Career Fair was attended by the County 911 Ambulance Provider to raise awareness of Emergency Medical Services careers. Additional EMS career fairs/recruitment events attended by the County 911 Ambulance Provider include:

- 1/25/2023 Bay Area Training Academy
- 1/27/2023 Las Positas College EMT Course
- 4/13/2023 Cal State East Bay Job Fair
- 4/25/2023 Cabrillo College Job Fair

- 5/1/2023 Class presentation @ Defib This Santa Cruz
- 5/11/2023 Class Presentation @ Bay Area Training Academy
- 5/13/2023 Job Fair at Mission College Pre-Health Conference & Healthcare Job Fair
- 5/17/2023 Cabrillo College EMT Class Presentation
- 5/18/2023 Class Presentation @ Bay Area Training Academy
- 5/20/2023 South Bay Regional Public Safety Career Fair
- 5/26/2023 Chabot College Job Fair
- 5/31/2023 Class presentation @ Defib This Santa Cruz
- 6/1/2023 Class presentation @ Defib This Santa Cruz
- 6/1/2023 Class Presentation at Foothill College - Medics
- 6/1/2023 Class Presentation at Foothill College -EMTs
- 6/7/2023 VRE National Virtual Veterans Career Fair
- 6/12/2023 Class Presentation @ Bay Area Training Academy
- 7/12/2023 Mission College First Responders Job Fair
- 7/18/2023 Bay Area Training Academy
- 7/21/2023 NCTI Livermore Paramedic Recruitment Event
- 7/29/2023 South Bay Regional Public Safety EMT Class visit
- 8/9/2023 Defib This - EMT Class Santa Cruz
- 8/10/2023 Defib This - EMT Class Santa Cruz
- 8/18/2023 Bay Area Training Academy Job Fair - Fremont, CA
- 8/23/2023 Foothill College Medic Orientation Career Fair
- 8/31/2023 HireGI National Virtual Veterans Career Fair
- 9/25/2023 Bay Area Training Academy - Milpitas EMT Class

**County of Santa Clara
Emergency Medical Services System**



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County EMCC Committee Members
From: Dustin Gonzalez, Nikolaas Bechler
EMS Specialists
Subject: EMS Training Programs

The EMS Agency approves EMT and Paramedic training programs located within the county. At this time there are 7 EMT programs and 1 Paramedic program located in Santa Clara County.

Program	Program Type	EMT Graduates	Paramedic Graduates
Bay Area Training Academy	EMT Only	Not Reported	
Foothill College	EMT/Paramedic	Not Reported	19
Mission College	EMT Only	Not Reported	
San Jose City College	EMT Only	Not Reported	
South Bay Regional Public Safety Training Consortium	EMT Only	35	
Stanford University	EMT Only	Not Reported	
Sunnyvale Department of Public Safety	EMT Only	9	
Total			19

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency

700 Empey Way
San Jose, CA 95128
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023
To: Santa Clara County EMCC Committee Members
From: Jackie Lowther, RN, MSN, MBA
EMS Director
Subject: Hospital Destination, Bypass and Advisory Status Reports

History

Bypass is a management process that diverts ambulances to the next closest facility. This may be used temporarily by local hospitals when the patient load exceeds emergency department or specialty center resources.

Facility bypass should be a last resort and utilized only when emergency department/specialty center resources continue to be overwhelmed after internal procedures to manage the situation have been implemented.

Report

The last six months of transports that were very unpredictable. The Santa Clara County EMS system saw transport volume in April 2023 of (8,200) and May of (8,683). June's volume decreased with the beginning of summer (8,049) and increased again in July to (8,521) August increased minimally to (8,551). Volume in September 2023 decreased to its lowest since February to (7,992). EMS Policy #603 states that each hospital shall request no more than thirty-six hours of 911 system bypass within a calendar month. The lowest bypass documented occurred in the month of September at 133.26 hours, with 258 transports per day, the highest recorded month for bypass was May at 238.44 hours with 280 transports per day. Specialty services bypass for the last six months was variable. Stroke bypass was high during the month of June at 102.55 hours, STEMI bypass was highest during April at 137.53 and July 192.30. The average number of patients transported April 2023 to September 2023 was 269 patients per day. The EMS Agency monitors the use of Hospital Bypass on a continuous basis and works closely with each hospital's Emergency Department management as well as Hospital Administrations to address surge times. All hospitals have utilized their Emergency Department surge plans due to increased patient volume post the COVID-19 pandemic. The ED Managers submit an updated surge plan December 1st of each year.

Options

- 1) Recommend accepting report
- 2) Recommend to NOT accept report
- 3) Other options, as determined by the Emergency Medical Care Committee

Recommendation

Emergency Medical Care Committee should accept the "County Hospital Destination, Diversion and Advisory Status Report for October 2022 through March 2023."



**County of Santa Clara
Emergency Medical Services System**

Monthly Hospital Destination & Bypass Status Report

Report for Time Period: Sept 2023

Table 1: Number of Patients Transported to In County Hospital ED from 9-1-1 System*

Hospital (Diversion Zone)	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23	Total
Stanford (North)	645	667	658	645	599	593	3,807
El Camino - Mt. View (North)	864	874	808	861	936	923	5,266
Kaiser - Santa Clara (North)	818	876	830	870	837	768	4,999
VMC (Central)	1,147	1,206	1,168	1,231	1,261	1,096	7,109
O'Connor (Central)	1,171	1,278	1,059	1,185	1,170	1,085	6,948
Good Samaritan (Central)	998	1,049	982	946	1,023	914	5,912
Regional - San Jose (South)	1,165	1,251	1,178	1,273	1,258	1,199	7,324
Kaiser - San Jose (South)	783	779	714	814	767	730	4,587
Saint Louise (South)	360	408	392	441	403	423	2,427
El Camino - Los Gatos (N/A)	163	181	174	172	174	155	1,019
VA - Palo Alto (N/A)	86	114	86	83	123	106	598
Total	8,200	8,683	8,049	8,521	8,551	7,992	49,996

Source: Santa Clara County Communications, Image Trend (includes Palo Alto EOA) Excludes out of county EDs, and non ED destinations

Hospital (Diversion Zone)	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23	6 Mth Avg
Stanford (North)	21	22	21	21	19	19	20
El Camino - Mt. View (North)	28	28	26	28	30	30	28
Kaiser - Santa Clara (North)	26	28	27	28	27	25	27
VMC (Central)	37	39	38	40	41	35	38
O'Connor (Central)	38	41	34	38	38	35	37
Good Samaritan (Central)	32	34	32	31	33	29	32
Regional - San Jose (South)	38	40	38	41	41	39	39
Kaiser - San Jose (South)	25	25	23	26	25	24	25
Saint Louise (South)	12	13	13	14	13	14	13
El Camino - Los Gatos (N/A)	5	6	6	6	6	5	5
VA - Palo Alto (N/A)	3	4	3	3	4	3	3
Total Daily Average	265	280	260	275	276	258	

Source: Santa Clara County Communications, Image Trend (includes Palo Alto EOA) Excludes out of county EDs, and non ED destinations

*Notes for Tables 1 and 2: These numbers only reflect patients that originated in Santa Clara County and were transported by the County's EOA Ambulance Provider and Palo Alto Fire Department. Data for Stanford does not include patients from San Mateo

Table 2: Total Monthly Hours of Emergency Department on "AMBULANCE" Bypass

Hospital (Diversion Zone)	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23	Total
Stanford (North)	1.00	1.00	1.01	0.00	1.00	1.90	5.91
El Camino - Mt. View (North)	34.73	55.38	45.02	14.16	11.03	12.18	172.50
Kaiser - Santa Clara (North)	38.15	43.38	41.28	20.07	38.08	42.37	223.33
VMC (Central)	30.06	31.15	27.85	15.03	22.06	21.05	147.20
O'Connor (Central)	22.07	18.07	17.04	32.14	38.08	13.34	140.74
Good Samaritan (Central)	0.00	0.00	4.03	0.00	0.00	0.00	4.03
Regional - San Jose (South)	0.02	2.02	3.00	18.62	0.00	0.00	23.66
Kaiser - San Jose (South)	44.18	45.19	22.08	35.18	42.87	22.05	211.55
Saint Louise (South)	10.03	19.07	6.48	9.03	5.20	6.01	55.82
El Camino - Los Gatos (N/A)	35.75	23.18	13.99	15.05	26.48	14.36	128.81
Total	215.99	238.44	181.78	159.28	184.80	133.26	1,113.55

Color Legend for ED Ambulance Bypass Only

Above 37hrs	Above 30hrs	Below 30hrs
-------------	-------------	-------------

Table 3: Total Monthly Hours of Stroke Center on "STROKE" Bypass*

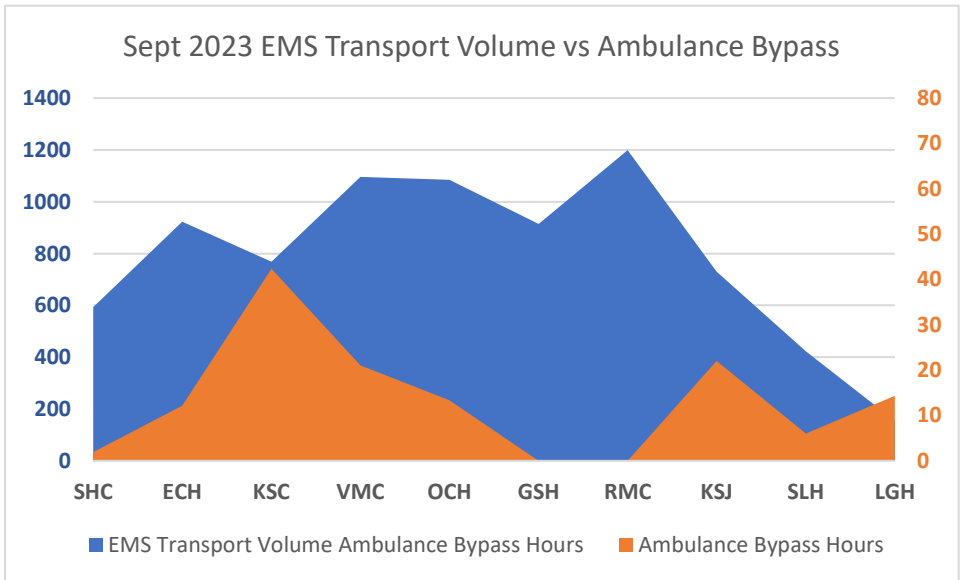
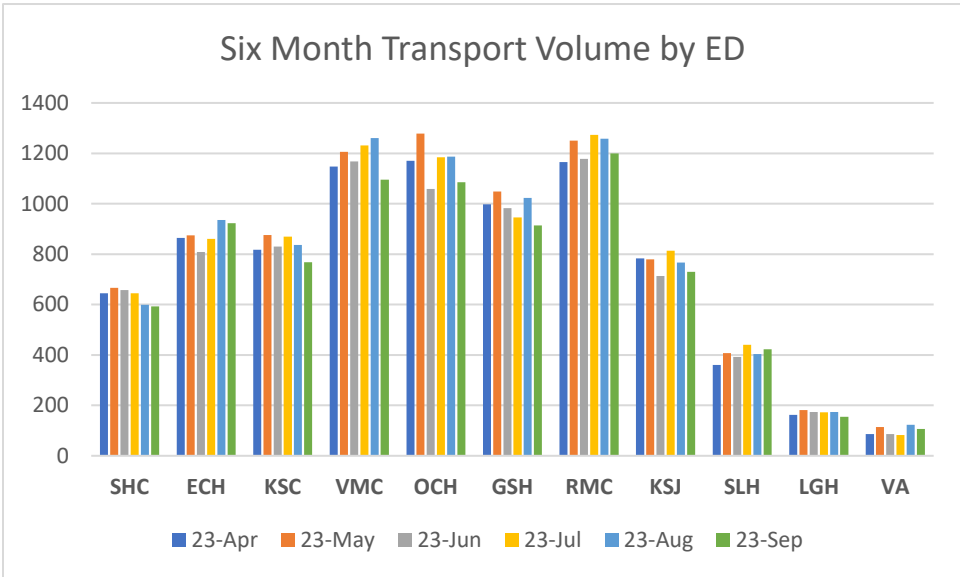
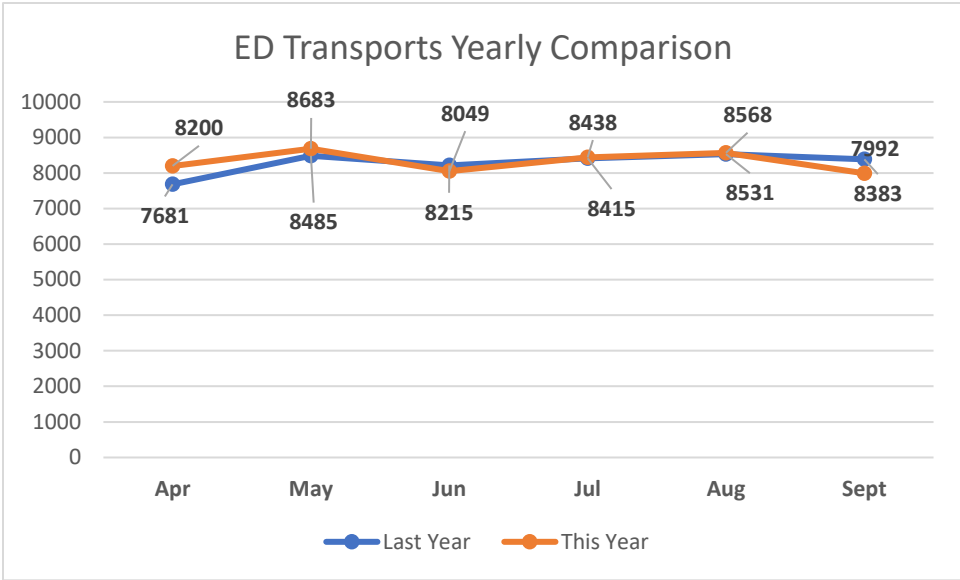
Hospital (Diversion Zone)	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23	Total
Stanford (North)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
El Camino - Mt. View (North)	8.49	2.81	3.66	27.16	6.20	9.76	58.08
Kaiser - Santa Clara (North)	0.00	1.28	20.23	0.00	6.61	3.72	31.84
Good Samaritan (Central)	28.18	25.98	11.65	1.54	18.18	21.88	107.41
O'Connor (Central)	4.54	0.31	0.00	19.41	0.00	0.00	24.26
VMC (Central)	0.00	0.00	2.07	0.00	0.00	0.89	2.96
Regional - San Jose (South)	0.00	0.96	2.81	18.46	0.00	0.00	22.23
Kaiser - San Jose (South)	1.02	0.00	0.00	5.32	1.06	1.74	9.14
Saint Louise (South)	6.22	3.15	60.15	4.79	30.98	7.72	113.01
El Camino - Los Gatos (N/A)	8.06	19.40	1.98	3.74	12.42	6.64	52.24
Total	56.51	53.89	102.55	80.42	75.45	52.35	421.17

Table 4: Total Monthly Hours of STEMI Center on "STEMI" Bypass*

Hospital (Diversion Zone)	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23	Total
Stanford (North)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
El Camino - Mt. View (North)	7.53	1.96	3.66	3.33	0.00	3.25	19.73
Kaiser - Santa Clara (North)	2.82	1.27	20.21	0.00	9.18	0.00	33.48
VMC (Central)	17.25	0.00	0.00	132.32	0.00	2.02	151.59
O'Connor (Central)	0.00	0.00	0.00	19.41	47.99	0.00	67.40
Good Samaritan (Central)	0.00	25.98	11.63	0.00	18.21	21.83	77.65
Regional - San Jose (South)	103.91	0.96	0.00	18.46	0.00	0.00	123.33
Kaiser - San Jose (South)	6.02	10.74	18.72	18.78	9.79	0.00	64.05
Total	137.53	40.91	54.22	192.30	85.17	27.10	537.23

Table 5: Total Monthly Hours of Trauma Center on "TRAUMA" Bypass

Hospital (Diversion Zone)	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23	Total
Stanford (North)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VMC (Central)	1.16	1.00	5.48	3.78	5.99	9.68	27.09
Regional - San Jose (South)	1.91	0.33	0.25	17.61	1.99	4.53	26.62
Total	3.07	1.33	5.73	21.39	7.98	14.21	53.71



County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95126
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: November 16, 2023

To: Santa Clara County Emergency Medical Care Committee Members

From: Jackie Lowther, RN, MSN, MBA
EMS Director

Subject: Ambulance Patient Offload Times (APOT)

History

The role hospitals play in assuring that 9-1-1 ambulances are available for the next 9-1-1 call is critical. Ambulance offload delay, the time it takes to transfer a patient to an Emergency Department stretcher for the Emergency Department staff to assume responsibility for the care of the patient, may have more impact on ambulance turnaround time than ambulance bypass. Ambulance patient offload times (APOT) are calculated for all hospitals who receive patients in Santa Clara County. In 2015, the Health and Safety Code 1797.120 required the California Emergency Medical Services Authority to develop a standard methodology for calculation of, and reporting by, a Local EMS Agency of ambulance patient offload time. The EMS Agency has placed significant effort into working with hospital administrators focusing on the time it takes to get ambulances back into service once they have arrived in their Emergency Departments. Decreases in offload delays will improve the time patients receive definitive care, better pain control and antibiotics when needed.

Report

Over the last two years, the EMS system as well as the hospitals have seen unprecedented changes and have been required to pivot and adapt to changes necessitated by the COVID-19 pandemic and its aftermath. Patient volume variations continued over the last six months for EMS as well as many hospitals' emergency departments. In October 2020, to help hospitals in Santa Clara facilitate compliance with APOT, a daily report was sent to designated personnel of all patients held greater than 20 minutes. All emergency departments have worked diligently throughout these continual, challenging times to improve ambulance patient offload times and work collaboratively with the EMS Agency.

Assembly Bill No. 40, approved by Governor Newsom, October 13, 2023, will add several sections to the Health and Safety Code 1797.120 including that no later than July 1, 2024, every local EMS agency shall develop a standard not to exceed 30 minutes, 90% of the time for ambulance patient offload time and report the adopted time to the authority. In addition, a

licensed general acute care hospital with an emergency department shall, by September 1, 2024, develop, in consultation with its emergency department staff, and its exclusive employee representatives, if any, an ambulance patient offload time reduction protocol that addresses several factors included in the Bill.

In April transport volume was higher than March with the combined APOT less than 20 minutes of 85.5% with eight out of ten hospitals offloading under 30 minutes from April through September. The highest combined APOT percentage was in August of 86.1% with the 2nd highest volume of 8,551 for the six-month period and the lowest combined APOT was September of 84.2% with the lowest volume of 7,992. Volumes have been inconsistent compared to earlier in the year and although deployment is improving incrementally the situation continues to create challenges to the EMS system.

The reporting data to the hospitals will be changed to a standard not to exceed 30 minutes in January 2024. Most of the hospitals are already meeting the anticipated requirements set forth by AB40. The hospitals send the EMS Agency updates on a regular basis whenever there are obstacles to achieving improvements to their patient offload time. There have been significant challenges over the last eighteen months in ambulance offload times as volumes continue to vary daily. Delays are multifactorial, but overwhelmingly ED overcrowding, whether because of high volume/high acuity of patients or the inability to move admitted patients through care and discharge. The EMS Agency needs the hospitals to continue to use strategies to offload patients in a timely manner by whatever means protects patient safety.

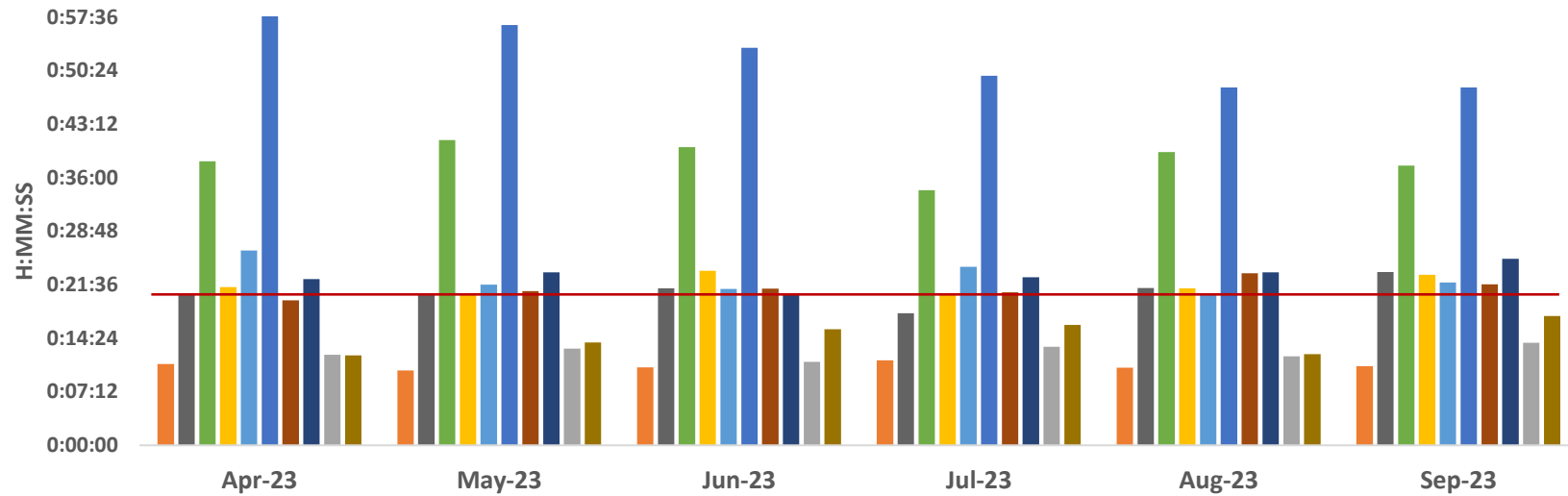
Options

- 1) Recommend accepting report
- 2) Recommend to NOT accept report
- 3) Other options, as determined by the Emergency Medical Care Committee

Recommendation

Emergency Medical Care Committee should accept the "Ambulance Patient Offload Time (APOT) Report for April 2023 through September 2023

Ambulance Patient Offload Time (APOT) - 90th Percentile



	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
SHC	0:10:57	0:10:04	0:10:29	0:11:25	0:10:26	0:10:39
ECH	0:20:19	0:20:15	0:21:07	0:17:47	0:21:09	0:23:18
KSC	0:38:13	0:41:04	0:40:07	0:34:19	0:39:28	0:37:37
RMC	0:21:18	0:20:19	0:23:30	0:20:13	0:21:06	0:22:56
OCH	0:26:13	0:21:37	0:21:03	0:24:00	0:20:23	0:21:54
VMC	1:07:15	0:56:32	0:53:29	0:49:44	0:48:09	0:48:08
GSH	0:19:30	0:20:45	0:21:05	0:20:34	0:23:08	0:21:40
KSJ	0:22:22	0:23:16	0:20:28	0:22:36	0:23:17	0:25:05
SLH	0:12:11	0:13:01	0:11:13	0:13:16	0:11:58	0:13:48
LGH	0:12:07	0:13:49	0:15:38	0:16:12	0:12:16	0:17:24

SHC ECH KSC RMC OCH VMC GSH KSJ SLH LGH

	SHC	ECH	KSC	RMC	OCH	VMC	GSH	KSJ	SLH	LGH
Apr-23	0:10:57	0:20:19	0:38:13	0:21:18	0:26:13	1:07:15	0:19:30	0:22:22	0:12:11	0:12:07
May-23	0:10:04	0:20:15	0:41:04	0:20:19	0:21:37	0:56:32	0:20:45	0:23:16	0:13:01	0:13:49
Jun-23	0:10:29	0:21:07	0:40:07	0:23:30	0:21:03	0:53:29	0:21:05	0:20:28	0:11:13	0:15:38
Jul-23	0:11:25	0:17:47	0:34:19	0:20:13	0:24:00	0:49:44	0:20:34	0:22:36	0:13:16	0:16:12
Aug-23	0:10:26	0:21:09	0:39:28	0:21:06	0:20:23	0:48:09	0:23:08	0:23:17	0:11:58	0:12:16
Sep-23	0:10:39	0:23:18	0:37:37	0:22:56	0:21:54	0:48:08	0:21:40	0:25:05	0:13:48	0:17:24

APOT 2 - Sept 2023

	≤ 20 minutes	21-60 minutes	61-120 minutes	121-180 minutes	>180 minutes	Total Patients
SHC	583 98.3%	10 1.7%	0 0.0%	0 0.0%	0 0.0%	593
ECH	810 87.8%	111 12.0%	2 0.2%	0 0.0%	0 0.0%	923
KSC	503 65.5%	247 32.2%	18 2.3%	0 0.0%	0 0.0%	768
RMC	1053 87.8%	138 11.5%	5 0.4%	2 0.2%	1 0.1%	1199
OCH	961 88.6%	121 11.2%	3 0.3%	0 0.0%	0 0.0%	1085
VMC	791 72.2%	230 21.0%	64 5.8%	9 0.8%	2 0.2%	1096
GSH	809 88.5%	103 11.3%	2 0.2%	0 0.0%	0 0.0%	914
KSJ	600 82.2%	129 17.7%	1 0.1%	0 0.0%	0 0.0%	730
SLH	414 97.9%	9 2.1%	0 0.0%	0 0.0%	0 0.0%	423
LGH	144 92.9%	10 6.5%	1 0.6%	0 0.0%	0 0.0%	155
TOTAL	6668 84.6%	1108 14.1%	96 1.2%	11 0.1%	3 0.0%	7886

County of Santa Clara Emergency Medical Services System



Emergency Medical Services Agency
700 Empey Way
San Jose, CA 95126
408.794.0600 voice | www.sccemsagency.org
www.facebook.com/SantaClaraCountyEMS

Date: October 30, 2023
To: Santa Clara County Emergency Medical Care Committee
From: Michael Cabano, EMS Specialist, Special Operations Unit
Subject: EMS System Initiatives: Preparedness and Significant Events

History and Issue

The purpose of this report is to identify actions or initiatives that have been implemented to increase preparedness within the EMS System and to report on any significant events that have occurred within the EMS System during the reporting period.

Report

Since the last reporting period, there have been no updates regarding the Public Safety Narcan Program or other Law Enforcement Programs with EMS Agency oversight.

Since the last reporting period the following significant events have occurred that were mitigated without significant impact on the EMS System:

July 26, 2023- Regional Medical Center- Gas Main Leak
August 16, 2023- SJPD Officer Involved Shooting
October 4- October 6, 2023- Kaiser Labor Action
October 22, 2023- MCI Level 1 Activation- Gilroy Vehicle Accident

Options

- 1) Recommend accepting the report
- 2) Recommend NOT accepting the report
- 3) Other options, to be determined by the Emergency Medical Care Committee

Recommendation

Recommend that the Emergency Medical Care Committee accept the report in its entirety.