



California EMS System Core Quality Measures Report Calendar Year 2022

Emergency Medical Services Authority
California Health and Human Services Agency

Elizabeth Basnett, Director
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BACKGROUND

Data and quality improvement (QI) leaders from local EMS agencies (LEMSAs), EMS providers, hospitals, and the California Emergency Medical Services Authority (EMSA) joined together to develop the California EMS System Core Quality Measures Project to conduct statewide evaluation of EMS performance. Each year, a workgroup consisting of EMSA and LEMSA stakeholders updates the measures according to data system changes and operational considerations. The project's measures focus on evidence-based processes and treatments for a condition or illness. The measures are intended to help EMS systems improve the quality of patient care by focusing measurement specifications on key processes and results of care. The *California EMS Systems Core Quality Measures Instruction Manual (EMSA #SYS 100-11)* defines essential data elements and provides instructions for reporting each performance measure. Please refer to the manual for additional information and detailed instructions on core quality measure reporting. The manual is accessible via the California Emergency Medical Services Authority website at <https://emsa.ca.gov/ems-core-quality-measures-project/>.

The EMS system quality improvement regulations (CCR, Title 22, Division 9, Chapter 12) define the reporting requirements for LEMSAs, EMS providers, and base hospitals in their role as part of the EMS system. These requirements include, but are not limited to, the implementation of an EMS quality improvement program and the use of defined indicators to assess the local EMS system, as outlined in EMSA #SYS 100-11.

For the 2022 calendar year, EMSA requested that each LEMSA use the National Emergency Medical Services Information System (NEMSIS) Version 3.4.0 data standard to report data for six core quality measures. The six measures are:

- TRA-2: Transport of Trauma Patients to a Trauma Center
- HYP-1: Treatment Administered for Hypoglycemia
- STR-1: Prehospital Screening for Suspected Stroke Patients
- PED-3: Respiratory Assessment for Pediatric Patients
- RST-4: 911 Requests for Services That Included a Lights and/or Sirens Response
- RST-5: 911 Requests for Services That Included a Lights and/or Sirens Transport

METHODOLOGY

For the 2022 calendar year, EMSA requested that all LEMSAs use the specifications in the *California EMS Systems Core Quality Measures Instruction Manual (EMSA #SYS 100-11)* when executing their data reports and to refrain from using any custom elements or fields specific to their local jurisdiction or EMS providers. Universal fidelity to the consensus specifications is key to meaningfully comparing the reported results throughout California. Each measure specification contains essential data elements required for calculation. The six measures included in the 2022 measure data set contain a numerator and denominator to calculate percentage scores. Some measures also include exclusion criteria in the numerator and/or denominator. The numerator is the subpopulation and defines the processes or outcomes expected for all patients/encounters as defined in the denominator. The denominator, or initial population, are the patients/encounters being evaluated for performance. Exclusions are used to specify patients/encounters that should be removed from the numerator and/or denominator before determining if the criteria are met.

The specifications were drafted by a workgroup consisting of EMSA and LEMSA representatives. Each of the six measures were discussed at length and supporting evidence from research, specification, and testing were gathered and evaluated. LEMSA questions and comments regarding the specifications are an essential part of core quality measure improvement and incorporated into the revision process. The specifications were updated in November 2022 and published in the most current version of the Core Quality Measures Instruction Manual (EMSA #SYS 100-11).

The LEMSAs execute their core quality measure reports from their local database and submit aggregate results to EMSA on an annual basis. Since each of the 34 LEMSAs maintains their own EMS database and each is dependent on EMS provider agencies to submit data, there is variability in their capability to report core quality measures and some intrinsic variation in the results exists. Utilization of the California Emergency Medical Services Information System (CEMSIS) will enhance core quality measure reporting. Participation in CEMSIS by all LEMSAs is required, consistent with HSC 1797.102

LIMITATIONS AND CHALLENGES

Quality measure analysis, integrity, and reliability depends on the development of compatible data systems and standardized data collection regimes at various levels of the EMS system. Commonly understood data measures are essential to quality improvement efforts and to data driven medical decision making. The demonstrated commitment of all of California's EMS decision makers to meaningful quality measures promises to provide our State's citizens with the reliable medical quality assurance that they have come to expect from mature healthcare sectors. Ongoing efforts to improve the quality and validity between CEMSIS and LEMSA data will increase the reliability and usability of the measure results. Limitations and challenges to reporting the measures are enumerated below.

Participation in Core Quality Measures Reporting

All 34 LEMSAs in California were contacted to provide core quality measure information to EMSA by a set date. For the 2022 reporting year, 30 of the 34 LEMSAs (representing approximately 93% of the state population¹) provided a formal response to EMSA's request for information. Four LEMSAs did not provide a response to the request. Of the 34 LEMSAs, 30 reported data for at least one measure. Most participating LEMSAs (27 of 30) reported data for all six measures.

Partial System Representation

Only a portion of the actual EMS business conducted in California is represented in this report; the values reported by the LEMSAs do not represent 100% of the providers in the State. Some LEMSAs reported that not all providers in their region were represented in their reporting for various reasons, or the providers were not utilizing the proper data elements and codes specified in the 2022 Core Quality Measures Instruction Manual (EMSA #SYS 100-11).

¹Population data obtained from the California Census 2020 (<https://census.ca.gov/reports/>)

TABLES AND CHARTS GENERATED FROM CORE QUALITY MEASURES REPORTS

LEMSAs Reporting Data for Core Quality Measures 2009-2022

The table on page 11 shows which LEMSAs submitted data for years 2009-2022. For 2022, 30 LEMSAs reported information for at least one measure. If a LEMSA submitted a value for any of the measures found in the *California EMS Systems Core Quality Measures Instruction Manual (EMSA #SYS 100-11)*, the cell associated with that data year is populated with a check mark "✓" and shaded light blue. For LEMSAs that did not submit any core quality measure data to EMSA, the cell for that corresponding year appears blank.

LEMSA Participation in the 2022 Core Quality Measures Report

The map of California on page 12 shows which LEMSAs (single county and multi-county EMS agencies) submitted data for 2022. These regions are shaded light yellow. LEMSA participation in the California Core Quality Measures Report decreased by 9% from the 2021 to 2022 reporting calendar year. 88% (30 of 34) of LEMSAs participated in the 2022 Core Quality Measures Report by providing data for at least one measure. 90% (27 of 30) of participating LEMSAs reported data for all measures (6 of 6) requested.

2022 Core Quality Measures Aggregate Results for California

The aggregate results table on page 14 includes the total number of LEMSAs that reported a value for each measure (response count), the percentage of LEMSAs that reported a value for each measure (response rate), the aggregate numerator total (subpopulation) of all responses, the aggregate denominator total (population) of all responses, and the mean (average) and median reported value for each measure.

2022 Core Quality Measures Results: Charts and Tables

This report includes charts and tables (pages 15-32) for the six core quality measures. Each measure includes a column chart with reported values, mean, and median values for all submissions. Additionally, there are two tables provided for each measure. The first table includes reported values for the measure, and the second table includes the LEMSA response count, response rate, numerator, denominator, and the mean and median values for all submissions. The charts and tables are populated directly from the values provided by the LEMSAs. A brief summarization of the measure results and feedback from LEMSAs is provided, as well as a link to the corresponding measure specifications for reference.

Comparison of Core Quality Measures Results

The column chart on page 33 displays the average core quality measure results as reported by LEMSAs over the past four calendar years (2019-2022).

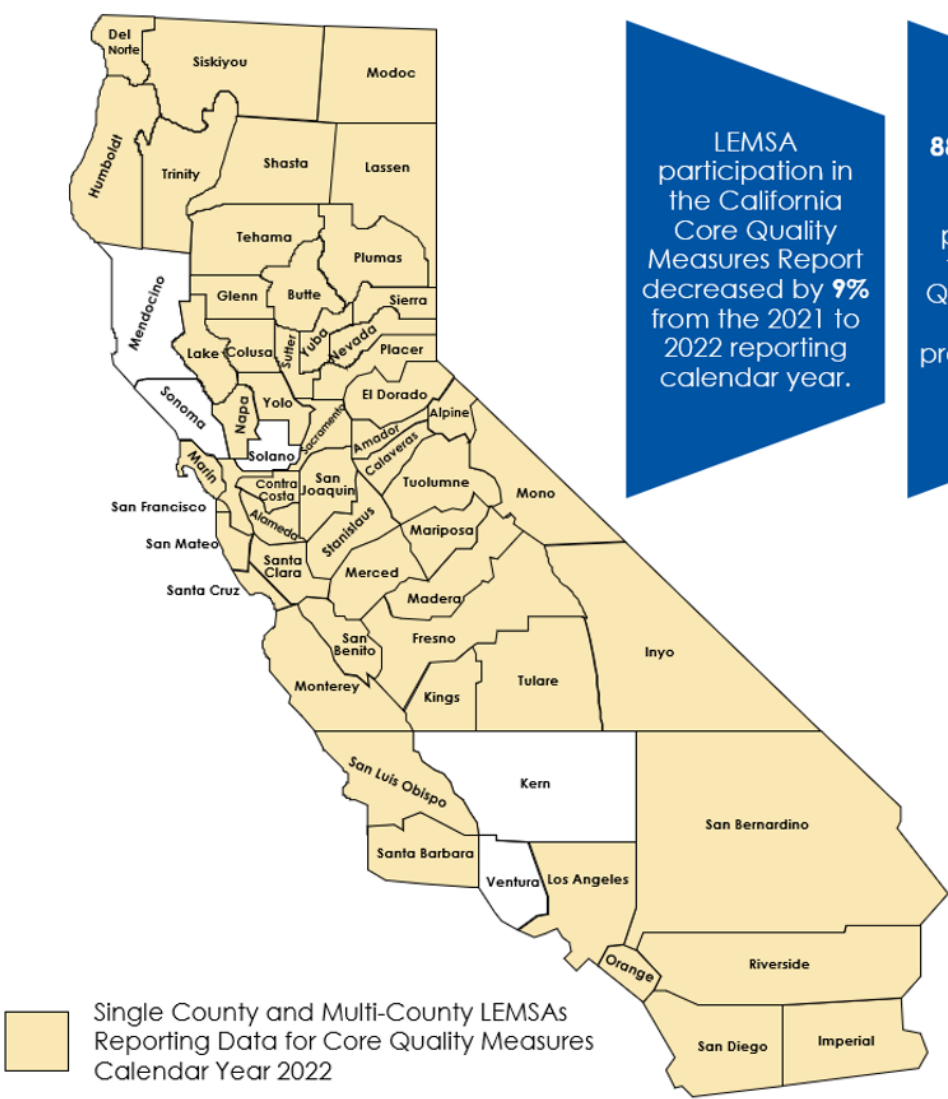
Appendix: Responses from LEMSAs for the 2022 Core Quality Measures Report

The appendix contains tables (pages 35-63) with the data and information provided by each LEMSA for this report.

LEMSAs REPORTING DATA FOR CORE QUALITY MEASURES 2009-2022

Local EMS Agency	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Alameda County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Central California EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coastal Valleys EMS				✓	✓	✓	✓	✓	✓				✓	
Contra Costa County EMS		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
El Dorado County EMS				✓	✓	✓					✓		✓	✓
Imperial County EMS													✓	✓
Inland Counties EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kern County EMS		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Los Angeles County EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Marin County EMS		✓	✓		✓	✓	✓	✓	✓			✓	✓	✓
Merced County EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Monterey County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mountain-Valley EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Napa County EMS					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
North Coast EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Northern California EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Orange County EMS					✓	✓	✓	✓	✓		✓			✓
Riverside County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sacramento County EMS		✓	✓	✓	✓	✓			✓		✓	✓	✓	✓
San Benito County EMS					✓	✓	✓	✓	✓		✓	✓	✓	✓
San Diego County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
San Francisco EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
San Joaquin County EMS				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
San Luis Obispo County EMS		✓	✓		✓	✓	✓	✓	✓				✓	✓
San Mateo County EMS		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Santa Barbara County EMS	✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓
Santa Clara County EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Santa Cruz County EMS	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sierra-Sacramento Valley EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Solano County EMS				✓	✓	✓					✓		✓	
Stanislaus County EMS														✓
Tuolumne County EMS		✓	✓	✓	✓	✓	✓		✓			✓	✓	✓
Ventura County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Yolo County EMS					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TOTAL PARTICIPANTS:	10	24	24	23	32	32	29	28	30	20	26	25	32	30

LEMSA PARTICIPATION IN THE 2022 CORE QUALITY MEASURES REPORT



LEMSA participation in the California Core Quality Measures Report decreased by **9%** from the 2021 to 2022 reporting calendar year.

88% (30 of 34) of LEMSAs in California participated in the 2022 Core Quality Measures Report by providing data for at least one measure.

90% (27 of 30) of participating LEMSAs reported data for 6 of the 6 measures.

2022 CORE QUALITY MEASURES RESULTS

Considerations for the information presented in the following tables and charts:

- Non-participating LEMSA(s) did not indicate why they were unable to report information on the 2022 core quality measures.
- As of July 2022, Stanislaus County became a single LEMSA. The Stanislaus County region was previously included in the Mountain-Valley multi-county LEMSA. The data reflected in this report for Stanislaus County includes data from 7/1/2022-12/31/2022.
- Multiple factors impact the validity and analysis of the retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inability to collect hospital outcome data, inconsistent data dictionary definitions between local jurisdictions, LEMSA policy not aligning with measure specifications causing a misrepresentation of patient volume and/or EMS performance, and geographic resource disparities.
- These limitations caution against comparison between jurisdictions and limit the reliability of the aggregate values.
- Adjustments to the measures will be made for the 2023 reporting year to provide clarification on the intent of the measures and to report EMS performance in the field more accurately.
- Efforts to collect, validate, and evaluate core quality measures data in CEMSIS are ongoing.

2022 CORE QUALITY MEASURES AGGREGATE RESULTS FOR CALIFORNIA

Measure ID	TRA-2	HYP-1	STR-1	PED-3	RST-4	RST-5
LEMSA Response Count*	29	30	29	30	28	29
Response Rate (n=34)	85%	88%	85%	88%	82%	85%
Numerator Total	49,705	36,479	57,045	14,603	2,277,757	407,928
Denominator Total	59,827	45,875	62,046	15,646	3,054,210	2,115,465
Mean (Average)	77%	75%	88%	93%	74%	10%
Median	91%	77%	93%	95%	75%	8%

*LEMSA Response Count is defined as the number of LEMSAs that submitted a reported value for a measure.

TRA-2: TRANSPORT OF TRAUMA PATIENTS TO A TRAUMA CENTER

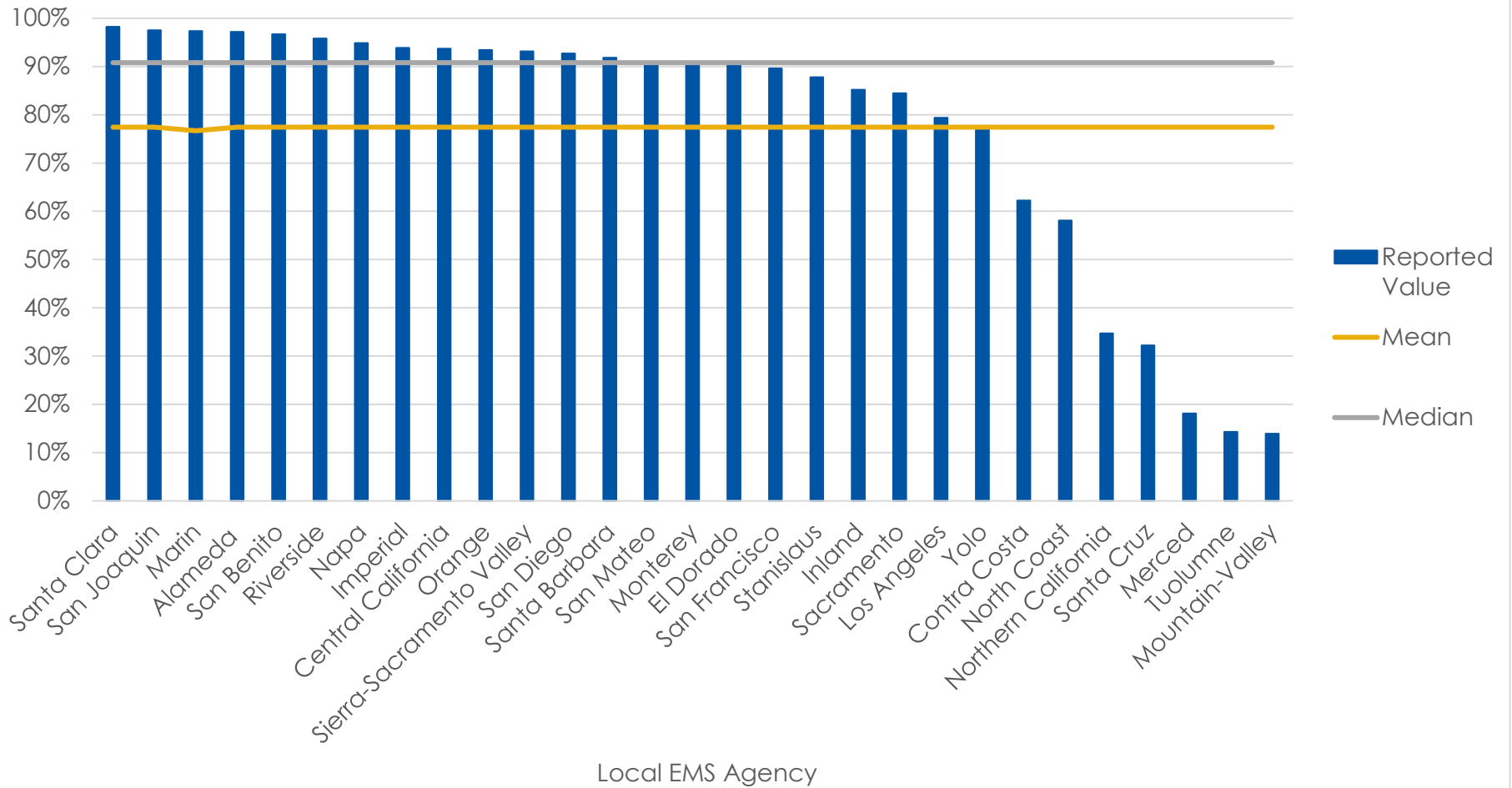
TRA-2 focuses on the percentage of trauma patients meeting [CDC Field Trauma Triage Criteria Step 1 or 2 or 3](#) that were transported to a trauma center originating from a 911 response. For the 2022 reporting year, 29 of 34 LEMSAs provided TRA-2 data. Of the 59,827 patients identified as meeting trauma triage criteria, 49,705 (77%) patients were transported to a trauma center. The median value was 91%. The average number of patients meeting trauma triage criteria who were transported to a trauma center increased from 67% to 77% from the 2021 to 2022 data years. Efforts to improve data collection and mapping by the LEMSAs, as well as revisions to the TRA-2 measure, likely impacted the ability of LEMSAs to report this measure more accurately.

For the 2022 measure set, EMSA revised the TRA-2 specifications to include the data element eDisposition.02 (Destination/Transferred To, Code) along with a list of designated trauma center facilities in California. Based on feedback from various LEMSAs as well as discussion with the core quality measures workgroup, it was noted that several LEMSAs experience data collection and mapping issues with the data element eDisposition.23 (Hospital Capability) and suggested the inclusion of other data elements to specify hospitals that are designated trauma facilities. The inclusion of eDisposition.02 allows for this capability. Additionally, trauma centers are not always available or accessible in certain regions, therefore the inclusion of eDisposition.02 may increase the collection of data for LEMSAs that transport patients to trauma centers outside of their region.

Some LEMSAs reported issues with the TRA-2 measure such as inaccurate documentation, collection or mapping issues with NEMSIS data elements, different patient destinations (e.g. landing facilities for aircrafts), and exclusion of Step 4 of the CDC Field Triage Criteria from the measure specifications. This measure will be evaluated for future reporting years to align with the NEMSIS v3.5.0 data standard, CDC Field Trauma Triage criteria updates, and with consideration of LEMSA feedback.

[Link to TRA-2 measure specifications](#)

Chart 1: TRA-2 Transport of Trauma Patients to Trauma Center



LEMSA	TRA-2 Numerator	TRA-2 Denominator	TRA-2 Reported Value
Santa Clara County	5,221	5,315	98%
San Joaquin County	79	81	98%
Marin County	291	299	97%
Alameda County	2,883	2,966	97%
San Benito County	58	60	97%
Riverside County	2,577	2,690	96%
Napa County	148	156	95%
Imperial County	61	65	94%
Central California	1,578	1,684	94%
Orange County	7,437	7,963	93%
Sierra-Sacramento Valley	2,320	2,491	93%
San Diego County	1,521	1,641	93%
Santa Barbara County	572	623	92%
San Mateo County	723	796	91%
Monterey County	996	1,097	91%
El Dorado County	212	234	91%
San Francisco	1,500	1,674	90%
Stanislaus County	79	90	88%
Inland Counties	2,889	3,392	85%
Sacramento County	1,878	2,223	84%
Los Angeles County	13,778	17,362	79%
Yolo County	364	472	77%
Contra Costa County	1,787	2,872	62%
North Coast	90	155	58%
Northern California	25	72	35%
Santa Cruz County	85	264	32%
Merced County	530	2,925	18%
Tuolumne County	2	14	14%
Mountain-Valley	21	151	14%

TRA-2 Data	
Response Count	29
Response Rate (n=34)	85%
Numerator Total	49,705
Denominator Total	59,827
Mean	77%
Median	91%

Not Reporting: Coastal Valleys, Kern County, San Luis Obispo County, Solano County, Ventura County

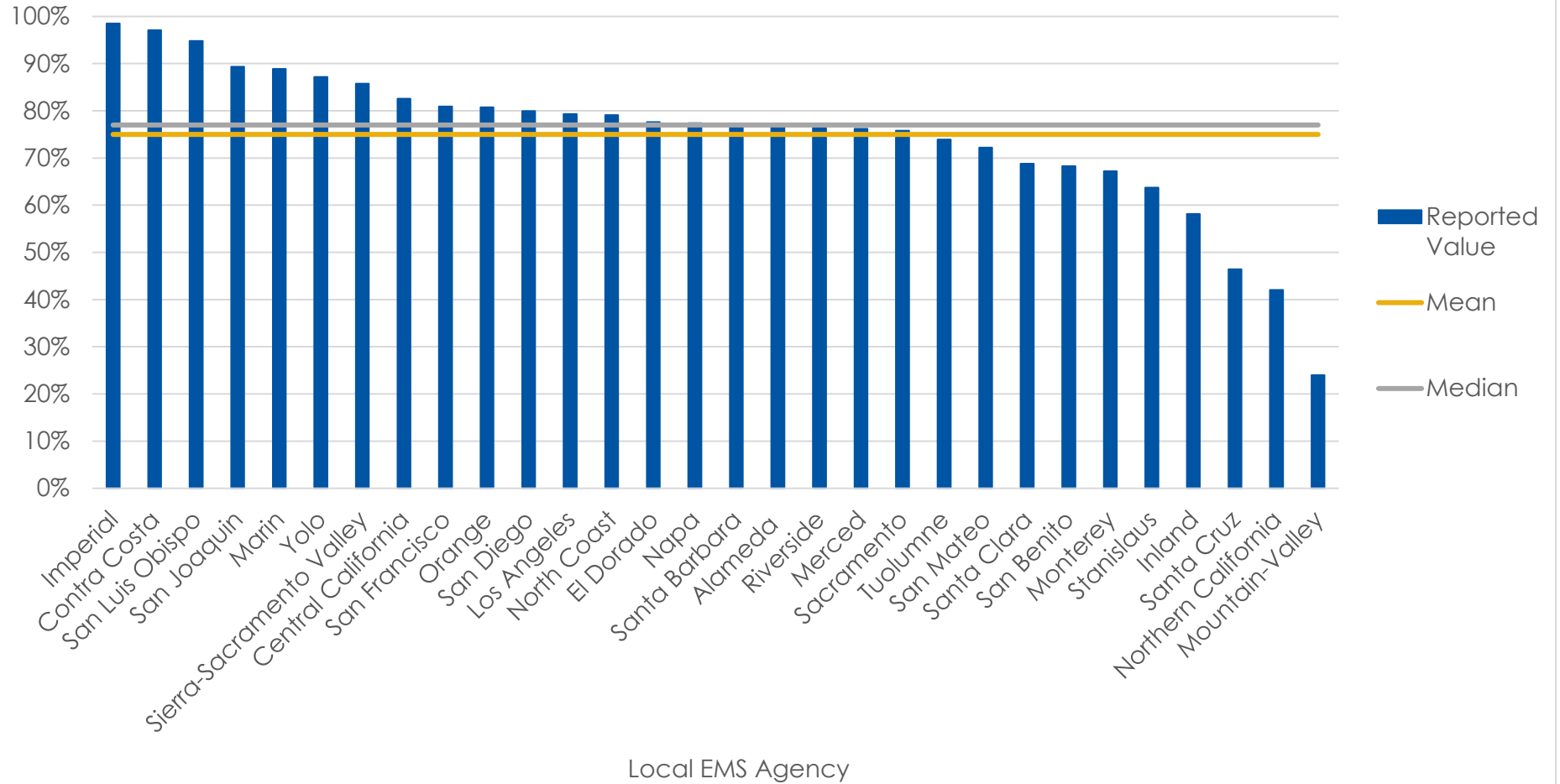
HYP-1: TREATMENT ADMINISTERED FOR HYPOGLYCEMIA

HYP-1 focuses on the percentage of patients that received treatment to correct their hypoglycemia originating from a 911 response. For the 2022 reporting year, 30 of 34 LEMSAs provided HYP-1 data. Of the 45,875 patients who had a blood glucose level indicating hypoglycemia, 36,479 (75%) patients received treatment to correct their hypoglycemia. The median value was 77%.

For the 2022 measure set, EMSA revised the HYP-1 specifications to include eMedications.03 (Medication Given) = “Contains any dextrose”. Some LEMSAs reported documentation issues with the collection or mapping of medication given, including the provision of patient's own food/drink as treatment administered, oral medication categorized as a fluid rather than medication, data codes for medication given not submitted by providers or accounted for, documentation of medication given in the narrative rather than the medication drop-down, and duplicate counts for patients. This measure will be evaluated for future reporting years to align with the NEMESIS v3.5.0 data standard and with consideration of EMSA feedback.

[Link to HYP-1 measure specifications](#)

Chart 2: HYP-1 Treatment Administered for Hypoglycemia



LEMSA	HYP-1 Numerator	HYP-1 Denominator	HYP-1 Reported Value
Imperial County	332	337	99%
Contra Costa County	10,657	10,975	97%
San Luis Obispo County	128	135	95%
San Joaquin County	981	1,098	89%
Marin County	184	207	89%
Yolo County	163	187	87%
Sierra-Sacramento Valley	1,457	1,699	86%
Central California	1,973	2,390	83%
San Francisco County	725	896	81%
Orange County	2,239	2,772	81%
San Diego County	363	454	80%
Los Angeles County	5,423	6,834	79%
North Coast	204	258	79%
El Dorado County	187	241	78%
Napa County	137	177	77%
Santa Barbara County	262	340	77%
Alameda County	1,251	1,628	77%
Riverside County	2,478	3,246	76%
Merced County	253	332	76%
Sacramento County	1,689	2,228	76%
Tuolumne County	51	69	74%
San Mateo County	709	982	72%
Santa Clara County	1,117	1,624	69%
San Benito County	28	41	68%
Monterey County	484	720	67%
Stanislaus County	395	620	64%
Inland Counties	2161	3715	58%
Santa Cruz County	65	140	46%
Northern California	37	88	42%
Mountain-Valley	346	1,422	24%

HYP-1 Data	
Response Count	30
Response Rate (n=34)	88%
Numerator Total	36,479
Denominator Total	45,875
Mean	75%
Median	77%

Not Reporting: Coastal Valleys, Kern County, Solano County, Ventura County

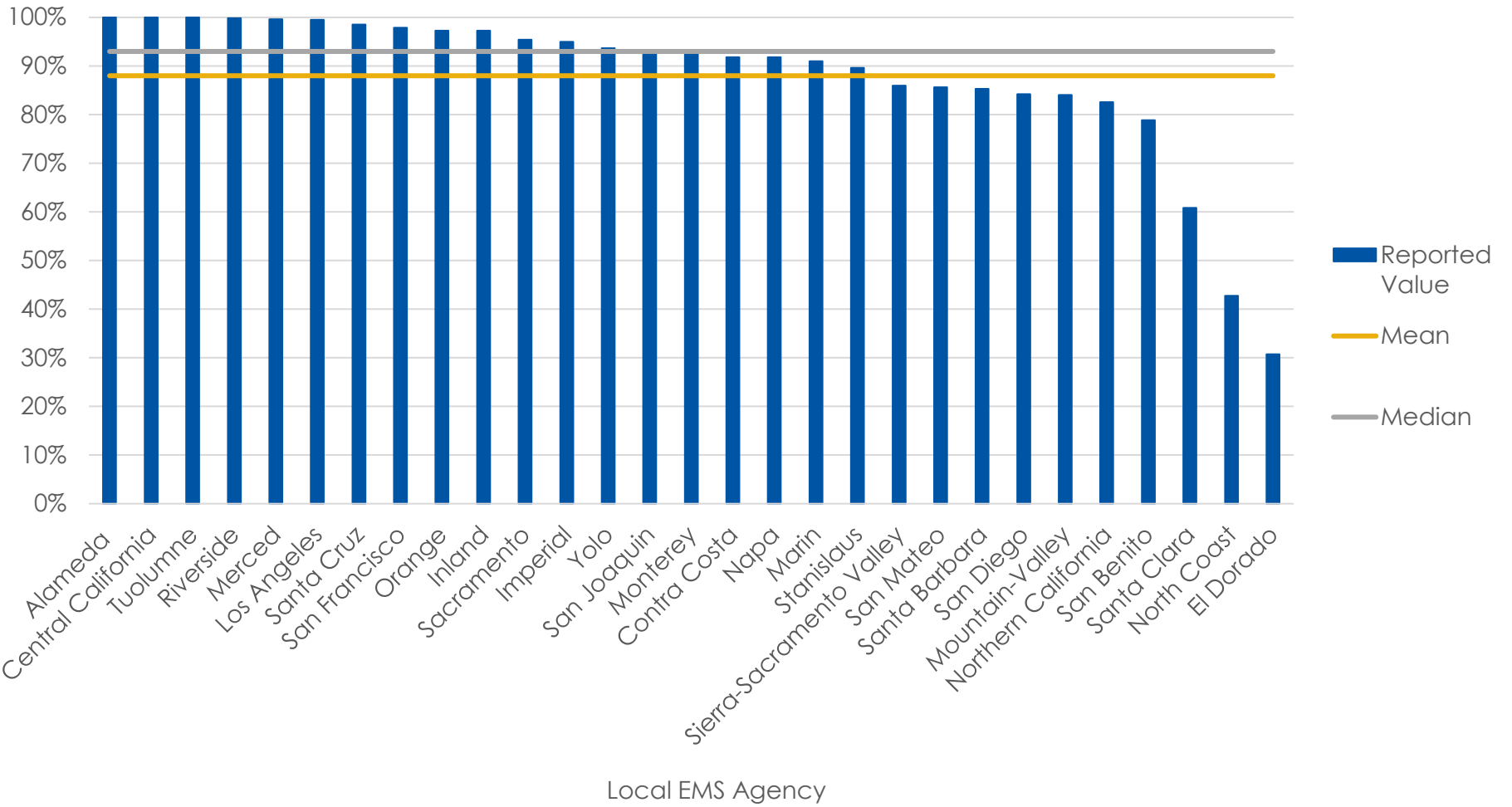
STR-1: PREHOSPITAL SCREENING FOR SUSPECTED STROKE PATIENTS

STR-1 focuses on the percentage of suspected stroke patients that received a prehospital stroke screening originating from a 911 response. For the 2022 reporting year, 29 of 34 LEMSAs provided STR-1 data. Of the 62,046 patients who had a primary or secondary impression of stroke, 57,045 (88%) patients received a documented stroke assessment. The median value was 93%.

Some LEMSAs reported documentation issues, including documentation of stroke using custom fields rather than the required data element eVitals.29 (Stroke Scale Score) and duplicate count of patients. One LEMSA recommended the inclusion of data element eDisposition.12 (Incident/Patient Disposition) = 4212033 "Patient Treated, Transported by this EMS Unit". This measure will be evaluated for future reporting years to align with the NEMESIS v3.5.0 data standard and with consideration of LEMSA feedback.

[Link to STR-1 measure specifications](#)

Chart 3: STR-1 Prehospital Screening for Suspected Stroke Patients



LEMSA	STR-1 Numerator	STR-1 Denominator	STR-1 Reported Value
Alameda County	2,344	2,344	100%
Central California	2,615	2,615	100%
Tuolumne County	112	112	100%
Riverside County	6,548	6,557	100%
Merced County	493	495	100%
Los Angeles County	12,408	12,469	100%
Santa Cruz County	477	484	99%
San Francisco	1,571	1,605	98%
Orange County	3,378	3,472	97%
Inland Counties	5,310	5,460	97%
Sacramento County	3,953	4,142	95%
Imperial County	304	320	95%
Yolo County	385	411	94%
San Joaquin County	1,395	1,501	93%
Monterey County	1,137	1,224	93%
Contra Costa County	2,088	2,274	92%
Napa County	347	378	92%
Marin County	374	411	91%
Stanislaus County	751	838	90%
Sierra-Sacramento Valley	3,183	3,703	86%
San Mateo County	1,736	2,027	86%
Santa Barbara County	575	674	85%
San Diego County	1,531	1,818	84%
Mountain-Valley	616	733	84%
Northern California	185	224	83%
San Benito County	71	90	79%
Santa Clara County	2,731	4,488	61%
North Coast	232	543	43%
El Dorado County	195	634	31%

STR-1 Data	
Response Count	29
Response Rate (n=34)	85%
Numerator Total	57,045
Denominator Total	62,046
Mean	88%
Median	93%

Not Reporting: Coastal Valleys, Kern County, San Luis Obispo County, Solano County, Ventura County

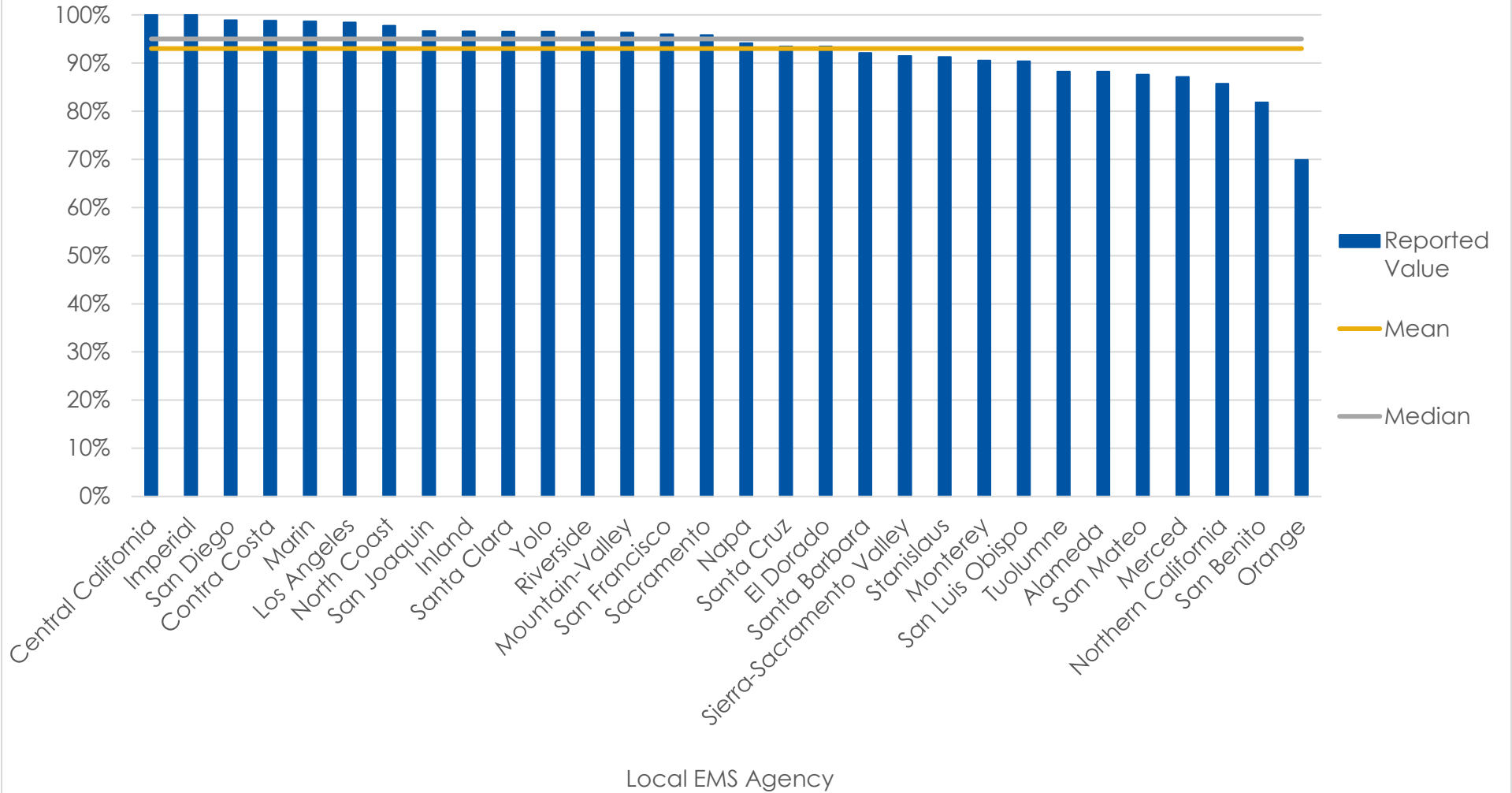
PED-3: RESPIRATORY ASSESSMENT FOR PEDIATRIC PATIENTS

PED-3 focuses on the percentage of pediatric patients that had a primary or secondary impression of respiratory distress and received a documented respiratory assessment originating from a 911 response. For the 2022 reporting year, 30 of 34 LEMSAs provided PED-3 data. Of the 15,646 pediatric patients who had a primary or secondary impression of respiratory distress, 14,603 (93%) patients received a documented respiratory assessment. The median value was 95%.

For the 2022 measure set, EMSA revised the PED-3 specifications to include pertinent negative values for eVitals.12 (Pulse Oximetry), eVitals.14 (Respiratory Rate), and eVitals.16 ((End Tidal Carbon Dioxide (ETCO₂)). One LEMSA reported issues with filtering patient age and the exclusion of acute respiratory syndrome in newborns as it pertains to the primary and secondary impressions of respiratory distress. Two LEMSAs reported documentation issues including low usage rates of the pertinent negative data fields and duplicate counts of patients. This measure will be evaluated for future reporting years to align with the NEMSIS v3.5.0 data standard and with consideration of LEMSA feedback.

[Link to PED-3 measure specifications](#)

Chart 4: PED-3 Respiratory Assessment for Pediatric Patients



LEMSA	PED-3 Numerator	PED-3 Denominator	PED-3 Reported Value
Central California	421	421	100%
Imperial County	39	39	100%
San Diego County	273	276	99%
Contra Costa County	409	414	99%
Marin County	72	73	99%
Los Angeles County	1,924	1,955	98%
North Coast	43	44	98%
San Joaquin County	403	417	97%
Inland Counties	2,276	2,356	97%
Santa Clara County	533	552	97%
Yolo County	84	87	97%
Riverside County	1,486	1,540	96%
Mountain-Valley	106	110	96%
San Francisco	239	249	96%
Sacramento County	549	573	96%
Napa County	64	68	94%
Santa Cruz County	43	46	93%
El Dorado County	57	61	93%
Santa Barbara County	70	76	92%
Sierra-Sacramento Valley	558	610	91%
Stanislaus County	229	251	91%
Monterey County	3,174	3,506	91%
San Luis Obispo County	47	52	90%
Tuolumne County	15	17	88%
Alameda County	479	543	88%
San Mateo County	233	266	88%
Merced County	216	248	87%
Northern California	18	21	86%
San Benito County	9	11	82%
Orange County	534	764	70%

PED-3 Data	
Response Count	30
Response Rate (n=34)	88%
Numerator Total	14,603
Denominator Total	15,646
Mean	93%
Median	95%

Not Reporting: Coastal Valleys, Kern County, Solano County, Ventura County

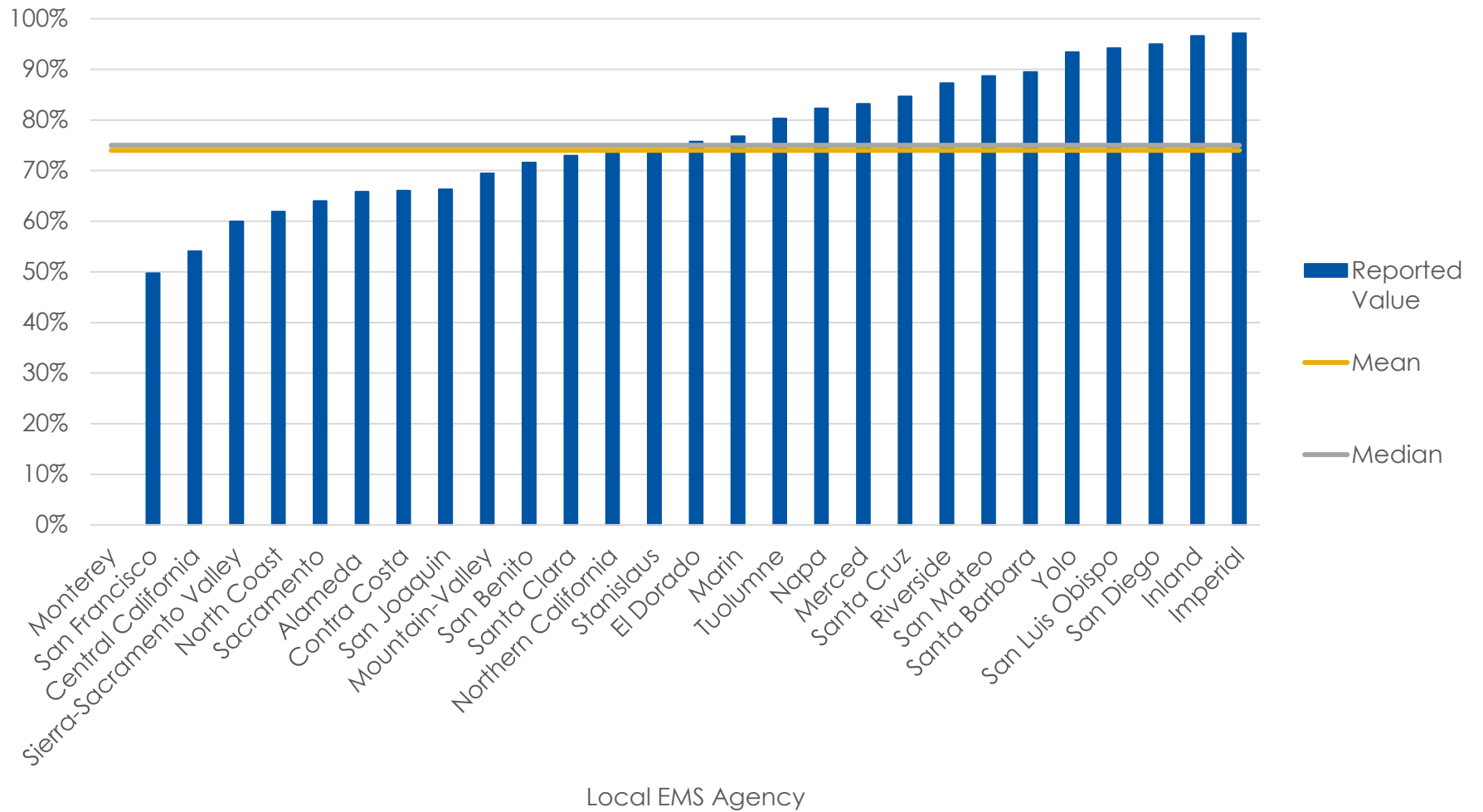
RST-4: 911 REQUESTS FOR SERVICES THAT INCLUDED A LIGHTS AND/OR SIRENS RESPONSE

RST-4 focuses on the percentage of EMS responses originating from a 911 request that included the use of lights and/or sirens during a response. For the 2022 reporting year, 28 of 34 LEMSAs provided RST-4 data. Of the 3,054,210 EMS responses originating from a 911 request, 2,277,757 (74%) included a lights and/or sirens response. The median value was 75%. For this measure, a lower reported value generally indicates better quality.

Two LEMSAs were unable to report data for this measure due to specific data fields not being utilized in their region (e.g. level of response to scene not collected). Three LEMSAs reported documentation issues such as underutilized or inconsistent values in data element eResponse.24 (Additional Response Mode Descriptors). This measure will be evaluated for future reporting years to align with the NEMSIS v3.5.0 data standard and with consideration of LEMSA feedback.

[Link to RST-4 measure specifications](#)

Chart 5: RST-4 911 Requests for Services that Included a Lights and/or Sirens Response



LEMSA	RST-4 Numerator	RST-4 Denominator	RST-4 Reported Value
Monterey County	248	66,776	0%
San Francisco	59,095	118,881	50%
Central California	135,155	250,023	54%
Sierra-Sacramento Valley	102,503	170,947	60%
North Coast	17,403	28,112	62%
Sacramento County	152,732	238,647	64%
Alameda County	111,422	169,264	66%
Contra Costa County	86,573	131,140	66%
San Joaquin County	59,243	89,378	66%
Mountain-Valley	29,937	43,117	69%
San Benito County	3,867	5,401	72%
Santa Clara County	214,367	293,885	73%
Northern California	6,950	9,469	73%
Stanislaus County	36,197	49,154	74%
El Dorado County	16,452	21,721	76%
Marin County	17,841	23,231	77%
Tuolumne County	5,807	7,232	80%
Napa County	18,302	22,237	82%
Merced County	31,799	38,230	83%
Santa Cruz County	18,459	21,804	85%
Riverside County	427,338	489,789	87%
San Mateo County	60,536	68,275	89%
Santa Barbara County	74,568	83,347	89%
Yolo County	24504	26229	93%
San Luis Obispo County	23,445	24,894	94%
San Diego County	56,002	58,949	95%
Inland Counties	473,051	489,702	97%
Imperial County	13,961	14,376	97%

RST-4 Data	
Response Count	28
Response Rate (n=34)	82%
Numerator Total	2,277,757
Denominator Total	3,054,210
Mean	74%
Median	75%

Not Reporting: Coastal Valleys, Kern County, Los Angeles County, Orange County, Solano County, Ventura County

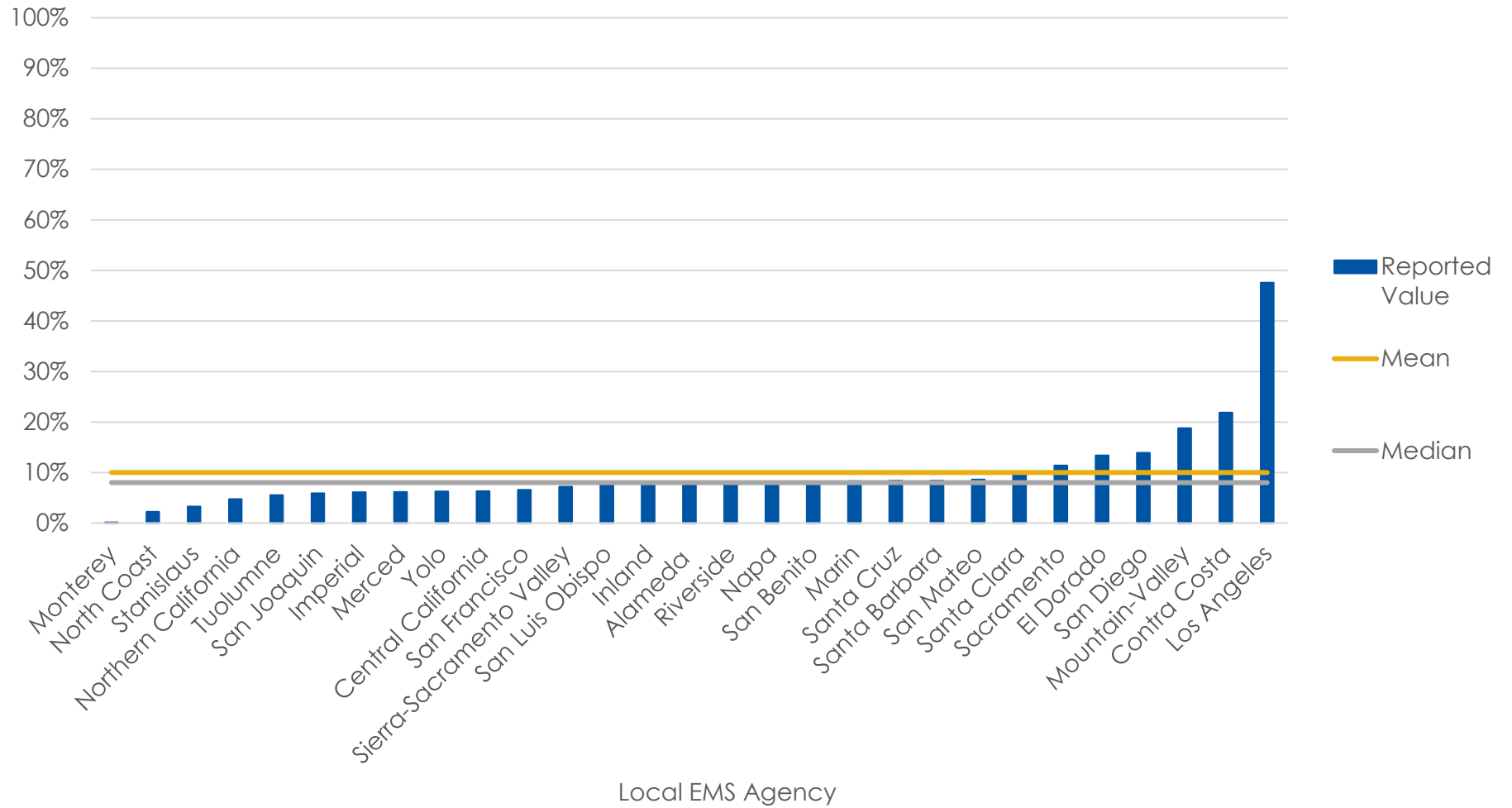
RST-5: 911 REQUESTS FOR SERVICES THAT INCLUDED A LIGHTS AND/OR SIRENS TRANSPORT

RST-5 focuses on the percentage of EMS transports originating from a 911 request that included the use of lights and/or sirens during patient transport. For the 2022 reporting year, 29 of 34 LEMSAs provided RST-5 data. Of the 2,115,465 EMS transports originating from a 911 request, 407,928 (10%) included a lights and/or sirens transport. The median value was 8%. For this measure, a lower reported value generally indicates better quality.

One LEMSA was unable to report data for this measure due to specific data fields not being utilized in their region. Two LEMSAs reported documentation issues, including underutilized or inconsistent values in data element eDisposition.18 (Additional Transport Mode Descriptors). One LEMSA reported documentation issues with mapping data element eDisposition.18 (Additional Transport Mode Descriptors). This measure will be evaluated for future reporting years to align with the NEMESIS v3.5.0 data standard and with consideration of LEMSA feedback.

[Link to RST-5 measure specifications](#)

Chart 6: RST-5 911 Request for Services that Included a Lights and/or Sirens Transport



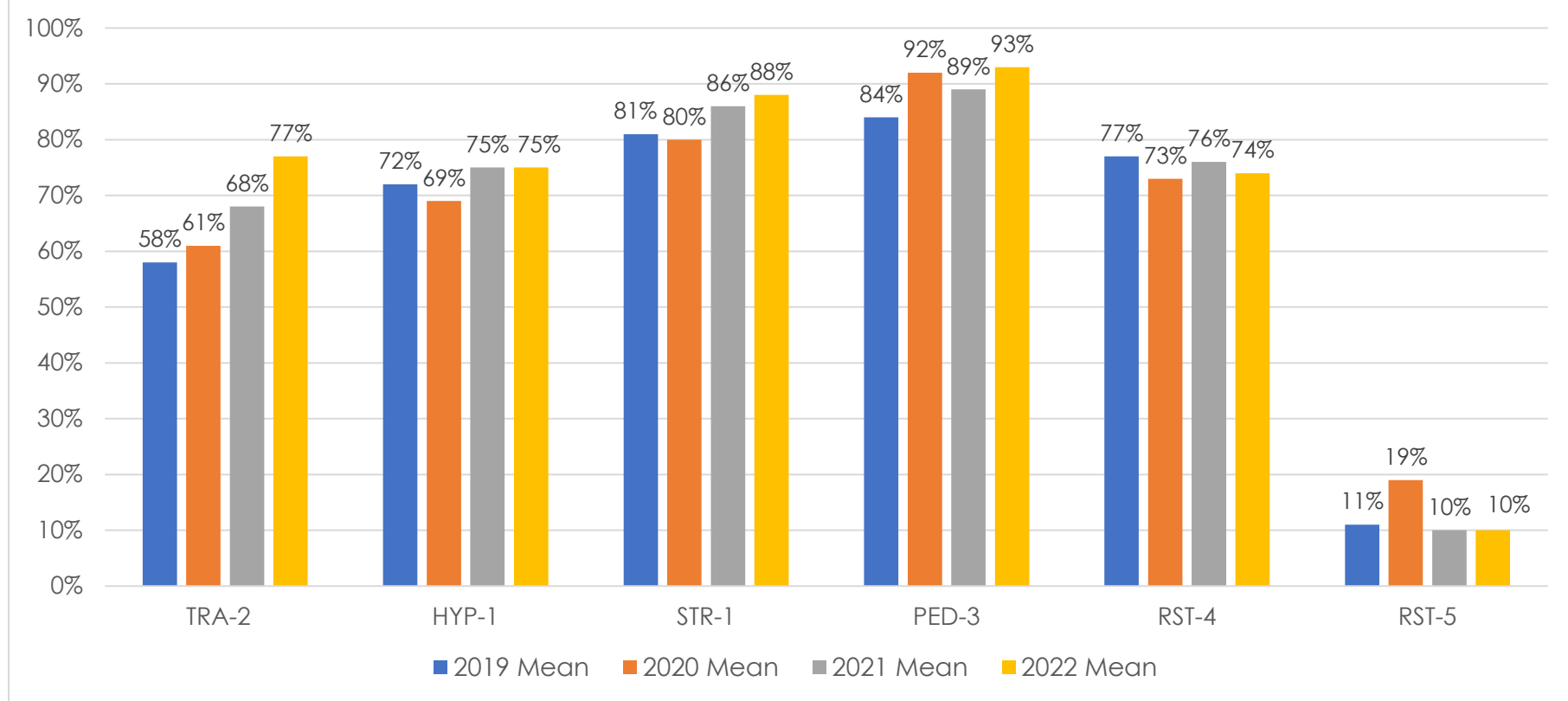
LEMSA	RST-5 Numerator	RST-5 Denominator	RST-5 Reported Value
Monterey County	37	26,779	0%
North Coast	120	5,438	2%
Stanislaus County	960	29,534	3%
Northern California	1,120	23,599	5%
Tuolumne County	292	5,307	6%
San Joaquin County	4,196	71,358	6%
Imperial County	581	9,510	6%
Merced County	1376	22343	6%
Yolo County	943	15,118	6%
Central California	10,701	169,085	6%
San Francisco	5,361	81,588	7%
Sierra-Sacramento Valley	8,375	116,177	7%
San Luis Obispo County	1,175	14,797	8%
Inland Counties	12,837	161,248	8%
Alameda County	9,031	111,238	8%
Riverside County	13,741	169,036	8%
Napa County	858	10,456	8%
San Benito County	201	2,430	8%
Marin County	1,260	15,175	8%
Santa Cruz County	1,272	15,133	8%
Santa Barbara County	2,416	28,658	8%
San Mateo County	3,595	41,828	9%
Santa Clara County	9,824	101,561	10%
Sacramento County	12,433	109,089	11%
El Dorado County	1,700	12,685	13%
San Diego County	6,242	44,903	14%
Mountain-Valley	6,266	33,363	19%
Contra Costa County	23,022	105,179	22%
Los Angeles County	267,993	562,850	48%

RST-5 Data	
Response Count	29
Response Rate (n=34)	85%
Numerator Total	407,928
Denominator Total	2,115,465
Mean	10%
Median	8%

Not Reporting: Coastal Valleys, Kern County, Orange County, Solano County, Ventura County

COMPARISON OF CORE QUALITY MEASURE RESULTS

Chart 7: California Core Quality Measures Averages 2019-2022



Average core quality measure results as reported by LEMSAs over the past four calendar years (2019-2022). Published reports for the 2019-2022 calendar years are accessible via the California Emergency Medical Services Authority Quality Improvement webpage at <https://ems.ca.gov/quality-improvement/>.

Please note, these results may not accurately represent EMS performance or changes in performance across the State over time. Results may be impacted by annual revisions to measure specifications; improvements in data collection, training, and other efforts at the LEMSA level; variations in LEMSA participation/reporting from year to year; and other considerations described in this report (refer to pages 8 and 13).

APPENDIX: RESPONSES FROM LEMSAs FOR THE 2022 CORE QUALITY MEASURES REPORT

The following tables include data and information provided by LEMSAs for this report. All notes and feedback from the LEMSAs will be evaluated by EMSA and the core quality measures workgroup for future reporting years.

ALAMEDA COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	2,883	2,966	97%	Source: ESO Analytics
HYP-1	1,251	1,628	77%	Source: ESO Analytics
STR-1	2,344	2,344	100%	Source: ESO Analytics
PED-3	479	543	88%	Source: ESO Analytics
RST-4	111,422	169,264	66%	Source: ESO Analytics
RST-5	9,031	111,238	8%	Source: ESO Analytics

CENTRAL CALIFORNIA EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	1,578	1,684	94%	
HYP-1	1,973	2,390	83%	
STR-1	2,615	2,615	100%	
PED-3	421	421	100%	
RST-4	135,155	250,023	54%	
RST-5	10,701	169,085	6%	

CONTRA COSTA COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	1,787	2,872	62.2 %	
HYP-1	10,657	10,975	97.1 %	
STR-1	2,088	2,274	91.8 %	
PED-3	409	414	98.8 %	
RST-4	86,573	131,140	66.0 %	
RST-5	23,022	105,179	21.9 %	

EL DORADO COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	212	234	91%	
HYP-1	187	241	78%	
STR-1	195	634	31%	
PED-3	57	61	93%	
RST-4	16,452	21,721	76%	
RST-5	1,700	12,685	13%	

IMPERIAL COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	61	65	94%	AMR, Reach, NAF El Centro
HYP-1	332	337	99%	All Providers
STR-1	304	320	95%	All Providers
PED-3	39	39	100%	AMR, Reach, NAF El Centro
RST-4	13,961	14,376	97%	AMR, Reach, NAF El Centro
RST-5	581	9,510	6%	AMR, Reach, NAF El Centro

INLAND COUNTIES EMERGENCY MEDICAL AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	2,889	3,392	85%	
HYP-1	2,161	3,715	58%	
STR-1	5,310	5,460	97%	
PED-3	2,276	2,356	97%	
RST-4	473,051	489,702	97%	
RST-5	12,837	161,248	8%	

LOS ANGELES COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	13,778	17,362	79%	
HYP-1	5,423	6,834	79%	
STR-1	12,408	12,469	100%	
PED-3	1,924	1,955	98%	
RST-4				Level of Response to scene is not collected
RST-5	267,993	562,850	48%	

MARIN COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	291	299	97%	
HYP-1	184	207	89%	
STR-1	374	411	91%	
PED-3	72	73	99%	
RST-4	17,841	23,231	77%	
RST-5	1,260	15,175	8%	

MERCED COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	530	2,925	18%	
HYP-1	253	332	76%	
STR-1	493	495	100%	
PED-3	216	248	87%	
RST-4	31,799	38,230	83%	
RST-5	1,376	22,343	6%	

MONTEREY COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	996	1,097	91%	This rate only includes trauma level I-4 or destination hospital to be Natividad as instructed by CQM Manual. However, excludes out-of-county transports, including pediatric patients whom county policy indicates must be transported out of the county. Due to this inclusion criteria, some trauma transports may be excluded.
HYP-1	484	720	67%	
STR-1	1,137	1,224	93%	
PED-3	3,174	3,506	91%	Limits the primary and secondary to J80 and J98.01. It will exclude acute respiratory syndrome in newborns, which may be more likely applicable in this category. The other respiratory is J98n, but the manual specifically asks for J98.01-. Also, Pediatric Age is >15 OR patient's age is not empty. When using these criteria, the denominator values increase compared to using Patient Age, which is >15 alone. ePatient.16 Age Units is not available as an option for filtering on ESO Analytics Report used to generate counts
RST-4	248	66,776	0%	Under Response Mode Descriptor, while EMS has the ability to choose appropriately, the ESO Analytics has "lights and no sirens, and no lights or sirens" but does not contain 2224021 "Initial No Lights or Sirens, Upgraded to Lights and Sirens" 2224023 "Initial Lights and Sirens, Downgraded to No Lights or Sirens" and 2224015 "Lights and Sirens."
RST-5	37	26,779	0%	This cannot be correctly calculated as the "Patient treated and transported by this EMS Unit" has been mapped to the transport dispositions required in this field. Mapped Under 2224015 "Lights and Sirens" Does not include 2224017 "Initial No Lights or Sirens, Upgraded to Lights and Sirens" 2224023 "Initial Lights and Sirens, Downgraded to No Lights or Sirens"- while transport disposition only contains "Lights and No Sirens". Because 4/5 transport dispositions are in the disposition field, not the transport mode descriptor field. It is mapped to the equivocal of patients treated and transported by this EMS unit this field is incorrectly measured.

MOUNTAIN-VALLEY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	21	151	14%	
HYP-1	346	1,442	24%	
STR-1	616	733	84%	
PED-3	106	110	96%	
RST-4	29,937	43,117	69%	
RST-5	6,266	33,363	19%	

NAPA COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	148	156	95%	LZ/Helispot put down instead of patient destination
HYP-1	137	177	77%	
STR-1	347	378	92%	
PED-3	64	68	94%	
RST-4	18,302	22,237	82%	
RST-5	858	10,456	8%	

NORTHERN CALIFORNIA EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	25	72	35%	
HYP-1	37	88	42%	
STR-1	185	224	83%	
PED-3	18	21	86%	
RST-4	6,950	9,469	73%	
RST-5	120	5,438	2%	

NORTH COAST EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	90	155	58%	
HYP-1	204	258	79%	
STR-1	232	543	43%	
PED-3	43	44	98%	
RST-4	17,403	28,112	62%	
RST-5	1,120	23,599	5%	

RIVERSIDE COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	2,577	2,690	96%	No modifications or patient level needed as criteria already includes eDisposition12= "Treated, Transported by this EMS Unit" which accounts predominantly for patient level.
HYP-1	2,478	3,246	76%	Data is based on Patient level using incident date/hour, name, age, gender. Same data by response level : Numerator: 2731, Denominator: 4137.
STR-1	6,548	6,557	99.9%	Data is based on Patient level using incident date/hour, name, age, gender. Same data by response level : Numerator: 7929, Denominator: 7953.
PED-3	1,486	1,540	96%	Data is based on Patient level using incident date/hour, name, age, gender. (Count significantly higher in 2022)
RST-4	427,338	489,789	87%	Response level only. No patient level modifications made so all responses could be accounted for (Fire and Ambulance). 1210 records with a blank eResponse.24 but calculated into denominator as blanks not part of exclusionary criteria
RST-5	13,741	169,036	8%	No modifications or patient level needed as criteria already includes eResponse.07="Ground Transport"; and eDisposition12= "Treated, Transported by this EMS Unit" which accounts predominantly for patient level.

SACRAMENTO COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	1,878	2,223	84%	
HYP-1	1,689	2,228	76%	
STR-1	3,953	4,142	95%	Suggestion: Prehospital Screening/ alerts should specify eDisposition.12 of Treated and transported. Current specifications in this report captures any first unit on scene that transfers care to another unit and it includes any cancelled call.
PED-3	549	573	96%	
RST-4	152,732	238,647	64%	
RST-5	12,433	109,089	11%	For this measure specifications use eResponse.07 ground transport only, if ALS Ground Transport and BLS Ground transports our numbers change Num: 13,193 / Den: 128,120 resulting in 10.29%

SAN BENITO COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	58	60	97%	
HYP-1	28	41	68%	
STR-1	71	90	79%	
PED-3	9	11	82%	
RST-4	3,867	5,401	72%	
RST-5	201	2,430	8%	

SAN DIEGO COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	1,521	1,641	93%	Only agencies that either enter directly into the LEMSA's ePCR system or that have completed third party integration are used
HYP-1	363	454	80%	Only agencies that either enter directly into the LEMSA's ePCR system or that have completed third party integration are used
STR-1	1,531	1,818	84%	Only agencies that either enter directly into the LEMSA's ePCR system or that have completed third party integration are used
PED-3	273	276	99%	Only agencies that either enter directly into the LEMSA's ePCR system or that have completed third party integration are used
RST-4	56,002	58,949	95%	Only agencies that either enter directly into the LEMSA's ePCR system or that have completed third party integration are used
RST-5	6,242	44,903	14%	Only agencies that either enter directly into the LEMSA's ePCR system or that have completed third party integration are used

SAN FRANCISCO EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	1,500	1,674	90%	
HYP-1	725	896	81%	The numerator is self-calculated and deviates slightly from the defined metric. San Francisco treats hypoglycemia with oral glucose, glucagon, and dextrose 10%, however, dextrose 10% is categorized in our PCRs as a fluid rather than a medication. The numerator given was calculated using occurrences of Glucose and Glucagon in eMedication, or the words 'dextrose' or 'd10' in the narrative. The numerator given by the conventional definition would be 425.
STR-1	1,571	1,605	98%	
PED-3	239	249	96%	
RST-4	59,095	118,881	50%	20% of events were unknown, this is due to one of our 911 providers using inconsistent values in eResponse.24
RST-5	5,361	81,588	7%	14% of events were unknown, this is due to one of our 911 providers using inconsistent values in eDisposition.18

SAN JOAQUIN COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	79	81	98%	<p>Based upon a review of fields used in the prehospital setting, the data element "Hospital Capability" eDisposition.23 was not used in 2022.</p> <p>The decision by EMSA to not include Step 4 of the CDC's Trauma Triage Criteria that includes "EMS Provider Judgement" for the denominator and numerator caused measurable under reporting of the number of trauma cases for San Joaquin County. When "EMS Provider Judgement" is included in the report criteria, the denominator is 139. When the criteria "Trauma Center Activations" is included, the denominator is 2107.</p>
HYP-1	981	1,098	89%	<p>Based upon the DEM datasets submitted by the 911 prehospital providers, not all criteria in the required numerator and denominator list are in use.</p> <p>The following "Medication Given" elements are not included in the DEM submitted by providers: 92972 "Insta-Glucose 237653 "Glucose 500 MG/ML Injectable Solution" 372326 "Glucose Chewable Tablet" 1165819 "Glucose Injectable Product" 1165822 "Glucose Oral Liquid Product" 1165823 "Glucose Oral Product" 1794567 "Glucose Injection" 1795477 "500 ML glucose 100 MG/ML Injection."</p> <p>The following "Procedure" elements are not included in the DEM submitted by providers: 225285007 "Giving oral fluid" 710925007 "Provision of food"</p>
STR-1	1,395	1,501	93%	
PED-3	403	417	97%	
RST-4	59,243	89,378	66%	
RST-5	4,196	71,358	6%	

SAN LUIS OBISPO COUNTY EMS AGENCY (2 REPORTS)

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	Unable to Obtain	Unable to Obtain		NEMESIS codes for this core measure not found in SIMON/NOMIS ePCR
HYP-1	128	135	95%	
STR-1	Unable to Obtain	Unable to Obtain		NEMESIS codes for this core measure not found in SIMON/NOMIS ePCR
PED-3	47	52	90%	
RST-4	23,445	24,894	94%	
RST-5	1,175	14,797	8%	

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	283	306	92%	Different criteria to provide the data desired under different codes
HYP-1	128	135	95%	Different criteria to provide the data desired under different codes
STR-1	513	513	100%	Different criteria to provide the data desired under different codes
PED-3	47	52	90%	Different criteria to provide the data desired under different codes
RST-4	23,445	24,894	94%	Different criteria to provide the data desired under different codes
RST-5	1,175	14,797	8%	Different criteria to provide the data desired under different codes

SAN MATEO COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	723	796	91%	
HYP-1	709	982	72%	
STR-1	1,736	2,027	86%	
PED-3	233	266	88%	
RST-4	60,536	68,275	89%	
RST-5	3,595	41,828	9%	

SANTA BARBARA COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	572	623	92%	In addition to Santa Barbara Cottage Hospital (20398) and Marian Regional Medical Center (20267), providers use Landing Zone (62315) to list that they transferred to an EMS aircraft to facilitate quicker transport time to higher level of definitive care facility.
HYP-1	262	340	77%	If the narrative field is queried for the same values and the narrative field is evaluated for potential documentation error by providers incorrectly listing a BGL inconsistent with incident, the revised numerator is 296 and revised denominator is 331. The revised reported value is 89%.
STR-1	575	674	85%	The ePCR form used in the county doesn't include eVitals.29. Instead, providers document stroke using custom fields, itExam. The numerator displayed is based evaluation of all of the following data fields being documented: itExam.55, itExam.54, and itExam.56. We will update our forms to include eVitals.29 in the ePCR for version 3.5.
PED-3	70	76	92%	The numerator value initially contained 13 fallouts. Of the 13 fall outs, one of the 13 incidents did have the transporting unit document all vitals, however that crew did not identify the incident as meeting the inclusion criteria for primary impression. The remaining 12 fallouts had 7 incidents in which the patient did not meet the primary impression based on the secondary unit assessment.
RST-4	74,568	83,347	89%	
RST-5	2,416	28,658	8%	

SANTA CLARA COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	5,221	5,315	98%	
HYP-1	1,117	1,624	69%	
STR-1	2,731	4,488	61%	
PED-3	533	552	97%	
RST-4	214,367	293,885	73%	
RST-5	9,824	101,561	10%	

SANTA CRUZ COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	85	264	32%	
HYP-1	65	140	46%	
STR-1	477	484	99%	
PED-3	43	46	93%	
RST-4	18,459	21,804	85%	
RST-5	1,272	15,133	8%	

SIERRA-SACRAMENTO VALLEY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	2,320	2,491	93%	
HYP-1	1,457	1,699	86%	
STR-1	3,183	3,703	86%	
PED-3	558	610	91%	
RST-4	102,503	170,947	60%	
RST-5	8,375	116,177	7%	

STANISLAUS COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	79	90	87.78%	The results for this metric are not an accurate representation of the patients meeting trauma triage criteria in Stanislaus County. Stanislaus EMSA identified a documentation issue within AMR MEDS program. The trauma triage criteria was not being utilized appropriately. This has been addressed with the providers and hopefully with the switch to ImageTrend this issue will be corrected. For 7-1-22 to 12-31-22 there were 694 patients that had a trauma alert and were transported to a Level 1 or II trauma center.
HYP-1	395	620	63.71%	The denominator for this metric includes first responders, the majority are BLS responders which causes a duplicate count for patients (221). If you only count ALS transport providers the metric would be 331/399 = 80.45%
STR-1	751	838	89.62%	This metric also includes first responders which causes a duplication count of patients. The totals for ALS transport providers are 552/596 - 92.62%
PED-3	229	251	91.24%	This metric also includes first responders which causes a duplication count of patients. The totals for ALS transport providers are 160/168 - 95.24%
RST-4	36,197	49,154	73.64%	The numerator in this metric is missing 2588 responses for a provider. Stanislaus EMSA identified that this provider did not utilize eResponse.24 as a required field. The provider relied on eResponse.23 to track code 2 vs code 3 responses. This has been addressed with the provider. The totals should be 38785/49154 - 78.91%
RST-5	960	29,534	3.25%	The numerator in this metric is missing 115 transports for a provider. Stanislaus EMSA identified that this provider did not utilize eDisposition.18 as a required field. The provider relied on eDisposition.17 to track code 2 vs code 3 transports. This has been addressed with the provider. The totals should be 1075/29534 - 3.64%

TUOLUMNE COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	2	14	14%	After review, 7/14 transported to Trauma center for 50%. Of the other 7, 5 were unstable and appropriately transported to nearest receiving facility.
HYP-1	51	69	74%	63/69 treated for 91%. ESO documentation of D10W being used as the IV fluid was not accounted for. This has been addressed and corrected within the software.
STR-1	112	112	100%	
PED-3	15	17	88%	
RST-4	5,807	7,232	80%	
RST-5	292	5,307	6%	

YOLO COUNTY EMS AGENCY

Measure ID	Numerator (Subpopulation)	Denominator (Population)	Reported Value	Notes
TRA-2	364	472	77%	
HYP-1	163	187	87%	
STR-1	385	411	94%	
PED-3	84	87	97%	
RST-4	24,504	26,229	93%	
RST-5	943	15,118	6%	

QUESTIONS OR COMMENTS?



Additional information about the California Core Quality Measures Project, including reports for previous years, is accessible via the California Emergency Medical Services Authority Quality Improvement webpage at <https://emsa.ca.gov/quality-improvement/>.

For questions or comments about the California Core Quality Measures Report – CY 2022, please contact Michelle McEuen at (916) 903-9624 or Michelle.McEuen@emsa.ca.gov.

California EMS System Core Quality Measures Report

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