**STATE OF CALIFORNIA**
**COMMISSION ON EMERGENCY MEDICAL SERVICES**
**September 21, 2016**
**10:00 A.M. – 1:00 P.M.**
**(Meeting may end early at the completion of all agenda items)**
**Holiday Inn Bayside San Diego**
**4875 North Harbor Drive**
**San Diego, CA 92106**
**Reservations: 800-662-8899 or 619-224-3621**

1. **Call to Order and Pledge of Allegiance**

2. **Review and Approval of June 15, 2016 Minutes**

3. **Director's Report**
   A. EMSA Budget Status
   B. EMSA Program Updates [DMS] [Personnel] [Systems]

4. **Consent Calendar**
   A. Legislative Report
   B. Administrative and Personnel Report
   C. Legal Report
   D. Enforcement Report
   E. EMT Regulation Revision Report
   F. Paramedic Regulation Revision Report
   G. EMS Plan Status Update
   H. EMS Plan Appeals Update

**Regular Calendar**

5. **Commission on EMS Bylaws Comments**

6. **EMS Personnel**
   A. Tactical Casualty Care Guidelines Update
   B. Community Paramedicine Pilot Project Status Update
   C. Preventive Health Training Standards for Child Care Providers Update
   D. Physician Orders for Life Sustaining Treatment (POLST) Registry Update
   E. Ventura County EMS Agency's Air-Q Trail Study 18 Month Report

7. **EMS Systems**
   A. Trauma Plan Status and ACS Site Visit Review
   B. Core Measures Reports for 2015
   C. CEMSIS Update: NEMSIS 3 Transition
   D. Ambulance Patient Offload Time (APOT)

**8. Disaster Medical Services Division**
A. Mobile Medical Assets Update

**9. Items for Next Agenda**

**10. Public Comment**

**11. Adjournment**

**A full agenda packet will not be provided at the meeting; however, you can print a full packet, including the agenda from the Department's website at www.emsa.ca.gov.** This event will be held in an accessible facility. Individuals with disabilities requiring auxiliary aids or services to ensure accessibility such as language interpreting, assisted listening device, materials in alternate formats or other accommodation, should contact Sandi Baker at (916) 431-3701, ext. 699, no less than 7 days prior to the meeting.

**STATE OF CALIFORNIA**
**COMMISSION ON EMS**
**WEDNESDAY, JUNE 15, 2016**
**CROWNE PLAZA SACRAMENTO**
**5321 DATE AVENUE**
**SACRAMENTO, CA 95841**
**800-605-6578 – Reservation line**

# MINUTES

**COMMISSIONERS PRESENT:**
Steve Barrow, Dan Burch, Jaison Chand, Steve Drewniany, James Dunford, MD, Aaron Hamilton, Mark Hartwig, James Hinsdale, MD, Richard O. Johnson, MD, Daniel Margulies, MD, David Rose, Eric Rudnick, MD, Carole Snyder, RN, Lewis Stone, Dave Teter, and Susan Webb

**COMMISSIONERS ABSENT:**
Alexis F. Lieser, MD, Jane Smith

**EMS AUTHORITY STAFF PRESENT:**
Howard Backer, MD, Daniel R. Smiley, Reba Anderson, Sandra Baker, Kathleen Bissell, Corrine Fishman, Michael Frenn, Bill Hartley, Adrienne Kim, Kim Lew, Jennifer Lim, Nancy Marker, Steven McGee, Tom McGinnis, Lou Meyer, Priscilla Rivera, Ryan Stanfield, Sean Trask, Adam Willoughby, Leslie Witten-Rood

**AUDIENCE PRESENT:**
William Anderson, California Governor's Office of Emergency Services (Cal OES)
Dave Austin, American Medical Response
Bruce Barton, Riverside County EMS Agency
Dave Duncan, California Shock Trauma Air Rescue (CALSTAR) and California Department of Forestry and Fire Protection (CAL FIRE)
Ross Elliott, California Ambulance Association
Brian Hartley,
Gurujodha Khalsa, Kern County
Dave Magnino, Sacramento County EMS Agency
Adam Sutkus, Sacramento State University Center for Collaborative Policy

## 1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chairman Dan Burch called the meeting to order at 10:00 a.m. Sixteen Commissioners were present. He asked Commissioner David Rose to lead the Pledge of Allegiance and it was recited.

## 2. REVIEW AND APPROVAL OF MARCH 16, 2016, MINUTES

**Action: Commissioner Stone moved approval of the March 16, 2016, Commission on Emergency Medical Services Meeting Minutes as presented. Commissioner Rose seconded. Motion carried unanimously.**

## 3. DIRECTOR'S REPORT

Howard Backer, M.D., the EMSA Medical Director, introduced new Commissioners Carole Snyder and Jim Hinsdale and welcomed them to EMSA.

Dr. Backer presented his report:

### A. EMSA Budget Status

The governor's May Revise contained no budgetary changes for EMSA. It did not include funding for the mobile field hospital.

### B. EMSA Program Updates

Dr. Backer reviewed activities and areas of focus since the last Commission meeting and stated several of these will be discussed as part of today's agenda.

Personnel

Recruitment efforts are underway for chief of the Disaster Medical Division, Assistant Chief of EMS Systems, and Chief Information Officer.

Dr. Backer asked staff in attendance to introduce themselves.

CDC Audit

The Centers for Disease Control and Prevention (CDC) audit report on the Preventive Health and Health Services Federal Block Grant was issued with no findings and a favorable opinion.

Legislation

Dr. Backer commented on bills staff is tracking that will be reviewed later today.

- A bill to expand epinephrine to businesses. Dr. Backer stated the need to add links to prior epinephrine statutes that make this available to the public training and certification programs that EMSA was tasked with developing.
- A bill to add an EMS seat to the Wireless 911 Commission. The EMS represents a large proportion of the calls and should be represented. There has been no response to date.
- A bill to allow the public to use tourniquets. New legislation is not necessary because tourniquets are used in first aid.
- A bill to extend the Roth Maddy Fund for air ambulance. This bill looks positive.
- A bill to update the psychiatric involuntary hold law. The EMS needs to be properly portrayed and maintain its medical direction.

- A bill about teaching CPR in schools. Several local EMS agencies (LEMSAs) have already started up successful programs in local schools.
- A bill permitting schools to stock and administer Narcan, in addition to five other required medications, such as epinephrine and five medications, such as Narcan, epinephrine, and glucagon. There is no data that suggests that narcotic overdoses are a problem in schools. EMS response should be adequate for schools.

Appeal Process

The LEMSAs for Kern and El Dorado Counties have pending appeals on their EMS plans.

Seven counties are overdue on their EMS plan submissions by more than eighteen months. EMSA has limited enforcement options, but is working with the Emergency Medical Services Administrators' Association of California (EMSAAC) to refine the EMS plan format and submission process to make it easier for counties to comply.

Trauma System Review

The American College of Surgeons (ACS) conducted a Trauma System Review. Dr. Backer stated his appreciation to stakeholders who participated in the site visit. The ACS provided a written report of their recommendations to EMSA staff for review before releasing the report to the public. The next step is to discuss the recommendations and incorporate them into the EMS plan. The ACS recommendations were consistent with those already contained in the draft trauma plan. Upon approval by the California Health & Human Services Agency, the ACS report and the EMSA plan will be released to the public. Staff then will work with LEMSAs and the State Trauma Advisory Committee to develop strategies and begin implementation of measures to improve California's trauma system.

Community Paramedicine

Staff is considering a strategy to revise the statute to expand practice roles for paramedics.

EMSA has declined requests to add additional sites and projects to the current community paramedicine pilot projects, because the Office of Statewide Health Planning and Development (OSHPD) has disallowed additional pilot projects at this time.

## 4. LEGISLATIVE REPORT

Jennifer Lim, EMSA Deputy Director for Policy, Legislative, and External Affairs, highlighted three bills that have approved positions.

- Assembly Bill (AB) 1578 (Rodriguez) Emergency medical services: mobile field hospitals. EMSA opposes this bill. Ms. Lim stated EMSA plans to redesign the Mobile Field Hospital program to increase flexibility and expand uses of equipment, using existing resources and leveraging partnerships with other state agencies. This bill sets limitations that have been shared with the author.

- AB 1931 (Rodriguez) Emergency medical services: paramedics: discipline. EMSA opposes this bill. Ms. Lim stated EMSA does not believe employers should supplant the licensing entities' obligations for disciplinary action under existing law.
- AB 2260 (Wood) Emergency medical services. EMSA opposes this bill. Ms. Lim stated the creation of air ambulance-specific data sets can be achieved administratively, does not need legislation to achieve the intent of the bill, and requires operations costs that EMSA could not absorb.

Commissioner Questions and Discussion

Commissioner James Hinsdale asked how significant the AB 2260 operations costs would be. Ms. Lim stated the cost could be upwards of $250,000, changes to the California EMS Information System (CEMSIS) would require an additional $500,000 or more, and the LEMSAs would incur costs to change their systems. The costs include software, consultant, and personnel costs. She offered to send Commissioner Hinsdale the cost estimate details.

Commissioner Steve Barrow asked when the data issues will need to be addressed. Dr. Backer stated the bill sets the reasonable target of 2018 to put regulations in place or agree on standard minimal data elements for air ambulance.

## 5. CONSENT CALENDAR

**A. Administrative and Personnel Report**
**B. Legal**
**C. EMS Plan Status Update**
**D. Enforcement Report**
**E. Community Paramedic Pilot Project**
**F. EMT Regulation Revisions**
**G. Paramedic Regulation Revisions**

**Action: Commissioner Rudnick moved approval of the consent calendar. Commissioner Hinsdale seconded. Motion carried unanimously. The item was noted and filed.**

## REGULAR CALENDAR

## 6. EMS AUTHORITY'S STRATEGIC PLAN

**Presenter: Adam Sutkus, Senior Mediator, Sacramento State University Center for Collaborative Policy**

Adam Sutkus, provided an overview, accompanied by a slide presentation, of the process, design team, vision, mission, core values and guiding principles, goals and strategies, and next steps of the EMSA 2016 Strategic Plan effort.

Commissioner Questions and Discussion

Commissioner Barrow asked how the strategic plan addresses the geographic diversity of rural communities.

Mr. Sutkus stated the issue of rural versus urban is identified in the tactical level as the strategic plan is carried out.

Daniel Smiley, EMSA Chief Deputy Director, stated each LEMSA is responsible for planning, implementing, and evaluating their EMS system to meet the needs of their given area. The strategic plan is more about EMSA collaboratively developing a community-wide EMS program that takes all elements into consideration and ensures that stakeholders help to drive the system.

Commissioner Barrow asked how Commissioners will keep up to date on implementation activities. Mr. Smiley stated the Commission will keep informed on implementation goals through progress reports, given as part of the director's report.

Public Comment

Gurujodha Khalsa, the Chief Deputy County Counsel with Kern County, asked if LEMSAs were invited to give input into the strategic plan. Mr. Smiley stated input was gathered from LEMSAs and other stakeholders through surveys and engagement on a continuous basis through involvement in task forces and association meetings.

## 7. COMMISSION ON EMS BYLAWS REVISION APPROVAL

Sean Trask, the Chief of the EMS Personnel Division, summarized the proposed changes to the Bylaws provided in the meeting packet for Commissioner review and approval. The draft revised Bylaws include changes resulting from the recently-approved EMS Plan Appeal Process Regulations and changes to be consistent with the Bagley-Keene Open Meeting Act.

Commissioner Questions

Commissioner Barrow referenced Bylaw III, Special Meetings, on page 55, and asked how the majority of the Commissioners call a special meeting. Chief Trask stated it could be done by email or telephone call.

Commissioner Barrow referenced Bylaw V, Emergency Condition, on page 55, and asked about the strikeout of (b) and (c). Chief Trask stated those items are covered in the new (b) on the next page.

Public Comment

Mr. Khalsa referenced Section 2, Appeals Functions, and suggested that additional language be inserted that indicates that any such applicable guideline or regulation shall be invalid unless it is first preceded through the rulemaking process mandated by the California Government Code and the Administrative Procedures Act (APA) prior to any use as a basis for enforcement or prior to use in any appeal proceeding.

Mr. Khalsa stated that section also indicates that the Authority will start the appeal process and notify the Commission. He stated Kern County strongly rejects this revision because the Authority is an adverse part.

Mr. Khalsa referenced Section III and stated Kern County suggested including Section 100450.100 to the appeals function section of the Bylaws for greater specificity of the aspects of Chapter 13 of the California Code of Regulations being adopted.

Commissioner Discussion

Commissioner Barrow agreed with Mr. Khalsa's comments and requested that staff consider the public comments and bring back a plan to address those issues to the next Commission meeting.

**Action: Commissioner Barrow moved approval of the Commission on EMS Bylaws as presented and requested a staff report at the next Commission meeting to address the public comments made today. Commissioner Hinsdale seconded. Motion carried with 10 yes votes and 3 no votes.**

## 8. ELECTION TO FILL VACANCY ON ADMINISTRATIVE COMMITTEE

Chairman Burch stated the immediate past chairman is automatically assigned by Bylaw as a Member of the Administrative Committee. He asked for nominations for one additional Commissioner to serve on the Administrative Committee.

**Action: Commissioner Jaison Chand nominated Commissioner Daniel Margulies to serve on the Administrative Committee. Commissioner Carole Snyder seconded. Motion carried unanimously.**

## 9. EMS PERSONNEL

### A. Tactical Casualty Care Guidelines Approval

Chief Trask discussed two documents in the meeting packet: the interim guideline, "Training Standards for Basic Tactical Casualty Care and Coordination with EMS during Terrorism Incidents," which will be used to temporarily approve tactical training programs, and a proposed draft of the same document with the addition of Chapter 4, a forty-hour course, which is currently out for public comment. The public comment period on the proposed draft closes on the 23rd of June. The final draft will be brought back to the Commission for approval at the September meeting.

Chief Trask stated staff has received comments that EMSA did not consider the California Tactical EMS (C-TEMS) Advisory Committee's recommendations for the lifesaver courses, and accusations that Chapter 4 may have plagiarized another proprietary document, a program offered through Georgia Regents University called Specialized Tactics for Operational Rescue and Medicine (STORM). The C-TEMS Advisory Committee has not provided comments on the proposed draft to date.

Commissioner Questions and Discussion

Commissioner Mark Hartwig stated the C-TEMS Advisory Committee disagreed on the interim guidelines and voted unanimously to continue to work with EMSA.

Commissioner James Dunford requested that staff provide clarifying information pertinent to issues voted on in the future, such as the details of the difference of opinion of the C-TEMS Advisory Committee on the interim guidelines.

Chief Trask asked about training programs looking for approvals while the interim guidelines are in discussion. Mr. Smiley stated not allowing training program approval during this period of active shooter events sends the wrong message that EMSA wants to stop the active shooter training curriculum. He offered to continue the discussion on Chapter 4 with the C-TEMS Advisory Committee.

Commissioner Steven Drewniany agreed that Mr. Smiley could help clarify issues for the C-TEMS Advisory Committee. He stated he is a member of the C-TEMS Advisory Committee and the Peace Officer Standards and Training (POST) Tactical EMS Advisory Committee. Like Mr. Smiley, he was unable to attend the C-TEMS meeting last week, but stated Chapter 4 was an area of concern in past meetings among law enforcement, fire providers, and training institutions.

Commissioner Lewis Stone stated joint training has been ongoing between fire and law enforcement using the California Joint Apprenticeship Committee curriculum. He asked staff to summarize public comments on this issue for Commissioners' review.

**Action: Commissioner Hartwig moved to reject the interim guidelines as presented and to refer them back to the C-TEMS Advisory Committee for further discussion and recommendations. Commissioner Rose seconded. Motion carried with one abstention.**

## 10. EMS SYSTEMS

### A. Ambulance Patient Offload Time Methodology Guidelines Approval

**Presenters: Howard Backer, MD, EMSA Medical Director**
**Bruce Barton, EMS Director, County of Riverside**

Dr. Backer stated AB 1223 tasked EMSA with developing the measurement specifications or metrics for the ambulance patient offload time and the standards for how the metrics will be applied. EMSA convened a work group made up of stakeholders to work on the specifications.

Dr. Backer provided an overview, accompanied by a slide presentation, of example graphs taken from public sources of agencies that are already measuring ambulance patient offload delays, such as Alameda, Contra Costa, and San Joaquin Counties, and Inland Counties Emergency Medical Agency. He suggested adopting San Joaquin County's model. He stated the importance of standardizing the start and stop of the clock; gathering cumulative delay times, number of hours, number of EMS transports, and financial impact data; reporting the data by hospital; and defining the term "nonstandard,"

Dr. Backer stated staff has submitted two measurements: ambulance patient offload time (APOT) 1 looks at the ninetieth percentile of patient transfer time by LEMSA and by hospital, where staff proposed twenty minutes as the standard, and APOT 2 looks at the percentage and number of patients transported between 20 minutes and one hour, two hours, three hours, and beyond.

Dr. Backer introduced Bruce Barton, who led the development of the initial metrics for the collaborative process with the California Hospital Association (CHA) and is one of the key participants in the Committee that developed the specifications outlined today. Mr. Barton will address EMSAAC's concerns about APOT 2.

Bruce Barton, the EMS Director for Riverside County, stated he serves as a member of the APOT Work Group and the original work group that worked on metrics. He stated APOT has been an issue for a long time and seriously impacts many systems. Standardized guidelines will enable these impacts to be measured and tracked statewide.

Mr. Barton stated EMSAAC and LEMSAs are concerned that these metrics attempt to establish the standard and nonstandard times, which would create arguments in the way they are structured, especially in APOT 2, where the least amount of time listed will be the assumed best practice.

EMSAAC is working with EMSA on developing implementation guidelines to add context and clarification to these issues. Mr. Barton suggested waiting to approve the methodology until the implementation guidelines are developed.

Commissioner Questions and Discussion

Commissioner Stone stated EMSA met with hospital representatives approximately a year and a half ago to discuss hospitals taking corrective action, but to date it has not happened. It is now to the point where providers are talking about taking matters into their own hands. Commissioner Stone spoke about the Wall of Shame effort to make the public aware of average wall times of local hospitals. He stated the need for providers to charge hospitals when patients are left on gurneys.

Commissioner Hartwig moved to approve the guidelines as presented.

Commissioner Barrow stated EMS is too important to be sitting around the ER. He suggested the motion be modified to include a discussion on model solutions.
Dr. Backer stated the first mandated task is measurement, but EMSA will work in partnership with stakeholders at the same time to find solutions.

Commissioner Dunford stated uniform data collection and reporting is key. Dr. Backer stated that EMSA is tasked with developing the measurement specifications and how the data will be submitted to EMSA. The data comes from either CAD data, which is automatic EMS data, or a time stamp that EMS personnel would enter. The data will be posted on the website.

Commissioner Susan Webb stated the need for the guidelines to have a clear understanding of when the clock starts.

Public Comment

Ross Elliott, the Executive Director at the California Ambulance Association, encouraged the Commission to support this motion, adopt these measures, and move forward with no more delays

BJ Bartleson, the Vice President of Nursing and Clinical Services at the CHA and co-lead with EMSA for the past four years on ambulance patient offload delay, encouraged EMSA to continue to collaborate with the CHA in the future.

Dave Duncan, MD, the Medical Director at CALSTAR and EMS Medical Director at CAL FIRE, stated the Emergency Medical Treatment and Labor Act (EMTALA) and the Health Care Financing Administration (HCFA) regulations require medical screening exams to be carried out within thirty minutes in order to determine if the patient has an emergency medical condition. He pointed out that this existing requirement could be used as a starting point.

Brian Hartley stated 140 million patients went into emergency rooms (ERs) last year, a record high, of which sixteen percent or 22.4 million were brought in by ambulance, a 5 million patient increase in the last nineteen months.

**Action: Commissioner Hartwig moved to approve the Ambulance Patient Offload Time Methodology Guidelines for APOT 1 and APOT 2 as presented. Commissioner Chand seconded. Motion carried 8 yes, 6 no, and 0 abstain.**

### B. Wireless 911 Routing Status

**Presenter: William Anderson, Acting Chief of 911 Public Safety Communications, Cal OES**

Mr. Anderson provided an overview, accompanied by a slide presentation, of the future development of 911 communications in California including Text-to-911, call routing, 911 architecture, Next Generation 911 architecture, governance, goals, geographical information system (GIS) mapping, and progress of 911 in California. He stated Cal OES has contracted with LR Kimball, a nationwide consulting company that specializes in next generation applications, and expects the transition to Next Generation 911 to be in place by early 2017. Cal OES will continue to work with the Federal Communications Commission (FCC) and carriers to help make the transition as quickly as possible.

Commissioner Questions and Discussion

Commissioner Eric Rudnick asked what percentage of calls the FCC mandates to be better located, and what the timeline is. Mr. Anderson stated carriers are currently required to provide an accuracy of fifty meters with a confidence level of ninety percent for twenty percent of calls coming in to 911. The percent of required calls will increase by twenty percent per year over the next four years.

Commissioner Dunford stated the time between a call being made and arriving at the PSAP is an important public safety issue. He asked how often calls go to highway patrol. Mr. Anderson stated thirty percent of calls go to highway patrol.

Commissioner Rudnick asked how long California has known about this issue, because the window of a patient's survivability may only be minutes. He stated the concern that the issue is kept quiet because it will be expensive for carriers, who have strong political input.

Commissioner Dunford recommended creating a metric to identify a community's capacity to get help. He stated large differences in survival rates between communities may boil down to cell phone capabilities. If nothing else, sharing this data with the public can inform them to use landline phones for emergency calls.

Chairman Burch asked if it would be possible for EMSA to work with the medical community to establish a metric. Dr. Backer stated EMSA may need to find a standing committee to do this.

### C. EMS Plan Appeal Process Update

Chairman Burch advised the Commission that there are two pending appeals. As one of its duties under Health and Safety Code 1797.105, the Commission must render decisions on whether plans can be approved. He stated it would be inappropriate for any Commissioner to engage in discussion on the merits of either pending appeal at this time.

Tom McGinnis, the Chief of the EMS Systems Division, stated the Chapter 13 EMS Plan Appeals Regulations went into effect on April 1st. EMSA is working with the two LEMSAs that have appeals pending. It will take several months to schedule hearings.

Commissioner Questions and Discussion

Commissioner Barrow asked how much time will be allowed for review of materials once EMSA is involved in making a decision. Chief McGinnis stated it may take weeks to get the results of a hearing.

Commissioner Barrow asked if this would trigger an emergency meeting. Chairman Burch stated the process will be to agendize the Commission to address the appeal at its next regularly scheduled meeting. EMSA releases agendas ten to fourteen days in advance to give Commissioners time to review the necessary materials.

Public Comment

Chairman Burch cautioned members of the public against prejudicing the Commission in any way based on the merits of a pending appeal.

Mr. Khalsa commended the Commission on establishing these appeal rules and encouraged vigilance during the appeals process. He stated a formalized process for establishing a hearing date and details will expedite the appeals process going forward.

### D. CEMSIS Reporting

Chief McGinnis stated EMSA continues to move forward with the adoption of the National EMS Information System (NEMSIS) Version 3.4 as the state's general platform

for data as of January 1st of this coming year. EMSA is working with LEMSAs and provider agencies to transition to the new data standard.

Yesterday, the first-ever state EMS Authority data report was published on the website. This document outlines the information in the database. Currently, about twenty LEMSAs report data to the database, and the data recorded will improve and become more complete over time. Chief McGinnis asked Commissioners to review the document for further discussion in the September meeting.

Commissioner Questions

Commissioner Barrow stated it has been reported to chairs of certain committees at the capitol that NEMSIS and CEMSIS contain data they do not actually contain. He cautioned that this data set, although thorough, does not contain information on certain kinds of unintentional injury or site information data.

### E. American College of Surgeons State Trauma System Consultation

Chief McGinnis stated the American College of Surgeons made a site visit in March to study the state trauma system. They provided a report of their findings. Staff will present the report and their analysis at the September or December meeting.

## 11. DISASTER MEDICAL SERVICES DIVISION

### A. Disaster Healthcare Volunteer Program

Michael Frenn, of the Disaster Medical Services Division, reviewed the summary of activities provided in the meeting packet.

### B. Disaster Medical Response Training and Exercises

Mr. Frenn stated EMSA is statutorily mandated to maintain competency trainings and exercises accompanied by an after-action report for continuous quality improvement. Mr. Frenn summarized recent activities:

- February 2016 - Medical Health Operations Center Support Activities (MHOCSA) course pilot in Riverside
- April 2016 - Cascadia Rising table top exercise
- April 2016 - Dare to Prepare Day at Sunrise Mall
- June 2016 - Functional exercise
- June 2016 - Urban Search and Rescue exercise at Moffett Field
- November 2016 - Statewide Medical and Health Exercise in partnership with the California Department of Public Health.

## 12. NATIONAL EMS MEMORIAL BIKE RIDE

Dave Magnino, the EMS Administrator for the Sacramento County EMS Agency, welcomed Commissioners and members of the public to participate in the West Coast EMS Memorial Bike Ride to remember fallen EMS providers or EMS providers who are gravely ill. The ride begins in Reno, Nevada, on September 26th and ends in San Francisco, California, on October 1st. Registration is at muddyangels.com.

## 13. ITEMS FOR NEXT AGENDA

Commissioner Barrow suggested looking at whether the Children's Health and Safety Fund should be going to different agencies that are carrying out the child care health and safety licensing components put in place in the '90s, which may have shifted into different agencies.

## 14. PUBLIC COMMENT

Dave Austin, of the American Medical Response, stated Michael Serrano passed away while vacationing in Africa. The memorial service will be held in San Diego at 11:00 a.m. on June 30th. He asked the Commission to adjourn the meeting in Mr. Serrano's memory.

## 15. ADJOURNMENT

**Action: Commissioner Stone moved to adjourn the meeting in concert with Mr. Austin's wishes for Mr. Serrano. Commissioner Hartwig seconded. Motion carried unanimously.**

Chairman Burch adjourned the meeting at 1:08 p.m.

**Emergency Medical Services Authority**
**Disaster Medical Services Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **1. Ambulance Strike Team (AST)** | Michael Frenn, ext. 435 | AST/MTF Leader Trainings are conducted on an ongoing basis, upon request. In August, courses were conducted in South Lake Tahoe and Contra Costa county. The curriculum continues to improve and a standardized method for tracking units working a strike team is being developed. Information regarding the AST Program can be found at: http://www.emsa.ca.gov/Ambulance_Strike_Team.<br><br>The Disaster Medical Support Units (DMSU), which support affiliated ASTs are strategically placed with local EMS Agencies and ambulance providers throughout the State. All available DMSUs have been distributed, providing a total of 41 DMSUs with affiliated ASTs in the State. |
| **2. California Medical Assistance Teams (CAL-MAT) Program** | Michael Frenn, ext. 435 | EMSA continues its reorganization of the CAL-MAT program with a strategic focus on balancing resources with anticipated response needs. Efforts that were focused on identifying the appropriate Civil Service route for hiring CAL-MAT personnel have been successful and recruitment continues. EMSA maintains a response readiness level for this program in accordance with previously published standards. |
| **3. CAL-MAT Cache** | Bill Hartley, ext. 1802 | EMSA has completed bi-annual inventory maintenance on all three CAL-MAT caches. Medical supplies and pharmaceuticals are 100% accounted for and ready for immediate deployment. Annual servicing of the biomedical equipment has been completed. The pharmacy formulary is currently being reviewed and updated with new medications and for cost control. |
| **4. California Public Health and Medical Emergency Operations Manual (EOM)** | Jody Durden, ext. 702 | The Regional Disaster Medical and Health Specialists (RDMHS) conduct EOM training on an ongoing basis. The EOM Workgroup is currently in the process of revising the EOM based on lessons learned since the initial 2011 release. Additional Function Specific topics will be added. |
| **5. California Crisis Care Operations Guidelines** | Bill Campbell, ext. 728 | EMSA is coordinating with CDPH to initiate the Crisis Care/Scare Resources planning document. |
| **6. Disaster Interest Group (DIG)** | Patrick Lynch, ext. 467 | The DIG has been suspended due to the re-prioritization of DMS staff projects. |

**Emergency Medical Services Authority**
**Disaster Medical Services Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **7. Disaster Healthcare Volunteers (DHV) of California (California's ESAR-VHP program): Registering, Credentialing & Mobilizing Health Care Personnel** | Patrick Lynch, ext. 467 | The DHV Program has over 21,000 volunteers registered. Over 19,000 of these registered volunteers are in healthcare occupations.<br><br>All 58 counties have trained System Administrators. EMSA provides routine training and system drill opportunities for all DHV System Administrators.<br><br>Over 8,900 of the 21,000 DHV registered responders are Medical Reserve Corps (MRC) members. EMSA trains and supports DHV System Administrators in each of the 41 participating MRC units.<br><br>DHV System Administrator training, DHV user group webinars, and quarterly DHV drills are ongoing.<br><br>EMSA has distributed copies of the "DHV Volunteer Handbook." This handbook informs volunteers about the state's DHV Program, and provides information about deploying in response to a disaster.<br>EMSA publishes the "DHV Journal" newsletter for all volunteers on a tri-annual basis. The most recent issue was released in mid-May of 2016.<br><br>The "DHV Journal" is available on the DHV webpage of the EMSA webpage: http://www.emsa.ca.gov/disaster_healthcare_volunteers_journal_page.<br><br>The DHV website is: https://www.healthcarevolunteers.ca.gov.<br><br>The DHV Deployment Operations Manual (DOM) is available on the EMSA webpage: http://www.emsa.ca.gov/Media/Default/PDF/DHV_DOMRevisionFebruary21-2012.pdf. |

**Emergency Medical Services Authority**
**Disaster Medical Services Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **8. Exercises and Training** | | |
| **Weapons of Mass Destruction (WMD)** | Bill Campbell, ext. 728 | The California Emergency Medical Response to Weapons of Mass Destruction Incidents (with Med-Plus) course is offered on a continuous basis, requiring a minimum enrollment of 12 students. |
| **Medical Health Operations Center Support Activities (MHOCSA)** | Bill Campbell, ext. 728 | The initial Medical Health Operations Center Support Activities (MHOCSA) course was offered in Southern California on February 23 & 24, 2016. The curriculum is being updated based on feedback received at that class. Additional classes will be scheduled soon. |
| **Statewide Exercises:**<br><br>**California Capstone 2015 - 2016** | Bill Campbell, ext. 728 | California Capstone 2015 was based on the Southern California Catastrophic Earthquake Plan Scenario and response. EMSA participated in the multi-day Emergency Operations Center (EOC) exercise in May 2015. The lessons learned in the exercise will be tested in upcoming exercises. |
| **2015 Statewide Medical and Health Exercise (2015 SWMHE)** | Theresa Gonzales, ext. 1766 | On November 19th, 2015 the EMS Authority participated in the Statewide Medical and Health Exercise (SWMHE) in partnership with the California Department of Public Health (CDPH). The exercise was designed as a multiphase exercise program for statewide participants to exercise response to an influenza pandemic. The SWMHE included objectives for Ambulance Services, Community Clinics, EMS Agencies, Fire Services, Hospitals, Law Enforcement, Long Term Care Facilities, Medical Examiners/Coroners, Offices of Emergency Management, and Public Health. The jurisdiction-specific objectives were designed to further enhance participants' exercise play. This year's exercise is scheduled for November 17, 2016. The 2016 exercise scenario is a mass casualty incident. |
| **9. Hospital Available Beds for Emergencies and Disasters (HAvBED)** | Nirmala Badhan, ext. 1826 | EMSA continues working with the California Department of Public Health (CDPH) and other partners to integrate hospital data collection that meets federal HavBED requirements. |

**Emergency Medical Services Authority**
**Disaster Medical Services Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **10. Hospital Incident Command System (HICS)** | hics@emsa.ca.gov | The Fifth Edition of HICS was released in May of 2014 and is available on the EMSA website for download: http://www.emsa.ca.gov/disaster_medical_services_division_hospital_incident_command_system.<br><br>The 2014 revision project did not include the development of education and training materials. Refer to the list of HICS Trainers to view vendors that have identified themselves as providers HICS training based on The HICS Guidebook, Fifth Edition: http://www.emsa.ca.gov/media/default/HICS/HICS_Training_7.pdf . The California Emergency Medical Services Authority does not endorse or recommend any provider. If you are a trainer that would like to be added to this list, please send a request to: hics@emsa.ca.gov along with your contact information.<br><br>EMSA would like to receive copies of After Action Reports (AAR) and presentations on the use of HICS. This information will aid future revisions. These informative documents should be addressed to the HICS Coordinator via email: hics@emsa.ca.gov. |
| **11. Medical Sheltering** | Bill Campbell, ext. 728 | The California Department of Public Health (CDPH) released the guidance entitled "California Guidance and Toolkit for Sheltering Persons with Medical Needs" in October 2014. This document will be used as a foundational document when EMSA has the staff resources to revise the "Emergency Medical Services Field Treatment Site (EMS FTS) Guidelines." |
| **12. Mission Support Team (MST) System Development** | Michael Frenn, ext. 435 | The MST program is being reviewed in an effort to structure it to adequately support EMSA's Mobile Medical Assets. Inter-Governmental Employee Exchange Agreements are now being sent to local governments to permit compensation for their employee's participation when deployed by EMSA on an MST. Use of CAL-MAT personnel is also being evaluated for suitability with this response capability. |

**Emergency Medical Services Authority**
**Disaster Medical Services Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **13. Response Resources** | Bill Hartley, ext. 1802 | The Bi-annual inventory maintenance of the Mission Support Team (MST) caches has been completed. The MST caches are constantly being refined on After Action Reports following exercises and real word deployments. In addition, the Response Resources Unit (RRU) is currently working to add I.T. equipment to improve MST networking and Internet functionality in the field.<br><br>The RRU has begun conducting audits on the 42 Disaster Medical Support Unit (DMSU) vehicles located around the State. During the audits, EMSA will verify that all the DMSU vehicles are being properly maintained and utilized according to written agreements. 40 audits have been completed so far with no major problems noted. Annual servicing of the biomedical equipment for the California Medical Assistance Teams (CAL-MAT) caches is completed. A multi-year contract to service the CAL-MAT biomedical equipment has been established.<br><br>General annual maintenance for generators, forklifts, and fleet vehicles has been completed with no major problems noted. |
| **14. Regional Disaster Medical/Health Specialists (RDMHS) Program and Medical Mutual Aid System** | Nirmala Badhan, ext. 1826 | The RDMHS program continues to work with EMSA and California Department of Public Health (CDPH) staff in supporting major disaster planning activities in addition to supporting information management processes. The RDMHSs have been instrumental in the response to recent events in California. |
| **15. Medical Reserve Corps (MRC)** | Sheila Martin, ext. 465 | 41 MRC units have trained Disaster Healthcare Volunteers (DHV) System Administrators. These MRCs are regular users of the DHV system and active participants in quarterly DHV drills and quarterly DHV user group webinars. Over 8,900 of the DHV Program's 21,000 volunteers are Medical Reserve Corps volunteers. |
| **16. Statewide Emergency Plan (SEP) Update** | Jody Durden, ext. 702 | The Governor's Office of Emergency Services (Cal OES) is in the process of updating the Statewide Emergency Plan (SEP) and is moving toward implementing Emergency Functions (EFs). EMSA is a lead participant in the development of the Public Health and Medical Emergency Function of the SEP and is a support agency in the development of six other EFs. |

**Emergency Medical Services Authority**
**Disaster Medical Services Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **17. Southern California Catastrophic Earthquake Response Plan** | Bill Campbell, ext. 728 | EMSA continues to participate in the validation of the Southern California Catastrophic Earthquake Plan. The SoCal Rocks exercise, held in March 2015, was designed to examine the processes required to establish, communicate and coordinate public health and medical resource needs. This exercise design included the coordinated efforts of local, state, federal, and private sector partners in response to a catastrophic earthquake in Southern California. |
| **18. Patient Movement Plan** | Jody Durden, ext. 702 | The Statewide Patient Movement Workgroup last met in July 2016. The contractor selected to assist with the development of the plan presented the draft plan to the workgroup at that meeting. The draft plan is being reviewed for comments by the workgroup at this time. |
| **19. Bay Area Catastrophic Earthquake Plan** | Bill Campbell, ext. 728 | EMSA participated as part of the Medical Planning Group for this plan revision. The draft plan was presented to all the planning agencies and will be released soon for public comment. |
| **20. Northern California Catastrophic Flood Response Plan** | Nirmala Badhan, ext. 1826 | EMSA is working with the Governor's Office of Emergency Services (Cal OES) to develope the concept of operations for a catastrophic event based upon historically occurring atmospheric rivers that result in catastrophic flooding. Input was provided for "Courses of Action" based on identified response capabilities. An operational framework for the development of local flood plan annexes, training, and exercises is also a primary objective for this plan. |

**Emergency Medical Services Authority**
**EMS Personnel Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-9875 | Updates |
|---|---|---|
| **1. First Aid Practices for School Bus Drivers** | Mark Olivas, ext. 445 | There are 9 school bus driver training programs currently approved. Renewal reviews are ongoing. Technical assistance to school staff and school bus drivers is ongoing. |
| **2. Child Care Provider First Aid/CPR Training Programs** | Mark Olivas, ext. 445 | There are 17 currently approved programs. Renewal reviews are ongoing. Technical assistance is being provided to child care training program instructors and directors, licensing staff, and child care providers. EMSA First Aid and CPR sticker sales are ongoing. EMSA is continuing work to revise the Chapter 1.1 Training Standards for Child Care Providers, which include first aid and CPR training standards. |
| **3. Child Care Preventive Health Training Programs** | Lucy Chaidez, ext. 434 | There are 18 preventive health training programs approved. The new children's nutrition training has been implemented for 7 months and we have received positive feedback about this new module of the training. EMSA is continuing its work to revise the Chapter 1.1 Training Standards for Child Care Providers, which include preventive health training standards. EMSA was a partner in developing the newly published Child Care Disaster Plan and Annex to the State Disaster Plan. This publication provides written emergency preparedness plans, policies, and instructions for disaster drills to be held in child care facilities. EMSA partnered with the CDC and CDPH on a grant for a MiniCollN, a project to update children's nutrition resources for the EMSA child care nutrition web page. Renewal reviews are ongoing. Technical assistance to instructors and child care providers is ongoing. EMSA Preventive Health sticker sales are ongoing. |
| **4. Child Care Training Provider Quality Improvement/Enforcement** | Mark Olivas, ext. 445 and Lucy Chaidez, ext. 434 | Technical assistance and education regarding compliance issues is to approved training programs, child care providers, DSS community care licensing, and child care resource and referral staff. Review of rosters, an auditing tool, is ongoing. Currently, there are no open complaint cases involving EMSA-approved training programs. |

**Emergency Medical Services Authority**
**EMS Personnel Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-9875 | Updates |
|---|---|---|
| **5. Automated External Defibrillator (AED) Requirements for EMT's, Public Safety and Layperson** | Betsy Slavensky, ext. 461 | On September 3, 2015 Senate Bill (SB) 658 (Hill, 2015) *Automated external defibrillators* was signed by the Governor. The statute removes numerous requirements that are identified in Chapter 1.8 (Lay Rescuer AED), making these regulations inconsistent and in conflict with the statute. On July 26th, EMSA submitted a section 100 request to the Office of Administrative Law (OAL) to repeal Chapter 1.8. We anticipate a response by September 6, 2019. Ongoing technical support and clarification is provided to public safety agencies, LEMSA's and the general public regarding all AED regulations. |
| **6. BLS Training and Certification Issues** | Betsy Slavensky, ext. 461 | Provide ongoing daily support and technical assistance to EMTs, prospective EMTs and 73 Certifying Entities. The public comment period for the proposed revisions to the EMT regulations began on August 5 and runs through September 27, 2016. There will be a public hearing held at EMSA on September 27 from 10am-noon for those wishing to present comments in person. EMSA anticipates seeking approval of the regulations from the Commission on EMS at the December 2016 meeting. The proposed regulations can be found on the EMSA website under Popular Links - *Public Comment.* |
| **7. State Public Safety Program Monitoring** | Betsy Slavensky, ext. 461 | Provide ongoing review, approval & monitoring of EMSA approved Public Safety First Aid/CPR, EMR, and EMT programs for statutory and regulatory compliance. Revisions to the Chapter 1.5 regulations were approved and took effect April 1, 2015. The regulations require 21 hours of initial training for peace officers, firefighters and lifeguards, and eight hours of retraining every two years. Provide assistance to POST as they develop the curriculum and testing competency standards for peace officers. All training programs must include a curriculum that complies with the new public safety course content no later than April 1, 2017. Provide support and clarification to LEMSAs regarding the Chapter 1.5 regulations and new approval requirements |

**Emergency Medical Services Authority**
**EMS Personnel Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-9875 | Updates |
|---|---|---|
| **8. My License Office/ EMT Central Registry Audit** | Betsy Slavensky, ext. 461 | EMSA is continuing to monitor the EMT Central Registry to verify that the 73 certifying entities are in compliance with the California Code of Regulations regarding data entry, including background checks and disciplinary notification for all EMT personnel. Correspondence is maintained via Newsletter, email, phone, and EMS Coordinator meetings with certifying entities to disseminate updates, changes and corrections. Website improvements continue to be implemented for ease of certification staff use and EMT resources. Ongoing development of discipline and certification procedures is in progress to support central registry processes and reduce time spent on technical support. |
| **9. Epinephrine Auto-injector Training and Certification** | Corrine Fishman, ext. 927 | On January 1, 2016 the EMS Authority began accepting applications for training programs to provide training and certification for the administration of epinephrine auto-injectors to the general public and off-duty EMS personnel. EMSA has approved four training programs with another in process and has issued 72 lay rescuer certification cards. |

**Emergency Medical Services Authority**
**EMS Systems Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact<br>EMSA (916) 322-4336 | Updates |
|---|---|---|
| **1. Trauma** | Bonnie Sinz, ext. 460 | State Trauma Advisory Committee (STAC):<br>The STAC held a conference call on August 31, 2016. The main agenda item was the merging of the ACS State Trauma System Consultation visit recommendations and the State Trauma Plan. Other agenda items included an update on the trauma regulation revision process, the ACS *Needs Based Assessment of Trauma Systems* Tool, the Re-Triage Project for the Strategic Highway Safety Program, the re-triage guidance draft, and the May 2017 Trauma Summit.<br><br>Regional Trauma Coordinating Committees (RTCC)<br>Each Regional Trauma Coordinating Committee representative provides regional activity updates at the STAC meeting and provides documents approved by the RTCC and available for statewide use. Details of current activities can be found on the EMSA website at www.emsa.ca.gov. The State Trauma Coordinator participates in RTCC conference calls and attends meetings as schedule permits.<br><br>Performance Improvement and Patient Safety (PIPS) Plan<br>The draft PIPS Plan has been distributed to appropriate EMS constituent groups and posted on the EMSA website. The public comment period is from August 1, 2016 through October 7, 2016. Comments will be reviewed with the PIPS Work Group and the State Trauma Advisory Committee and revisions made as needed. The need for a second public comment period will be determined at that time.<br><br>Regional Trauma Network for Re-Triage Subcommittee<br>The *Regional Trauma Network for Re-Triage* guidance document draft was presented on the August STAC conference call. The draft will be forwarded to the EMS Division management for review and sent out for public comment. The document provides re-triage guidelines, non-trauma center early management protocols, data collection and analysis regarding re-triage and IFT patterns throughout the state, and identifies regional trauma networks linked by regional cooperative agreements that will reduce delays and improve communication and collaboration. |

**Emergency Medical Services Authority**
**EMS Systems Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **2. STEMI/Stroke Systems of Care** | Farid Nasr, ext. 424 | EMSA staff has created the documentation required for submission of the Regulations package for both STEMI and Stroke Regulations to the Office Administration of Law (OAL) under the Administrative Procedure Act (APA).<br>EMSA staff is working on a project in collaboration with the California Department of Public Health to create and implement a Stroke Registry based on the Paul Coverdell National Acute Stroke Program for the Stroke Centers in California to capture the data variables related to Stroke patients and use them for the program quality improvement based on the National recommendation in Stroke patient management. The project will operate at the level of hospital recruitment for implementation of the data registry. |
| **3. EMS Systems, Standards, and Guidelines** | Lisa Galindo, ext. 423 | EMS System, Standards, and Guidelines, #101 - #103 (dated June 1993 and March 1994) are currently under revision. An EMS Plan Workgroup continues to meet, discuss, and develop draft changes to the Guidelines. |
| **4. EMS Transportation** | Laura Little, ext. 412 | <u>EMS Systems Regulations Work Group / Chapter 13 Task Force:</u> On suspense, pending outcome of litigation related to the subject matter involved in the regulation draft.<br><br><u>Request for Proposals</u>:<br>Request for Proposals (RFPs) for Exclusive Operating Areas continue to go through a dual review process, to ensure that they meet statutory requirements as well as address EMSA Guideline #141 “Competitive Process for Creating Exclusive Operating Areas”. EMSA continues to provide technical assistance to LEMSAs by email, phone, and mail in order to help them create a RFP that meets all required criteria.<br><br><u>Bi-Annual Statewide Public Safety Air Rescue Inspections</u>:<br>Bi-Annual inspections of all CHP helicopters will begin Fall of 2016. |

**Emergency Medical Services Authority**
**EMS Systems Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact<br>EMSA (916) 322-4336 | Updates |
|---|---|---|
| **5. Poison Center program** | Lisa Galindo, ext. 423 | The California Poison Control System (CPCS) is one of the largest single providers of poison control services in the U.S. The CPCS receives approximately 330,000 calls a year from both the public and health professionals through a toll-free hotline that is accessible 24-hours a day, 7 days a week.<br><br>Quarterly reports continue to be submitted to the EMS Authority for review to ensure contractual compliance. |
| **6. EMS Plans** | Lisa Galindo, ext. 423 | The EMS Authority continues to review EMS Plans and annual Plan Updates submitted by the LEMSAs. A quarterly report to the Commission reflecting the progress and timelines of the EMS plan submissions has been provided.<br><br>An EMS Plan Workgroup was developed in November 2015 to focus on improving processes related to EMS plans. The workgroup meets regularly and continues to develop draft changes to EMSA Guidelines. |
| **7. EMS for Children Program** | Heidi Wilkening, ext. 556 | <u>Regulations:</u><br>The EMS for Children regulations should be submitted to the Office of Administrative Law (OAL) in/around October 2016.<br><br><u>Educational Forum:</u><br>The EMS for Children Educational Forum in northern California will be held on October 24, 2016 in Sacramento at the Doubletree by Hilton Hotel. Topics will include pediatric burns, pediatric psychiatric issues, and current street drug trends.<br><br><u>HRSA Grant:</u><br>The next four-year HRSA grant cycle will start on March 1, 2017. Discussions have begun regarding the upcoming 2017-2021 HRSA grant application. |

| Activity & Description | Primary Contact<br>EMSA (916) 322-4336 | Updates |
|---|---|---|
| **8. CEMSIS EMS Data** | Adrienne Kim, ext. 742 | CEMSIS now has 20 LEMSAs participating at some level in the submission of EMS data. We are in the process of providing technical assistance and guidance to local EMS agencies, providers and software vendors on the transition to NEMSIS Version 3.4 consistent with AB 1129 which implemented HSC 1797.227 on January 1, 2016. We will stop accepting NEMSIS Version 2.2.1 at the state level effective January 1, 2017.<br><br>Data Summit:<br>Two Data Summits will be held: September 27, 2016 at EMSA in Sacramento and September 29, 2016 at the Embassy Suits Anaheim South in Garden Grove.<br><br>Grant Opportunity – EHR devices:<br>Staff is developing a RFP document for purchase and distribution of EHR devices.<br><br>Reports:<br>Quarterly LEMSA Reports:<br>Staff is developing reports to confirm the LEMSA data that were submitted into CEMSIS from the previous quarter. These reports are expected to be available in mid-2017.<br><br>Annual LEMSA EMS Reports:<br>Staff is developing reports for 2013 and 2014 for each LEMSA that submitted data for that period. These reports are expected to be available by December 2016.<br><br>Annual Statewide Trauma Reports:<br>Staff is currently in the process of developing trauma reports. These reports are expected to be available in early 2017. |

**Emergency Medical Services Authority**
**EMS Systems Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact<br>EMSA (916) 322-4336 | Updates |
|---|---|---|
| **9. CEMSIS – Trauma Data)** | Bonnie Sinz, ext. 460 | There are 27 Local EMS agencies (LEMSA) with designated Trauma Centers. Trauma Centers are physically located in 37 of the 58 counties. Currently 26 LEMSAs are transmitting into CEMSIS-Trauma representing 73 of the 75 designated Trauma Centers. The State Trauma Coordinator is providing technical assistance to Imperial County (2-level IV Trauma Centers) to obtain their trauma data. For years 2013 through 2015 there are over 139,000 records in the CEMSIS-Trauma data system. The EMS Authority is currently developing a report for each LEMSA showing data completion compliance to be shared with their Trauma Centers. |

**Emergency Medical Services Authority**
**EMS Systems Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **10. Grant Activity Coordination** | **Kathy Kay Spencer, ext. 441** | Office of Traffic Safety (OTS) Grants:<br>EMSA currently is involved with two (2) OTS grants. The CEMSIS project continues to improve the data traffic profile within the EMS and Trauma data that is collected in CEMSIS. The Traffic-related EMS Data Mapping project continues to develop a Geographic Information System (GIS) spatial boundaries map that will display traffic crash related data.<br><br>On June 3, 2016, EMSA received tentative award notifications for three (3) OTS grants for the upcoming 2017 Federal Fiscal Year. These grant applications concentrate on further implementation of NEMSIS Version 3 with CEMSIS, increased storage capability for data that will be stored and formatted using NEMSIS Version 2.2.1 and Version 3, and assistance to local EMS providers in post-crash survivability data collection efforts. Final award notifications should be released in September 2016.<br>Health Resource Services Administration (HRSA) Grant:<br>EMSA staff continues the work associated with the Health Resource Services Administration (HRSA) grant in further integration of the Emergency Medical Service for Children (EMSC) into the State EMS system. EMSA staff is compiling information and data for the Annual HRSA Performance Report. This report documents the integration of the EMS for Children program into the State EMS system.<br>New HRSA State Partnership grant application instructions are scheduled to be released in September/October 2016 for the upcoming grant cycle period beginning March 2017.<br>Preventative Health and Health Services Federal Block Grant (PHHSFBG):<br>EMSA staff remain involved in the Preventative Health and Health Services Federal Block Grant.<br><br>EMS Systems nine (9) programs identified and outlined goals, objectives and annual activities associated with the EMS Systems Division for the upcoming 2016/17 SFY. These were accepted and approved by CDPH on July 22, 2016. EMSA's allocation for FFY 2016 increased by $55,682.00. |
| **11. Communications** | Heidi Wilkening, ext. 556 | EMSA personnel are working with the Office of Emergency Services (OES) to address public concerns on issues related to Wireless 9-1-1. The next 9-1-1 Advisory Board meeting at OES is scheduled for Thursday, September 1, 2016. |

**Emergency Medical Services Authority**
**EMS Systems Division**
**Major Program Activities**
**September 21, 2016**

| Activity & Description | Primary Contact EMSA (916) 322-4336 | Updates |
|---|---|---|
| **12. Core Measures** | Adam Davis, ext. 409 | The Core Measure Reports for 2015 data have been collected by EMSA. 29 of the 33 LEMSAs provided information to EMSA. The annual core measures report has been developed and is due for release in the fall of 2016. EMSA is targeting an October date to schedule the next core measure task force meeting. EMSA and the task force will develop the clinical measures for the newly adopted NEMSIS 3.4 format. EMSA will work with those LEMSAs who have adopted NEMSIS 3.4 to ensure that the updated core measures are methodology logical and functional. EMSA expects 2016 data to be reported in NEMSIS 2.2.1. |
| **13. HIE Summit** | Adam Davis, ext. 409 | The 2016 HIE in EMS Summit at the Hyatt Regency Orange County in Garden Grove, CA was attended by over 190 EMS representatives. The event took place on April 19th and 20th and hosted EMSA's federal, state, and regional partners in HIE. EMSA is now hosting the presentation files on the EMSA website at www.emsa.ca.gov/hie. |
| **14. Office Support** | Lori O'Brien, ext 401 | Provided support in preparation for the 2016 Trauma Summit. Non-Employee TECs are nearly complete for Trauma Summit presenters and EMSC committee members. Formatted and edited the PIPS Plan and the Re-triage Document for the Trauma Program. Provide formatting support for the Annual EMS Report and the individual LEMSA Annual EMS Reports. Scheduled interviews and assisted interview panel with timing and testing for the SSM 1 Position. Completed the Incident Command System Training (ICS 100, ICS 700 and ICS 800). Organized the division's uniform order and arranged try-ons for those who requested it and coordinated exchanges as necessary after receipt. Proofed and edited the STEMI and Stroke Regulations and ISORs. Researched and/or ordered equipment and supplies for division. I have attended two training classes; Microsoft Excel Level II and Microsoft Access Level I. As always, daily duties continue with routine correspondence tracking, report formatting, and other general duties. |

**EMERGENCY MEDICAL SERVICES AUTHORITY**
10901 GOLD CENTER DR., SUITE 400
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 322-1441

**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Adam Willoughby
Policy, legislative & external affairs analyst

**SUBJECT:** Legislative Report

## RECOMMENDED ACTION:

Receive information regarding EMS-related legislation.

## FISCAL IMPACT:

None

## DISCUSSION:

Due to the dynamic nature of the legislative process, the Legislative Report to the Commission on EMS will be posted on the EMSA website at http://www.emsa.ca.gov/Legislative_Activity

Copies of the printed Legislative Report will also be available at the Commission Meeting on September 21, 2016.

**EMERGENCY MEDICAL SERVICES AUTHORITY**
10901 GOLD CENTER DRIVE, SUITE 400
RANCHO CORDOVA, CA 95670-6073
(916) 322-4336 FAX (916) 324-2875

**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Rick Trussell, Chief
Fiscal, Administration, and Information Technology Division

**SUBJECT:** Administrative and Personnel Report

## RECOMMENDED ACTION:

Information Only

## FISCAL IMPACT:

None

## DISCUSSION:

EMS Authority Budget:

The Department is currently in the process of transitioning from CalSTARS to the Financial Information System for California (**FI$Cal**) which is a business transformation project for state government in the areas of budgeting, accounting, procurement, and cash management. There has been considerable change in the year-end close process and we are working closely with the Department of General Services (DGS) to help us achieve our goal of completing the year-end closing process, as soon as possible.

DGS has brought in additional staff to assist them in keeping up with the workload and myriad of accounting issues experienced during the transition. They are currently in the process of closing period 9 (March 2016) and we will continue to work collaboratively with them to close out the remaining months. It is anticipated that accurate accounting reports will be available by October 30, 2016 and an updated report will be distributed prior to the next Commission meeting.

EMS Authority Staffing Levels:

The EMS Authority is currently authorized 67 positions and also has 19 temporary (blanket positions and retired annuitants) positions for an overall staffing level of 86. Of

the 86 positions, 4 positions are vacant at this time and we are in the process of recruiting to fill the positions.

| | Admin/Exec Division | DMS Division | EMSP Division | EMS Division | Total |
|---|---|---|---|---|---|
| Authorized | 14 | 19 | 25 | 9 | 67 |
| Temporary Staff | 8 | 2 | 4 | 5 | 19 |
| **Staffing Level** | **22** | **21** | **29** | **14** | **91** |
| Authorized (Vacant) | -1 | -3 | 0 | 0 | 4 |
| Temporary (Vacant) | 0 | 0 | 0 | 0 | 0 |
| **Current Staffing Level** | **21** | **18** | **29** | **14** | **82** |

**EMERGENCY MEDICAL SERVICES AUTHORITY**
10901 GOLD CENTER DRIVE, SUITE 400
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 324-2875

**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Steven A. McGee
Administrative Adviser

**SUBJECT:** Legal Report

## RECOMMENDED ACTION:

Receive the Legal Office Report.

## FISCAL IMPACT:

None

## DISCUSSION:

DISCIPLINARY CASES:

From May 20, 2016, to August 31, 2016, the Authority issued twenty- three new Accusations against existing paramedic licenses, issued three Statements of Issues denying an unrestricted license, issued four notices of Administrative Fine and one Temporary Suspension Order. Of the newly issued actions, three of the Respondents have requested that an administrative hearing be set. There are currently nineteen hearings scheduled. There are currently fifty-five open active disciplinary cases in the legal office.

LITIGATION:

**California Fire Chiefs Association, Inc., vs. Howard Backer and Daniel Smiley**. The suit pertains to federal anti-trust protections claimed by Calchiefs on behalf of its members pursuant to Health and Safety Code section 1797.201. The Authority's response was filed on January 11, 2016. Calchiefs filed a response on February 11, 2016, and the Authority's reply was filed on February 18, 2016. The Eastern District Court is currently reviewing the matter.

**Kenneth M. Silverman vs. EMSA.** This is a petition for writ of mandate, seeking review of an Administrative Law Judge's proposed decision that was adopted without modification by EMSA. Petitioner was denied an unrestricted license and was offered a probationary license by EMSA. Petitioner appealed the denial and a hearing was held. The ALJ granted a license with probationary terms. Petitioner seeks to have that decision overturned.

**EMERGENCY MEDICAL SERVICES AUTHORITY**
10901 GOLD CENTER DR., SUITE 400
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 324-2875

**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** M.D. Smith
Supervising Special Investigator
Enforcement Unit

**SUBJECT:** Enforcement Report

## RECOMMENDED ACTION:

Receive information on Enforcement Unit activities.

## FISCAL IMPACT:

None

## DISCUSSION:

Unit Staffing:
As of August 24, 2016, the Enforcement Unit has 5 full-time Special Investigators and 1 Retired Annuitant working as Special Investigator.

Investigative Workload:
The following is a summary of currently available data extracted from the paramedic database.

Cases opened since January 1, 2016, including:

| | |
|---|---|
| Cases opened: | 223 |
| Cases completed and/or closed: | 220 |
| EMT-Paramedics on Probation: | 234 |

In 2015:

| | |
|---|---|
| Cases opened: | 337 |
| Cases completed and/or closed: | 366 |
| EMT-Paramedics on Probation: | 236 |

Status of Current Cases:

The Enforcement Unit currently has 105 cases in “open” status.

As of August 24, 2016, there are 26 cases that have been in “open” status for 180 days or longer: 2 Fire Fighters’ Bill of Rights (FFBOR) cases and 7 California Society of Addiction Medicine CSAM cases (Respondents are directed to a physician who specializes in addition medicine for an examination/review.

Those 26 cases are divided among 5 Special Investigators and are in various stages of the investigative process, (i.e. awaiting documents, preparing for and/or setting up interviews, report writing and corrections to be made, awaiting action by local law enforcement jurisdictions, the courts, etc.).

[Delays in the interview process are common due to unforeseen difficulties in obtaining certified copies of documents, court records, availability of witnesses and/or the subject(s) of an investigation due to medical action/disability issues, on-going investigations for FFBOR staff or on-going criminal investigations, court actions, plus the routine requirement for two or more follow-up interviews.]

**EMERGENCY MEDICAL SERVICES AUTHORITY**
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(916) 322-4336 FAX (916) 324-2875

**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Corrine Fishman, Program Analyst

**SUBJECT:** EMT Regulation Revision Report

## RECOMMENDED ACTION:

Receive information regarding revisions to the EMT Regulations.

## FISCAL IMPACT:

The proposed regulations would require EMT training programs to increase their hours of training from the current minimum of 160 hours to the proposed minimum of 174 hours to include additional training in the administration of Naloxone, epinephrine, the use of glucometer (measures blood sugar level) and tactical casualty care principles.

The initial costs to obtain these training materials are estimated at $1,500 - $2,000. The total increased cost per EMT training program is estimated to be $3,182.

## DISCUSSION:

SB 1438 (Pavley, Chapter 491, 2014) requires all EMS personnel, including EMTs to be trained in the administration of naloxone hydrochloride by July 1, 2016, which is currently an EMT optional skill. Advanced EMTs and paramedics are currently trained in the administration of naloxone. The EMS Authority (EMSA) is also proposing to add training in the administration of epinephrine by auto-injector as a result of SB 669 (Huff, Chapter 725, Statues of 2013) which required EMSA to develop lay rescuer epinephrine regulations. Further, EMSA has revised the public safety regulations to allow public safety personnel to administer epinephrine as an optional skill. Tactical casualty care was added to include the statutory elements found in AB 1598 (Rodriquez, Chapter 668, Statutes of 2014) that provide for additional requirements regarding coordination between emergency medical services personnel during terrorism incidents or active shooter events
With this rulemaking, the EMS Authority is proposing to:

1. Amend existing EMT regulations by removing naloxone hydrochloride administration as an EMT *optional skill* and include the administration of

naloxone hydrochloride as a mandatory training item. The administration of naloxone will still require local EMS agency (LEMSA) approval.

2. Add training in the administration of epinephrine by auto-injector and the use of a glucometer. The use of a glucometer and an epinephrine auto-injector will require LEMSA approval.
3. The use of an epinephrine auto-injector will be removed from the EMT Optional Skills section and moved to basic scope, and it will be replaced as an optional skill with drawing up epinephrine for administration for anaphylaxis.

4. Add tactical casualty care principles to required course content.

5. Remove the skills-based competency verification form and replace it with 6 hours of skills-based continuing education.

6. Increase the required course hours from 160 to 174 to include Naloxone, epinephrine, glucometer training and tactical casualty care principles.

7. Move the monitoring of preexisting vascular access devises and intravenous lines delivering fluids with additional medications from a basic skill to an optional skill to clarify this is a local optional request.

8. Provide clarity and consistency with the NREMT registration requirements.

9. Provide clarification of the initial certification pathways.

IMPLEMENTATION STEPS AND TIMELINE:

| | |
|---|---|
| July 26, 2016 | Rulemaking file opened with Office of Administrative law; regulations must be approved within one year. |
| August 5, 2016 | The proposed regulations were released for 45-day public comment August 5, 2016 through September 27, 2016.<br><br>A public hearing will be held at EMSA on September 27, 2016. |
| October 2016 | Proposed regulations released for 15-day public comment periods as needed. |
| December 2016 | Proposed regulations submitted to Commission on EMS for approval. |
| January 2017 | Office of Administrative Law reviews and approves regulations. |
| April 1, 2017 | Regulations become effective. |

**EMERGENCY MEDICAL SERVICES AUTHORITY**
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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Corrine Fishman, Program Analyst

**SUBJECT:** Paramedic Regulation Revision Report

## RECOMMENDED ACTION:

Receive information regarding paramedic regulation revisions.

## FISCAL IMPACT:

None

## DISCUSSION:

The EMSA proposes to amend Chapter 4, Division 9, of Title 22, which was last revised in 2013. This rulemaking action will be done in two phases:

The first phase made non-substantive changes to the paramedic regulations through a section 100 process. These changes moved the sections around within the Chapter to allow for better flow, which in turn made the Chapter more user friendly. There are no content changes to any of the sections. This phase was approved by the Office of Administrative Law on February 8, 2016 and is posted on the EMS Authority's web page under Regulations.

The second phase proposes changes to clarify and specify methods for training program reviews, approvals and accreditation requirements, and to update paramedic licensure applications and licensure processes. Based on the passage of AB 1598 (Rodriguez, Chapter 668, Statutes of 2014) this phase will also include the addition of tactical casualty care principles to the course content for consistency with the proposed changes to the EMT regulations.

IMPLEMENTATION STEPS AND TIMELINE:

| | |
|---|---|
| Phase 1; January 2016 | Section 100 filed with the Office of Administrative Law. Approved February 8, 2016. |
| Phase 2; December 2016 | Open rulemaking file with Office of Administrative Law for public comment. |

**EMERGENCY MEDICAL SERVICES AUTHORITY**
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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Lisa Galindo
EMS Plans Coordinator

**SUBJECT:** EMS Plan Status Update

## RECOMMENDED ACTION:

Receive updated information on the activity related to EMS Plan submissions, as well as progress related to the EMS Plan Workgroup.

## FISCAL IMPACT:

None

## DISCUSSION:

The EMS Authority (EMSA) is providing the Commission with a quarterly update on the statewide EMS plan activity.

Topics covered in this report include:

- Appeals in progress, Status of EMS plan submissions, and Average review time of active EMS Plan submissions
- EMS plan determinations

An EMS Plan Workgroup was developed in November 2015 to focus on improving processes related to EMS plans. The workgroup consists of EMSA and LEMSA Administrators who meet twice a month. To date, the workgroup has discussed meeting goals and objectives, and proposed online database configurations. The workgroup has finalized the draft changes to the Minimum Standards/Recommended Guidelines section of *EMSA Guidelines,* #101, and is in the process of revising the Table section of *EMSA Guidelines,* #103; the goal is to complete this section by October 14, 2016.

EMSA will continue to keep the Commission apprised of the activity involving EMS Plans and the progress of the EMS Plan Workgroup.

Attachment

| EMS PLAN ACTIVITY<br>As of August 26, 2016 | |
|---|---|
| **Appeals in Progress** | **# of Plans** |
| **Plans Not Approved due to Transportation Issues** | **2** |

| Status of EMS Plan Submissions | # of LEMSAs | % |
|---|---|---|
| **On Schedule** | **21** | **64%** |
| *(Approved Plan on File < 12 months)* | 20 | |
| *(Plan Not Approved < 12 months)* | 1 | |
| **Active Submissions*** | **8** | **24%** |
| *Under Initial EMSA Review* | 0 | |
| *Under EMSA Subject Matter Expert Review* | 2 | |
| *Awaiting Info/Clarification from LEMSA* | 6 | |
| *Review/Routing through Management for Signature* | 0 | |
| **Submission Past Due*** *(No Plan Submitted > 12 months from Previous Approval)* | **5** | **15%** |
| ** San Diego County counted twice due to the receipt of two plans for different years.* | | |

| Average Review Time of Active EMS Plan Submissions | # of Days |
|---|---|
| **Under Initial EMSA Review** | **3** |
| **Under EMSA Subject Matter Expert Review** | **10** |
| **Awaiting Info/Clarification from LEMSA** | **>160** |
| **Review/Routing through Management for Signature** | **8** |

| EMS PLAN ACTIVITY<br>May 1, 2016 – July 31, 2016 | |
|---|---|
| **EMS Plan Determinations** | **# of Plans** |
| **Plans Submitted** | **6** |
| **Plans Approved** | **7** |
| **Plans Not Approved** | **0** |

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Tom McGinnis, Chief
EMS Systems Division

**SUBJECT:** EMS Plan Appeals Update

## RECOMMENDED ACTION:

Receive information on the status of the EMS Plan Appeal Regulations.

## FISCAL IMPACT:

Unknown specific costs to the EMS Authority and local EMS agencies who request the ability to exercise their right to appeal an EMS plan determination made by the EMS Authority.

## DISCUSSION:

The EMS Plan Appeal Regulations were approved by the Commission at the September 2, 2015 meeting and have been effective since April 1, 2016.

The EMS Authority currently is working to schedule hearings with the two local EMS agencies who have appealed plan determinations. The EMS Authority will inform the Commission of the dates for these appeal hearing once they have been set.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Steven A. McGee, Administrative Adviser

**SUBJECT:** Commission on EMS Bylaws Comments

## RECOMMENDED ACTION:

Receive information regarding comments made to the Commission on EMS in relation to the Commission on EMS Bylaws.

## FISCAL IMPACT:

None

## DISCUSSION:

The Commission on EMS (Commission) approved the revisions to the Commission Bylaws at the June 15, 2016 Commission meeting. The main goal of this revision was to;
(1.) Bring the Bylaws into compliance with the Bagley-Keene Open Meeting Act; and
(2.) To clarify the local EMS agency appeals process for local EMS agency plan denials.

During the discussion on this agenda item, Mr. Gurujodha Khalsa, Chief Deputy Council with Kern County provided the Commission with the following comments related to the proposed Bylaws and to which the EMS Authority has provided responses:

Comment:
With respect to Section II, Appeals Functions, I have several comments with respect to these amended Bylaws. It appears, in that section, you're quoting the language from 1797.105, which does accurately reflect the statute. However, since these are Bylaw changes and this Commission provides guidance to the Authority and for, I think, the longevity of the appeals process, Kern County is suggesting that additional language be inserted that indicates that any such applicable guideline or regulation shall be invalid unless it is first preceded through the rulemaking process mandated by the California Government Code and the Administrative Procedure Act prior to an appeal proceeding. And the reason for this is that 1797.105 states in section (b) that first the applicable guidelines and regulations have to be established, and it says, after the applicable

guidelines for regulations are established by the Authority, a local EMS agency may implement a local plan develop pursuant to the various sections that are set out in 105. The appeal process is then delineated in which the basis for denial is set forth that either the plan does not effectively meet the needs of persons serving the community or is not consistent with applicable guidelines or regulations. Clearly, if there are no guidelines or regulations in place that have gone through the APA process, there's nothing for the hearing office to adjudicate. So, we would recommend that as long as these Bylaws are being revised, that guidance be provided.

Response:

This comment is acknowledged, however this is related to the rule making process itself, and does not affect the Commission's own bylaws, or changes to the bylaws, which are separate from an Office of Administrative Law regulation adoption process.

Comment:

Further along it indicates that the Authority will start the appeal process and notify the Commission. Kern County would strongly resist and reject this particular amendment or revision to your Bylaws because the Authority is an adverse party, and basically, these appeals rules were designed to offer a fair hearing and balance the playing field, as it were, between the local EMS agency and the Authority. The appeal by statute is to the Commission, so we would recommend that any start process be defined by this Commission through a filing process for EMSA and/or the local EMS to the Commission, which would then set forth some guidelines or rules for proceeding to hearing, perhaps a filing date, a response date, communication with a hearing officer. All these things could be laid out in some ancillary elements in your process. But to have EMSA start, and by the way, "start" is not defined in your Bylaws, so, again, without the clarity and with the fact that EMSA is an adverse party in this appeals process, Kern County thinks that this particular modification really needs some fine-tuning.

Response:

Starting the appeal process simply means the act of filing an appeal of the denial of an EMS plan with the Authority. The EMS Authority, would then inform the Commission, and begin the process of obtaining mutually agreeable hearing dates, scheduling the hearing with the Office of Administrative Hearings, etc. The fact is that the Authority and a LEMSA with a plan appeal do not have any negative bearing on the tendering of an appeal or the scheduling of a hearing, which is purely an administrative function. Since the Commission on EMS has no employees or staff that can perform the function of scheduling hearings, this duty necessarily falls upon the Authority.

Comment:

Finally, for the purposes of clarity and specificity, we would recommend that the language for Section III, which indicates the Commission adopts the appeals procedure set forth in Chapter 13 of the California code of Regulations, Title 22, Division 9, also

include the appeals section, which is Section 100450.100. Since this is the appeals function section of the revision of your Bylaws, it seems to me that specificity with respect to which aspects of that particular chapter you're adopting would be appropriate.

Response:

Chapter 13 consists of only one section, 100450.100, so referencing this specific section in the Bylaws in not necessary.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Kim Lew, Program Analyst

**SUBJECT:** Tactical Casualty Care Guidelines Update

## RECOMMENDED ACTION:

Receive information regarding the current Status of Tactical Casualty Care Guidelines development.

## FISCAL IMPACT:

None

## DISCUSSION:

In response to the passage of AB 1598 (Rodriguez, Statutes of 2014) the EMS Authority along with the California Tactical EMS (CTEMS) advisory committee drafted the *Training Standards for Basic Tactical Casualty Care and Coordination with EMS During Terrorism Incidents* (Tactical Guidelines) as an interim guideline. This document is meant to guide training programs and first responder agencies, law enforcement, fire, and emergency medical services (EMS) on the development of curriculum related to a coordinated response to active shooter and other terrorism related multi-casualty events. Once approved by the Commission, local EMS agencies may use this document as a guide in their development of training program approval policies. In the meantime, the EMS Authority is temporarily serving as the approving agency for these programs.

On June 9, 2016, the CTEMS advisory committee determined the content of Chapter 3, "Curriculum Content-Tactical First Aid/FRO" and Chapter 4, "Curriculum Content-Tactical Life Saver/Technician" required additional revisions before submission to the Commission for approval. Additionally, members expressed a need to further clarify training program minimum curriculum requirements and instructor flexibility to assess student knowledge and experience when developing their curriculum. As a result, on August 8, 2016, the CTEMS committee directed the sub-committee to develop proposed Chapter 3 revisions and consider replacing the current content of Chapter 4 with the Peace Officer Standards and Training (POST) Tactical Medicine 40 hour course curriculum codified in Title 11, Division 2, Section 1084(d) of the (CCR) California Code of Regulations.

On August 29, 2016, the CTEMS sub-committee and EMS Authority personnel developed the attached proposed revisions to Chapter 2 and Chapter 3 of the guidelines. The sub-committee deferred discussion of Chapter 4 for a later date to be determined.

The EMS Authority anticipates submission of the guidelines for Commission approval at the December 14, 2016 Commission meeting.

# 2

# APPLICATION OF TRAINING STANDARDS

First responder resources vary greatly at the local levels across the state. For this reason, preparing for terrorist incidents or active shooter events must be coordinated at the local level based on each area's unique resources and needs. Local first responder agencies ~~should~~ shall work together on developing protocols, policies and combined training to prepare for active shooter or terrorist events.

## Target Audience

This document is meant to provide guidance to training programs ~~for~~ in the development of tactical medicine training curriculum for public safety personnel~~,~~ to include peace officers, fire service personnel, ~~and~~ public lifeguards, and private EMS, to ensure ~~that~~ those ~~individuals~~ public safety personnel are prepared and maintain a skill set that incorporates the basic elements of tactical casualty care and coordination with emergency medical services.

The California Tactical EMS Advisory Committee recognizes that public safety personnel attending tactical medicine training courses have diverse law enforcement and EMS training education and experiences. As such, training programs should assess their student attendees' current law enforcement and EMS skills and knowledge then adjust their course curriculum to meet student needs. At a minimum, all students should receive training program curriculum that meets California Code of Regulations, Title 22, Division 9, Chapter1.5, Section 100017 and 100018 topics and skills in support of successful completion of comprehensive, competency-based standards and final skills evaluation at the end of the course.

EMTs, Advanced EMTs (AEMT), and Paramedics are trained to provide a higher level of medical care. However, the concepts of tactical casualty care are not presently part of the required curriculum found in the California regulations. Consequently, it is highly recommended that all EMTs, Advanced EMTs, and paramedics are trained to the standards described in this curriculum.

Separately, Tactical Medicine training, approved by POST and EMSA, is geared towards EMT and paramedics in law enforcement or SWAT operations and is further described in the Tactical Medicine Guidelines published by POST and EMSA.

# 3

# Curriculum Content: Tactical First Aid/FRO

## Minimum 4 hour course

## Learning Domain 1: History and Background

**Competency 1.1: Demonstrate knowledge of tactical casualty care**

1.1.1 Demonstrate knowledge of tactical casualty care

- History of active shooter and domestic terrorism incidents
- Define roles and responsibilities of first responders including
  - Law Enforcement
  - Fire
  - EMS
- Review of local active shooter policies
- ~~California Law and Regulations~~
  - ~~California Code of Regulations, Title 22, Division 9, Chapter 1.5~~
  - ~~Health and Safety Code 1797.116 (Amended by AB1598, Rodriguez, Chapter 668, Statutes of 2014)~~
  - ~~Government Code 8607 (ICS)~~
  - ~~California Code of Regulations, Title 29, Division 2, Chapter 1~~
- Scope of Practice and Authorized Skills and Procedures by level of training, certification, and licensure zone[1]
- ~~Brief history of Tactical Combat Casualty Care (TCCC)~~
- ~~The Hartford Consensus (2013)~~
  - ~~THREAT~~
  - ~~Utilize the acronym to identify crucial action in an integrated active shooter response~~

## Learning Domain 2: Terminology and definitions

**Competency 2.1: Demonstrate knowledge of terminology**

2.1.1 Demonstrate knowledge of terminology

- Hot zone/warm zone/cold zone
- Casualty collection point
- Rescue task force
- Cover/concealment

[1] NOTE: Always stay within scope of practice for level of certification/licensure and follow the protocols approved by the local EMS agency

## Learning Domain 3: Coordination, Command and Control

**Competency 3.1: Demonstrate knowledge of ~~i~~Incident ~~c~~Command and how agencies are integrated into tactical operations.**

3.1.1 Demonstrate knowledge of team command, control and communication
- Incident Command System/National Incident Management System
- Mutual Aid considerations
- Unified Command
- Communications, including radio interoperability
- Command post
  - Staging areas
  - Ingress/egress
  - Managing priorities—some priorities must be managed simultaneously

## Learning Domain 4: Tactical and Rescue Operations

**Competency 4.1: demonstrate knowledge of tactical and rescue operations.**

4.1.1 Tactical Operations—Law Enforcement
- The priority is to ~~neutralize~~ mitigate the threat
- Contact Team
- Rescue Team
- ~~Search and rescue operations~~

4.1.2 Rescue Operations—Law Enforcement/EMS/Fire
- The priority is to provide life-saving interventions to ~~evacuate civilians and~~ injured parties
- ~~Integrated police/fire/EMS movement and coordination~~
- Formation of Rescue Task Force (RTF)
- ~~Force protection~~
- Casualty collection points
- ~~Patient movement~~
- ~~Other local methods for tactical operation and EMS integration ( i.e. rescue corridor, shrink Hot Zone)~~

## Learning Domain 5: Basic Tactical Casualty Care and Evacuation

**Competency 5.1: Demonstrate appropriate casualty care at your ~~level of~~scope of practice and certification ~~training~~**

5.1.1 Demonstrate knowledge of the components of the IFAK and/or medical kit
- ~~The priority is to care for the wounded~~
- ~~Individual First Aid Kit equipment~~
- Understand the Priorities of Tactical Casualty Care as applied by zone

5.1.2 Demonstrate competency through practical testing of the following medical treatment skills:

- Bleeding control
  - Apply Tourniquet
    - Self-Application
    - Application on others
  - Apply Direct Pressure
  - ~~Apply Israeli Bandage~~
  - Apply Hemostatic Dressing with Wound Packing, utilizing California EMSA-approved products
  - Apply Pressure Dressing
- Basic ~~A~~airway management
  - Perform Chin Lift/Jaw Thrust Maneuver
  - ~~Place casualty in the~~ Recovery Position
  - ~~Place casualty in the Sitting Up/Lean Forward Airway~~ Position of comfort
  - Airway adjuncts~~Insert Nasopharyngeal Airway~~, if approved by the Local EMS agency
- ~~Breathing, to include c~~Chest/torso wounds
  - Apply ~~Vented and Non-Vented~~ Chest Seals, vented preferred
- ~~Recognition and Treatment of Shock~~
- ~~Prevention of Hypothermia~~
- ~~Eye Injury Management~~
  - ~~Cover Eye with Rigid Shield~~
- ~~Perform Secondary, Head-to-Toe Assessment~~
- ~~Fracture Management~~
- ~~Management of Burns~~
- ~~Documentation of Care~~

5.1.3 Demonstrate competency in ~~Evacuation and~~ patient movement and evacuation

- Drags and Lifts
  - ~~Demonstrate Modified Fireman's – Hawes Carry (1 person)~~
  - ~~Demonstrate Shoulder-Belt drag – Seal Team 3 Carry (2 Person)~~
  - ~~Demonstrate Rapid Shoulder-to-Shoulder drag (2 person)~~
- Carries
  - ~~Demonstrate Fore-Aft Carry (2 Person)~~
  - ~~Demonstrate Side-by-Side Carry (2 person)~~
  - ~~Demonstrate Side-by-Side Carry (3 person)~~
- ~~Patient Movement~~
  - ~~Use Soft-Litter~~
  - ~~Use SKED or similar device~~
  - ~~Use local movement devices~~

5.1.4 Demonstrate knowledge of local multi-casualty/mass casualty incident protocols
- Triage procedures (ie START or SALT)
  ~~Treatment~~CCP- Triage, Treatment and Transport
- ~~Coordinate transport to higher level of care~~

## ~~Medical Planning and~~ Learning Domain 6: Threat Assessment

**Competency 6.1: Demonstrate knowledge in ~~medical planning and~~ threat assessment.**

6.1.1 Understand and demonstrate knowledge of situational awareness
- ~~Scene Size-up~~
- ~~Pre-assessment of Situation~~
- Pre-assessment of Community Risks and Threats
- Pre-incident planning and coordination
- Medical Resources Available

## ~~6~~ Practical Skills~~/Scenario Training~~ Assessment

**Competency 7.1: Demonstrate knowledge and skills ~~through written and practical exam~~through documented cognitive and/or skills evaluation..**

7.1.1 Demonstrate ~~through skills and written exam~~the following skills:
- Medical skills
  - Bleeding control
  - ~~1.~~ Tourniquet, wound packing, pressure dressing
  - Basic a~~A~~irway management
  - ~~2.~~ Maneuvers, recovery position, adjuncts
- ~~3. Respiratory Care~~Chest Injuries, ~~including open chest wounds~~
  - Chest seals (vented preferred)
- ~~P~~Patient movement and ~~extrication and~~ evacuation
- ~~Self and Buddy Care scenarios in hot and warm zones~~
- Coordinated law enforcement/fire/EMS response with formation of Rescue Task Force, following ICS and unified command principles

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Priscilla Rivera, Manager
Personnel Standards Unit

**SUBJECT:** Community Paramedicine Pilot Project Status Update

## RECOMMENDED ACTION:

Receive information regarding Community Paramedicine Pilot.

## FISCAL IMPACT:

None. The pilot study for Community Paramedicine is funded by the California Health Care Foundation.

## DISCUSSION:

Strong progress continues with all of the Community Paramedicine Projects. The early data shows that most of these projects have improved patient care as well as having reduced Hospital Re-Admissions. The only outliers are the Alternate Destination to Urgent Care Centers projects, where there have been a limited number of enrollees so far.

OSHPD as well as the Independent Evaluator from UCSF, have conduct Site Visits with neither OSHPD nor the Independent Evaluator finding any patient care issues that would cause any of the projects to be suspended.

Data Submission:

All Pilot Project site partners have submitted 2nd Quarter Phase III Implementation Data to the Philip R. Lee Institute for Health Policy Studies UCSF evaluation team. UCSF in turn has submitted their initial analysis of the early data to OSHPD for their review and comment as well as presenting the 4th Quarter 2015 & 1st Quarter 2016 Data to OSHPD's Advisory Committee during its May 31, 2016.

Institutional Review Board (IRB):

Prior to implementation, each project site must receive approval from an Institutional Review Board (IRB) as a measure of ensuring patient safety and ethical treatment of human subjects during research. Most of the IRB approvals are for a one year period; therefore a number of the pilot sites had their IRB's approved for another one year period.

Challenges:

Two of the Alternate Destination to Urgent Care Centers Pilot Projects (UCLA, & Carlsbad) continue to show low enrollment, particularly due to the very tight Inclusion/Exclusion Criteria coupled with the limited urgent care centers hours of operations and capabilities.

The third Alternate Destination to Urgent Care Centers Pilot Project (Orange County Fire) has shown some improvement with the number of enrollees over the last few months. We anticipate this project increasing its number of enrollees in the next Quarter, following the training of additional Alternate Destination Paramedics within the Fountain Valley, Newport Beach and Huntington Beach Fire Departments.

OSHPD Continuing Approval Request:

On November 14, 2014 the Office of State Health Planning and Development (OSHPD) approved a one year Health Workforce Pilot Project sponsored by the California Emergency Medical Services Authority (EMSA) pursuant to Health and Safety Code Section 128125 to pilot the concept of Community Paramedicine using 12 Pilot Sites located throughout California.

Additionally on September 8, 2015, EMSA filed for and the OSHPD Director approved a Continuing Approval Request of HWPP #173 Community Paramedicine Pilot Project, as provided within Section 92604 of the California Code of Regulations through November 14, 2016.

It is again EMSA's intent to file for an additional one year extension of HWPP #173 Community Paramedicine Pilot Project by September 15, 2016, as provided within Section 92604 of the California Code of Regulations. This Continuing Approval will allow EMSA and UCSF further time to gather additional data and allow for further analysis of the efficacy of the individual concepts.

The EMS Authority will keep the Commission informed on the progress of the Community Paramedicine pilot program.

Community Paramedicine Symposium – San Diego:

EMSA with the support of the California HealthCare Foundation will be holding a Community Paramedicine Symposium on September 22, 2016 at the Holiday Inn Bayside Hotel in San Diego to take an in-depth look at lessons learned and explore the future of Community Paramedicine in California.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Lucy Chaidez, Program Analyst

**SUBJECT:** Preventive Health Training Standards for Child Care Providers Update

## RECOMMENDED ACTION:

Receive information regarding the EMS Authorities Preventive Health and Safety Practices (PHSP) program and the statewide impact of closing programs.

## FISCAL IMPACT:

Unknown

## DISCUSSION:

The EMS Authority has seen a continued reduction in the number of preventive health and safety practice training programs seeking renewal and fewer new programs. This reduction in available programs is further intensified by news that the American Red Cross (ARC), one of the biggest providers, has decided would discontinue its program with a closure date of December 31, 2016. A review of the remaining programs has raised concerns of a possible shortage of available course and as this training is a condition of child care licensure, it could directly impact the Department of Social Services ability to license child care facilities.

### Background:

Health and Safety Codes Sections 1596.866 and 1797.191 mandates the EMS Authority (EMSA) to oversee the Child Care Training curriculum standards program. EMSA sets standards and approves first aid, CPR, and preventive health and safety practices (PHSP) training programs that are taught to child care providers. The PHSP training is a one-time course that one staff member per child care facility must complete. The statute specifies that this training cannot be taken in a home-study format.

Current status of training in California:

There are currently 18 approved training programs providing the EMSA PHSP training throughout California. The ARC is one of the biggest providers of the PHSP training in the state. The ARC oversees 216 instructors in 20 counties throughout California. Some counties will be left with training gaps. After December 31, 2016 the following seven counties will be not have any PHSP training programs: Mendocino, Tulare, Kings, Santa Barbara, Mariposa, Yolo, and Monterey. Siskiyou, Shasta, Merced, Sonoma, Yuba, Marin, and San Mateo Counties will be left with only one PHSP training program in their respective counties.

EMSA is unsure whether the remaining approved programs can provide additional courses to cover these areas. There has been interest by some of the remaining training programs to expand but none are willing to officially commit to expansion until they can review the situation.

EMSA will be impacted by this closure by an increase in workload and reduction of income for its fee supported program. The program staff will experience an increase in calls from child care providers looking for training that will impact the staff's ability to review and approve training programs and handle other assigned duties. Most critically it will impact the fees necessary to support the budget for this program. The fees being collected are already failing to support the program, and the loss of the largest provider will impair EMSA's ability to bring in enough funds to cover costs. Fee increases are being considered, however, this will require regulation change.

This closure will also impact the Department of Social Services (DSS), Child Care Licensing Division (CCLD). CCLD was notified of the impending closure of ARC's program and its potential impact to licensure. As this training is required as a condition of child care licensure, the reduction in availability could cause child care providers to be ineligible for licensing. CCLD does have a provision that will allow them to provide provisional licensure for 90 days. However, if the child care provider is unable to gain the training within that time frame, they will be denied licensure, forfeit the fees paid and have to restart the licensure process.

Efforts to meet training needs:

1. EMSA has encouraged other existing programs to expand and has assisted in providing contact between the programs and ARC instructors.

2. ARC has agreed to sell their EMSA-approved curriculum to the instructors who remain interested in teaching the curriculum.

3. EMSA is looking into ways to decrease the approval process time for training programs that have purchased the ARC curriculum.

4. The California Department of Education (CDE) has provided a grant to the UCSF California Childcare Health Program (CCHP) to develop a training program that, may be used by the Child Care Resource and Referral Network to provide training throughout the state. There is at least one resources and referral agency in each county, and several of the state's large counties have more than one agency.

**EMERGENCY MEDICAL SERVICES AUTHORITY**
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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Priscilla Rivera, Manager
Personnel Standards Unit

**SUBJECT:** Physician Orders for Life Sustaining Treatment (POLST) Registry Update

## RECOMMENDED ACTION:

Receive information regarding POLST eRegistry Pilot Project

## FISCAL IMPACT:

None

## DISCUSSION:

Decisions on end of life care for oneself and for that of loved ones are difficult for anyone to make. The Physician Orders for Life-Sustaining Treatment (POLST) is a process that encourages open and thoughtful discussion between physicians, and their patients regarding end of life care. In California, the POLST form allows a patient to clearly state what level of medical treatment is desired toward the end of life. POLST differs from advanced directives, because the form is signed by both the patient and the medical provider and represents a physician's order. SB 3000 (Wolk, Chapter 266, 2008) requires that POLST be honored in all care settings and gives immunity to medical providers who honor the document in good faith. SB 3000 also gave the EMS Authority (EMSA) oversight of this form, which is approved through the Commission on EMS.

Today, most POLST information is stored in paper format using a standard form maintained by EMSA. This form must be kept with the patient in order for it to be accessed and implemented. However, during emergencies, there are times when the paper form may not be readily available, hindering care and/or resulting in care that is against the wishes of the patient. To address the limitations in accessibility to POLST information, in October 2015 California's Governor signed SB 19 (Wolk, Chapter 504, 2015) authorizing a POLST electronic registry (eRegistry) pilot project under the aegis of EMSA.

It is the goal of this pilot study to find a secure and efficient way to provide medical professionals with quick and reliable access to POLST form information to ensure patient wishes are met. In order to evaluate whether the pilot study reaches this goal, independent evaluators will be retained to review the process, identify deficiencies and strengths and provide an analyses of the overall success of the study.

Partners/Stakeholders:

EMSA identified the California HealthCare Foundation (CHCF) and the California Coalition for Compassionate Care (the Coalition) as two partners with high level of involvement in the current POLST system. Both the CHCF and the Coalition are organizations that have a longstanding interest in the promotion of the POLST form. CHCF has worked to promote adoption of the POLST form in California since 2007; with the Coalition being a key grantee for efforts that have helped California become one of only three states (with OR and WV) to meet national guidelines on POLST adoption.

In accordance with SB 19, EMSA will expand the stakeholder group by including entities that will be directly impacted by the pilot study and will have vested interest in its outcome. Potential stakeholders will include representatives from the following groups:

- California Health and Human Services Agency,
- Potential founders of the registry,
- Major health systems based in pilot sites,
- Potential patients and users of the POLST form,
- Local EMS system(s) and its personnel.

Pilot sites:

Two pilot sites were selected: City of San Diego California, led by the San Diego Health Connect (SDHC), located in San Diego, and Contra Costa County, led by the Alameda Contra Costa Medical Association (ACCMA). The software vendor contract has been awarded to Vynca.

SDHC and ACCMA as pilot site leads will work with the technology vendor to establish input and retrieval connectivity to the eRegistry. SDHC is a health information exchange organization that has operated in San Diego since 2010 and includes health systems, nursing homes, clinics and emergency medical services. The ACCMA, a regional chapter of the California Medical Association, has a leadership role in the county health delivery landscape and has been a partner for POLST adoption activities since 2008.

EMSA POLST eREGISTRY coordination:

The EMS Authority has engaged Lou Meyer as the EMSA POLST eRegistry pilot project coordinator. Lou has 40 years of experience and specializes in Emergency Medical Services (EMS) and Ambulance delivery systems in the U.S. and overseas.

The EMSA POLST eRegistry pilot project coordinator's responsibilities include, but are not limited to:

1. Support EMSA's role in POLST registry, serving as primary point of contact for key partners and contractors.

2. Convene statutory interest groups to develop guidelines for the operation of the POLST eRegistry for presentation to the EMS Commission for approval.

3. Act as state liaison to EMS in planning and implementation of the POLST registry in pilot jurisdictions.

4. Collaborate with California Coalition for Compassionate Care (CCCC) and other stakeholder organizations, including, hospitals, skilled nursing facilities, clinicians (MDs, NPs, PAs), local EMS agencies, technology vendor, and local coalition groups to identify issues and challenges in the local implementation and develop solutions.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Sean Trask, Chief
EMS Personnel Division

**SUBJECT:** Ventura County EMS Agency's Air-Q Trail Study 18 Month Report

## RECOMMENDED ACTION:

Receive the preliminary 18-month report on the Ventura County EMS Agency's Air-Q Airway Device trial study and extend the trial study to the December 14, 2016 Commission meeting.

## FISCAL IMPACT:

None

## DISCUSSION:

The EMS Authority approved a trial study request from the Ventura County EMS Agency to study the effectiveness of placing an Air-Q (supra-glottic) airway device in lieu of other advanced and basic airway management techniques on December 8, 2014. The Ventura County EMS Agency started enrolling patients on December 12, 2014. The 18-month report was due June 12, 2016. The same trial study was approved for Santa Barbara County which started enrolling patients on May 18, 2015, under the same local EMS agency medical director, Angelo Salvucci, MD.

Description of the Device:

The Air-Q airway is a supra-glottic airway device similar to the laryngeal mask airway that is inserted blindly and sits above the vocal cords.

Description of Ventura County EMS System:

Total number of ambulances in County: 33
Total other ALS response vehicles: 27 (this includes 1 air squad)
List of ALS agencies: AMR, Gold Coast, Lifeline, Ventura County Fire, Ventura City

Fire, Ventura County Sheriff's SAR, Fillmore Fire Dept.
Anticipated locations of training: Moorpark, Camarillo, Oxnard, Ventura, Fillmore, Thousand Oaks, Ojai
Total number of paramedics that need training: 252

Purpose of the study:

The purpose of this study is to evaluate the safety and effectiveness of the Air-Q airway when used by paramedics in the prehospital setting. The hypothesis of the study is that the Air-Q will be easier and quicker to insert than an endotracheal tube, provide better ventilation and aspiration protection than a bag-valve-mask, and be safer (risk of aspiration, reduction of carotid blood flow) than laryngeal tubes such as the King Airway.

For this trial study, the Air-Q would be used as an airway adjunct during cardiac arrest, respiratory failure with a decreased level of consciousness, or for an altered level of consciousness that requires an airway intervention. In the early part of the Ventura County arm of this trial study, the Air Q was the primary airway in cardiac arrests. In July of 2015 the Air-Q device was changed to an alternate airway for cardiac arrests if BLS airway management techniques were not successful. There were two reasons for this change:

1. The mechanism to secure the Air-Q was not adequate. This was later changed to a device similar to the ones used to secure endotracheal tubes.

2. The need for a larger diameter suctioning tube to suction vomitus from the bowl of the airway. The suctioning issue is being addressed through redesign by the manufacturer of the Air-Q and by using a different suctioning device.

Outcomes:
Attached is the preliminary report that includes a table of outcome measures. There were a total of 270 patients with an attempt to place the device with completed documentation in 266 of those cases. This fell short of the initially estimated 720 uses of the device (40 cardiac arrests per month for 18-months). There were 9 failures to insert. Successful insertion was defined as “no air leak” or “small air leak”. There were 213 cases of successful insertion, for an overall success rate of 80.0%. Of the 70 patients (26%) that vomited, the device did not provide adequate suctioning in 34 of those 70 cases (48.6%). In 32 of the 70 cases (45.7%) with vomiting, the device did provide for adequate suctioning.

Recommendation from Ventura County EMS Agency:
Ventura County EMS Agency is requesting an extension of the trial study to evaluate the new suction device and alternative insertion methods and will have more detail at the December 14, 2016 Commission on EMS meeting.

VENTURA COUNTY PUBLIC HEALTH

A Department of Ventura County Health Care Agency

**Rigoberto Vargas, MPH**
Director

**Steven L. Carroll, EMT-P**
EMS Administrator

**Daniel Shepherd, MD**
EMS Medical Director

**Angelo Salvucci, MD, FACEP**
Assistant EMS Medical Director

August 26, 2016

Howard Backer, MD, MPH, FACEP
Director, California Emergency Medical Services Authority
10901 Gold Center Drive, Suite 400
Rancho Cordova, CA 95670

Dear Dr. Backer:

This is the 18-month report on the Ventura County EMS trial on the paramedic use of the air-Q sp.

On page 2 is a table of the results through July 2016. There has been a total of 270 patients with an attempt to place the device with complete documentation in 266. There were 9 failures to insert. We have defined a successful insertion as “no air leak” or “small air leak”. There were 213 cases of successful insertion, for an overall success rate of 80.0%

The air-Q was initially made the primary airway device, to be utilized after initial cardiac arrest measures (CPR, defibrillation, vascular access, first medication(s)). Revisions in Cardiac Arrest Management training has been a confounder in evaluating cardiac arrest outcomes, but we did not see an improvement during the initial portion of the trial. Because of this we altered our airway treatment protocol in July 2015 to make the air-Q an optional advanced airway device, to be considered if bag-mask ventilation was inadequate.

The two primary concerns with the device was an inadequate securing mechanism and regurgitated stomach contents. An improved securing device, similar to a standard endotracheal tube holder, is now available. The manufacturer is working on a more effective suction mechanism to address regurgitation.

The role of supraglottic devices in the management of cardiac arrest patients remains unclear. Attached is a review by Drs. Carlson and Wang.

We plan to continue the trial to evaluate the new suction device and alternative insertion methods.

Sincerely,

Angelo Salvucci, MD, FACEP
Assistant Medical Director

Ventura County EMS Agency
Use of air-Q
December 12, 2014 to July 31, 2016

Note: on July 10, 2015, the air-Q was moved in priority of airway management from primary to secondary, to be used only if BLS airway management techniques were not successful

| Total patients with an attempt to place air-Q | | 270 | % |
|---|---|---|---|
| Ease of Use | Very Easy to Use | 69 | 25.5% |
| | Easy to Use | 106 | 39.3% |
| | Neither Easy nor Difficult to Use | 57 | 21.1% |
| | Difficult to Use | 29 | 10.7% |
| | Impossible to Use | 5 | 1.9% |
| | Not Documented | 4 | 1.5% |
| Did patient vomit with air-Q? | Yes | 70 | 25.9% |
| | No | 196 | 72.6% |
| | Not Documented | 4 | 1.5% |
| If vomiting, did air-Q allow adequate suctioning? (N=70) | Yes | 32 | 45.7% |
| | No | 34 | 48.6% |
| | Not Documented | 4 | 1.5% |
| Did securing strap function well? | Yes | 169 | 62.6% |
| | No | 97 | 35.9% |
| | Not Documented | 4 | 1.5% |
| Was seal adequate for ventilation? | Yes, no audible air leak noted | 137 | 50.7% |
| | Small audible air leak noted | 76 | 28.1% |
| | No, large audible air leak; unable to ventilate | 44 | 16.3% |
| | NA, unable to insert | 8 | 3.0% |
| | NA, “not placed due to rigor” | 1 | 0.37% |
| | Not Documented | 4 | 1.5% |
| Complications | NO complications | 171 | 63.3% |
| | Failure to ventilate | 46 | 17.0% |
| | Gastric distention | 19 | 7.0% |
| | Bleeding | 15 | 5.6% |
| | Unable to insert | 11 | 4.1% |
| | Difficult to insert | 3 | 1.1% |
| | Unable to insert “rigor” | 1 | 0.37% |
| | Not Documented | 4 | 1.5% |

## TAKE-HOME MESSAGE

In observational studies, intubation is associated with better outcomes than supraglottic airway devices in out-of-hospital cardiac arrest; however, the results of ongoing prospective trials are needed to confirm these findings.

# Does Intubation Improve Outcomes Over Supraglottic Airways in Adult Out-of-Hospital Cardiac Arrest?

**EBEM Commentators**
Jestin N. Carlson, MD, MS
*Department of Emergency Medicine*
*Saint Vincent Hospital*
*Erie, PA*
*Department of Emergency Medicine*
*University of Pittsburgh School of Medicine*
*Pittsburgh, PA*
Henry E. Wang, MD, MS
*Department of Emergency Medicine*
*University of Alabama at Birmingham*
*Birmingham, AL*

## METHODS

### DATA SOURCES

The authors searched PubMed, Scopus, and the Cochrane Database through April 2014 for relevant articles. They also forward- and backward-searched the references of all identified articles and contacted experts in the field for additional articles.

### STUDY SELECTION

Observational and experimental studies comparing intubation to any supraglottic airway (eg, laryngeal mask airway, King laryngeal tube, esophageal-tracheal twin-lumen airway device) in adult, nontraumatic, out-of-hospital cardiac arrest victims treated by emergency medical services were included.

### DATA EXTRACTION AND SYNTHESIS

Two investigators independently assessed each study for quality and risk of bias, using the Grading of Recommendations Assessment, Development and Evaluation system. Key outcomes included return of spontaneous circulation, survival to hospital admission, survival to hospital discharge, and neurologically intact survival to hospital discharge. The authors calculated the odds ratios for each of the 4 outcomes for intubation versus supraglottic airway, using a random-effects

## Results

Meta-analytic results of combined data for intubation versus supraglottic airway.

| | ETI, n | SGA, n | OR (95% CI) |
|---|---|---|---|
| **All studies** | | | |
| ROSC | 33,256 | 40,594 | 1.28 (1.05–1.55) |
| Neurologically intact survival to hospital discharge | 28,911 | 38,918 | 1.33 (1.09–1.61) |
| **Sensitivity analysis*** | | | |
| ROSC | 31,405 | 36,205 | 1.30 (0.94–1.81) |
| Neurologically intact survival to hospital discharge | 28,749 | 38,416 | 1.33 (1.04–1.69) |

*ETI*, Intubation; *SGA*, supraglottic airway; *OR*, odds ratio; *CI*, confidence interval; *ROSC*, return of spontaneous circulation.
*Studies categorized as "very low" quality of evidence were not included in the sensitivity analysis.

Of 3,454 potential studies, the authors included 10 observational studies meeting inclusion, encompassing 34,533 intubation patients and 41,116 supraglottic airway patients. Intubation was associated with greater odds of return of spontaneous circulation, survival to hospital admission, and neurologically intact survival to hospital discharge compared with supraglottic airway; however, there was substantial heterogeneity reported for all of the outcomes except for the neurologic outcome ($I^2$=20%). In the sensitivity analysis based on quality (ie, excluding the very-low-quality studies), intubation was associated only with greater odds of neurologically intact survival to hospital discharge.

## Commentary

The ideal method for managing the airway during out-of-hospital cardiac arrest remains an area of controversy. Previous work

model, and reported on heterogeneity. The authors also performed sensitivity analyses based on the quality of individual studies and to account for included studies involving overlapping databases.

describes the numerous challenges associated with intubation in the out-of-hospital setting, including unrecognized endotracheal tube misplacement, multiple attempts, and interruptions in chest compressions.[1,2] Because of these pitfalls and the difficulty of maintaining proficiency in intubation, there has been a movement to use supraglottic airways in the out-of-hospital cardiac arrest population.[3-5] Although supraglottic airways may require less initial education and ongoing training for proficiency relative to intubation, there are other challenges that accompany supraglottic airway insertion.[6,7] The first-attempt success rate with supraglottic airways is lower in clinical practice than initially proposed.[7,8] Also, animal studies have suggested that supraglottic airways may impair carotid blood flow, potentially explaining the difference in long-term neurologic outcomes between supraglottic airways and intubation.[9] However, supraglottic airways did not appear to compress the carotid artery on cross-sectional computed tomography imaging in a limited series of patients resuscitated with supraglottic airways.[10] These recent works highlight the limited understanding of advanced airway maneuvers in the out-of-hospital cardiac arrest population and require additional study to further define their role in providing optimal out-of-hospital care.

All of the studies evaluated in the systematic review by Benoit et al[11] were observational and of low or very low quality of evidence. The authors did not identify any prospective trials comparing supraglottic airway to intubation in the out-of-hospital setting. Although observational data can help identify areas for further study and knowledge gaps in our understanding of airway management strategies, they are unable to fully account for the many sources of potential bias. The most prominent limitation of the included observational studies is confounding by indication; that is, the decision to use intubation or supraglottic airway may have been influenced by the clinical presentation of the patient. For example, intubation has long been advocated as the preferred airway management strategy in out-of-hospital cardiac arrest, and as such, providers may have favored intubation in patients who they suspected had a better chance of survival. Although a powerful technique, multivariable adjustment cannot fully overcome confounding by indication.[12]

Another key limitation to these observational data is a limited understanding of the proficiency of the provider performing the resuscitation. It is plausible that patients who receive intubation are resuscitated by providers with a different experience level than those resuscitated with supraglottic airways. Prospective randomized controlled trials are needed to overcome these limitations and determine the role of intubation and supraglottic airways in out-of-hospital cardiac arrest. Current efforts have established the feasibility of such trials, which are under way in the United Kingdom and the United States[13]; the UK Airway Management in Cardiac Arrest Patients trial study (http://www.isrctn.com ISRCTN08256118) and the US Pragmatic Airway Resuscitation Trial (http://www.clinicaltrials.gov NCT02419573) will help answer this important clinical question.

Editor's Note: This is a clinical synopsis, a regular feature of the *Annals*' Systematic Review Snapshot (SRS) series. The source for this systematic review snapshot is:

**Benoit JL, Gerecht RB, Steuerwald MT, et al. Endotracheal intubation versus supraglottic airway placement in out-of-hospital cardiac arrest: a meta-analysis. *Resuscitation*. 2015;93:20-26. http://dx.doi.org/10.1016/j.resuscitation.2015.05.007.**


1. Wang HE, Simeone SJ, Weaver MD, et al. Interruptions in cardiopulmonary resuscitation from paramedic endotracheal intubation. *Ann Emerg Med*. 2009;54:645-652.e1.
2. Wang HE, Lave JR, Sirio CA, et al. Paramedic intubation errors: isolated events or symptoms of larger problems? *Health Aff (Millwood)*. 2006;25:501-509.
3. Wang HE, Seitz SR, Hostler D, et al. Defining the learning curve for paramedic student endotracheal intubation. *Prehosp Emerg Care*. 2005;9:156-162.
4. Wang HE, Abo BN, Lave JR, et al. How would minimum experience standards affect the distribution of out-of-hospital endotracheal intubations? *Ann Emerg Med*. 2007;50:246-252.
5. Guyette F, Greenwood MJ, Neubecker D, et al. Alternative airway in the prehospital setting (resource document to NAEMSP position statement). *Prehosp Emerg Care*. 2007;11:56-61.
6. Wang HE, Yealy DM. Managing the airway during cardiac arrest. *JAMA*. 2013;309:285-286.
7. Beauchamp G, Phrampus P, Guyette FX. Simulated rescue airway use by laypersons with scripted telephonic instruction. *Resuscitation*. 2009;80:925-929.
8. Martin-Gill C, Prunty HA, Ritter SC, et al. Risk factors for unsuccessful prehospital laryngeal tube placement. *Resuscitation*. 2015;86:25-30.
9. Segal N, Yannopoulos D, Mahoney BD, et al. Impairment of carotid artery blood flow by supraglottic airway use in a swine

model of cardiac arrest. *Resuscitation*. 2012;83:1025-1030.
10. White JM, Braude DA, Lorenzo G, et al. Radiographic evaluation of carotid artery compression in patients with extraglottic airway devices in place. *Acad Emerg Med*. 2015;22:636-638.
11. Benoit JL, Gerecht RB, Steuerwald MT, et al. Endotracheal intubation versus supraglottic airway placement in out-of-hospital cardiac arrest: a meta-analysis. *Resuscitation*. 2015;93:20-26.
12. Jepsen P, Johnsen SP, Gillman MW, et al. Interpretation of observational studies. *Heart*. 2004;90:956-960.
13. Benger JR, Voss S, Coates D, et al. Randomised comparison of the effectiveness of the laryngeal mask airway supreme, i-gel and current practice in the initial airway management of prehospital cardiac arrest (REVIVE-Airways): a feasibility study research protocol. *BMJ Open*; 2013:3.

*Michael Brown, MD, MSc, and Alan Jones, MD, serve as editors of the SRS series.*

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Bonnie Sinz, RN, BS
State Trauma System Coordinator

**SUBJECT:** Trauma Plan Status and ACS Site Visit Review

## RECOMMENDED ACTION:

Receive information regarding the Trauma Plan Status and ACS Site Visit Review.

## FISCAL IMPACT:

None

## DISCUSSION:

State Trauma Plan:

The EMS Authority received the final Trauma System Consultation Report from the American College of Surgeons (ACS) in May 2016. Briefings on ACS's key recommendations were provided by Dr. Robert Winchell (consultation team leader) at the conclusion of the site visit on March 25, 2016 and by Dr. Robert Mackersie (State Trauma Advisory Committee Chair) and Bonnie Sinz (State Trauma Coordinator) at the Trauma Summit in June 2016.

The State Trauma Plan was re-evaluated by EMSA staff based on the ACS recommendations and revisions to the Plan were made. In the majority of cases, the ACS recommendations and the Trauma Plan objectives closely coincided and cross references were added throughout the document. The changes made to the Trauma Plan as a result of the ACS consultation are non-substantive and the document has been forwarded to Health and Human Service Agency (Agency) for review.

At the time of this memo, Agency continues to review the revised Plan. The Commission will be kept informed of the Trauma Plans' status.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Adam Davis
Quality Improvement Program Coordinator

**SUBJECT:** Core Measures Reports for 2015

## RECOMMENDED ACTION:

Receive information about results of the 2015 Core Measures

## FISCAL IMPACT:

None. However, some local EMS agencies and service providers may continue to experience training and data system revision costs associated with the ongoing reporting of the core measures until they are fully implemented.

## DISCUSSION:

EMSA received data reports from 29 of the 33 local EMS agencies for the 2015 calendar year. EMSA has compiled the information sent by the LEMSAs and has developed the 2015 Core Measures Annual Report. The full report is available on our the EMSA website. This report is the result of a continuing effort between the local EMS agencies and EMSA, we greatly appreciate the continued support and effort that many people put into this project.

EMSA continues to facilitate the core measures task force meeting and is targeting an October meeting date to review the core measures set and begin to develop the instruction manual in NEMSIS 3.4 format for the 2017 data year.

The current strategy will be to utilize NEMSIS 2.2.1 reporting for the 2016 data year. During the overlapping period when NEMSIS 2.2.1 and NEMSIS 3.4 are utilized, testing will be done to ensure the NEMSIS 3.4 formatted measures are refined and representative of the EMS activities in question. EMSA continues to provide technical assistance to LEMSAs as they transition from NEMSIS 2.2.1 to NEMSIS 3.4 as well as address any challenges being faced while participating in the Core Measure Project.

# EMS Core Measures Project

## Reporting Capability of EMSA and LEMSA Data Systems and Results from Performance Measures Data Year 2015 with Comparison to Years 2012, 2013 and 2014

Emergency Medical Services Authority
California Health and Human Services Agency


EMSA #R003-2016
September 2016

# Table of Contents:

# EMS Core Measures Project, Reported 2015: Reporting Capability of EMSA and LEMSA Data Systems and Results from Clinical Measure Reports

## Introduction

Emergency medical services (EMS) provide timely and appropriate emergency medical care and transportation of the ill and injured, thereby reducing morbidity and mortality. EMS is an integral part of every community's emergency health care delivery system, and quality improvement (QI) practices must become an essential part of EMS systems. Evaluation of standard clinical and response performance indicators is a crucial component of a quality improvement program to ensure that EMS services operate safely and effectively and follow evidence based clinical practices to maximize outcomes.

Robust data systems, with the ability to report clinical indicators and performance measures, are a key tool to accomplish QI activities. EMSA aims to track the continuum of care from dispatch to pre-hospital to hospital disposition in order to optimally evaluate EMS system performance and patientcare.

## Background and Authority

California is a large, diverse state with a two-tier regulatory system consisting of State Emergency Medical Services Authority (EMSA) and 33 local EMS agencies (LEMSA). California statute (Health and Safety Code 1797.103) maintains that one of the required elements of an EMS system is data collection and evaluation, and mandates the establishment and development of quality improvement guidelines. Local EMS agencies are required to plan, implement, and evaluate an EMS system (CCR Title 22 Division 9 Chapter 12). As such, they are charged with the responsibility for establishing a data collection system and setting data and QI standards at the local level. Additionally, the EMS system QI regulations define the requirements for LEMSAs, EMS service providers, and base hospitals. These requirements include, but are not limited to, the implementation of an EMSA approved EMS Quality Improvement Program (requiring data reporting) and the use of defined indicators to assess the local EMS system as defined in CCR, Title 22, Division 9, Chapter 4, Section 100147, 100169, 100170. As of January 1, 2016, Health and Safety Code 1797.227 was put into effect which mandates an emergency medical care provider shall use an electronic health record system which is compliant with the current version of the CEMSIS and NEMSIS standards when collecting and submitting data to a local EMS agency and ensure that the electronic health record system can be integrated with the local EMS agency's data system. The effect of this new mandate will not been seen until 2017 when the 2016 data are reported to EMSA.

## Methodology

A task force consisting of key data and quality leaders from local EMS agencies, medical directors, hospitals, and pre-hospital EMS providers assisted in the development of these core measures (17 clinical and 3 related to response and transport). The measures are based on evidence-based processes and treatments, such as aspirin administration for chest pain of suspected cardiac origin, for a condition or illness. Core 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 System Core Quality Measures, EMSA 166, Appendix E* defines the specific data elements and instructions for reporting each measure. The measures are refined each year to improve results. For example, changes were made to the both of the trauma measures (TRA-1 and TRA-2) to be more consistent with the CDC Trauma Triage Criteria (https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6101a1.htm).

LEMSA participation in the Core Measure project is consistent with HSC 1797.102 in providing the EMS Authority with details necessary to access the effectiveness of emergency medical services in each EMS area or the system's service area. The EMS Authority tasked the LEMSAs with the extraction and submission of core measure reports based on their local databases. Each of the 33 LEMSAs maintains their database independent of one another, resulting in variability in their ability to report core measures. While sampling is an approved mechanism for the LEMSAs to calculate core measure values and has been done in the past, no LEMSAs reported sampling this year.

In addition to reporting core measure information, EMSA requested that each of the LEMSAs provide the following information with the intent of gaining insight into the process of collection and reporting of their data at both the LEMSA and provider levels. The information requested is noted below:

*Data flow description:*

- *Paper Patient Care Records (PCRs)*
  - *How many providers are using paper PCRs;*
  - *How the data from the paper PCRs are being entered into the system from those providers;*
- *Electronic Paper Patient Care Records (ePCRs)*
  - *How many providers are using electronic PFCRs;*
  - *How the data form the ePCRs are being entered into the system;*
- *A general description of your data system to include:*
  - *A general idea of the data flow from the providers to EMSA;*
  - *Who compiles the data for the Core Measures Reports (LEMSA staff, contractor, provider, etc.;*
  - *Who submits the Core Measures Reports to EMSA;*
  - *Who compiles the data for the Core Measures Reports (LEMSA staff, contractor, etc.); and*

- *Any other information that would help us better understand the Core Measures data submitted*

## Limitations and Challenges

Core measure reporting is a project that depends on compatible data systems at several levels of the EMS system and access to hospital health information on patient outcomes to provide meaningful data. It will likely take several more years to achieve the level of confidence of other healthcare sector quality assessment reporting. EMSA will continue to work on these measures to improve the validation, data collection, and reporting processes and to connect them to "best practices". LEMSAs encounter significant challenges in reporting the core measures to EMSA, which are enumerated below. Not all LEMSAs can report on all the measures; of the 33 LEMSAs, 29 reported at least one clinical measure for 2015 data, but only 4 can report results for all 17 measures.

## Data Collection and Reporting Limitations

New data systems - Some of the LEMSAs recently migrated to new data systems and the prior data were no longer available or the LEMSA was unable to incur the costs of retrieving the data. This problem was noted in the first year of the project, and has continued to be a barrier in the second and third years as others transition in preparation for NEMSIS 3.4.

Variability in data collection methodology – In a 2013 Health Information Exchange Readiness Survey conducted by Lumetra, ten of 32 EMS systems reported use of paper-based pre-hospital care reports (PCR) by at least one provider in their region. Abstracting information from paper forms is difficult, time-consuming, and not necessarily accurate. This has been a significant barrier in the first three years and will continue to be a problem until all providers and LEMSAs are using electronic patient care record (ePCR) with software that has a high degree of technological sophistication, including rules that force users to complete forms before closing the record. Providers are mandated by recent legislation to use ePCR and submit electronic data to the LEMSA by the end of 2016. (See below)

Hospital Outcome Data – One of the clear challenges identified each year is the difficulty in obtaining hospital outcome data on all ambulance transports. Several measures rely on the hospital to report survival to emergency department discharge and survival to hospital discharge. While the response rate increased for specific cardiac arrest outcome measures (CAR- 3 and CAR-4), EMSA and the LEMSAs must continue efforts to acquire this information. Recent legislation may help by specifically allowing hospitals to share patient information with EMS providers and agencies. (See below)

Transition from NEMSIS 2 to 3 – This transition is a lengthy and costly process that directly impacts specific data definition. Most importantly, it will hinder the ability to conduct comparative analysis due to the variance in how quickly each LEMSA moves to NEMSIS 3.

Recent Data Legislation

- Recent state legislation is driving changes in EMS data systems related to data quality and data accuracy. Specifically, four bills were enacted in 2015 and became effective January 2016. These include: AB 1129 requires each provider to utilize electronic health record systems that are compliant with the "current version of NEMSIS" to collect EMS data;
- AB 503 authorizes a health facility to share patient-identifiable information with EMSA or other appropriate EMS entities for the purposes of addressing quality improvement;
- AB 1223 requires EMSA to adopt standards related to data collection for ambulance patient off-load time; and
- SB 19 requires EMSA to establish a pilot project to be known as the California POLST eRegistry for the purpose of collecting information received from a physician or their designee.

Because of the requirement to have electronic data collection, each of these new laws will likely have some impact on the Core Measures effort, particularly AB 1129 and AB 1223.

## Project Design Limitations

Aggregate data - The data provided are aggregated summary data reported by each LEMSA, which limits the types of analyses that can be done. More in-depth statistical analyses could be performed if patient-level data were collected and analyzed by EMSA.

Data quality and reliability -There are many differences in data collection and reporting practices across LEMSAs. This lack of data standardization and consistency further limits reliability and comparability of the measures reported by each LEMSA. Though all LEMSAs were given the same specifications to calculate the measures, not all are able to adhere to these due to constraints and inconsistencies in data collection, data dictionaries and electronic database products, and measure calculation methods. Greater data standardization will lead to results with greater validity and comparability. Unless data quality checks or audits are performed by LEMSAs before measures are calculated and submitted, the accuracy of the data cannot be evaluated. This is compounded where there is manual data entry.

Documentation by Non-Trained Providers - EMS field personnel do not receive specific core measures training for data entry. Consequently, responders likely do not consistently record all the data elements required for core measures. Additional education and training would reduce this problem. EMSA will work with the LEMSAs to alert providers of the specific elements in core measures data to ensure that those fields are properly populated. New ePCR software has rules that can mandate an entry and limit values for key fields. Optimally these will be standardized statewide.

Patient Records in Tiered EMS systems - One of the significant challenges of reporting EMS information is related to the dual EMS response system in most geographic areas. Two records are often initiated for each patient: one by EMS first responders and a second by ambulance transport units that arrive later. LEMSAs have not established a mechanism—either manually or technologically—to create an integrated record that captures the full treatment provided to a single patient. This inability to aggregate first responder data with transport provider data could lead to a conclusion that care was not provided, when in fact, it may have been provided to the patient by a different provider. This is a critical procedural issue and highlights the need for a “one patient, one record” system to allow for a complete picture of patient care. EMSA, LEMSAs, and providers continue to explore potential solutions to this challenge, which is an issue nationwide.

Provider Data Submission – Only a portion of the actual EMS business conducted in California is represented in this report. The values reported by the LEMSAs are not representative of 100% of the providers in the state. Since not all providers are currently using an ePCR, records may be open to transcription errors. EMSA is working with the LEMSAs to assist providers to shift from paper patient care records to electronic data systems. One way this is being done is through local assistance grant opportunities.

In future years, system improvements that will facilitate data collection and more accurate reporting include:

1. Additional LEMSAs successfully exporting data to CEMSIS
2. CEMSIS accumulating sufficient records to generate reports on core measures
3. Transition from NEMSIS Version 2 to NEMSIS Version 3, an updated national data dictionary.
4. Aim to achieve 100% data submission by 100% of EMS providers statewide.

### Improvements

The number of LEMSAs who submitted any core measure values to EMSA decreased from the prior year (from 31 to 29 of 33 submitting at least one clinical measure), but the number of measures that each LEMSA reported increased significantly (see Chart 2 "Histogram").

The following 7 (seven) measures experienced an increase in their median reported value from the previous year:

- TRA-1
- TRA-2
- ACS-1
- CAR-4
- STR-2
- STR-3
- SKL-2

### EMS Compass

A national initiative (http://www.emscompass.org/) began in 2015 to develop performance measures, which are similar to the California Core Measures. The primary difference is that the national effort has focused on fewer data elements than California's effort. As the national efforts moves, forward, California will continue to work with the initiative and coordinate with the performance measurements as much as possible. Initially, Compass will release five eCompass project variables related to Hypoglycemia; Seizures; and Stroke. These were extensively researched and linked to NEMSIS 3.4 data definitions. EMSA intends to introduce the national measures into Core Measures, initially incorporating Compass methodology into our measures design, where the measures are equivalent.

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## Additional Data Flow Information

### Overview

The Core Measures Project provides a unique opportunity to collect information about the local agency data collection processes at both the LEMSA and provider levels. Because only 21 of 33 LEMSAs currently submit some patient records to CEMSIS, this is the only mechanism that can gather these data and provide critical insight and context to the core measures submissions.

### Paper versus Electronic Data Submission

Use of paper PCRs increases the data error rate due to transcription errors. For 2015, ten (10) LEMSAs (out of 20 responding) reported at least one (1) provider is still using paper PCR—but only 20 LEMSAs provided this information. This number should soon decrease to zero, because of recent legislation that requires all data submission from providers to LEMSAs in an electronic format (see AB 1129, chapter 377, Section 1797.227 Health and Safety Code). EMSA has made it a priority to provide technical assistance to those LEMSAs who have identified providers utilizing paper records. The impact of AB 1129 will not be apparent until the 2016, or even more in the 2017 Core Measures Report, since the transition to full electronic patient data in NEMSIS 3.4 is not required until the end of 2016.

### Data Flow Survey

Information on data flow improves EMSA's understanding of the LEMSAs' data processes and provides useful insight into the Core Measure data collected. Of the 29 LEMSAs submitting data, 21 provided supplementary information with their Core Measures Report submission and 20 LEMSAs provided a response to the questions regarding PCRs *(see a, b below),* while 9 of the 29 LEMSAs provided responses to the general description of the data flow *(see c below).*

The data flow information requested in the Core Measures Instructional Manual is:

- Paper Patient Care Records (PCRs) –
    - *Number of providers using paper PCRs;*
    - *How the data from the paper PCRs are being entered into the system from those providers;*
- Electronic Paper Patient Care Records (ePCRs)
    - *Number of providers using electronic PFCRs;*
    - *How the data form the ePCRs are being entered into the system;*
- A general description of your data system to include:
    - *A general idea of the data flow from the providers to EMSA;*
    - *Who compiles the data for the Core Measures Reports (LEMSA staff, contractor, provider, etc.;*
    - *Who submits the Core Measures Reports to EMSA;*
    - *Who compiles the data for the Core Measures Reports (LEMSA staff, contractor, etc.); and*
    - *Any other information that would help us better understand the Core Measures data submitted*

## Software Vendors

Providers or LEMSAs are using at least thirteen (13) different Software Vendors for their patient care data:

- SIMON
- AMR MEDS
- Zoll
- ESO Solutions
- ImageTrend
- Lancet
- First Watch
- PhysioControl
- Local Fire Solution (2)
- Sansio
- ePCR
- DataPro

## Providers

Three hundred twelve (312) EMS provider agencies provided data for this report, but represent only about one third of the providers that work in these LEMSAs: 582 EMS providers that work within the responding LEMSAs, but did not provide data for this report. EMSA expects to have additional information provided in future years to gain a better understanding of the percentage of providers and patient runs statewide that are represented in the report.

The supplementary information provided by the LEMSAs indicates that only about one-half of the EMS Providers are submitting data to their LEMSA for inclusion in this report.

## Service Level: ALS, BLS, and Other

EMSA also requested information on the responding level of care, using categories ALS (Advanced Life Support), BLS (Basic Life Support), or Other (such as Air Ambulance). The LEMSAs provided these numbers to reflect activity from the providers who operate in their jurisdiction. The matrix on the next page displays this information more clearly.

## Summary of Providers operating in LEMSA vs. Providers represented in this Core Measure Report

| | ALS Providers in Region | ALS Providers in Report | Total BLS Providers in Region | BLS Providers in Report | Other Providers in Region | Other Providers in Report | Sum of Providers in Region | Sum of Providers in Report | Percent in Report |
|---|---|---|---|---|---|---|---|---|---|
| Central California | 18 | 17 | 0 | 0 | 0 | 0 | 18 | 17 | 94.4% |
| Contra Costa | 7 | 7 | 9 | 0 | 0 | 0 | 16 | 7 | 43.8% |
| ICEMA | 48 | 48 | 16 | 3 | 0 | 0 | 64 | 51 | 79.7% |
| Kern | 10 | 4 | 2 | 0 | 0 | 0 | 12 | 4 | 33.3% |
| LA | 48 | 38 | 68 | 41 | 13 | 0 | 129 | 79 | 61.2% |
| Marin | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 | 100.0% |
| Merced | 2 | 2 | 7 | 0 | 0 | 0 | 9 | 2 | 22.2% |
| Mountain Valley | 8 | 1 | 0 | 0 | 0 | 0 | 8 | 1 | 12.5% |
| Napa | 3 | 3 | 5 | 5 | 0 | 0 | 8 | 8 | 100.0% |
| Riverside | 11 | 4 | 11 | 0 | 0 | 0 | 22 | 4 | 18.2% |
| San Benito | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 100.0% |
| San Diego | 56 | 56 | 21 | 0 | 0 | 0 | 77 | 56 | 72.7% |
| San Francisco | 3 | 2 | 4 | 0 | 0 | 0 | 7 | 2 | 28.6% |
| San Luis Obispo | 8 | 2 | 10 | 0 | 2 | 2 | 20 | 4 | 20.0% |
| Santa Barbara | 4 | 4 | 7 | 7 | 0 | 0 | 11 | 11 | 100.0% |
| Santa Clara | 15 | 15 | 10 | 1 | 2 | 0 | 27 | 16 | 59.3% |
| Sierra-Sacramento | 34 | 26 | 87 | 2 | 0 | 0 | 121 | 28 | 23.1% |
| Tuolumne | 1 | 1 | 10 | 0 | 1 | 0 | 12 | 1 | 8.3% |
| Ventura | 7 | 7 | 5 | 5 | 0 | 0 | 12 | 12 | 100.0% |
| Yolo | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 100.0% |
| **TOTAL** | **291** | **245** | **272** | **64** | **19** | **3** | **582** | **312** | **53.6%** |

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ALS Services have a much higher representation rate than BLS or “Other” services in this report. This may be due to a number of reasons such as:

- ALS services having a greater ability to report than BLS services; or
- LEMSAs with less than 50% of providers reporting are primarily rural regions.

### Collection and Submission of Data

Data aggregation, running the core measure reports, and submitting the data are done most often by staff within the LEMSA, but in some cases, is managed by the provider. The following (10) LEMSAs indicated that LEMSA Staff (or contractor) handled the aggregation and submission of their core measures information:

- Alameda
- North Coast
- Contra Costa
- Marin
- Merced
- Nor-Cal
- San Luis Obispo
- San Joaquin
- Orange
- Mountain Valley

The following (3) LEMSAs indicated that their provider handled the aggregation and submission of their core measures information:

- Coastal Valley
- San Benito
- Santa Cruz

# Tables, Charts and Graphs Generated from LEMSA Reporting of Core Measures

## LEMSAs Reporting Data for Any Core Measures (Table 1)

Table 1 shows which LEMSAs submitted any core measures for data years 2009-2015. If a LEMSA was able to submit a value for any of the 17 clinical measures or the 3 (three) Response and Transport measures found in *California EMS System Core Quality Measures, EMSA 166, Appendix E*, the cell associated with that data year will be marked with an "X" and colored green. For LEMSAs that did not submit any core measure information to EMSA, their cell for that corresponding year appears white. 29/33 LEMSAs reported at least one measure. Four LEMSAs did not submit 2015 data for this report.

## Clinical Measures Response Count, Denominator Total, Submission Rate, Average, and Median as Reported by LEMSA (Table 2):

This table includes 2012, 2013, 2014 and 2015 information and displays the number of LEMSAs who reported a value for the specific clinical measure, the denominator total (number of patient records) for each response, submission rate, average reported value, and median value for all responses.

## Frequency Histogram of LEMSA Number of Responses to Clinical Measures (n=17) for 2012-2014 (Figure 1) and LEMSA Response Count to 17 Clinical Measure for 2015 Data (Figure 2)

The histogram shows the LEMSAs' ability to report the 17 clinical measures. It shows the number of LEMSAs able to respond to the clinical measures grouped ranges as follows: 17-15, 14-12, 11-9, 8-6, 5-3, 2-0. Each of the 33 LEMSAs is tallied in one of these groups based on how many clinical measures they were able to report. Chart 2 illustrates the number of clinical measures each of the LEMSAs was able to report and is organized alphabetically.

Of interest is how many clinical measures could be evaluated by the LEMSAs. Out of the seventeen clinical measures, 29 of 33 LEMSAs (93%) were able to report at least nine, based on their 2015 data.

The inability to report these measures is not indicative of a LEMSAs commitment to data collection or quality improvement. Rather, it is an indicator of the ability of the LEMSA data system to report retrospective clinical data, with the limitations previously mentioned.

**Table 3** list measures reported by at least 75% of LEMSAs and measures with the lowest response rate. The latter is primarily a reflection of the difficulty in obtaining hospital outcome data.

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## Table 1. LEMSAs Reporting Data for Any Core Measure

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Alameda County EMS | | X | X | X | X | X | X |
| Central California EMS | X | X | X | X | X | X | X |
| Coastal Valleys EMS | | | | X | X | X | X |
| Contra Costa County EMS | | X | X | X | X | X | X |
| El Dorado County EMS | | | | X | X | X | |
| Imperial County EMS | | | | | | | |
| Inland Counties EMS | X | X | X | X | X | X | X |
| Kern County EMS | | X | X | | X | X | X |
| Los Angeles County EMS | X | X | X | X | X | X | X |
| Marin County EMS | | X | X | | X | X | X |
| Merced County EMS | X | X | X | X | X | X | X |
| Monterey County EMS | | X | X | X | X | X | X |
| Mountain Valley EMS | | X | X | X | X | X | X |
| Napa County EMS | | | | | X | X | X |
| North Coast EMS | | X | X | X | X | X | X |
| Northern California EMS | X | X | X | X | X | X | X |
| Orange County EMS | | | | | X | X | X |
| Riverside County EMS | | X | X | X | X | X | X |
| Sacramento County EMS | | X | X | X | X | X | |
| San Benito County EMS | | | | | X | X | X |
| San Diego County EMS | | X | X | X | X | X | X |
| San Francisco EMS | X | X | X | X | X | X | X |
| San Joaquin County EMS | | | | X | X | X | X |
| San Luis Obispo County EMS | | X | X | | X | X | X |
| San Mateo County EMS | | X | X | X | X | X | X |
| Santa Barbara County EMS | X | X | X | | X | X | X |
| Santa Clara County EMS | X | X | X | X | X | X | X |
| Santa Cruz County EMS | X | X | X | | X | X | X |
| Sierra-Sacramento Valley EMS | X | X | X | X | X | X | X |
| Solano County EMS | | | | X | X | X | |
| Tuolumne County EMS | | X | X | X | X | X | X |
| Ventura County EMS | | X | X | X | X | X | X |
| Yolo County EMS | | | | | X | X | X |
| **Total number of LEMSAs reporting (including Response and Transport Measures)** | **10** | **24** | **24** | **23** | **32** | **32** | **29** |

Reported At Least 1 Measure

No Measures Submitted

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## Table 2. Clinical Measures Response Count*, Denominator Total, Submission Rate, Average Measure Value, and Median Measures Value as Reported by LEMSA

### 2012

| Measure ID | TRA-1 | TRA-2 | ACS-1 | ACS-2 | ACS-3 | ACS-5 | CAR-2 | CAR-3 | CAR-4 | STR-2 | STR-3 | STR-5 | RES-2 | PED-1 | PAI-1 | SKL-1 | SKL-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Response Count | 17 | 17 | 22 | 22 | 20 | 21 | 21 | 11 | 10 | 22 | 20 | 16 | 21 | 20 | 16 | 21 | 20 |
| Denominator Total | 14918 | 12185 | 90238 | 75642 | 11523 | 11598 | 10023 | 7991 | 7446 | 33872 | 34197 | 20822 | 52807 | 2829 | 135417 | 9130 | 6100 |
| Submission Rate (n=32) | 51.52% | 51.52% | 66.67% | 66.67% | 60.61% | 63.64% | 63.64% | 33.33% | 30.30% | 66.67% | 60.61% | 48.48% | 63.64% | 60.61% | 48.48% | 63.64% | 60.61% |
| Average | 0:22:40 | 68.91% | 60.36% | 71.21% | 0:23:00 | 79.56% | 23.56% | 24.01% | 10.87% | 66.02% | 0:21:49 | 55.39% | 56.28% | 60.98% | 53.44% | 79.23% | 72.51% |
| Median | 0:21:48 | 70.30% | 57.23% | 78.80% | 0:23:36 | 92.00% | 25.00% | 24.00% | 10.62% | 76.12% | 0:22:24 | 72.67% | 64.00% | 68.80% | 36.70% | 80.45% | 85.32% |

**25 Total Submissions considered in this table**

### 2013

| Measure ID | TRA-1 | TRA-2 | ACS-1 | ACS-2 | ACS-3 | ACS-5 | CAR-2 | CAR-3 | CAR-4 | STR-2 | STR-3 | STR-5 | RES-2 | PED-1 | PAI-1 | SKL-1 | SKL-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Response Count | 23 | 25 | 27 | 28 | 28 | 27 | 27 | 12 | 11 | 27 | 26 | 20 | 27 | 27 | 19 | 25 | 22 |
| Denominator Total | 16382 | 9481 | 108544 | 118811 | 13587 | 11316 | 16825 | 14242 | 14026 | 34364 | 31196 | 23389 | 62830 | 5254 | 131130 | 11930 | 10032 |
| Submission Rate (n=33) | 69.70% | 75.76% | 81.82% | 84.85% | 84.85% | 81.82% | 81.82% | 36.36% | 33.33% | 81.82% | 78.79% | 60.61% | 81.82% | 81.82% | 57.58% | 75.76% | 66.67% |
| Average | 0:22:20 | 70.01% | 65.51% | 75.90% | 0:22:36 | 75.56% | 28.90% | 28.82% | 10.82% | 81.88% | 0:21:03 | 69.80% | 58.48% | 56.96% | 45.18% | 74.61% | 71.34% |
| Median | 0:22:00 | 82.00% | 67.34% | 80.80% | 0:22:44 | 91.53% | 25.25% | 30.12% | 11.53% | 87.00% | 0:20:10 | 86.00% | 61.59% | 64.18% | 33.23% | 75.57% | 78.86% |

**31 Total Submissions considered in this table**

### 2014

| Measure ID | TRA-1 | TRA-2 | ACS-1 | ACS-2 | ACS-3 | ACS-5 | CAR-2 | CAR-3 | CAR-4 | STR-2 | STR-3 | STR-5 | RES-2 | PED-1 | PAI-1 | SKL-1 | SKL-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Response Count | 28 | 27 | 31 | 31 | 29 | 28 | 30 | 12 | 12 | 31 | 30 | 21 | 29 | 29 | 22 | 30 | 29 |
| Denominator Total | 59496 | 108682 | 111161 | 109520 | 9396 | 7826 | 16759 | 8773 | 9637 | 32810 | 31483 | 25478 | 79440 | 5453 | 117381 | 9898 | 7605 |
| Submission Rate (n=33) | 84.85% | 81.82% | 93.94% | 93.94% | 87.88% | 84.85% | 90.91% | 36.36% | 36.36% | 93.94% | 90.91% | 63.64% | 87.88% | 87.88% | 66.67% | 90.91% | 87.88% |
| Average | 0:24:21 | 61.90% | 66.55% | 81.48% | 0:21:22 | 87.82% | 27.68% | 27.00% | 9.26% | 80.09% | 0:21:20 | 74.55% | 60.47% | 54.34% | 41.65% | 71.68% | 74.60% |
| Median | 0:24:30 | 81.02% | 63.00% | 87.86% | 0:21:37 | 96.86% | 24.54% | 23.50% | 8.51% | 89.80% | 0:20:43 | 93.00% | 67.69% | 60.62% | 39.00% | 72.87% | 91.00% |

**31 Total Submissions considered in this table**

### 2015

| Measure ID | TRA-1 | TRA-2 | ACS-1 | ACS-2 | ACS-3 | ACS-5 | CAR-2 | CAR-3 | CAR-4 | STR-2 | STR-3 | STR-5 | RES-2 | PED-1 | PAI-1 | SKL-1 | SKL-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Response Count | 27 | 26 | 29 | 29 | 27 | 28 | 29 | 11 | 11 | 29 | 26 | 22 | 27 | 27 | 25 | 28 | 28 |
| Denominator Total | 14036 | 19456 | 98274 | 101450 | 18553 | 13703 | 16577 | 7750 | 6828 | 30254 | 25155 | 26212 | 116267 | 8614 | 251438 | 9629 | 7170 |
| Submission Rate (n=33) | 81.82% | 78.79% | 84.85% | 84.85% | 81.82% | 81.82% | 84.85% | 33.33% | 33.33% | 84.85% | 75.76% | 63.64% | 81.82% | 81.82% | 75.76% | 81.82% | 81.82% |
| Average | 0:23:49 | 70.04% | 66.28% | 80.97% | 0:22:27 | 81.83% | 26.08% | 25.65% | 12.38% | 84.91% | 0:20:24 | 69.48% | 45.88% | 43.51% | 39.51% | 72.73% | 75.79% |
| Median | 0:23:44 | 83.37% | 66.00% | 85.81% | 0:23:07 | 95.85% | 24.06% | 18.31% | 10.50% | 92.90% | 0:20:29 | 89.00% | 37.21% | 29.00% | 32.40% | 73.37% | 88.25% |

**29 Total Submissions considered in this table**

*Response Count is defined as the number of LEMSAs who submitted a reported value for the specific measure

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**Fifteen of the seventeen measures had a 75% response rate or greater. (Table 3)**

The following measures were reported by at least 25 of 33 LEMSAs (75%):

1. TRA-1 Scene time for trauma patients
2. TRA-2 Direct transport to designated trauma center for trauma patients meeting criteria
3. ACS-1 Aspirin administration for chest pain/discomfort rate
4. ACS-2 12 lead ECG performance
5. ACS-3 Scene time for suspected heart attack patients
6. ACS-5 Direct transport to designated STEMI receiving center for suspected patients meeting criteria
7. CAR-2 Out-of-hospital cardiac arrests return of spontaneous circulation
8. STR-2 Glucose testing for suspected acute stroke patients
9. STR-3 Scene time for suspected acute stroke patients
10. STR-5 Direct transport to stroke center for suspected acute stroke patients meeting criteria
11. RES-2 Beta2 agonist administration for adult patients
12. PED-1 Pediatric patients with wheezing receiving bronchodilators
13. PAI-1 Pain intervention
14. SKL-1 Endotracheal intubation success rate
15. SKL-2 End-tidal CO2 performed on any successful endotracheal intubation

**Measures with the lowest response rate include:**

1. CAR-3 Out of hospital Cardiac Arrest Survival to Emergency Department Discharge
2. CAR-4 Out of hospital Cardiac Arrest Survival to Hospital Discharge

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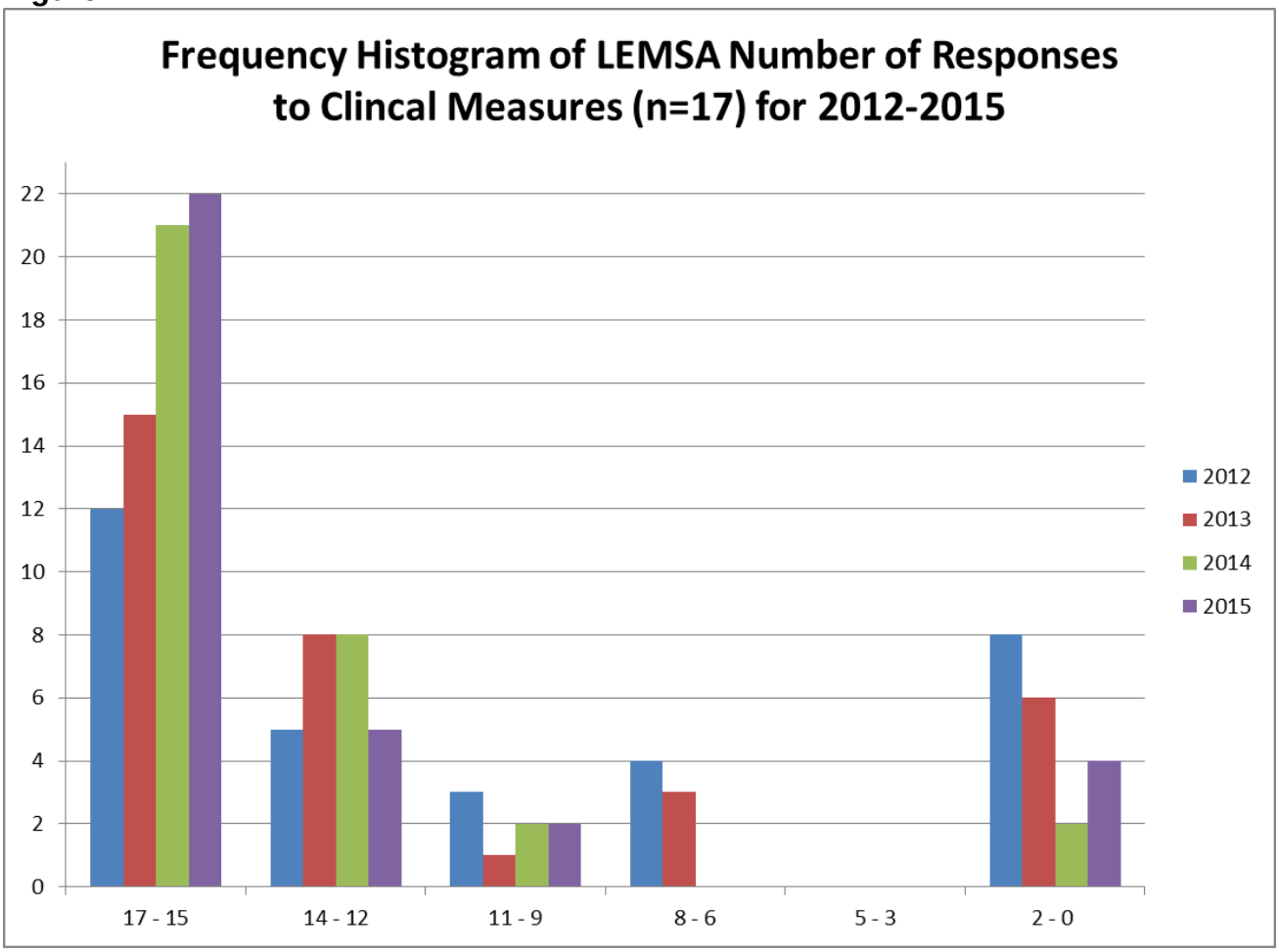
**Figure 1**




| Number of Measures | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| 17 - 15 | 12 | 15 | 21 | 22 |
| 14 - 12 | 5 | 8 | 8 | 5 |
| 11 - 9 | 3 | 1 | 2 | 2 |
| 8 - 6 | 4 | 3 | 0 | 0 |
| 5 - 3 | 0 | 0 | 0 | 0 |
| 2 - 0 | 8 | 6 | 2 | 4 |

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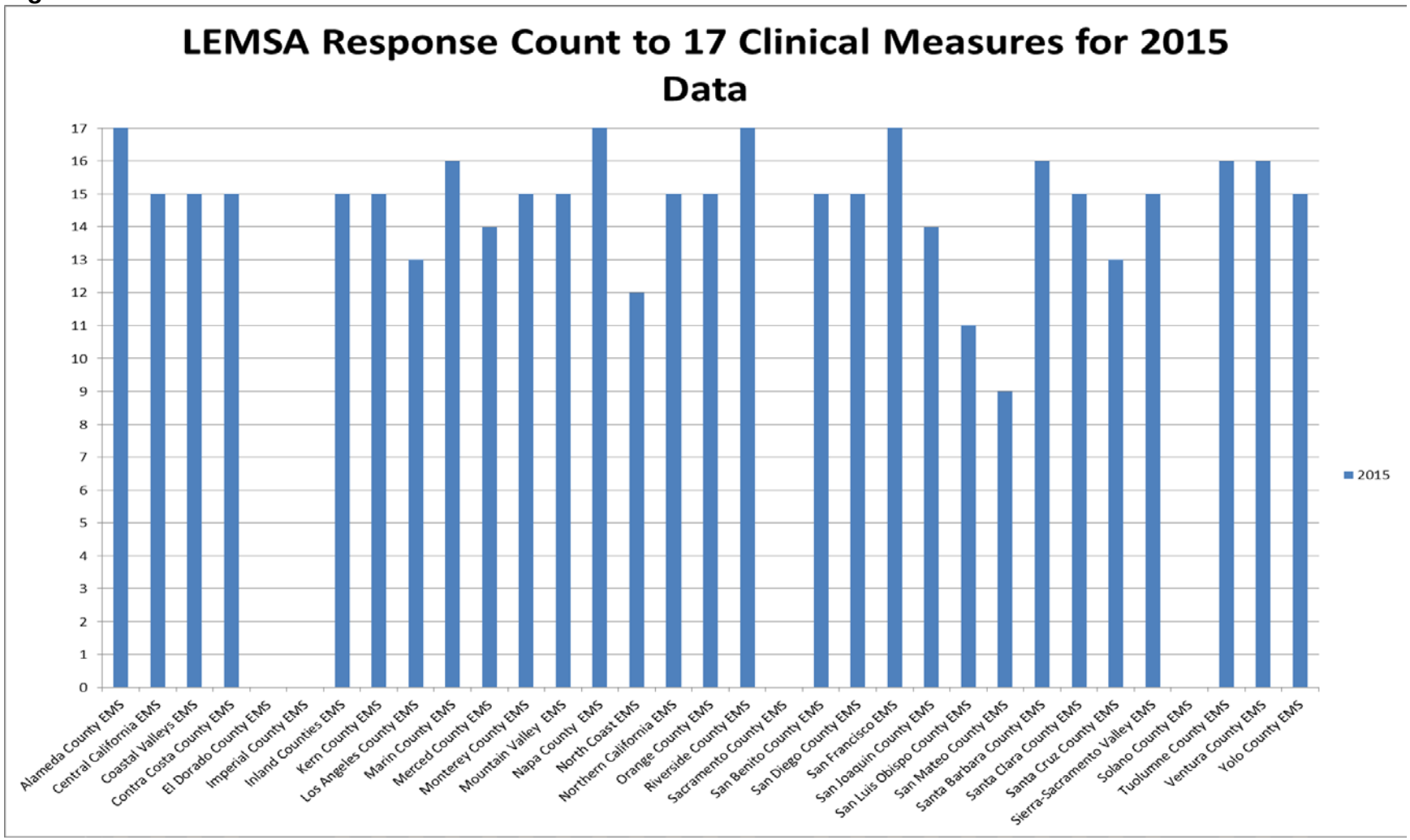
**Figure 2**




**Note**: This chart only displays the number of clinical measures each LEMSA was able to report and does not include the three (3) response and transport measures

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## Clinical Measure Results

This report includes the LEMSA's responses to the clinical measures as they were reported to EMSA. Each measure includes a graph (based on the reported value provided by each LEMSA and the median value for all submissions ("Part 1 of 2"). On the following page ("Part 2 of 2") the report features a table of the reported values for the clinical measure as well as the denominator population considered for this measure. The table is populated directly from the values provided to EMSA by the LEMSAs. If a LEMSA was unable to report a measurement or denominator value, the cell in that row will be contain no value and is shaded grey. In addition, "Part 2" features the LEMSA response count, Denominator Total, Submission Rate, Average Reported Value, and Median Value for all responses. The median values for the prior year's reporting are found in the top right corner of the page, and a yellow box features some commentary on the measure and responses.

The results of three non-clinical measures were omitted from this report due to difficulty in displaying the information by ambulance zone. (There are 336 ambulance zones in California.)

1. RST-1 Ambulance response time by ambulance zone (emergency)
2. RST-2 Ambulance response time by ambulance zone (non-emergency)
3. RST-3 Transport of patients to hospital

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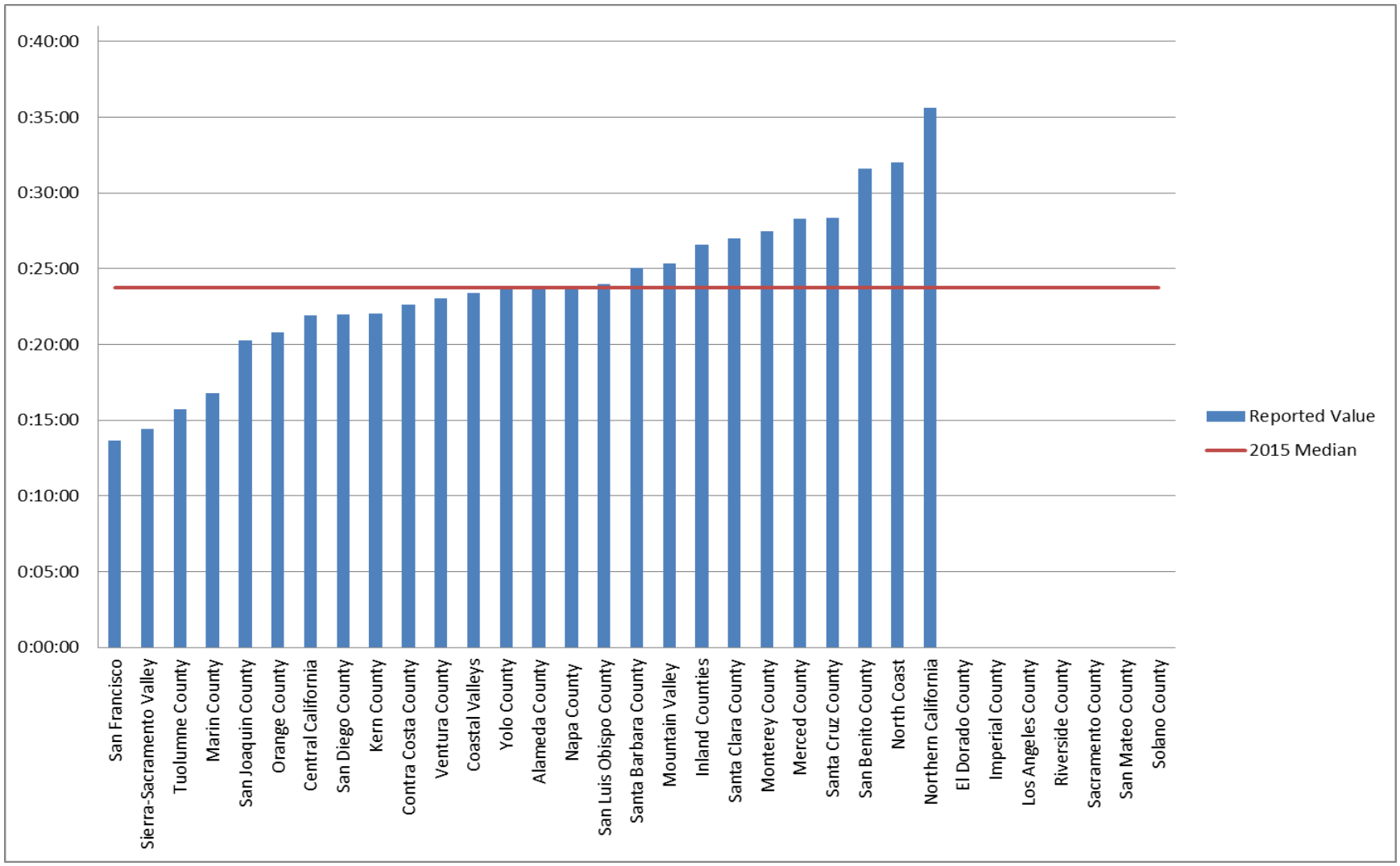
# TRA-1: Scene Time for Trauma Patients – Part 1 of 2




Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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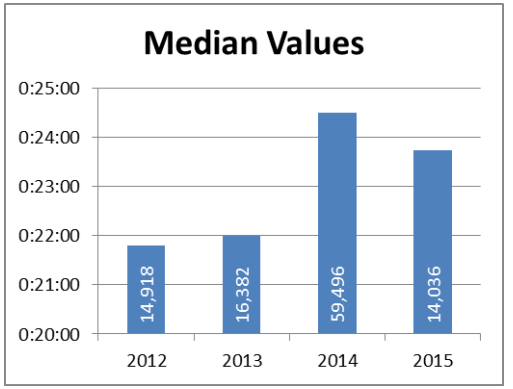
# TRA-1: Scene Time for Trauma Patients – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| San Francisco | 0:13:39 | 483 |
| Sierra-Sacramento Valley | 0:14:25 | 406 |
| Tuolumne County | 0:15:42 | 11 |
| Marin County | 0:16:46 | 29 |
| San Joaquin County | 0:20:16 | 649 |
| Orange County | 0:20:48 | 205 |
| Central California | 0:21:55 | 1281 |
| San Diego County | 0:22:00 | 4336 |
| Kern County | 0:22:02 | 244 |
| Contra Costa County | 0:22:39 | 112 |
| Ventura County | 0:23:02 | 284 |
| Coastal Valleys | 0:23:24 | 306 |
| Yolo County | 0:23:36 | 176 |
| Alameda County | 0:23:52 | 201 |
| Napa County | 0:23:52 | 137 |
| San Luis Obispo County | 0:24:00 | 73 |
| Santa Barbara County | 0:25:01 | 511 |
| Mountain Valley | 0:25:19 | 467 |
| Inland Counties | 0:26:36 | 1109 |
| Santa Clara County | 0:26:59 | 772 |
| Monterey County | 0:27:28 | 490 |
| Merced County | 0:28:17 | 340 |
| Santa Cruz County | 0:28:20 | 843 |
| San Benito County | 0:31:36 | 58 |
| North Coast | 0:32:00 | 435 |
| Northern California | 0:35:36 | 78 |
| El Dorado County | | |
| Imperial County | | |
| Los Angeles County | | |
| Riverside County | | |
| Sacramento County | | |
| San Mateo County | | |
| Solano County | | |

| Measure ID | TRA-1 |
|---|---|
| Response Count | 27 |
| Denominator Total | 14036 |
| Submission Rate (n=33) | 81.82% |
| Average | 0:23:49 |
| Median | 0:23:44 |




Of the 27 LEMSAs reporting these data for 2015, the median scene time was 23 minutes, 44 seconds. This is a decrease of one and one half minutes, from 2014 data, which is not of practical significance. 2015 data is the second year where the data were analyzed based on a revised trauma score that shifted from the more seriously injured to include all trauma patients meeting the CDC Trauma Triage Criteria.
The common expectation is for short scene times, targeted at 15 minutes, with rapid transport to remain within a "golden hour" for care in a hospital with surgical capability. Reported scene times may be influenced by extrication. Moreover, the Golden Hour concept and trauma response time have both been challenged in the literature.

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015. Riverside EMS Agency submitted data but these are not represented on this associated chart or table because they were unable to aggregate information between 3 providers.

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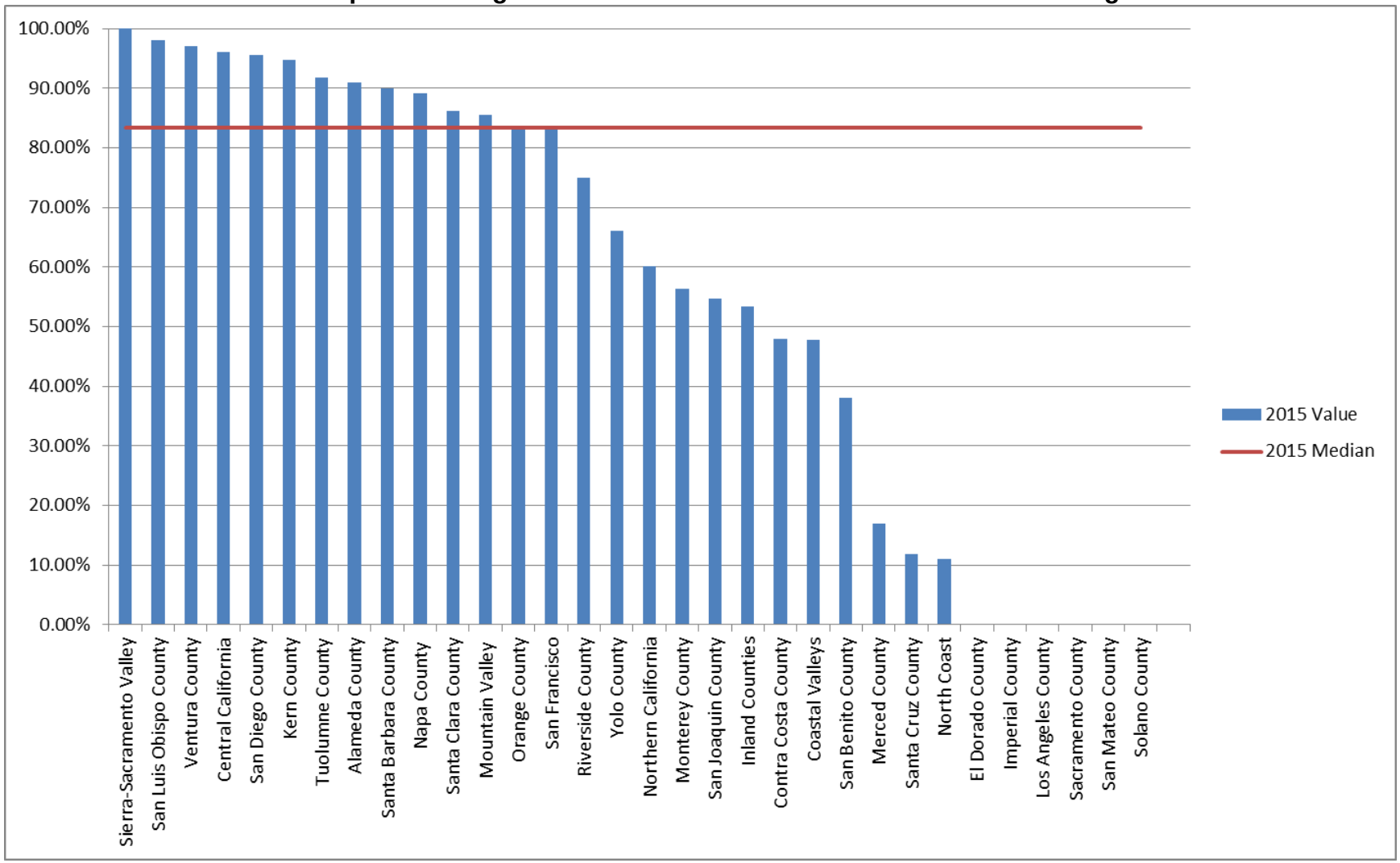
# TRA-2: Direct Transport to Designated Trauma Center for Trauma Patients Meeting Criteria – Part 1 of 2




Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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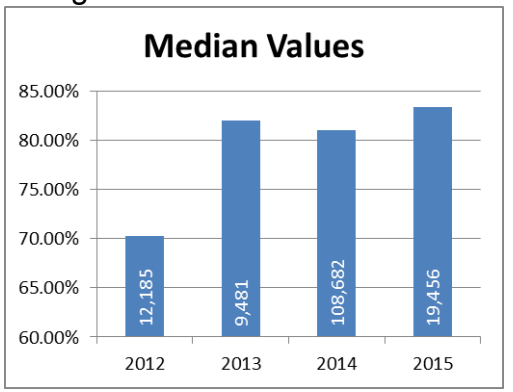
# TRA-2: Direct Transport to Designated Trauma Center for Trauma Patients Meeting Criteria – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Marin County | 100.00% | 29 |
| Sierra-Sacramento Valley | 98.03% | 406 |
| San Luis Obispo County | 97.00% | 73 |
| Ventura County | 96.00% | 284 |
| Central California | 95.63% | 1281 |
| San Diego County | 94.69% | 8225 |
| Kern County | 91.80% | 244 |
| Tuolumne County | 91.00% | 11 |
| Alameda County | 90.00% | 201 |
| Santa Barbara County | 89.20% | 511 |
| Napa County | 86.16% | 137 |
| Santa Clara County | 85.49% | 772 |
| Mountain Valley | 83.73% | 467 |
| Orange County | 83.00% | 205 |
| San Francisco | 75.00% | 483 |
| Riverside County | 66.12% | 1966 |
| Yolo County | 60.20% | 176 |
| Northern California | 56.41% | 78 |
| Monterey County | 54.69% | 490 |
| San Joaquin County | 53.31% | 649 |
| Inland Counties | 48.00% | 1109 |
| Contra Costa County | 47.80% | 112 |
| Coastal Valleys | 38.00% | 306 |
| San Benito County | 17.00% | 58 |
| Merced County | 11.76% | 340 |
| Santa Cruz County | 11.00% | 843 |
| North Coast | | |
| El Dorado County | | |
| Imperial County | | |
| Los Angeles County | | |
| Sacramento County | | |
| San Mateo County | | |
| Solano County | | |

| Measure ID | TRA-2 |
|---|---|
| Response Count | 26 |
| Denominator Total | 19456 |
| Submission Rate (n=33) | 78.79% |
| Average | 70.04% |
| Median | 83.37% |




Of the 26 LEMSAs reporting these data for 2015, the median of patients transported directly to a trauma center was 83%. These results have been very stable for the past 3 years. Adjustments were made to the Trauma measures to analyze a larger population of trauma patients in calendar year 2014 and 2015. Changes to the measures from the prior years include the removal of the revised trauma score to shift from examining severely injured trauma patients to all trauma patients meeting the Center for Disease Control Trauma Triage Criteria.

Direct transport to a designated trauma center has been shown to improve outcomes in seriously injured patients. Low values would be expected in some rural areas with prolonged transport times to a trauma center. The measure does not distinguish among level of trauma center. LEMSAs with low values despite accessible trauma centers available should consider auditing transport destinations.

This measure experienced a spike in the denominator value reported as a result of a change in the methodology for this indicator.

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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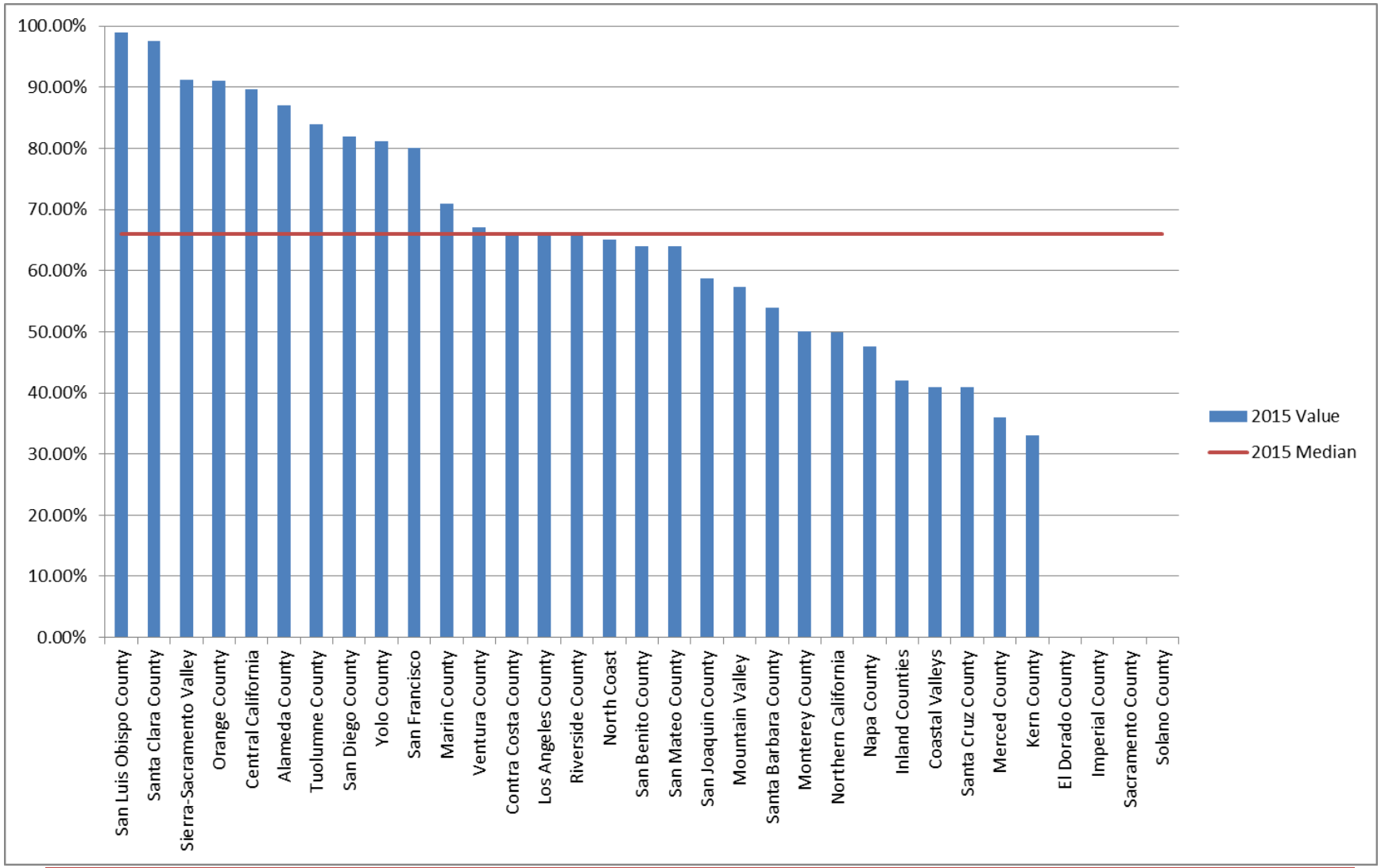
# ACS-1: Aspirin Administration for Chest Pain/Discomfort Rate – Part 1 of 2




Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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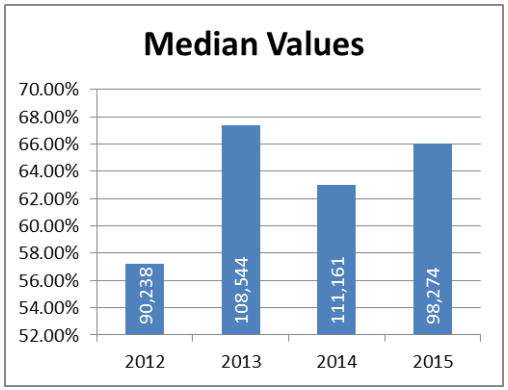
# ACS-1: Aspirin Administration for Chest Pain/Discomfort Rate – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| San Luis Obispo County | 99.00% | 559 |
| Santa Clara County | 97.47% | 2372 |
| Sierra-Sacramento Valley | 91.16% | 4129 |
| Orange County | 91.00% | 883 |
| Central California | 89.61% | 5131 |
| Alameda County | 87.00% | 3929 |
| Tuolumne County | 84.00% | 286 |
| San Diego County | 81.85% | 11156 |
| Yolo County | 81.10% | 679 |
| San Francisco | 80.00% | 1588 |
| Marin County | 71.00% | 601 |
| Ventura County | 67.00% | 2157 |
| Contra Costa County | 66.27% | 3463 |
| Los Angeles County | 66.00% | 18309 |
| Riverside County | 66.00% | 9073 |
| North Coast | 65.00% | 1116 |
| San Benito County | 64.00% | 88 |
| San Mateo County | 64.00% | 1393 |
| San Joaquin County | 58.72% | 2505 |
| Mountain Valley | 57.40% | 1993 |
| Santa Barbara County | 54.00% | 1166 |
| Monterey County | 50.00% | 964 |
| Northern California | 49.89% | 437 |
| Napa County | 47.53% | 751 |
| Inland Counties | 42.00% | 13143 |
| Coastal Valleys | 41.00% | 1564 |
| Santa Cruz County | 41.00% | 863 |
| Merced County | 36.00% | 2467 |
| Kern County | 33.00% | 5509 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| Solano County | | |

| Measure ID | ACS-1 |
|---|---|
| Response Count | 29 |
| Denominator Total | 98274 |
| Submission Rate (n=33) | 84.85% |
| Average | 66.28% |
| Median | 66.00% |




Of the 29 LEMSAs reporting these data for 2015, the median percentage of patients receiving aspirin in the field for complaints of chest pain or discomfort suggestive of cardiac origin was 66.28%, and the median value increased from 63% to 66%. The measured value has remained relatively stable (63-67%) for the past 3 years.

Factors for a low reported value include lack of documentation, or aspirin administered by the patient/family or first responder paramedics but not reflected in the patient care record by the ambulance transport service. Variation is also introduced by which chest pain patients are identified in the data search.

Aspirin administration is the standard of care for chest pain or chest discomfort of cardiac origin. All 29 reporting LEMSAs have aspirin administration in their protocol for management of suspected ACS patients.[1]

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

[1] Chest Pain of Suspected Cardiac Origin: Current Evidence-based Recommendations for Prehospital Care.
Savino PB, Sporer KA, Barger JA, Brown JF, Gilbert GH, Koenig KL, Rudnick EM, Salvucci AA. West J Emerg Med. 2015 Dec;16(7):983-95

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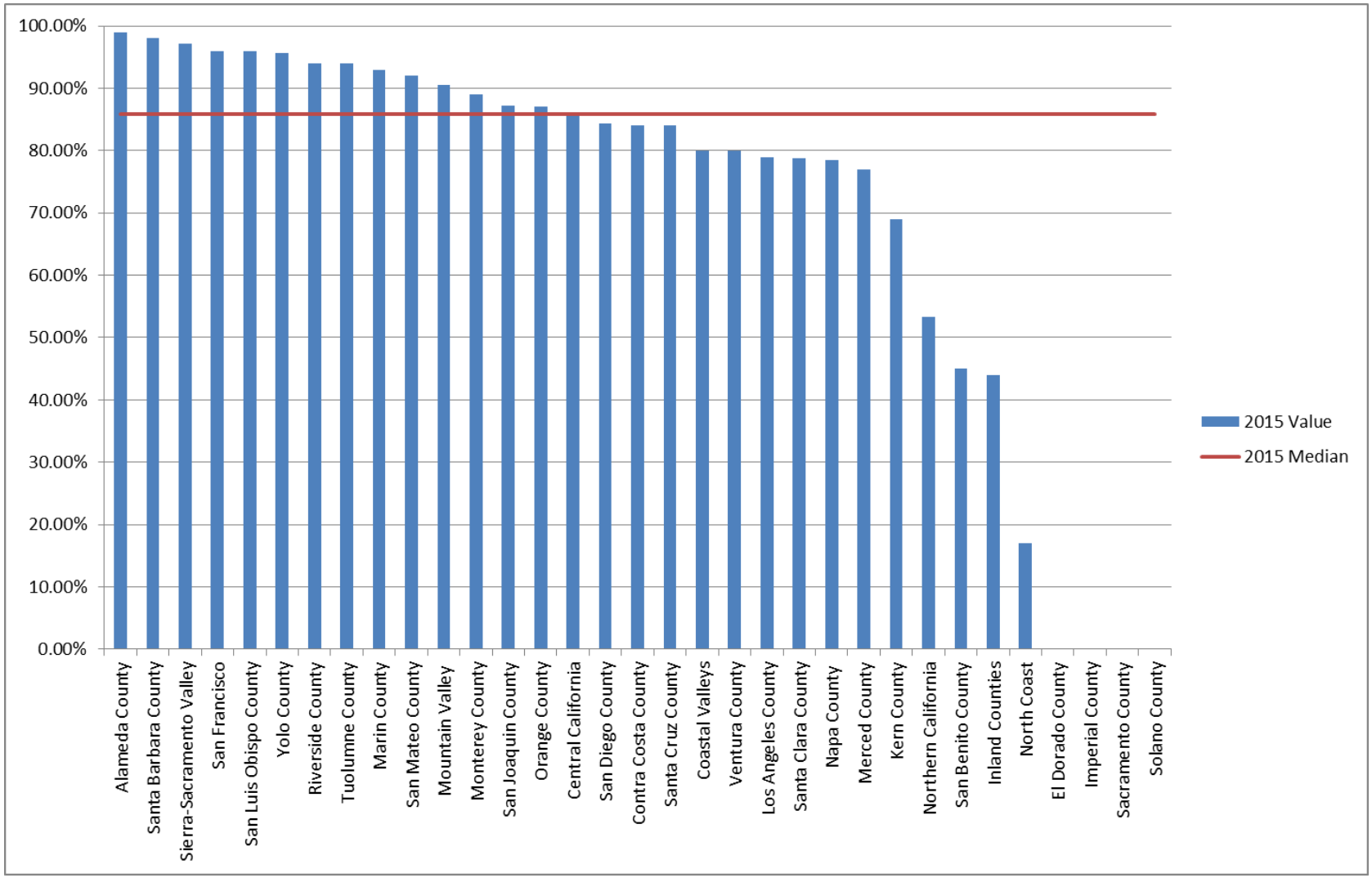
# ACS-2: 12 Lead ECG for Chest Pain Obtained in the Field – Part 1 of 2




Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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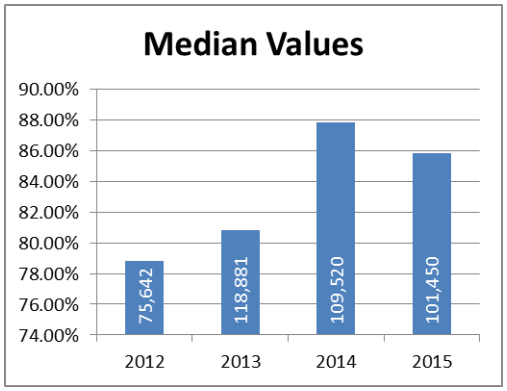
# ACS-2: 12 Lead ECG Performance – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Alameda County | 99.00% | 3895 |
| Santa Barbara County | 98.00% | 88 |
| Sierra-Sacramento Valley | 97.17% | 4129 |
| San Francisco | 96.00% | 1588 |
| San Luis Obispo County | 96.00% | 559 |
| Yolo County | 95.60% | 679 |
| Riverside County | 94.00% | 9073 |
| Tuolumne County | 94.00% | 286 |
| Marin County | 93.00% | 601 |
| San Mateo County | 92.00% | 1393 |
| Mountain Valley | 90.47% | 1993 |
| Monterey County | 89.00% | 964 |
| San Joaquin County | 87.23% | 2505 |
| Orange County | 87.00% | 1868 |
| Central California | 85.81% | 5131 |
| San Diego County | 84.39% | 11156 |
| Contra Costa County | 84.08% | 3859 |
| Santa Cruz County | 84.00% | 863 |
| Coastal Valleys | 80.00% | 1564 |
| Ventura County | 80.00% | 2157 |
| Los Angeles County | 79.00% | 18308 |
| Santa Clara County | 78.71% | 5280 |
| Napa County | 78.42% | 751 |
| Merced County | 77.00% | 2467 |
| Kern County | 69.00% | 5509 |
| Northern California | 53.32% | 437 |
| San Benito County | 45.00% | 88 |
| Inland Counties | 44.00% | 13143 |
| North Coast | 17.00% | 1116 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| Solano County | | |

| Measure ID | ACS-2 |
|---|---|
| Response Count | 29 |
| Denominator Total | 101450 |
| Submission Rate (n=33) | 84.85% |
| Average | 80.97% |
| Median | 85.81% |




Of the 29 LEMSAs reporting these data for 2015, the median number of patients receiving 12-Lead ECG in the field for complaints of chest pain or discomfort suggestive of cardiac origin was 85.81%. The median decreased 2% from last year for this report.

Low values in this report more likely represent data and methodological issues rather than actual performance. This measure is of particular importance with the widespread development of STEMI centers. LEMSAs with a STEMI system in place are more likely to use 12 lead for identifying STEMI patients, a nationally recommended procedure by the American Heart Association. The draft STEMI regulations define "STEMI Patient" as one with characteristic symptoms of myocardial ischemia in association with persistent ST-Segment Elevation in ECG and that "The STEMI system policies shall address … identification of STEMI patients through the use of pre-hospital 12-lead ECG…" The American Heart Association has stated that the national goal is for an "in the field ECG." Thirty-two of 33 LEMSAs (all except San Benito EMS Agency) currently include field ECG in their management protocol.[1]

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

[1] Chest Pain of Suspected Cardiac Origin: Current Evidence-based Recommendations for Prehospital Care.
Savino PB, Sporer KA, Barger JA, Brown JF, Gilbert GH, Koenig KL, Rudnick EM, Salvucci AA. West J Emerg Med. 2015 Dec;16(7):983-95

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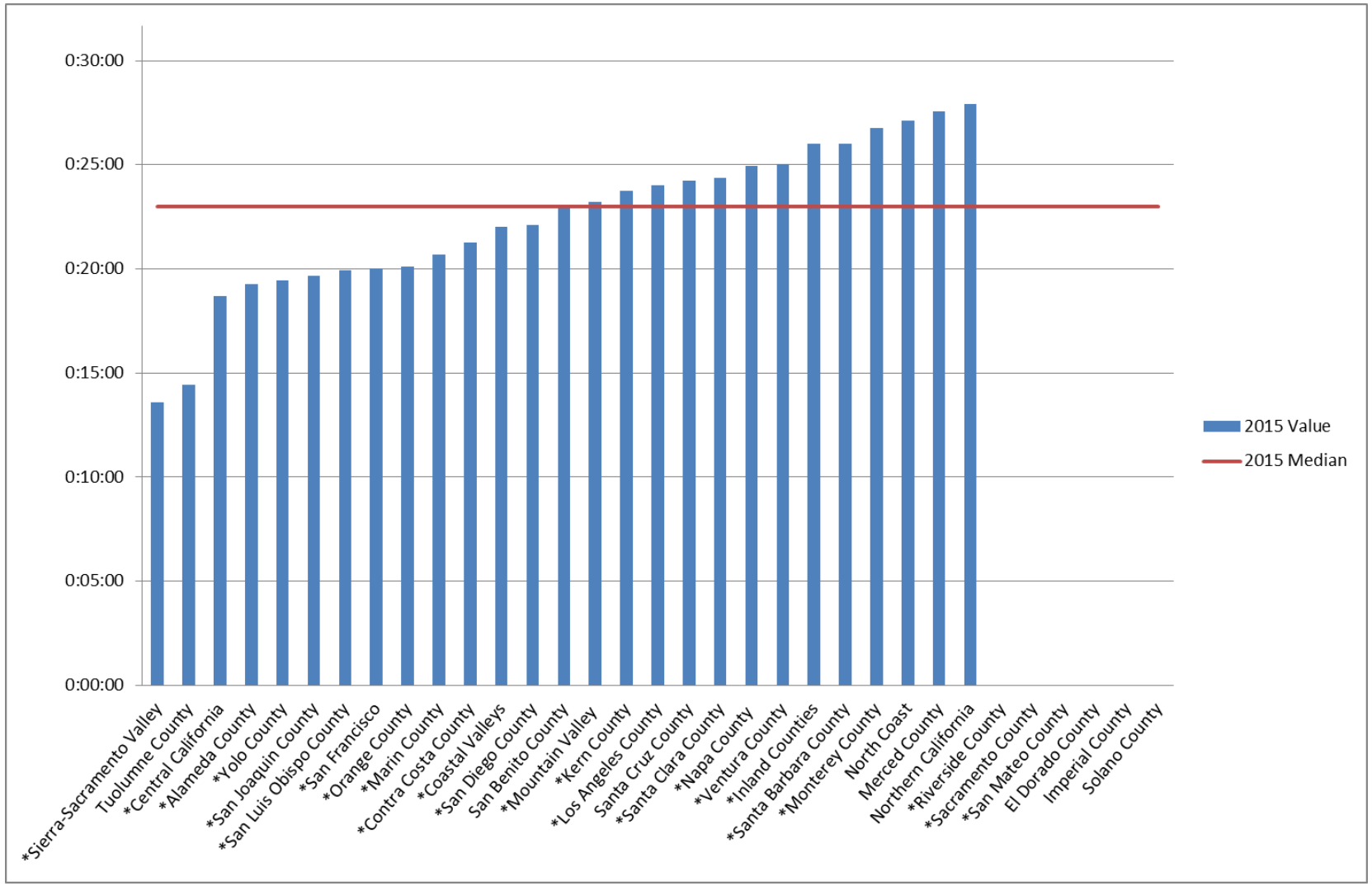
# ACS-3: Scene Time for Suspected Heart Attack Patients – Part 1 of 2




An (*) denotes the 24 LEMSAs with a STEMI Receiving Center

Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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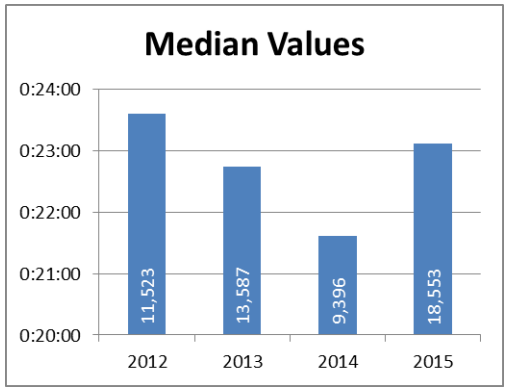
# ACS-3: Scene Time for Suspected Heart Attack Patients – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| *Sierra-Sacramento Valley | 0:13:35 | 304 |
| Tuolumne County | 0:14:25 | 20 |
| *Central California | 0:18:42 | 170 |
| *Alameda County | 0:19:15 | 568 |
| *Yolo County | 0:19:27 | 679 |
| *San Joaquin County | 0:19:40 | 353 |
| *San Luis Obispo County | 0:19:55 | 89 |
| *San Francisco | 0:20:00 | 661 |
| *Orange County | 0:20:06 | 112 |
| *Marin County | 0:20:40 | 73 |
| *Contra Costa County | 0:21:16 | 3859 |
| *Coastal Valleys | 0:22:00 | 107 |
| *San Diego County | 0:22:06 | 4140 |
| San Benito County | 0:23:00 | 88 |
| *Mountain Valley | 0:23:14 | 1838 |
| *Kern County | 0:23:44 | 46 |
| *Los Angeles County | 0:24:00 | 1102 |
| Santa Cruz County | 0:24:15 | 45 |
| *Santa Clara County | 0:24:21 | 431 |
| *Napa County | 0:24:57 | 63 |
| *Ventura County | 0:25:03 | 206 |
| *Inland Counties | 0:26:00 | 710 |
| *Santa Barbara County | 0:26:01 | 88 |
| *Monterey County | 0:26:46 | 226 |
| North Coast | 0:27:06 | 90 |
| Merced County | 0:27:34 | 2467 |
| Northern California | 0:27:54 | 18 |
| *Riverside County | | |
| *Sacramento County | | |
| *San Mateo County | | |
| El Dorado County | | |
| Imperial County | | |
| Solano County | | |

| Measure ID | ACS-3 |
|---|---|
| Response Count | 27 |
| Denominator Total | 18553 |
| Submission Rate (n=33) | 81.82% |
| Average | 0:22:27 |
| Median | 0:23:07 |




Of the 27 LEMSAs reporting these data for 2015, the median scene time by ground ambulance for suspected heart attack patients with ST elevation on ECG was approximately 23 minutes and increased about 90 seconds from the prior year of reporting. It is not clear if the decrease was due to reporting by some different LEMSAs, since over the prior 3 years, there had been a progressive decrease in the mean.

Typically LEMSA protocols encourage paramedics to transport STEMI patients from the scene in 15 minutes or less, since there is a time dependent goal to administer thrombolytics and/or take the patient to the hospital catheterization suite to open blocked vessels. Further examination of this measure is warranted, including methodology, documentation, and validation.

According to the American Heart Association, the national goal is for a scene time of 15 minutes, although given the evaluation and interventions needed for these patients, 15 minutes may be unrealistic.
http://www.heart.org/HEARTORG/HealthcareResearch/MissionLifelineHomePage/EMS/EMS-Strategies-to-Achieve-Ideal_UCM_312066_Article.jsp

An (*) denotes the 24 LEMSAs with a STEMI Receiving Center.
LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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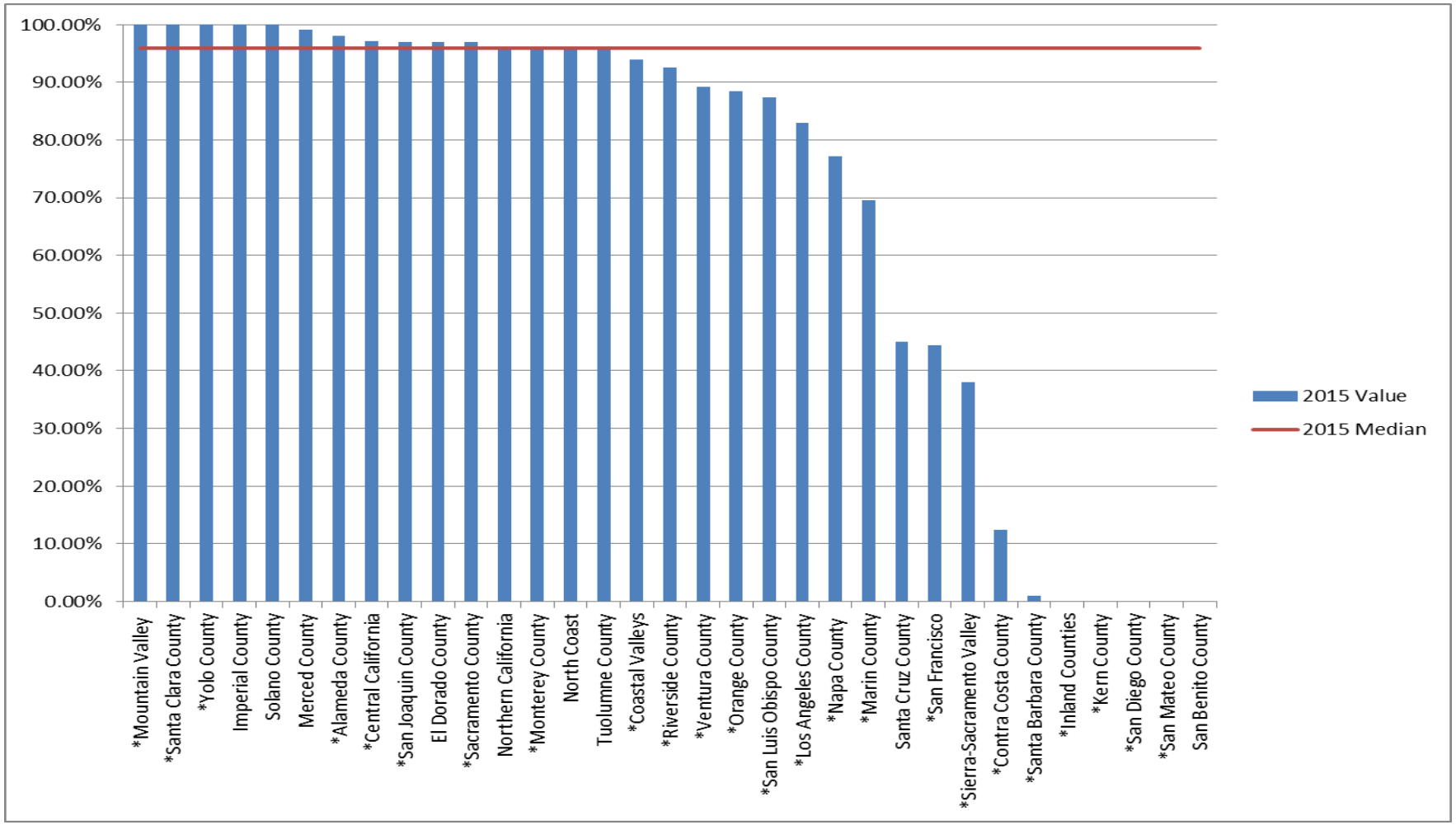
# ACS-5: Direct Transport to Designated STEMI Receiving Center for Suspected Patients Meeting Criteria – Part 1 of 2




An (*) denotes the 24 LEMSAs with a STEMI Receiving Center.

Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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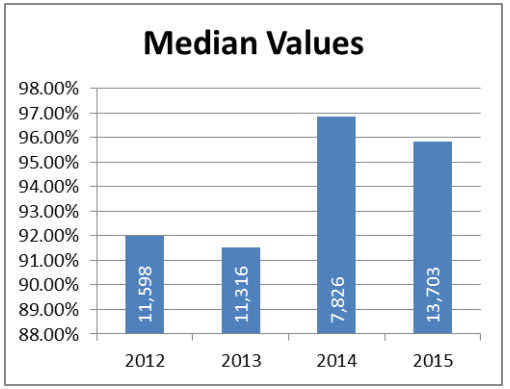
# ACS-5: Direct Transport to Designated STEMI Receiving Center for Suspected Patients Meeting Criteria – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| *Mountain Valley | 100.00% | 73 |
| *Santa Clara County | 100.00% | 602 |
| *Yolo County | 100.00% | 89 |
| Imperial County | 100.00% | 88 |
| Solano County | 100.00% | 206 |
| Merced County | 99.07% | 431 |
| *Alameda County | 98.00% | 568 |
| *Central California | 97.06% | 170 |
| *San Joaquin County | 97.00% | 107 |
| El Dorado County | 97.00% | 211 |
| *Sacramento County | 96.92% | 65 |
| Northern California | 96.05% | 304 |
| *Monterey County | 96.00% | 1102 |
| North Coast | 96.00% | 45 |
| Tuolumne County | 95.70% | 70 |
| *Coastal Valleys | 94.00% | 139 |
| *Riverside County | 92.50% | 200 |
| *Ventura County | 89.24% | 353 |
| *Orange County | 88.50% | 226 |
| *San Luis Obispo County | 87.32% | 1178 |
| *Los Angeles County | 83.00% | 710 |
| *Napa County | 77.22% | 2467 |
| *Marin County | 69.57% | 46 |
| Santa Cruz County | 45.00% | 20 |
| *San Francisco | 44.44% | 18 |
| *Sierra-Sacramento Valley | 38.00% | 661 |
| *Contra Costa County | 12.50% | 3455 |
| *Santa Barbara County | 1.01% | 99 |
| *Inland Counties | | |
| *Kern County | | |
| *San Diego County | | |
| *San Mateo County | | |
| San Benito County | | |

| Measure ID | ACS-5 |
|---|---|
| Response Count | 28 |
| Denominator Total | 13703 |
| Submission Rate (n=33) | 81.82% |
| Average | 81.83% |
| Median | 95.85% |




Of the 28 LEMSAs reporting these data, the median percentage of patients appropriately transported directly to a STEMI center was 95.85%, which varied by only one percent from 2014 to 2015.

Direct transport of patients to a STEMI centers with percutaneous coronary intervention (PCI) capability will vary by geography and availability of resources in a given area. Generally, LEMSAs with a higher level of direct transport are often urban areas with a STEMI system in their geographic area. Lower values would be expected in a rural area that may not have an established STEMI system or one that can be accessed rapidly in a neighboring LEMSA.

Several LEMSAs with low values for this measure have STEMI systems, implying poor data quality or potential protocol violations.

An (*) denotes the 24 LEMSAs with a STEMI Receiving Center.

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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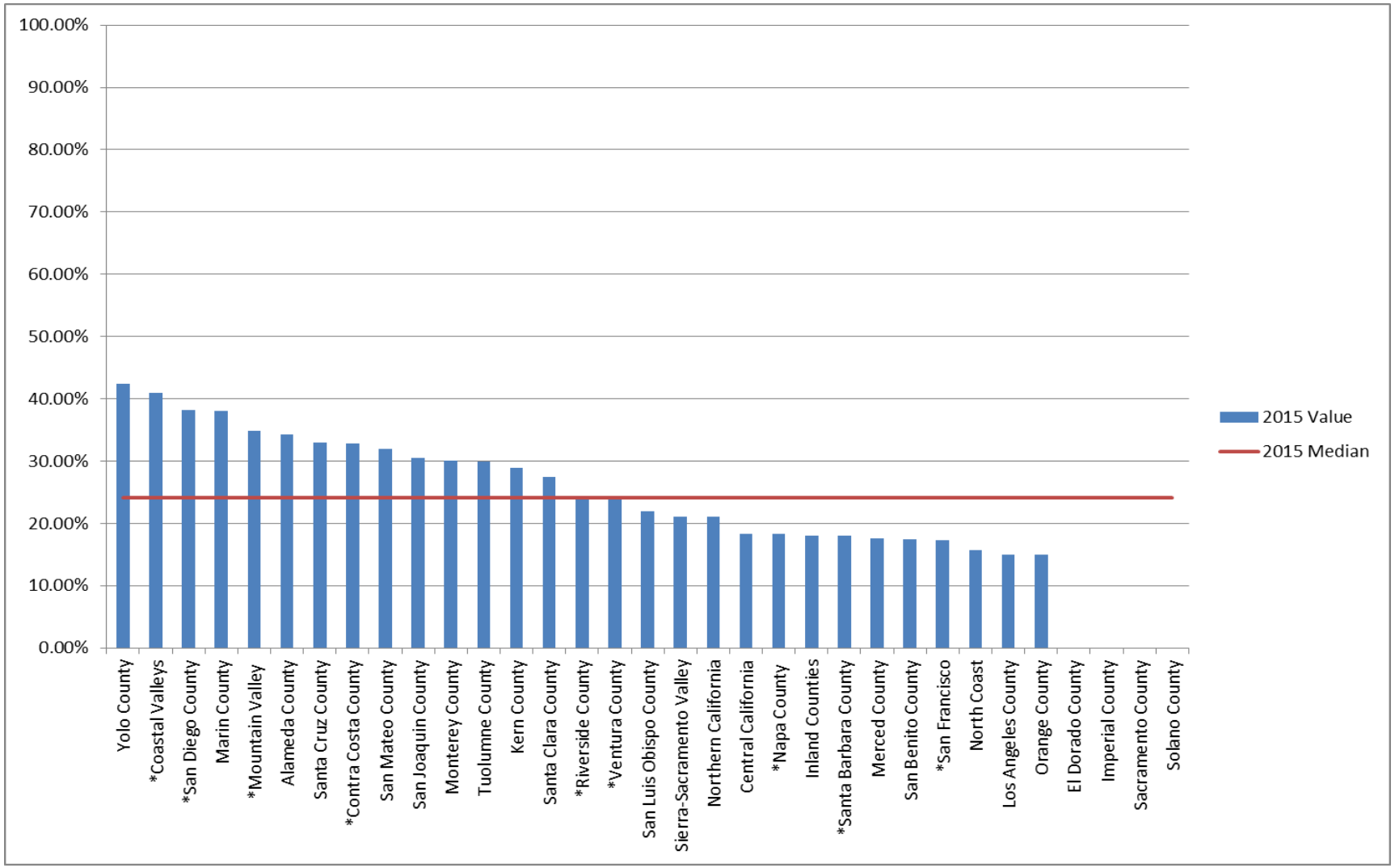
# CAR-2: Out-Of-Hospital Cardiac Arrest Return of Spontaneous Circulation – Part 1 of 2




Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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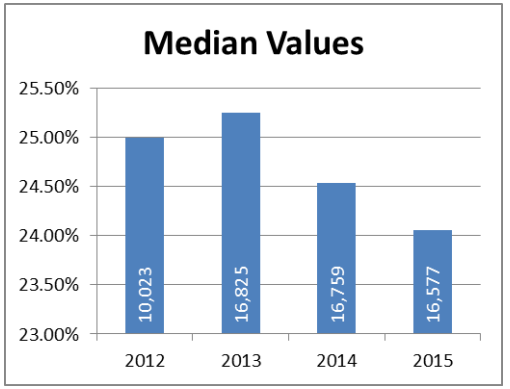
# CAR-2: Out-Of-Hospital Cardiac Arrest Return of Spontaneous Circulation – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Yolo County | 42.40% | 92 |
| *Coastal Valleys | 41.00% | 133 |
| *San Diego County | 38.26% | 677 |
| Marin County | 38.00% | 74 |
| *Mountain Valley | 34.84% | 376 |
| Alameda County | 34.27% | 1109 |
| Santa Cruz County | 33.00% | 70 |
| *Contra Costa County | 32.88% | 672 |
| San Mateo County | 32.00% | 228 |
| San Joaquin County | 30.58% | 497 |
| Monterey County | 30.10% | 196 |
| Tuolumne County | 30.00% | 27 |
| Kern County | 28.85% | 52 |
| Santa Clara County | 27.49% | 902 |
| *Riverside County | 24.06% | 2315 |
| *Ventura County | 23.90% | 419 |
| San Luis Obispo County | 22.00% | 203 |
| Sierra-Sacramento Valley | 21.13% | 265 |
| Northern California | 21.05% | 95 |
| Central California | 18.30% | 918 |
| *Napa County | 18.30% | 71 |
| Inland Counties | 18.00% | 1501 |
| *Santa Barbara County | 18.00% | 235 |
| Merced County | 17.59% | 290 |
| San Benito County | 17.39% | 23 |
| *San Francisco | 17.37% | 426 |
| North Coast | 15.70% | 153 |
| Los Angeles County | 15.00% | 4142 |
| Orange County | 15.00% | 416 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| Solano County | | |

| Measure ID | CAR-2 |
|---|---|
| Response Count | 29 |
| Denominator Total | 16577 |
| Submission Rate (n=33) | 84.85% |
| Average | 26.08% |
| Median | 24.06% |




Of the 29 LEMSAs reporting these data for 2015, the median percent of patients that had a return of spontaneous circulation in the field after a cardiac arrest from all causes was 24.06%, a decrease from 24.5% from the prior year reporting.

Nationally, this rate varies considerably by state and by local agency. Most jurisdictions reported rates from 10-40%, which are credible. In addition to methodological challenges (evidenced by one LEMSA reporting 100%), this outcome measure is dependent upon factors that vary considerably by community, including rapid public response, bystander CPR, community automated external defibrillation use, response times by first responders and ALS providers, and presenting cardiac rhythm. Values vary widely, depending on multiple factors. National rate for return to spontaneous circulation is 40%. Values for a particular system should be used to track improvements. Those LEMSAs that submit data to the Cardiac Arrest Registry to Enhance Survival (CARES) have the best data collection process and data accuracy for this measure. More LEMSAs are joining CARES.

An (*) designates Cardiac Arrest Registry to Enhance Survival (CARES) participants; the values are probably most reliable for these participants.
LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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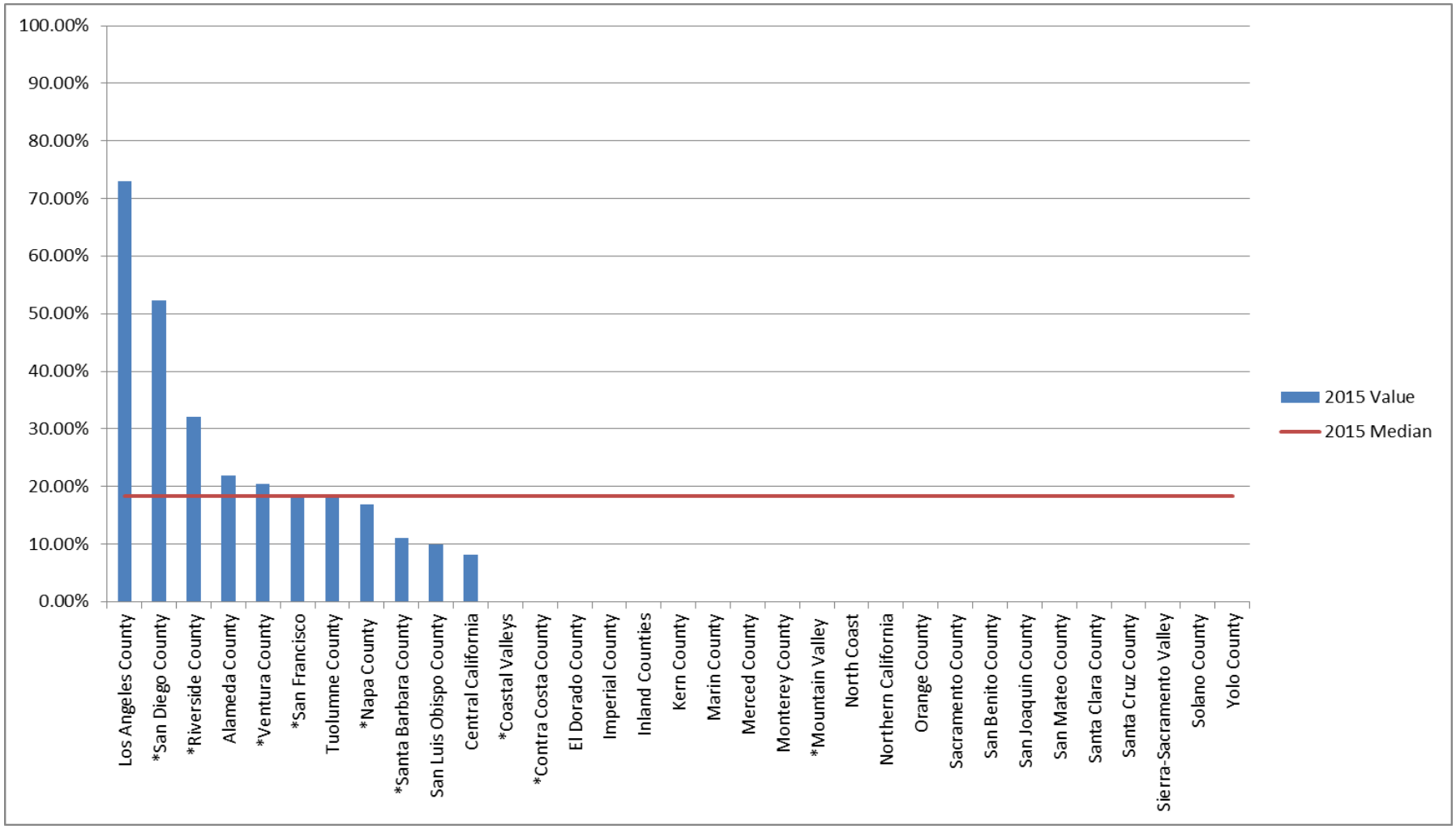
# CAR-3: Out-Of-Hospital Cardiac Arrest Survival to Emergency Department Discharge – Part 1 of 2




An (*) denotes Cardiac Arrest Registry to Enhance Survival (CARES) participants.

Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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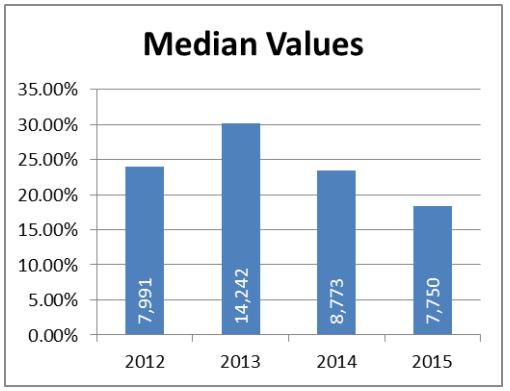
# CAR-3: Out-Of-Hospital Cardiac Arrest Survival to Emergency Department Discharge – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Los Angeles County | 73.00% | 2738 |
| *San Diego County | 52.31% | 325 |
| *Riverside County | 32.07% | 661 |
| Alameda County | 21.90% | 927 |
| *Ventura County | 20.50% | 419 |
| *San Francisco | 18.31% | 426 |
| Tuolumne County | 18.00% | 27 |
| *Napa County | 16.90% | 71 |
| *Santa Barbara County | 11.00% | 235 |
| San Luis Obispo County | 10.00% | 203 |
| Central California | 8.17% | 918 |
| *Coastal Valleys | | |
| *Contra Costa County | | |
| El Dorado County | | |
| Imperial County | | |
| Inland Counties | | |
| Kern County | | |
| Marin County | | |
| Merced County | | 290 |
| Monterey County | | |
| *Mountain Valley | | |
| North Coast | | |
| Northern California | | 95 |
| Orange County | | 415 |
| Sacramento County | | |
| San Benito County | | |
| San Joaquin County | | |
| San Mateo County | | |
| Santa Clara County | | |
| Santa Cruz County | | |
| Sierra-Sacramento Valley | | |
| Solano County | | |
| Yolo County | | |

| Measure ID | CAR-3 |
|---|---|
| Response Count | 11 |
| Denominator Total | 7750 |
| Submission Rate (n=33) | 33.33% |
| Average | 25.65% |
| Median | 18.31% |




Of the 11 LEMSAs reporting these data for 2015, the median number of patients that survived a return hospital cardiac arrest to be admitted to the hospital was 18.31%, a decrease from values reported in previous years. Obtaining hospital outcome data continues to be a challenge faced by many LEMSAs. Accurate measure of this outcome is an important future quality improvement goal and supports the need to develop exchange of health information with hospitals. Marked variation is expected, but generally, this number is significantly less than the ROSC in the prior measure. Values vary widely, depending on multiple factors. Values for a particular system should be used to track improvements. As more LEMSAs join the CARES registry, and as health information exchange improves, allowing LEMSAs to obtain patient outcomes, the amount and validity of data for this measure will increase.

An (*) on the table designates Cardiac Arrest Registry to Enhance Survival (CARES) participants; the values are probably most reliable for these participants. LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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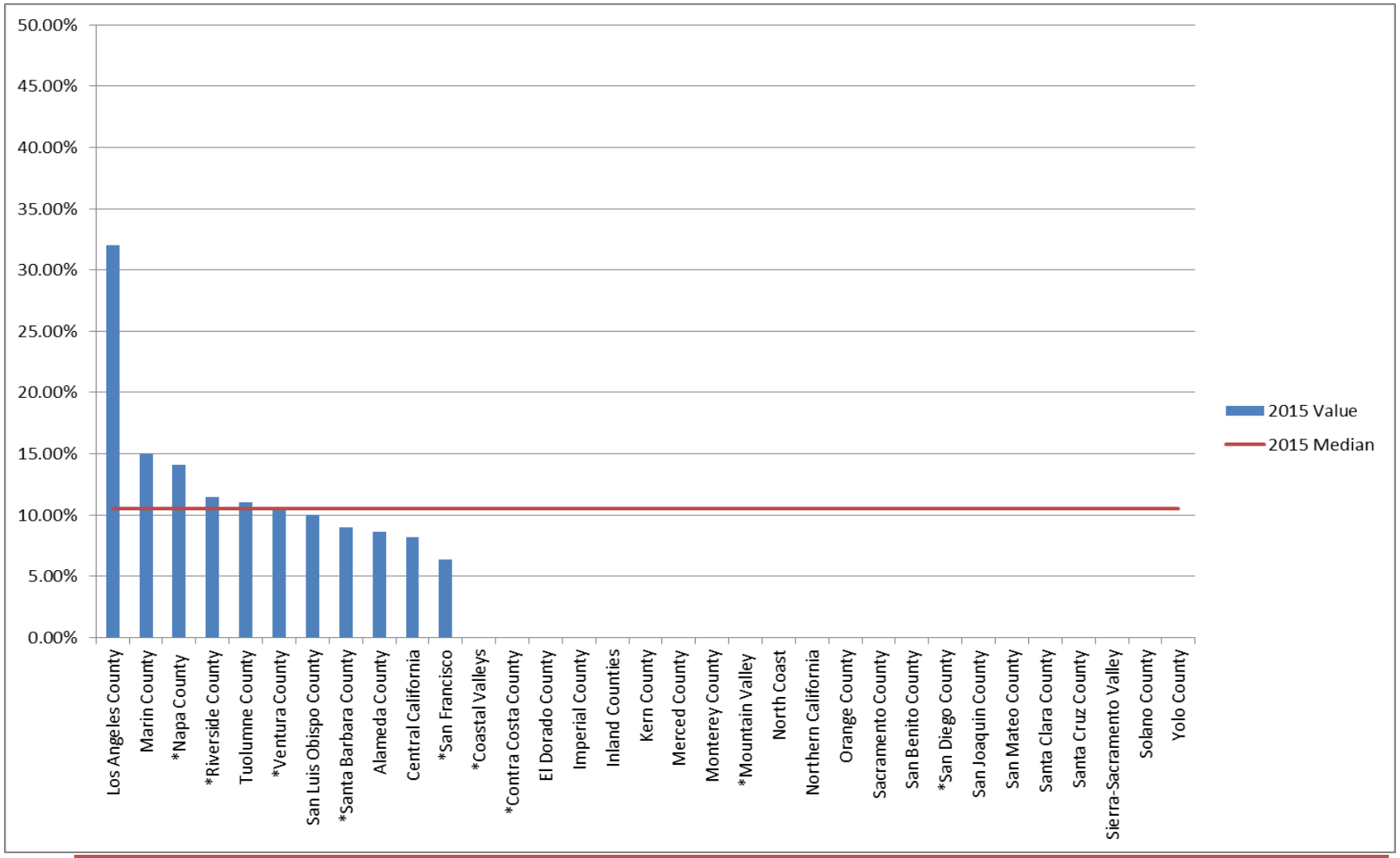
# CAR-4: Out-Of-Hospital Cardiac Arrest Survival to Hospital Discharge – Part 1 of 2




An (*) denotes Cardiac Arrest Registry to Enhance Survival (CARES) participants.
Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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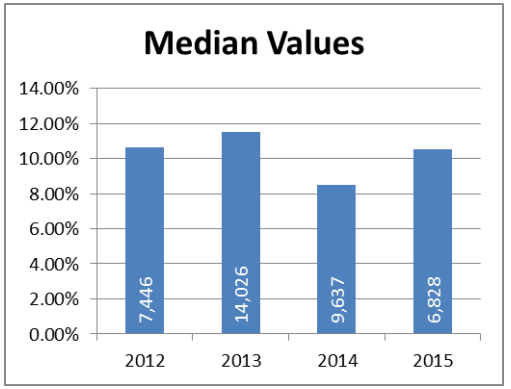
# CAR-4: Out-Of-Hospital Cardiac Arrest Survival to Hospital Discharge – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Los Angeles County | 32.00% | 2056 |
| Marin County | 15.00% | 85 |
| *Napa County | 14.08% | 71 |
| *Riverside County | 11.50% | 661 |
| Tuolumne County | 11.00% | 27 |
| *Ventura County | 10.50% | 419 |
| San Luis Obispo County | 10.00% | 203 |
| *Santa Barbara County | 9.00% | 235 |
| Alameda County | 8.63% | 927 |
| Central California | 8.17% | 918 |
| *San Francisco | 6.34% | 426 |
| *Coastal Valleys | | |
| *Contra Costa County | | |
| El Dorado County | | |
| Imperial County | | |
| Inland Counties | | |
| Kern County | | |
| Merced County | | 290 |
| Monterey County | | |
| *Mountain Valley | | |
| North Coast | | |
| Northern California | | 95 |
| Orange County | | 415 |
| Sacramento County | | |
| San Benito County | | |
| *San Diego County | | |
| San Joaquin County | | |
| San Mateo County | | |
| Santa Clara County | | |
| Santa Cruz County | | |
| Sierra-Sacramento Valley | | |
| Solano County | | |
| Yolo County | | |

| Measure ID | CAR-4 |
|---|---|
| Response Count | 11 |
| Denominator Total | 6828 |
| Submission Rate (n=33) | 33.33% |
| Average | 12.38% |
| Median | 10.50% |




Of the 11 LEMSAs reporting these data for 2015, the median percentage of patients that had survived an out of hospital cardiac arrest and were discharged from the hospital was 10.50%. The value has been fairly stable over the past four years for those LEMSAs reporting. National rate for return to spontaneous circulation is 40% and survival to hospital discharge is 10%, which compares very closely with these reports values.

This measure yielded the lowest number of responses from LEMSAs because of the difficulties in obtaining hospital outcome data. Accurate measure of this outcome is an important future quality improvement goal and supports the need to develop exchange of health information with hospitals. An important refinement to this measure is the functional status on discharge. Values vary widely, depending on multiple factors. Values for a particular system should be used to track improvements.

An (*) on the table to the left designates Cardiac Arrest Registry to Enhance Survival (CARES) participants.
LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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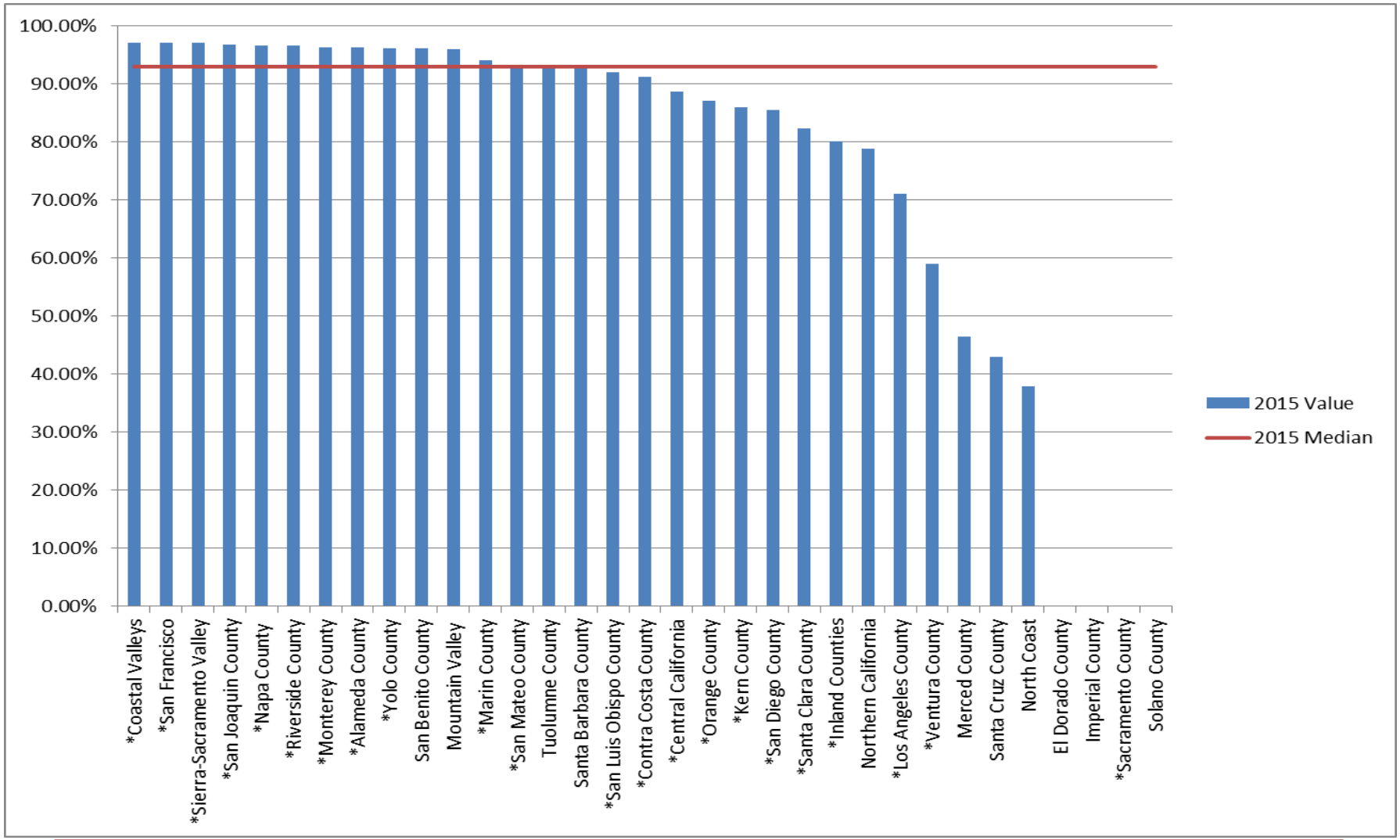
# STR-2: Glucose Testing for Suspected Acute Stroke Patients – Part 1 of 2




An (*) denotes the 22 LEMSAs identified as having implemented an approach to Stroke Care.

Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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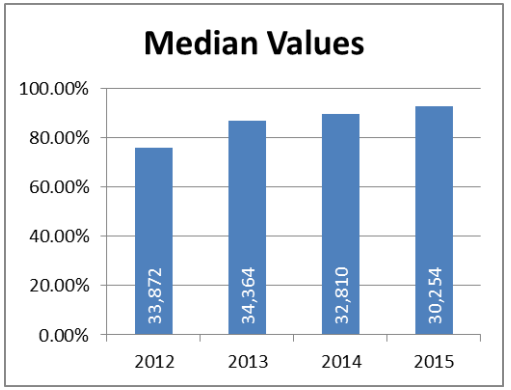
# STR-2: Glucose Testing for Suspected Acute Stroke Patients – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| *Coastal Valleys | 97.00% | 424 |
| *San Francisco | 97.00% | 764 |
| *Sierra-Sacramento Valley | 96.96% | 1120 |
| *San Joaquin County | 96.70% | 757 |
| *Napa County | 96.59% | 176 |
| *Riverside County | 96.53% | 2217 |
| *Monterey County | 96.22% | 502 |
| *Alameda County | 96.16% | 2055 |
| *Yolo County | 96.10% | 259 |
| San Benito County | 96.00% | 25 |
| Mountain Valley | 95.84% | 625 |
| *Marin County | 94.00% | 238 |
| *San Mateo County | 93.00% | 611 |
| Tuolumne County | 93.00% | 114 |
| Santa Barbara County | 92.90% | 351 |
| *San Luis Obispo County | 92.00% | 154 |
| *Contra Costa County | 91.16% | 1475 |
| *Central California | 88.61% | 1396 |
| *Orange County | 87.00% | 692 |
| *Kern County | 85.91% | 1143 |
| *San Diego County | 85.47% | 4115 |
| *Santa Clara County | 82.34% | 2021 |
| *Inland Counties | 80.00% | 2145 |
| Northern California | 78.70% | 108 |
| *Los Angeles County | 71.00% | 5370 |
| *Ventura County | 59.00% | 464 |
| Merced County | 46.47% | 411 |
| Santa Cruz County | 43.00% | 300 |
| North Coast | 37.80% | 222 |
| El Dorado County | | |
| Imperial County | | |
| *Sacramento County | | |
| Solano County | | |

| Measure ID | STR-2 |
|---|---|
| Response Count | 29 |
| Denominator Total | 30254 |
| Submission Rate (n=33) | 84.85% |
| Average | 84.91% |
| Median | 92.90% |




Of the 29 LEMSAs reporting these data for 2015, the median percentage of patients receiving glucose testing in the field for a possible stroke was 92.90%. The median percentage has increased steadily each year for four years. Inconsistent low values likely reflect data issues, but should be evaluated for adherence to protocol. Serum glucose abnormalities cause neurologic symptoms that can mimic stroke. It is essential to exclude these reversible causes prior to transporting to a stroke center and initiating a stroke team. 32/33 LEMSAs have protocols that advise routine testing of blood sugar in suspected stroke patients.[1]

There are currently draft stroke regulations being finalized.

An (*) indicates 22 LEMSAs that have developed a stroke system with a designated primary stroke receiving center.
LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

[1] Acute Stroke: Current Evidence-based Recommendations for Prehospital Care. Glober NK, Sporer KA, Guluma KZ, Serra JP, Barger JA, Brown JF, Gilbert GH, Koenig KL, Rudnick EM, Salvucci AA. West J Emerg Med. 2016 Mar;17(2):104-28.

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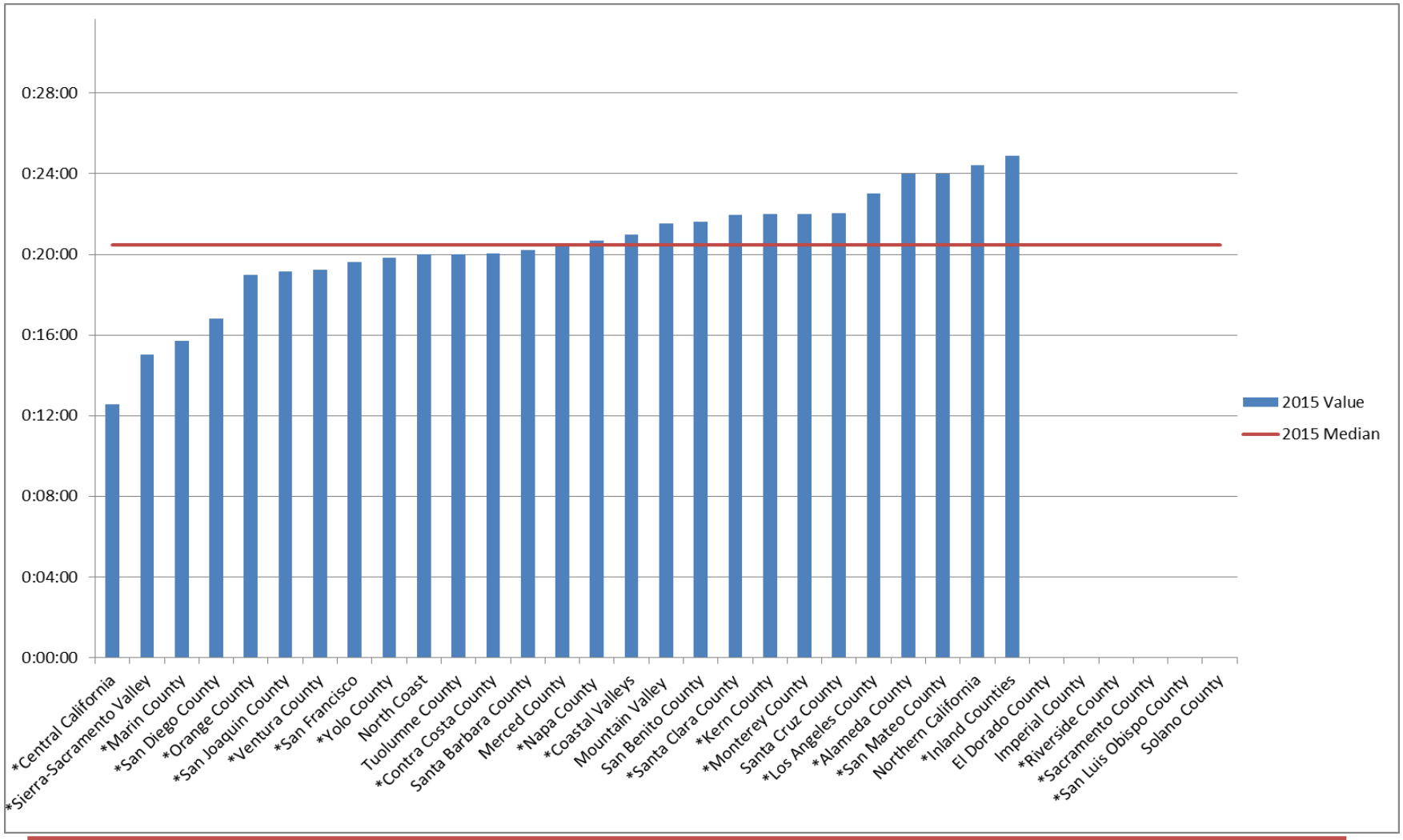
# STR-3: Scene Time for Suspected Acute Stroke Patients – Part 1 of 2




An (*) denotes the 22 LEMSAs identified as developing/implementing an approach to Stroke Care.

Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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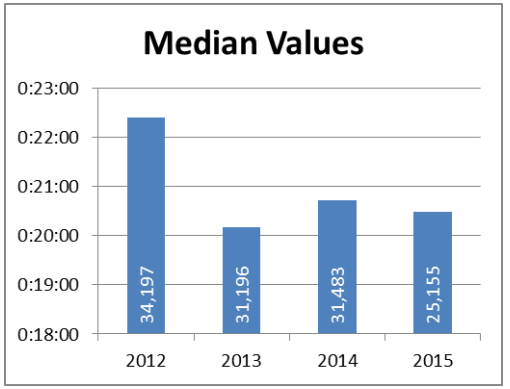
# STR-3: Scene Time for Suspected Acute Stroke Patients – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| *Central California | 0:12:34 | 1396 |
| *Sierra-Sacramento Valley | 0:15:03 | 1120 |
| *Marin County | 0:15:42 | 128 |
| *San Diego County | 0:16:48 | 2627 |
| *Orange County | 0:19:00 | 692 |
| *San Joaquin County | 0:19:10 | 757 |
| *Ventura County | 0:19:13 | 425 |
| *San Francisco | 0:19:36 | 764 |
| *Yolo County | 0:19:51 | 259 |
| North Coast | 0:20:00 | 243 |
| Tuolumne County | 0:20:00 | 114 |
| *Contra Costa County | 0:20:03 | 1475 |
| Santa Barbara County | 0:20:14 | 351 |
| Merced County | 0:20:29 | 411 |
| *Napa County | 0:20:41 | 169 |
| *Coastal Valleys | 0:20:58 | 420 |
| Mountain Valley | 0:21:32 | 620 |
| San Benito County | 0:21:36 | 24 |
| *Santa Clara County | 0:21:58 | 1561 |
| *Kern County | 0:22:00 | 1143 |
| *Monterey County | 0:22:00 | 486 |
| Santa Cruz County | 0:22:02 | |
| *Los Angeles County | 0:23:00 | 5537 |
| *Alameda County | 0:23:59 | 2055 |
| *San Mateo County | 0:24:00 | 608 |
| Northern California | 0:24:24 | 97 |
| *Inland Counties | 0:24:52 | 1673 |
| El Dorado County | | |
| Imperial County | | |
| *Riverside County | | |
| *Sacramento County | | |
| *San Luis Obispo County | | |
| Solano County | | |

| Measure ID | STR-3 |
|---|---|
| Response Count | 26 |
| Denominator Total | 25155 |
| Submission Rate (n=33) | 75.76% |
| Average | 0:20:24 |
| Median | 0:20:29 |




Of the 26 LEMSAs reporting these data for 2015, the median scene time by an ambulance for suspected stroke patients was approximately 20 and one-half minutes. This value has been quite stable for the past three years. Scene time reported from all local jurisdictions ranged between 12 and 25 minutes. 19/33 (58%) of LEMSAs have protocols that direct EMS to limit time on scene.[1]

Time targets may not be realistic for many patients who require more time for history, examination, and difficult extraction from their residence. Stroke evaluation and treatment is a time sensitive measure, so extra minutes in the field add to other delays within the healthcare system.

An (*) indicates 22 LEMSAs that have developed a stroke system with a designated primary stroke receiving center.
LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

[1] Acute Stroke: Current Evidence-based Recommendations for Prehospital Care. Glober NK, Sporer KA, Guluma KZ, Serra JP, Barger JA, Brown JF, Gilbert GH, Koenig KL, Rudnick EM, Salvucci AA. West J Emerg Med. 2016 Mar;17(2):104-28.

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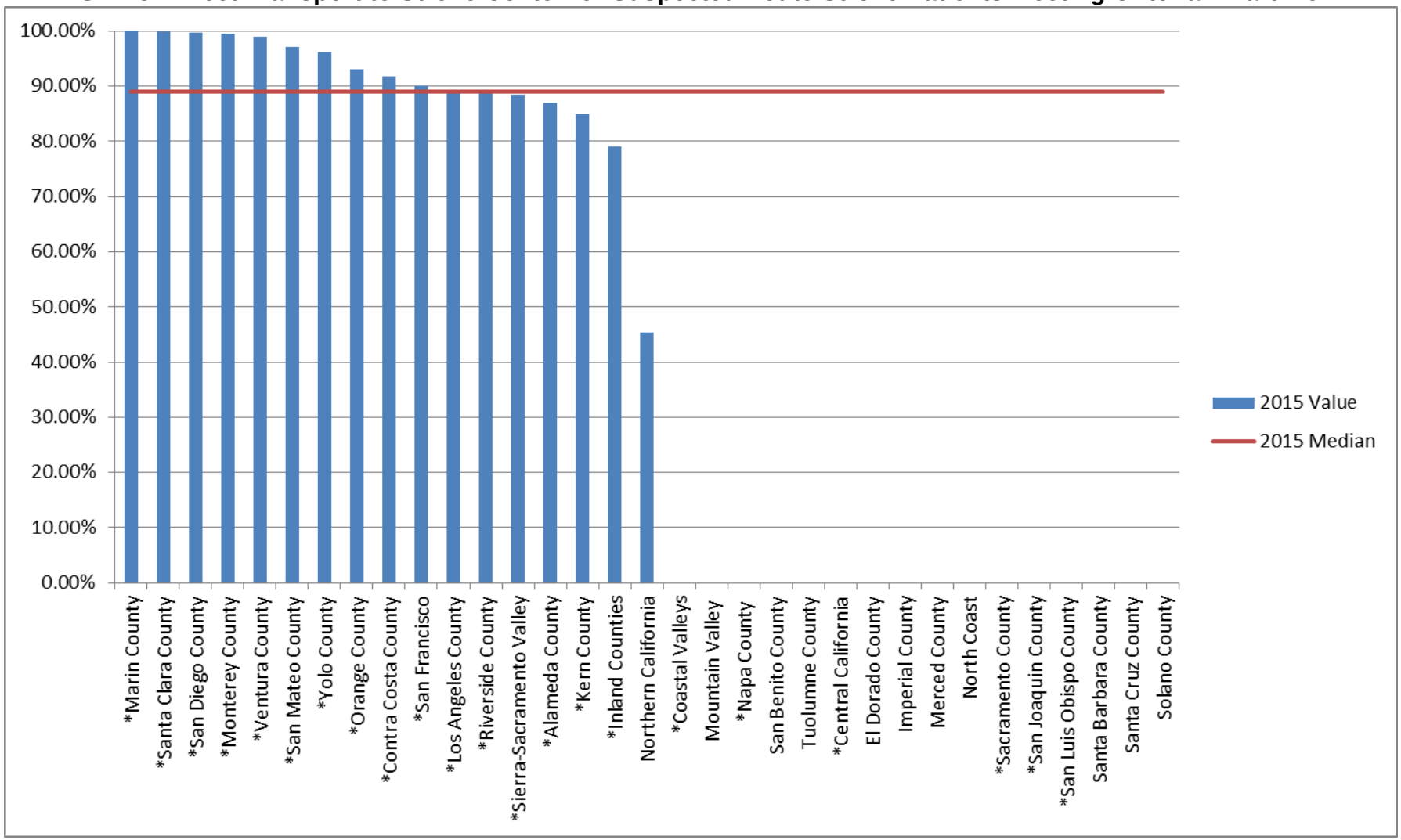
## STR-5: Direct Transport to Stroke Center for Suspected Acute Stroke Patients Meeting Criteria – Part 1 of 2




An (*) denotes the 22 LEMSAs identified as developing/implementing an approach to Stroke Care.

Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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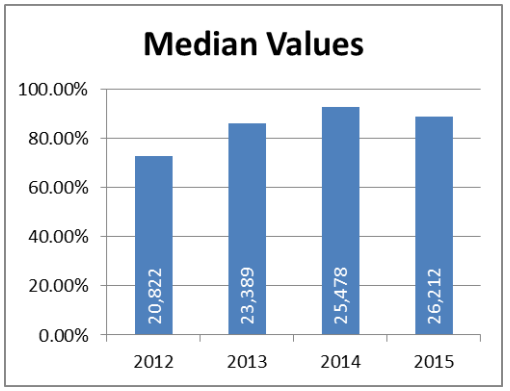
# STR-5: Direct Transport to Stroke Center for Suspected Acute Stroke Patients Meeting Criteria – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| *Marin County | 100.00% | 238 |
| *Santa Clara County | 99.81% | 1561 |
| *San Diego County | 99.68% | 4022 |
| *Monterey County | 99.38% | 846 |
| *Ventura County | 99.00% | 425 |
| *San Mateo County | 97.00% | 611 |
| *Yolo County | 96.10% | 259 |
| *Orange County | 93.00% | 692 |
| *Contra Costa County | 91.80% | 1271 |
| *San Francisco | 90.00% | 764 |
| *Los Angeles County | 89.00% | 5370 |
| *Riverside County | 89.00% | 2217 |
| *Sierra-Sacramento Valley | 88.39% | 1120 |
| *Alameda County | 87.00% | 2137 |
| *Kern County | 85.00% | 1143 |
| *Inland Counties | 79.00% | 1673 |
| Northern California | 45.36% | 94 |
| *Coastal Valleys | 0.00% | 424 |
| Mountain Valley | 0.00% | 626 |
| *Napa County | 0.00% | 169 |
| San Benito County | 0.00% | 25 |
| Tuolumne County | 0.00% | 114 |
| *Central California | | |
| El Dorado County | | |
| Imperial County | | |
| Merced County | | 411 |
| North Coast | | |
| *Sacramento County | | |
| *San Joaquin County | | |
| *San Luis Obispo County | | |
| Santa Barbara County | | |
| Santa Cruz County | | |
| Solano County | | |

| Measure ID | STR-5 |
|---|---|
| Response Count | 22 |
| Denominator Total | 26212 |
| Submission Rate (n=33) | 63.64% |
| Average | 69.48% |
| Median | 89.00% |




Of the 22 LEMSAs reporting these data for 2015, the median number of patients transported directly to a Stroke center by ground ambulance was 89%. Median values increased for three successive years but decreased four percent from 93.00% in 2014 to 89.00% in 2015. Direct transport of patients to a stroke center will vary by geography and availability of resources in a given area. Lower values are expected in rural areas or jurisdictions that do not have an established system with designated specialty care hospitals or rapid access to a center in a neighboring jurisdiction. It is unclear why so many LEMSAs could not provide values for this measure.

The goal in a stroke system is to transport 100% of stroke patients to a designated stroke center.

An (*) represents the 22 LEMSAs that have a designated primary stroke receiving center.
LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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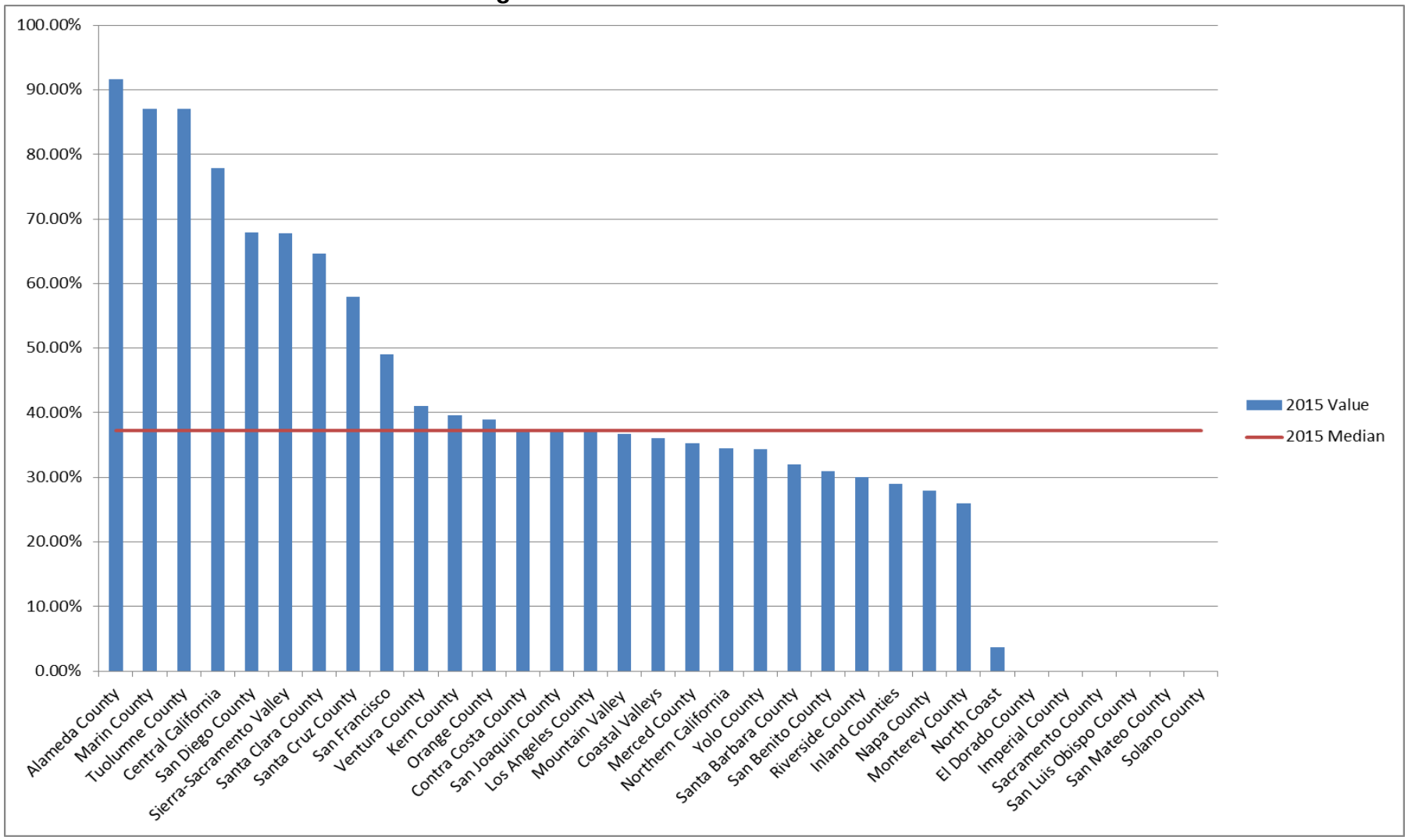
# RES-2: Beta2 Agonist Administration for Adult Patients – Part 1 of 2




Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data. This retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliance of the aggregate values.

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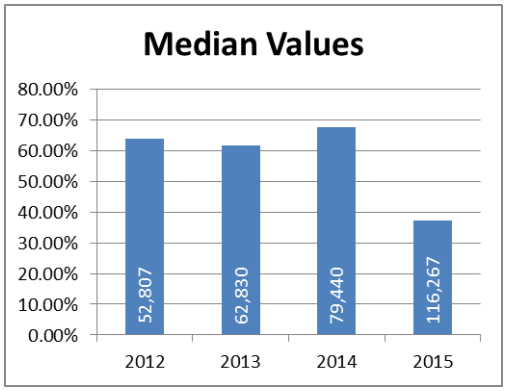
# RES-2: Beta2 Agonist Administration for Adult Patients – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Alameda County | 91.65% | 3055 |
| Marin County | 87.00% | 234 |
| Tuolumne County | 87.00% | 149 |
| Central California | 77.89% | 5514 |
| San Diego County | 67.88% | 5897 |
| Sierra-Sacramento Valley | 67.83% | 1753 |
| Santa Clara County | 64.62% | 2332 |
| Santa Cruz County | 58.00% | 200 |
| San Francisco | 49.00% | 3175 |
| Ventura County | 41.00% | 206 |
| Kern County | 39.62% | 5813 |
| Orange County | 39.00% | 2216 |
| Contra Costa County | 37.50% | 7491 |
| San Joaquin County | 37.21% | 6484 |
| Los Angeles County | 37.00% | 22575 |
| Mountain Valley | 36.72% | 4738 |
| Coastal Valleys | 36.00% | 2520 |
| Merced County | 35.27% | 3054 |
| Northern California | 34.48% | 670 |
| Yolo County | 34.40% | 1403 |
| Santa Barbara County | 32.00% | 1449 |
| San Benito County | 31.00% | 184 |
| Riverside County | 30.06% | 16190 |
| Inland Counties | 29.00% | 14258 |
| Napa County | 27.89% | 1201 |
| Monterey County | 25.97% | 2091 |
| North Coast | 3.70% | 1415 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| San Luis Obispo County | | |
| San Mateo County | | |
| Solano County | | |

| Measure ID | RES-2 |
|---|---|
| Response Count | 27 |
| Denominator Total | 116267 |
| Submission Rate (n=33) | 81.82% |
| Average | 45.88% |
| Median | 37.21% |




Of the 27 LEMSAs reporting these data for 2015, the median percentage of patients receiving a Beta-2 Agonist/bronchodilator for bronchospasm in adults (age 14 or older) was 37.21%, a large decrease from the prior three years, which were fairly stable.

The marked variability for this measure and major drop in median value for 2015 suggests challenges and changes identifying the appropriate denominator of patients for whom a bronchodilator is indicated. In addition, treatment may have been provided by first responders and not captured on the transport record.

Treatment protocols for which adult patients should receive Beta2 agonists may vary and clinical differentiation is difficult, however, inhaled bronchodilators are unlikely to be harmful, even if bronchospasm is not the primarily pathophysiology.

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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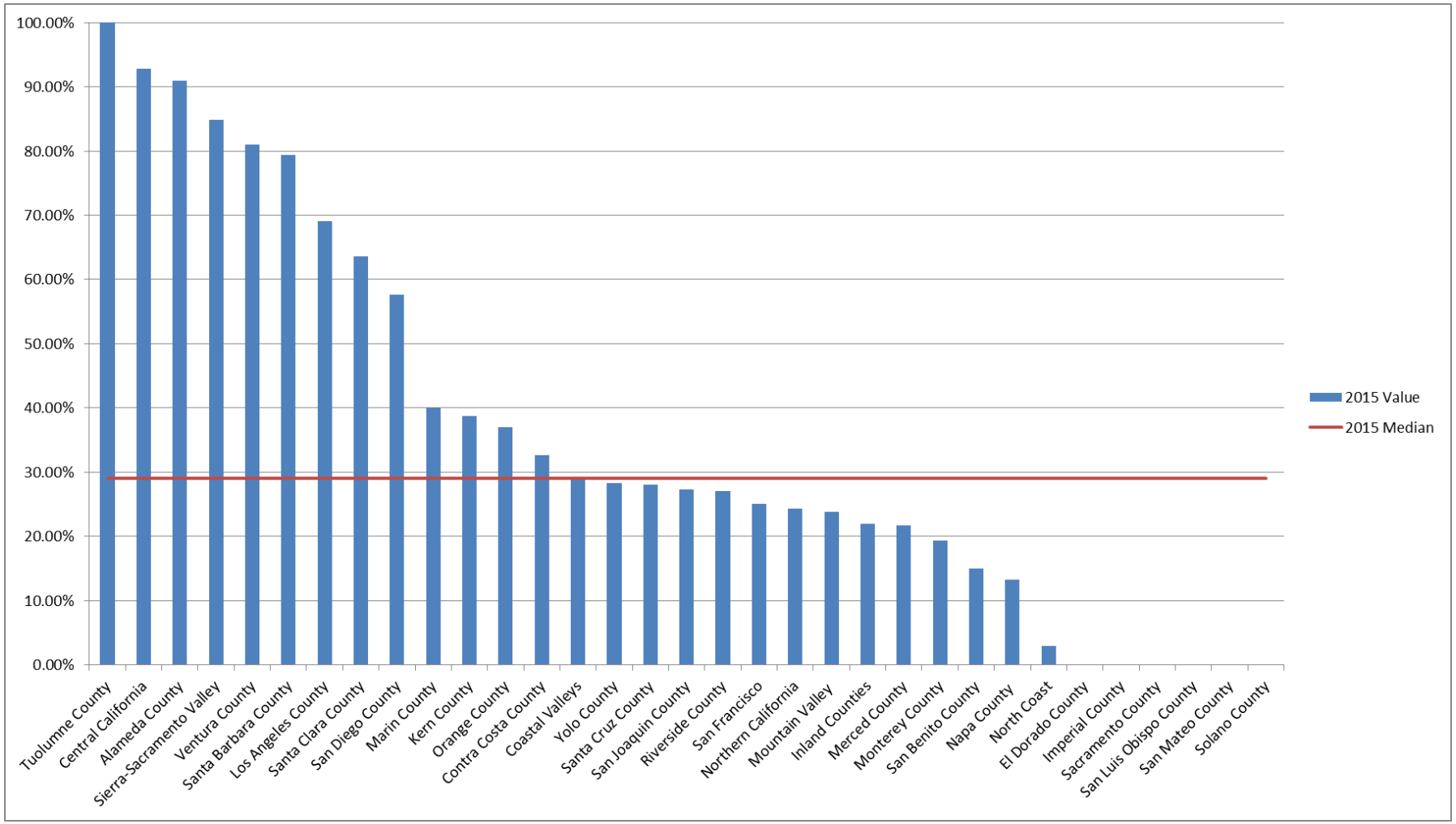
# PED-1: Pediatric Patients with Wheezing Receiving Bronchodilators – Part 1 of 2

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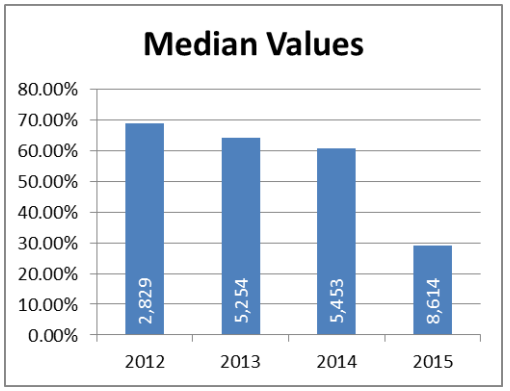
# PED-1: Pediatric Patients with Wheezing Receiving Bronchodilators – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Tuolumne County | 100.00% | 3 |
| Central California | 92.86% | 182 |
| Alameda County | 91.00% | 120 |
| Sierra-Sacramento Valley | 84.86% | 185 |
| Ventura County | 81.00% | 21 |
| Santa Barbara County | 79.40% | 34 |
| Los Angeles County | 69.00% | 594 |
| Santa Clara County | 63.64% | 110 |
| San Diego County | 57.60% | 342 |
| Marin County | 40.00% | 10 |
| Kern County | 38.67% | 497 |
| Orange County | 37.00% | 175 |
| Contra Costa County | 32.66% | 502 |
| Coastal Valleys | 29.00% | 163 |
| Yolo County | 28.30% | 145 |
| Santa Cruz County | 28.00% | 859 |
| San Joaquin County | 27.30% | 663 |
| Riverside County | 27.09% | 1399 |
| San Francisco | 25.00% | 166 |
| Northern California | 24.32% | 37 |
| Mountain Valley | 23.82% | 340 |
| Inland Counties | 22.00% | 1555 |
| Merced County | 21.71% | 175 |
| Monterey County | 19.35% | 186 |
| San Benito County | 15.00% | 13 |
| Napa County | 13.23% | 68 |
| North Coast | 2.90% | 70 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| San Luis Obispo County | | |
| San Mateo County | | |
| Solano County | | |

| Measure ID | PED-1 |
|---|---|
| Response Count | 27 |
| Denominator Total | 8614 |
| Submission Rate (n=33) | 81.82% |
| Average | 43.51% |
| Median | 29.00% |




Of the 27 LEMSAs reporting these data for 2015, the median number of pediatric patients receiving bronchodilators for asthma was 29.00%. The decrease over the last 4 years suggests methodological issues rather than performance. The pediatric measure should have more validity than the adult, since shortness of breath with wheezing in children is more likely due to asthma than adult symptoms that may be due to cardiac etiology. It is not clear why the spectrum of results would be so variable. One reason may be multiple doses administered at the home prior to arrival of EMS or dose administered by first responders. Examination of this measure is recommended to ensure proper patient inclusion and documentation.

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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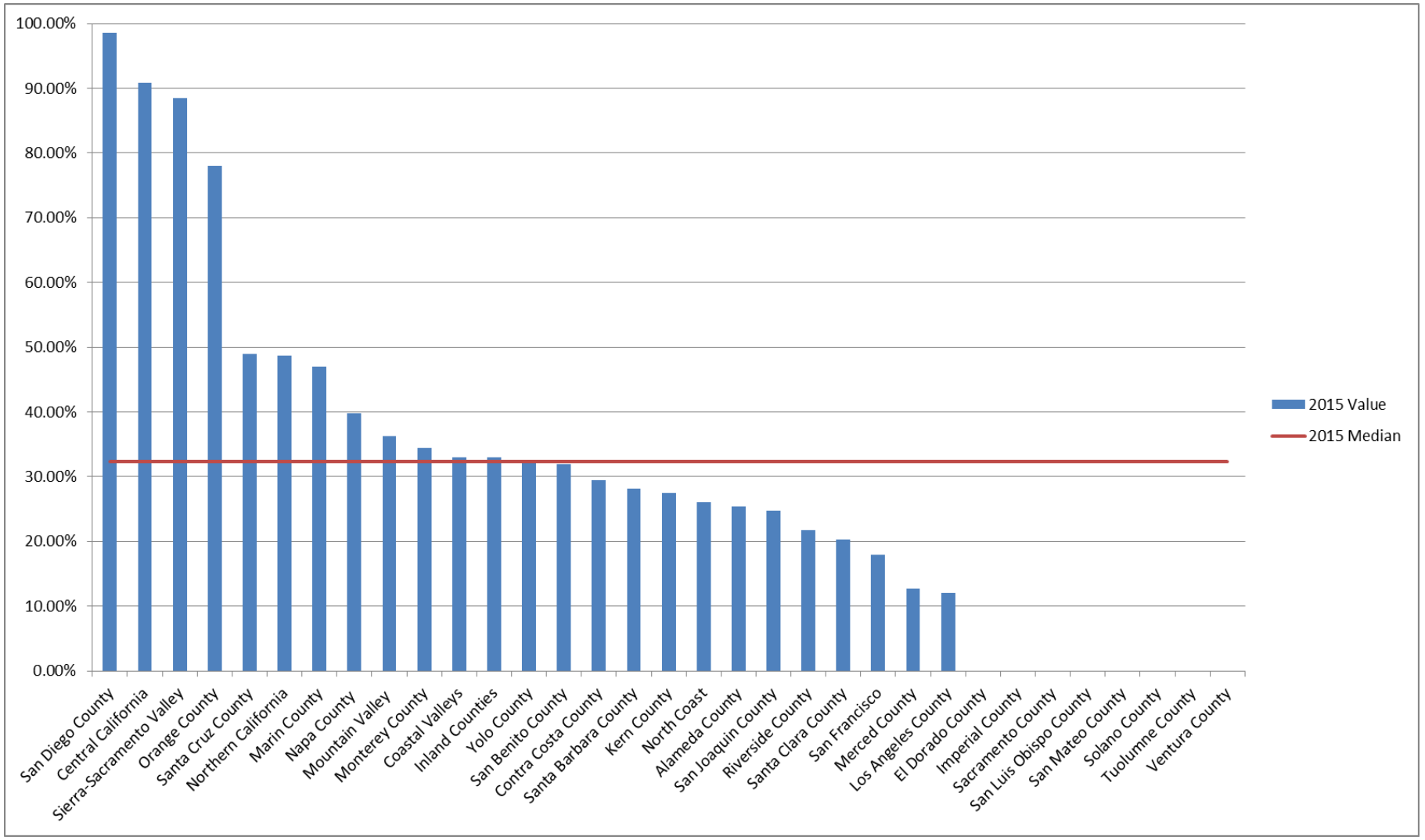
# PAI-1: Pain Intervention – Part 1 of 2

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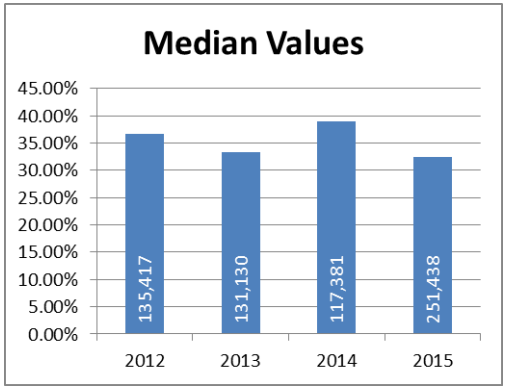
# PAI-1: Pain Intervention – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| San Diego County | 98.54% | 1162 |
| Central California | 90.85% | 2327 |
| Sierra-Sacramento Valley | 88.49% | 4925 |
| Orange County | 78.00% | 50 |
| Santa Cruz County | 49.00% | 772 |
| Northern California | 48.64% | 1252 |
| Marin County | 47.00% | 1498 |
| Napa County | 39.85% | 1764 |
| Mountain Valley | 36.27% | 5046 |
| Monterey County | 34.41% | 5310 |
| Coastal Valleys | 33.00% | 4387 |
| Inland Counties | 33.00% | 21132 |
| Yolo County | 32.40% | 2833 |
| San Benito County | 32.00% | 529 |
| Contra Costa County | 29.50% | 15749 |
| Santa Barbara County | 28.10% | 2334 |
| Kern County | 27.50% | 15410 |
| North Coast | 26.10% | 3875 |
| Alameda County | 25.44% | 32310 |
| San Joaquin County | 24.79% | 12848 |
| Riverside County | 21.80% | 36151 |
| Santa Clara County | 20.32% | 10320 |
| San Francisco | 18.00% | 17569 |
| Merced County | 12.73% | 2946 |
| Los Angeles County | 12.00% | 48939 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| San Luis Obispo County | | |
| San Mateo County | | |
| Solano County | | |
| Tuolumne County | | |
| Ventura County | | |

| Measure ID | PAI-1 |
|---|---|
| Response Count | 25 |
| Denominator Total | 251438 |
| Submission Rate (n=33) | 75.76% |
| Average | 39.51% |
| Median | 32.40% |




Of the 25 LEMSAs reporting these data for 2015, the median percentage of patients receiving intervention for any pain reported as 7 or greater on a 10-point pain scale was 32.40%. The median value has remained between 32 and 39% over the past four years. However, the variation between LEMSAs is remarkable. Pain intervention was defined as any analgesic medication or accepted procedure to reduce pain. This is an important intervention that EMS personnel can administer to make patients more comfortable during packaging and transport.

All paramedics have access to narcotics and other analgesics; however protocols for use may vary significantly. Some may have received pain medication from first responders and documentation may be inconsistent within the record. The wide variation deserves closer investigation.

LEMSAs whose name appears in a grey cell indicate that the LEMSA did not report any clinical measures for the 2015 data year. LEMSAs whose names appears in a white cell, but have grey cells for their reported value, indicate participation in this year's core measures reporting, but no values reported for this specific measure in 2015.

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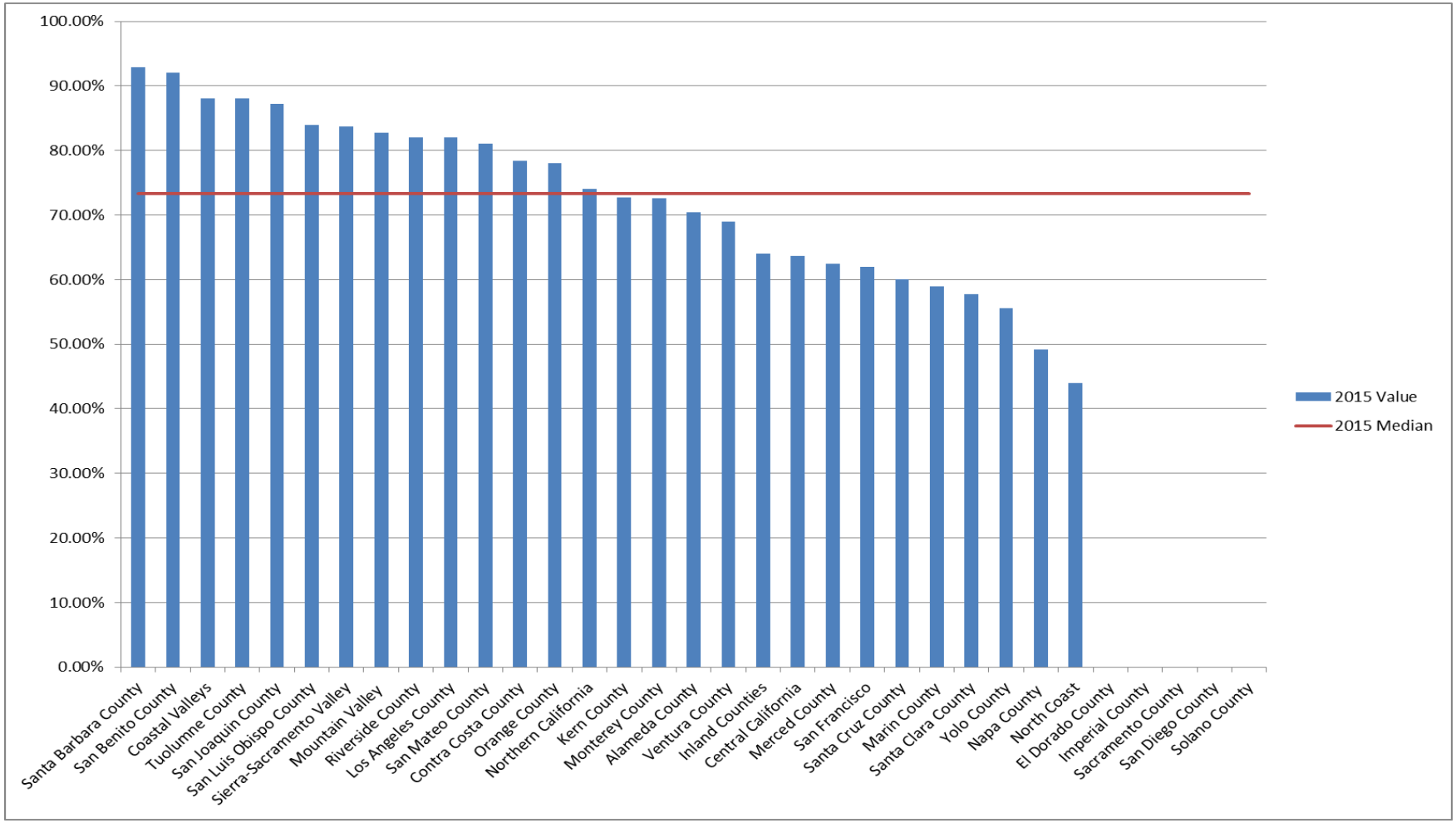
# SKL-1: Endotracheal Intubation Success Rate – Part 1 of 2

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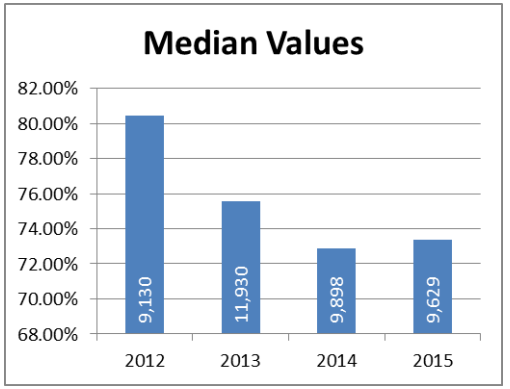
# SKL-1: Endotracheal Intubation Success Rate – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Santa Barbara County | 92.90% | 99 |
| San Benito County | 92.00% | 13 |
| Coastal Valleys | 88.00% | 104 |
| Tuolumne County | 88.00% | 17 |
| San Joaquin County | 87.16% | 335 |
| San Luis Obispo County | 84.00% | 117 |
| Sierra-Sacramento Valley | 83.76% | 425 |
| Mountain Valley | 82.71% | 133 |
| Riverside County | 82.03% | 1252 |
| Los Angeles County | 82.00% | 1577 |
| San Mateo County | 81.00% | 284 |
| Contra Costa County | 78.41% | 315 |
| Orange County | 78.00% | 264 |
| Northern California | 74.00% | 50 |
| Kern County | 72.74% | 642 |
| Monterey County | 72.60% | 146 |
| Alameda County | 70.47% | 789 |
| Ventura County | 69.00% | 54 |
| Inland Counties | 64.00% | 1328 |
| Central California | 63.72% | 430 |
| Merced County | 62.41% | 290 |
| San Francisco | 62.00% | 234 |
| Santa Cruz County | 60.00% | 70 |
| Marin County | 59.00% | 56 |
| Santa Clara County | 57.70% | 331 |
| Yolo County | 55.60% | 18 |
| Napa County | 49.23% | 65 |
| North Coast | 44.00% | 191 |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| San Diego County | | |
| Solano County | | |

| Measure ID | SKL-1 |
|---|---|
| Response Count | 28 |
| Denominator Total | 9629 |
| Submission Rate (n=33) | 81.82% |
| Average | 72.73% |
| Median | 73.37% |




Of the 28 LEMSAs reporting these data for 2015, the median percentage of successful endotracheal intubations (within 2 attempts) was 73.37%. Median values have been fairly consistent for the past three years. These values are consistent with reported values in the literature, which vary between 75 and 80%. Variation between LEMSAs is notable and of interest to validate.

The values may decrease in the future, since the value of intubation has been questioned for many patients, and other methods of airway management have recently been shown to be as effective as intubation. It is important to monitor this measure to determine the need for skill maintenance.

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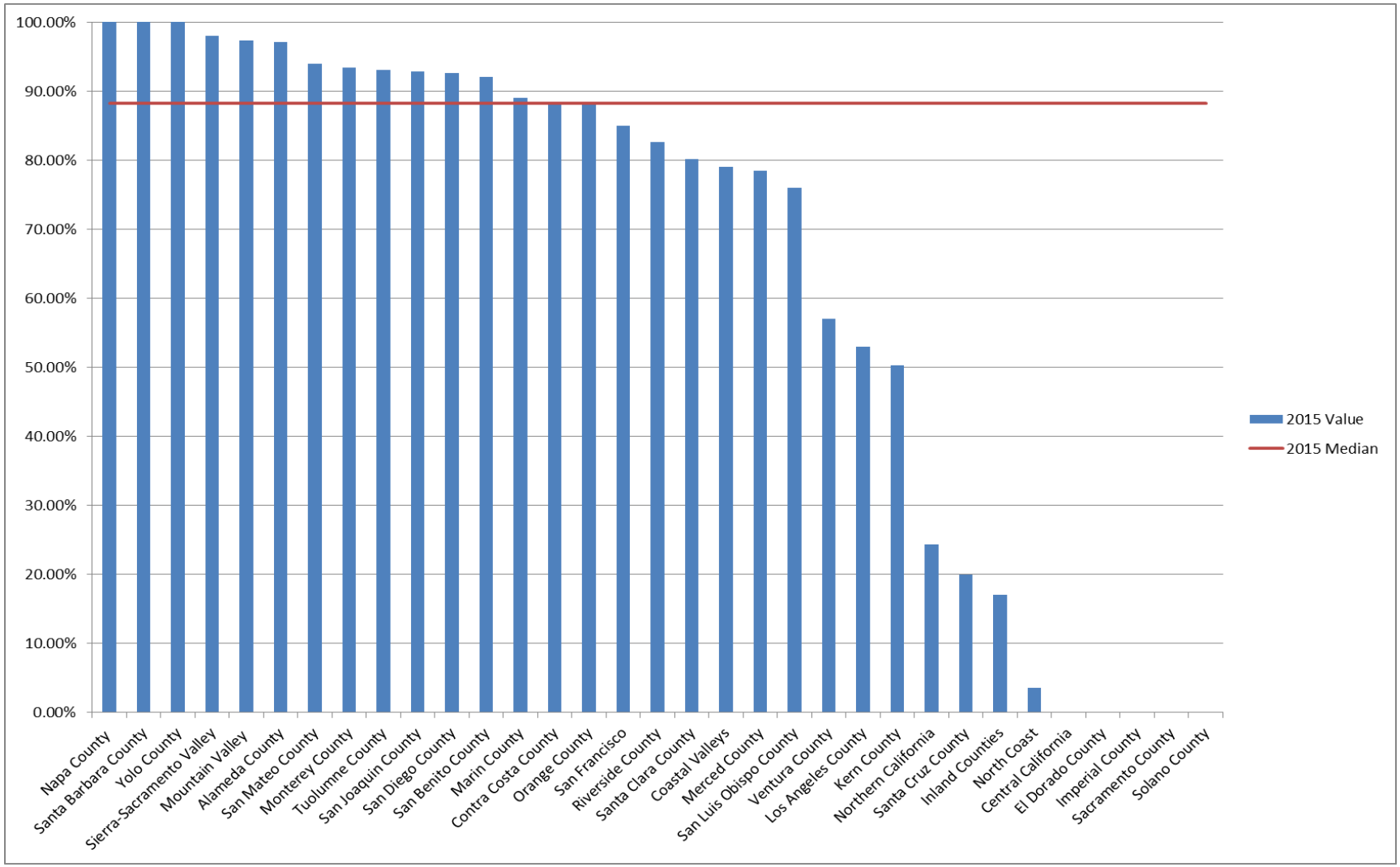
# SKL-2: End-tidal CO2 Performed on any Successful Endotracheal Intubation – Part 1 of 2

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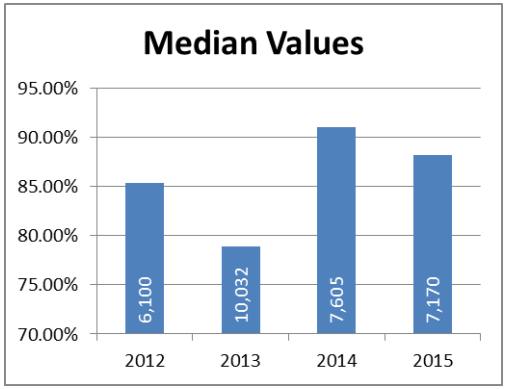
# SKL-2: End-tidal CO2 Performed on any Successful Endotracheal Intubation – Part 2 of 2

| | 2015 Value | 2015 Denom. |
|---|---|---|
| Napa County | 100.00% | 32 |
| Santa Barbara County | 100.00% | 99 |
| Yolo County | 100.00% | 10 |
| Sierra-Sacramento Valley | 98.03% | 356 |
| Mountain Valley | 97.27% | 110 |
| Alameda County | 97.12% | 556 |
| San Mateo County | 94.00% | 230 |
| Monterey County | 93.44% | 106 |
| Tuolumne County | 93.00% | 15 |
| San Joaquin County | 92.81% | 292 |
| San Diego County | 92.56% | 242 |
| San Benito County | 92.00% | 12 |
| Marin County | 89.00% | 112 |
| Contra Costa County | 88.50% | 261 |
| Orange County | 88.00% | 50 |
| San Francisco | 85.00% | 144 |
| Riverside County | 82.58% | 916 |
| Santa Clara County | 80.10% | 191 |
| Coastal Valleys | 79.00% | 91 |
| Merced County | 78.45% | 181 |
| San Luis Obispo County | 76.00% | 99 |
| Ventura County | 57.00% | 37 |
| Los Angeles County | 53.00% | 1378 |
| Kern County | 50.31% | 642 |
| Northern California | 24.32% | 37 |
| Santa Cruz County | 20.00% | 40 |
| Inland Counties | 17.00% | 847 |
| North Coast | 3.60% | 84 |
| Central California | | |
| El Dorado County | | |
| Imperial County | | |
| Sacramento County | | |
| Solano County | | |

| Measure ID | SKL-2 |
|---|---|
| Response Count | 28 |
| Denominator Total | 7170 |
| Submission Rate (n=33) | 81.82% |
| Average | 75.79% |
| Median | 88.25% |




Of the 28 LEMSAs reporting these data for 2015, the median percentage of End-Tidal CO2 monitoring with waveform capnography after any successful endotracheal intubations was 88.25%. The value significantly increased from last year, but has been variable over the prior years of measurement, but generally about 8-90%.

Following clinical best practices, this indicator should be 100%, so it is important for local jurisdictions to evaluate whether this is documentation, a practice issue, or protocol deficiency.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Adrienne Kim
CEMSIS Program Coordinator

**SUBJECT:** CEMSIS Update: NEMSIS 3 Transition

## RECOMMENDED ACTION:

Receive information on CEMSIS.

## FISCAL IMPACT:

Changes to adoption of the NEMSIS Version 3 data set will have cost to the EMS Authority, local EMS agencies and providers in amounts that are not yet fully determined.

## DISCUSSION:

The EMS Authority is performing validation reviews on the data being input to CEMSIS. Part of this effort has resulted in the development of statewide data reports for the first time these reports provide a look into the EMS data CEMSIS contains at a statewide. The report provides information on the data in the system related to a number of areas that are of interest to both the EMS Authority and the EMS community. The contents of this report can be modified to include other elements the system captures as well. It is our intent to publish this report on an annual basis. Similar reports broken down by each reporting local EMS agency will also be available to those agencies in the near future. The EMS Authority greatly appreciates the work the Executive Data Advisory Group (EDAG) has done in assisting us with getting the first CEMSIS report completed. The statewide report itself is a large document and is currently placed on the EMS Authority's website.

We are continuing our preparations to adopt NEMSIS Version 3.4 consistent with the requirements of AB 1129 (Health and Safety Code 1797.227) that went into effect January 1, 2016 and requires providers to use an electronic health record in submitting data to LEMSAs. The EMSA/EMSAAC/EMDAC EDAG has been working on establishing a NEMSIS Version 3.4 Data Dictionary for use in California.

This California specific data dictionary uses the NEMSIS Version 3.4 minimum data standard with reporting of all *mandatory* and *required* fields. However, the LEMSAs may still collect data and use additional data elements best suited to their individual needs. The California specific data dictionary for NEMSIS V 3.4 was reviewed and approved by EDAG on August 24, 2016. This data dictionary makes available relevant data information so providers and software vendors can program their systems with the lists we have developed. These lists limit the selections in four fields.

The EMS Authority has been providing technical assistance to providers and software vendors who have questions related to the use of NEMSIS Version 3.4. The EMS Authority will fully transition to NEMSIS Version 3.4 effective January 1, 2017 and will no longer accept NEMSI Version 2.2.1 data past that date, consistent with AB 1129's direction for the use of the current version of CEMSIS and NEMSIS. There had been two educational data webinars for local EMS agencies, providers, and software vendors related to the transition to version 3.4. EMSA plans two additional sessions on September 27th at EMSA in Rancho Cordova and September 29th at the Embassy Suits Anaheim South in Garden Grove.

We now have 20 local EMS agencies submitting data in some capacity to CEMSIS EMS. Since July 2013, there were approximately half a million records in the system, extending back to 1990. Now, as of September 1, 2016, there are approximately 5 million records in the current system; we continue to submit data to the University of Utah in the NEMSIS Version 2.2.1 format.

The EMS Authority is in the process of finalizing grant funds to purchase and distribute EHR devices to select providers. Prior to distribution of these electronic devices, each provider must meet certain needs-based.

The EMS Authority has partnered with California Department of Public Health (CDPH) to share a half-time epidemiologist to help us review and analyze the data in CEMSIS, specifically focused on traffic related incidents. This partnership is a result of grant funding from the Office of Traffic Safety. We are looking forward to working with her for some detailed analysis of our data.

The Commission will be kept informed on our progress with the statewide data program.

**EMERGENCY MEDICAL SERVICES AUTHORITY**
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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Laura Little, EMT
Transportation Coordinator

**SUBJECT:** Ambulance Patient Offload Time (APOT)

## RECOMMENDED ACTION:

Review amended matrix regarding ambulance patient offload time methodology.

## FISCAL IMPACT:

None

## DISCUSSION:

AB 1223 went into effect on January 1, 2016 and mandated that the EMS Authority (EMSA) develop a statewide methodology for calculating and reporting by a local EMS agency (LEMSA) ambulance patient offload times. This statewide, standard methodology will be based on input received from stakeholders, including but not limited to: hospitals, LEMSAs, public and private EMS providers and must be approved by the Commission on EMS.

At the June 2016 Commission meeting, the matrix for ambulance patient offload time methodology was approved. Subsequently, the workgroup held additional discussion on the matrix and it became apparent that further revision of the document would be completed to address posed concerns. The matrix is currently being modified with suggested edits.

On August 30th EMSA re-convened the working group, to further discuss amendments that will need to be made to the matrix along with the Standardized Methods for Data Collection and Reporting document that will accompany the matrix.

*APOT – 1: What is the 90th percentile for on Ambulance Patient Offload Time at the Hospital Emergency Department?*

- Report aggregate values by:
  1) LEMSA (using total denominator),
  2) Broken out by individual hospital

- Report the 90 percentile time calculated and the denominator (number of transports)
- Report Quarterly
- Statute allows the LEMSA to set their standard target time; however, the workgroup recommends a target time of 20 minutes, which EMSA will use for the data display.

*APOT – 2: Ambulance Patient Offload Delay greater or less than 1 hour*

2.1: What percentage of patients transported by EMS personnel experience a transfer between 20 - 60 minutes of arrival at the Hospital Emergency Department?

2.2: What percentage of patients transported by EMS personnel experience a transfer of care between 61 - 120 minutes after arrival at the Hospital Emergency Department?

2.3: What percentage of patients transported by EMS personnel experience a transfer of care between 121 - 180 minutes after arrival at the Hospital Emergency Department?

2.4: What percentage of patients transported by EMS personnel experience a transfer of care more than 180 minutes after arrival in the Hospital Emergency Department?

- Report aggregate values by:
  3) LEMSA (using total denominator),
  4) Broken out by individual hospital
- Report the % calculated and the denominator used to calculate (number of runs)
- Report Quarterly

EMSA is continuing to collaborate with EMSAAC in the creation of a best practices document for tracking APOT. We are also determining which LEMSAs currently have APOT data available.

In the near future, we will have determined the best method to display and publish APOT data on the EMSA website.

EMSA has brought the amended APOT – 1 and APOT – 2 to the Commission, to bring forth the amendments that were made after the June 2016 Commission meeting.

It is EMSA's intent to come back to the Commission, in December with an updated methodology.

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**DATE:** September 21, 2016

**TO:** Commission on EMS

**FROM:** Howard Backer, MD, MPH, FACEP
Director

**PREPARED BY:** Craig Johnson
Chief, Disaster Medical Services Division

**SUBJECT:** Mobile Medical Assets Update

## RECOMMENDED ACTION:

Receive updated information regarding changes to the EMS Authority's Mobile Medical Assets Program.

## FISCAL IMPACT:

None

## DISCUSSION:

Mobile Medical Shelter Program:

Working with other state agencies, and within existing resources, the EMS Authority has redesigned the Mobile Field Hospital (MFH) program into the California Mobile Medical Shelter program. The purpose of the redesign is to modify and expand the potential uses of the equipment into general staging, stabilization and shelter capacity.

In 2007, the state purchased three MFHs with the intent to replace or augment acute hospital care capacity during catastrophic emergencies. These ongoing funds were eliminated in FY 2011-12. The Governor's final 2016-2017 budget described the transition of this program to their use as shelters.

The MFHs infrastructure components are still viable and consist of structures and equipment that can provide significant support during local emergencies. Each MFH contains 40 structures and durable equipment, such as, heating, ventilation and air conditioning units, cots, beds, chairs, tables, sinks, cabinets and lighting. Power is provided by up to eight diesel generators, depending on the number of structures used.

The new program redesigns the 3 MFHs in the following manner:

1. The structures and durable equipment of the first MFH (Alpha) will be stored at the EMS Authority and utilized to bolster the CAL-MAT program and support local emergencies through the Mobile Medical Shelter program.
2. The EMS Authority will reconfigure the 2nd MFH (Bravo) into six (6) multiuse modules and distribute to local partners. We propose to locate one module in each Mutual Aid Region. The modules will include the shelters, infrastructure equipment, and durable equipment, but will **not** include biomedical equipment and medical supplies. This redistribution of the MFH would allow local partners to rapidly deploy this resource. Potential uses include: field sites for Local/Regional incidents, triage/treatment during flu season surge, medical clinic, medical shelter, emergency operations center, staff quarters, disaster exercise, and any other use that requires a field facility. Deployment would be at the discretion of the locals without requiring a state resource request.
3. The third MFH (Charlie) will be transferred to the State Military Department for use by the California National Guard.

California Medical Assistance Team Program (CAL-MAT):

The CAL-MAT program is modeled after the successful Federal Disaster Medical Assistance Team (DMAT) program and is designed to ensure that response assets are available for California to support local response to emergencies and disasters in times of need.

The EMS Authority has devoted a significant amount of time and effort at achieving the best model for administering the CAL-MAT program. In the past, the EMS Authority relied on contract services to ensure immediate deployment readiness of the program. However, our contract agreement will expire at the end of this year and the existing Contractor will no longer offer the services. A Request for Proposals (RFP) for a new contract was pursued. However, no acceptable bids were received.

The EMS Authority Disaster Medical Services (DMS) Division conducted an internal analysis to determine the most appropriate model, external contract or internal management, for the continuation of the CAL-MAT program. The decision was made to pursue internal management. This was driven primarily by clearance from the California Department of Human Resources through the Department of General Services (DGS) for the EMS Authority to utilize personnel for CAL-MAT response under the Emergency Hire process. Without the approval to utilize Emergency Hires, the EMS Authority would not be able to deploy CAL-MAT members as temporary State employees during emergency activations. Using Emergency Hires offer important benefits for CAL-MAT members. In addition to salary compensation when deployed, personnel are also covered with Medical Malpractice and Liability, and Workers Compensation.

Present efforts are focused on restructuring the program based on internal management. The anticipated launch date of the CAL-MAT program, fully managed by the EMS Authority, is Jan 1, 2017. Essential program components include the following.

Outreach: The CAL-MAT website, Informational Brochure and Frequently Asked Questions are completed.

Training: Development of the training program is completed and consists of:

- Mandatory Training - CAL-MAT Base of Operations setup & equipment use.
    - Includes a 72 hour Field Training Exercise provided by EMSA staff and offered twice a year (Northern and Southern California).
- Recommended Training - modeled after DMAT and covered in existing CAL-MAT training sessions.

Unit Formations: The organizational structure for up to 8 Units in two Divisions, Northern California and Southern California, has been developed.

Roster Building and Activation: The EMS Authority is leveraging the capability of the existing Disaster Health Care Volunteer (DHV) system presently administered by the EMS Authority DMS to support the building of monthly rosters and team lists for activation. Testing and validation is expected to be completed by the end of Quarter 3.

Personnel Job Descriptions: Existing State Classifications and Positions have been identified for nearly all CAL-MAT positions. General language specific to the CAL-MAT program and position description formatting is being prepared for review by DGS. Once approved, a formal announcement of the CAL-MAT program and active recruitment will be initiated.

Resource Support and Logistics: Supplies and logistical support functions needed for field deployment of CAL-MATs are in place and ready to go.