STATE OF CALIFORNIA
COMMISSION ON EMERGENCY MEDICAL SERVICES
December 6, 2017
09:00 A.M. – 11:30 A.M.
(Meeting may end early at the completion of all agenda items)
Marines' Memorial Club and Hotel
609 Sutter Street
San Francisco, CA 94102
(415) 673-6672

1. Call to Order and Pledge of Allegiance

2. Review and Approval of September 13, 2017 Minutes

3. Director's Report
- A. EMSA Program Updates [DMS] [Personnel] [Systems]
- B. Legislative Summary for 2017

4. Consent Calendar
- A. Administrative and Personnel Report
- B. Legal Report
- C. Enforcement Report
- D. EMS Plan Appeal Update
- E EMS Plan Review Process
- F. POLST eRegistry Update

Regular Calendar

5. EMS Administration
- A. Approval of Office of Administrative Law Rulemaking Calendar

6. EMS Personnel
- A. Community Paramedicine Pilot Project
- B. Pediatric Endotracheal Intubation

7. EMS Systems
- A. Ambulance Patient Offload Time (APOT) Report
- B. CEMSIS Program Update
- C. EMS Core Measures Report

8. Disaster Medical Services Division
- A. Medical and Health Mutual Aid System Response to the October Fires

9. Nomination of Officers for March 2018 – March 2019

10. Approval of 2019 Meeting Dates

11. Items for Next Agenda

12. Public Comment

13. 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, no less than 7 days prior to the meeting.

STATE OF CALIFORNIA
COMMISSION ON EMS
WEDNESDAY, SEPTEMBER 13, 2017
HOLIDAY INN BAYSIDE SAN DIEGO
4875 NORTH HARBOR DRIVE
SAN DIEGO, CA 92106

MINUTES

COMMISSIONERS PRESENT:
Steve Barrow, Dan Burch, Jaison Chand, Steve Drewniany, James Dunford, M.D., Mark Hartwig, James Hinsdale, M.D., Richard Johnson, M.D., David Rose, Carole Snyder, Lew Stone, Dave Teter, Atilla Uner, M.D., Susan Webb

COMMISSIONERS ABSENT:
Nancy Gordon, Daniel Margulies, M.D., Eric Rudnick, M.D., Jane Smith

EMS AUTHORITY STAFF PRESENT:
Howard Backer, M.D., Daniel R. Smiley, Craig Johnson, Jennifer Lim, Lou Meyer, Tom McGinnis, Sean Trask, Sandra Baker, Leslie Witten-Rood

AUDIENCE PRESENT:
Dave Magnino, Sacramento County EMS Agency

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chair Dan Burch called the meeting to order at 10:01 a.m. Fourteen Commissioners were present. Commissioner Rose led the Pledge of Allegiance.

2. REVIEW AND APPROVAL OF JUNE 21, 2017, MINUTES

Action: Commissioner Barrow moved approval of the June 21, 2017 Commission on Emergency Medical Services Meeting Minutes. Commissioner Hinsdale seconded. Motion carried with Commissioners Stone and Johnson abstaining.

3. DIRECTOR'S REPORT

A. EMSA Program Updates [DMS] [Personnel] [Systems]

Howard Backer, M.D., EMSA Medical Director, presented his report.

Budget

The EMSA budget continues to be stable, despite challenges due to increasing indirect costs at the state without subsequent increase in the general funds.

Personnel Changes

Angela Wise, EMS Systems Division Assistant Chief, will be out for a couple of months or so due to a serious accident. Tom McGinnis is endeavoring to keep up, with assistance from Adrian Winnick, the new Data Manager.

Trauma Manager Bonnie Sinz has retired. Farid Naser is the Acting Manager in the interim.

Distribution of Device Funds for PCRs

With a grant from the National Highway Traffic Safety Administration (NHTSA), EMSA has distributed money for devices for PCRs to various EMS provider agencies. Some agencies have rejected the offer because of reluctance to sign an agreement to accept the devices; they view it somehow as a compromising agreement. This indicates a real need to separate the issues of EOAs from medical control. This may be an issue that needs discussion.

Legislation

SB 432 (Pan) relates to reporting of infectious disease exposures to providers. Recent amendments clarify who is responsible for reporting. The bill has a good chance of passing.

SB 433 (Hernandez) looks at authorizing automated drug delivery systems. The machines provide a secure means of dispensing medication; they are used universally in hospitals and skilled nursing facilities that have controlled substances, and could be of great benefit in EMS. The only amendment that has created some controversy deals with who can stock the machines – it omitted nurses.

Data

The Core Measures Report for the 2016 information will be posted soon, as will the report from UC Davis on how the Core Measures program is going. Dr. Backer felt that it is time to take a new look at the Core Measures – especially since all the providers in the state have moved over to the National EMS Information System (NEMSIS) 3.4 which gives more uniform and consistent data across the board.

Data problems are now coming from the field entry level; we need to work with providers to not shortcut data entry. As they become facile in working with their ePCRs, they need to know the most important fields and the most important data to enter consistently.

APOD

This Commission has shown an interest in ambulance patient offload times and delays (APOD). Because of the statute and our efforts to make standardized reporting, we need to see a statewide picture of APOD. Therefore, we are going to make the argument that we need all of the local EMSAs (LEMSAs) to report this data. An EMS fellow is going to work with us to write a report on the process.

Preparedness and Disaster Unit

We are down to final drafts of the Patient Movement Plan for the Preparedness and Disaster Unit. There have been several recent experiences around the country to help understand how this is managed in other jurisdictions.

We have started to distribute the mobile shelter modules. Not every region has taken a module; we will need a push from other agencies to help get the rest of these modules distributed around the state where they can be used by any of the LEMSAs or regional agencies for a disaster response.

Questions and Discussion

Commissioner Barrow commented that sometimes people on the front line receive only superficial training. Dr. Backer agreed. At the previous day's meeting he had made a plea to the medical directors and administrators to provide sufficient training.

B. Legislative Report

Jennifer Lim, EMSA Deputy Director of Policy, Legislative, and External Affairs, spoke about two bills that are inactive at this point but were significant and continue to be on the serious watch list for the two-year session.

- AB 263 (Rodriguez) is entitled Emergency Medical Services Workers Rights and Working Conditions. It would require private employers that provide ground emergency medical services to authorize and permit its employees engaged in pre-hospital emergency services a prescribed rest and meal period. It would also require EMSA to publish an annual report containing specified information regarding violent incidents involving EMS providers.
- AB 1116 (Grayson) is entitled Peer Support and Crisis Referral Services Act. It would create a Peer Support and Crisis Referral Services Program under the California Office of Emergency Services (Cal OES) with three separate tracks:
    - Fire service
    - Correctional officers
    - Rescue or emergency responders

  The Commission had some concern about the communication between the peer support member and the employee being confidential and not subject to civil or administrative disclosure.

4. CONSENT CALENDAR

A. Administrative and Personnel Report
B. Legal Report
C. Enforcement Report
D. POLST eRegistry Update
E. Training Standards for Childcare Providers Regulations Update
F. EMS Plan Status Update

Action: Commissioner Rose moved approval of the Consent Calendar. Commissioner Snyder seconded. Motion carried unanimously. The item was noted and filed.

REGULAR CALENDAR

5. EMS PERSONNEL

A. Community Paramedicine Pilot Project Status Update

Lou Meyer, Project Manager for the Community Paramedicine Project, presented his report.

- The programs continue to show that they benefit the public in most areas.
- The Alternate Destination Urgent Care Center projects will be discontinued by November 13, 2017.
- The UCLA-sponsored projects covering Glendale and Santa Monica were terminated due to lack of enrollees and lack of continuing funding from the city governments.
- Involvement within the current pilots has slowed a bit, partly due to attrition of community paramedics as they are promoted to other positions.
- We authorized three additional core and site-specific training programs in Ventura, Stanislaus County, and Solano.
- No adverse outcomes have been identified as a consquence of the pilot programs.
- Data reports continue to be filed with the Office of Statewide Hospital Planning and Development (OSHPD).
- Eight proposals to join the current OSHPD pilot project are under review by Dr. Backer and Mr. Meyer. They include:
    - Santa Clara County EMS for Alternate Destination Behavioral Health and Alternate Destination Sobering Center
    - Dignity Health EMS in the Sierra/Sacramento Valley Region, with Dignity Health Hospital and American Medical Response
    - Cal Tahoe JPA for Alternate Destination and Proposed Discharge
    - El Dorado EMS Authority for Frequent 911 Users
    - Los Angeles County Fire Department for Alternate Destination Behavioral Health and Alternate Destination Sobering Center
    - Los Angeles City Fire Department for Alternate Destination Sobering Center
    - Marin County EMS Agency for Post-Discharge Pilot Project

- City and County of San Francisco, currently doing an Alternate Destination Sobering Center, to add Alternate Destination Behavioral Health and Post-Discharge and Frequent 911 Users

Questions and Discussion

Commissioner Barrow asked if the eight proposals would be part of the reauthorization at OSHPD. Mr. Meyer replied that they would become part of HWPP 173.

Commissioner Webb asked about funding for the proposals. Mr. Meyer replied that they are funded by the organizations that presented them. Dr. Backer added that the only financial support EMSA receives is for the project manager (Mr. Meyer) and the independent evaluator.

Commissioner Barrow asked if the Sobering Centers are based on the San Francisco model. Mr. Meyer replied that they were.

Commissioner Barrow asked for a summary of the reduced hospital readmissions and visits to emergency departments. Mr. Meyer replied that they have data showing the reduction in readmissions by each of the Post-Discharge pilot projects, and gave numbers for the San Francisco and Stanislaus County projects. The Frequent User Program shows a large percentage reduction in readmissions to hospitals in the first 30 days.

Commissioner Uner asked about the sobering center clinical observation period: if a patient is transported out beyond the six hour period, is it reported? Mr. Meyer affirmed that it is, although there are very few of those. This will be extended to the new applications. Commissioner Uner commented that it takes some patients significantly longer than six hours to sober up. Dr. Backer responded that sobering centers keep the patients as long as necessary. After six hours patients may go into withdrawal or have other problems that become apparent as the alcohol wears off.

Commissioner Dunford noted that he had attended a Substance Abuse and Mental Health Services Administration (SAMHSA) institute on dealing with the most complex patients. These projects, particularly behavioral health diversion programs, are essential to law enforcement. Currently there's nothing more important than keeping mentally ill people out of jails – we sometimes focus on the hospitalization costs. EMS data is essential to identify these people and to work with our partners, including jails and law enforcement.

Commissioner Dunford noted that there is $1 billion newly allocated to the Cures Act. There is going to be new federal leadership and devotion to this issue.

Mr. Meyer noted that he has been asked to present the California Pilot Project at the EMS World Expo in Las Vegas next month, as well as the International Roundtable on Community Paramedicine (IRCP).

B. Paramedic Regulations Revision Report

Sean Trask, Chief of the EMS Personnel Division, presented his report.

The division has cleared the Paramedic Regulations internally and they are now at the California Health and Human Services Agency. The list of proposed changes includes the following.

- A proposal to increase the paramedic licensing fee by $50 to be phased in over three years (changed from two years).
- A proposal to increase the fees for out-of-state continuing education providers from $200 every four years to $2,500 every four years.
- A proposal to add a fee of $2,500 every four years for statewide public safety agencies who have CE approvals.
- A proposal to add college-level introductory psychology, anatomy, and physiology course prerequisites to paramedic student eligibility.

  Mr. Trask further explained the fees.

The division hopes that Public Comment will begin in November 2017.

Questions and Discussion

Commissioner Webb asked how the Agency acquired more than $1 million deficit in administrative fees that it now seeks to cover. Mr. Trask replied that one factor is the continuing increases in salary and benefits of about 2% per year. Another factor is administrative costs that the EMS Authority is being asked to absorb. Another is the move to an online licensing system.

Daniel Smiley, EMSA Chief Deputy Director, further explained that some of the fees include increased costs from the Department of General Services for our human resources activities. The state has gone through a detailed restructuring of its fiscal management system and now uses FISCal. It is more expensive, and those costs are passed down to EMSA. We also have increased costs for our Health and Human Services Agency for the Legislative Analysis System, additional IT oversight costs, information security services, etc. This all adds up to an unexpected increase in administrative and shared costs overall during the last couple of years.

Commissioner Uner asked the amount of the current paramedic recertification fee. Mr. Trask answered that it is $200 every two years, with additional fees if the person is lapsed or an out-of-state applicant.

Commissioner Uner asked how the out-of-state CE provider fee applies to an EMS provider agency that is located close to a state border. Mr. Trask did not have an answer at present. Commissioner Uner commented that there may be unintended consequences for people living close to a border who have a great offer and a great relationship with a CE provider across the border.

Commissioner Uner asked for a definition of “college-level.” Mr. Trask responded that to have an EMT or paramedic training program, the organization must be an accredited college or university, or be approved by the secondary bureau. Commissioner Uner

expressed concern that we are singling out low-income Californians who work long and hard to save for paramedic school. We have an expectation of quality education, but instead of putting that expectation on the schools, we are putting it on the students.

Commissioner Chand commented on the anatomy and physiology requirement for paramedics. Currently there is a nursing shortage that is only getting worse, and those classes are required for nurses. We are asking paramedics to get into that competition for classes, thereby making it harder and harder for paramedics.

Commissioner Barrow commented on the lack of cooperation of community colleges in the rural areas to prepare for the future. The newly passed Telehealth bill AB 415 addresses this issue; you can do remote training and require minimal amounts of time in the labs or the classrooms. Schools and hospitals need to start using telehealth as training program settings to provide what they lack in the rural areas.

Commissioner Uner responded that the fee does not put the onus on the paramedic schools, where it ought to be, but rather on the students to fend for themselves.

Dr. Backer noted that much of this education has moved online. We should look at what is available through various community colleges, four-year colleges, and universities.

Commissioner Stone commented that anatomy and physiology courses need the lab component; there has to be some level of classroom participation. In fire departments, this will adversely affect our ability to recruit minority candidates and those with socioeconomic challenges. Typically a lot of fire departments recruit firefighters; after a successful completion of probation and opportunity to work as an EMT, we send those that really excel to paramedic school. If they do not have the prerequisites prior to that time, it will be to their detriment.

Commissioner Chand encouraged Dr. Backer to look into the lab requirements for nursing programs throughout the state. Dr. Backer stated that perhaps the nursing class is not the model we want or need.

Commissioner Dunford noted that other countries around the world have many more requirements for paramedics than just three classes. The EMS world is moving in the direction of higher education.

6. EMS SYSTEMS

A. Core Measures Report

Tom McGinnis, Chief of the EMS Systems Division, stated that 28 of the 33 LEMSAs submitted information as part of the Core Measures Project. In the next year, all 33 should be submitting their information. Of the information submitted, the denominators (numbers of runs/cases) are increasing.

(C.) EMS Plan Appeal Update

Currently the EMS Authority has three appeals registered by LEMSAs related to determinations on EMS plans by the Authority. An appeal with Kern County has been scheduled for the week of March 12, 2018. The other appeals from El Dorado County and Santa Clara County have not been scheduled as of yet.

Questions and Discussion

Chair Burch commented that it has been almost four years since an appeal was heard, which is rather disheartening. The blame goes to all the levels: LEMSAs, the State EMS Agency, and the Commission. Chair Burch had opposed outsourcing the appeals process to the Office of Administrative Law. He encouraged the EMS Authority to do everything within its power to expedite the appeals processes and allow the Commission to do its statutory authority to make a final determination.

B. CEMSIS Update

In the near future we will have 29 of the 33 LEMSAs reporting data to us. Many agencies are still in transition with their master data systems. We are almost ready to start reviewing data, generating reports, looking at the system, and making evaluations.

Related to the Electronic Device Grant, we received $1.2 million that the Office of Traffic Safety helped secure from NHTSA. We will have about $46,000 left. NHTSA is impressed with our progress, and there may be other opportunities from them.

Questions and Discussion

Commissioner Barrow asked about the biggest challenges in the uniform distribution of electronic devices; are there gaps in where they are located? Mr. McGinnis answered that when we first sent the funding out, we sent it to the LEMSAs because that gave us the quickest opportunity to distribute the funding. With the differing dynamics among the LEMSAs, some eventually said that they were no longer interested in the devices. That resulted in the existing gaps. We are fairly confident that we will have electronic reporting through the transport world, then through the ALS first response, and on down. Once the grant is completed the transport arena will be 100% covered.

Health Information Exchange

Leslie Witten-Rood, manager of the EMSA Health Information Exchange (HIE) projects, gave an update.

- The +EMS Project employs the Search, Alert, File, and Reconcile (SAFR) model. The paramedic utilizes the ePCR, which is transmitted to the ED. For this project, 1,000 paramedics and 150 staff were trained. Currently we are receiving data and outcome on the patient match for this, and the responses.
- The Patient Unified Lookup System for Emergencies (PULSE) deals with disaster response. Four health organizations were brought onboard. The system utilizes our Disaster Healthcare Volunteer Database as a single sign-on. When EMSA declares an emergency or disaster and we get a request from the local agency to have the system turned on, disaster healthcare volunteers can access patient records.

- Now that our Office of the National Coordinator for Health Information Technology (ONC) funding has ended, we are working on an application for matching funds with Health and Human Services (Medi-Cal) to offer this to the other LEMSAs.
- The ONC asked us to continue the HIE efforts as a national leader. We will be heading an HIE Workgroup and continuing our work in the state.

Questions and Discussion

Commissioner Dunford asked about the ability to get the patient's diagnosis back to the paramedic – how much granularity has been achieved? Ms. Witten-Rood answered that she is waiting for that final component in reports coming to her. She will supply the Commission with a final report by October 24.

7. DISASTER MEDICAL SERVICES DIVISION

A. Training and Medical Services Update

Craig Johnson, Chief of the Disaster Medical Services Division for EMSA, presented his report.

- In January the division held the Statewide Patient Movement Plan Tabletop Exercise. They are now working on the draft Patient Movement Plan that will be sent out shortly for stakeholder review, including the Commission.
- In June the division participated in the Urban Search and Rescue Exercise in which they partnered with Urban Search and Rescue (USAR). Firemen participated in this national event with a scenario based on a 7.9 earthquake.
- In June the division held the PULSE Exercise, significant because it allowed them to work with the Medical Reserve Corps and disaster healthcare volunteers to see if they can actually retrieve patient information from disparate systems at a treatment site.
- In June the division partnered with the California State Training Institute to deliver a Medical Health Operations Center Support Services (MHOCSA) Train the Trainer course.
- In August the division held the San Francisco Fleet Week Medical Health Tabletop Exercise, based around the San Francisco Bay Area Catastrophic Plan earthquake. In October there will be a Fleet Week full-scale exercise that will test capabilities and lessons learned from the tabletop exercise.
- Last week the division participated in Urban Shield, a multidisciplinary exercise that brings together fire, law, and EMS to respond to tactical, active shooter incidents.
- In November the division will participate in the Statewide Medical Health Exercise, partnering with the California Department of Public Health. The exercise will focus on tactical, active shooter incidents.

Questions and Discussion

Commissioner Stone asked whether the division's resources are deployed through Cal OES in the event of an incident. Mr. Johnson affirmed: there would be a mission tasking that would come up with the Standardized Emergency Management System (SEMS) process, from the local level, through the operational area level, through the region, up to the state.

Commissioner Barrow asked if they can look up patient information in the cloud, should the local server get damaged. Mr. Johnson answered that PULSE is a redundant system that is maintained and managed at various locations. Mr. Smiley stated that PULSE is hosted in production in the Amazon cloud.

Commissioner Barrow asked how higher level medical personnel can move physically from one area of the state to the other in the event of a substantial earthquake. Mr. Johnson answered that the division works with FEMA and Cal OES, as well as other local and state agencies, to determine access routes and prioritize which ones need to be cleared. In catastrophic planning, they come up with staging locations for setting up the treatment sites.

Commissioner Barrow asked about lessons learned and general challenges. Mr. Johnson answered that communications always comes up: being able to communicate effectively and have interoperability with all the responders, departments, and agencies that are coordinating the effort. Another issue is discerning who controls EMS resources at the local level.

Chair Burch suggested that at the next Commission meeting, Mr. Johnson might give a presentation on lessons learned and the working of medical help in Southern California. Dr. Backer agreed.

Chair Burch commented concerning his resignation as Regional Disaster Medical and Health Coordinator (RDMHC) Region IV position he had held for the last 11 years. He thanked the division and the EMS Authority for all their support during his tenure.

8. Behavioral Health Initiatives for Pre-Hospital Care Personnel – Presentation by California Professional Firefighters

Commissioner Stone spoke about the Post-Traumatic Stress Injury (PTSI) among EMS professionals. It results in various behaviors including substance abuse, loss of self-control, and suicide. With the influx of veterans into the profession, their combat experience has consequences and additional challenges.

Cal Chiefs and the California Professional Firefighters are committed to identifying the problem amongst its members and providing intervention before tragedy strikes. The International Firefighters Union has responded by establishing the Center of Excellence outside Baltimore. It is a residential facility housing up to 60 firefighters who receive professional help for their PTSI. Other centers are planned in the western U.S. The goal is to identify and come alongside those who experience problems, not to wait until something tragic happens.

In the near future, Cal Chiefs and the California Professional Firefighters will be bringing four proposals to the Commission that will address recent initiatives and lead to better patient care.

Questions and Discussion

Commissioner Barrow commended Commissioner Stone for working on this, stating that he himself is the Co-Chair of the state's Unintentional Injuries Strategy Plan Project for Children and Youth. They work with a lot of first responders and stakeholders. The impact these people feel when responding to drownings, poisonings, sleep suffocation, car accidents, etc. is profound.

9. Approval of Meeting Date Change for September 2018 Commission Meeting

Action: Commissioner Chand moved approval of the change of the meeting date of September 26, 2018 to September 12, 2018. Commissioner Stone seconded. Motion carried unanimously.

10. ITEMS FOR NEXT AGENDA

Commissioner Stone suggested an item regarding the status of the ambulance patient offload.

11. PUBLIC COMMENT

Dave Magnino, the EMS Administrator for the Sacramento County EMS Agency, explained his concern regarding the proposed paramedic regulation of increasing fee for the only statewide public safety agency CE provider, which is the California Highway Patrol (CHP). During his seven and a half years as the Statewide Paramedic Coordinator for Air Operations for the Highway Patrol, the state EMS Authority never came to his Sacramento office to review the CE program. The review can all be done online. If it is done by driving, the offices are about 15 miles apart; to review an already-approved CE provider may be two or three hours, which does not warrant a $2,500 bill for one member of EMSA to meet with the program director.

Mr. Magnino then spoke as a member of the Muddy Angels, thanking all the members of the EMS community who have stepped forward to sponsor and support the riders in the West Coast EMS Memorial Bike Ride. This year there will be about 30 riders, a 50% increase from last year.

12. ADJOURNMENT

Action: Commissioner Snyder moved to adjourn. Commissioner Stone seconded. Motion carried unanimously.

Chair Burch adjourned the meeting at 11:57 a.m.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
1. Ambulance Strike Team (AST) – Medical Task Force (MTF)	Michael Frenn, ext. 435	AST/MTF Leader Trainings are conducted on an ongoing basis, as requested. The curriculum continues to improve based on participant feedback. A standardized method for tracking units working as a strike team is being developed. Information regarding the AST Program can be found at: http://www.emsa.ca.gov/Ambulance_Strike_Team. The Disaster Medical Support Units (DMSU), which support and have 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	Recruitment by EMSA-DMS for persons interested in participating in the CAL-MAT program officially opened in late April and continues. Initial recruitment is being targeted at existing federal Disaster Medical Assistance Team (DMAT) members (Phase I). The program contemplates up to 8 Units spread throughout the State, trained and equipped for rapid deployment to provide high-caliber medical care in all-hazard disaster events in California.
3. CAL-MAT Cache	Markell Pierce, ext. 1443	EMSA is currently working on the first bi-annual inventory and resupply of the (3) CAL-MAT Medical supply caches for the 2017-2018 fiscal period. This ensures that all medical supplies are 100% accounted for, in date, and ready for immediate deployment. The revised CAL-MAT pharmacy formulary has been completed, approved, and implemented to include new medications.
4. California Public Health and Medical Emergency Operations Manual (EOM)	Craig Johnson, ext. 4171	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 working with CDPH to acquire funding to develop a Crisis Care/Scarce Resources guidance document.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
6. 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 23,305 volunteers registered. Over 20,700 of these registered volunteers are in healthcare occupations. New registrations in the DHV Program increased significantly due to the attention brought by the NorCal Wildfires incidents, (see below). Over 9,300 of the 23,300 plus DHV registered responders are Medical Reserve Corps (MRC) members. EMSA trains and supports DHV System Administrators in each of the 36 participating MRC units. All 58 counties have trained DHV System Administrators in their MHOAC Programs. EMSA provides routine training and system drill opportunities for all DHV System Administrators. DHV System Administrator training, DHV user group webinars, and quarterly DHV drills are ongoing. On October 4-5, 2017, EMSA conducted a quarterly DHV drill for System Administrators. This drill was the eighth annual Intermedix sponsored Autumn Charge Multi-State Exercise. There were 25 local DHV county and 20 MRC organizations that participated in this exercise. On October 25, 2017, EMSA conducted a quarterly DHV User Group webinar. In October 2017, the NorCal Wildfires Incidents occurred during which 13 DHV and MRC units deployed volunteers to assist with shelter medical care and veterinary animal care. Overall, approximately 360 DHV/MRC volunteers deployed over the course of these wildfire incidents. EMSA staff have provided recruiting and informational booths at the California Hospital Association annual disaster preparedness conference, the California Department of Social Services disaster preparedness information day, the Cal OES Day of Preparedness, the California Department of Corrections and Rehabilitation Health Services Employee Emergency Preparedness Fair, and San Francisco Fleet Week medical assets demonstration.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
		EMSA publishes the "DHV Journal" newsletter for all volunteers on a tri-annual basis. The most recent issue was released on September 13, 2017. The "DHV Journal" is available on the DHV webpage of the EMSA webpage: http://www.emsa.ca.gov/disaster_healthcare_volunteers_journal_page. The DHV website is: https://www.healthcarevolunteers.ca.gov.
7. 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 Medical Health Operations Center Support Activities (MHOCSA) Train-the-Trainer course was taught in June 2017. Following minor revisions, additional classes will be scheduled soon.
8. 2017 Statewide Medical and Health Exercise (2017 SWMHE)	Theresa Gonzales, ext. 1766	The 2017 Statewide Medical and Health Exercise (SWMHE) took place on November 16, 2017. The Emergency Medical Services Authority in conjunction with the California Department of Public Health and emergency management partners continue to plan for the next annual exercise. The exercise is designed as a multiphase exercise program for statewide participants to exercise response to a terrorist incident. In addition, the exercise will include objectives for Ambulance Services, Behavioral Health, Community Clinics, Emergency Medical Services Agencies, Fire Services, Hospitals, Law Enforcement, Long Term Care Facilities, Medical Examiners/Coroners, Offices of Emergency Management, and Public Health. The jurisdiction-specific objectives are designed to further enhance participants' exercise play.
9. Hospital Available Beds for Emergencies and Disasters (HAvBED)	Nirmala Badhan, ext. 1826	Federal requirements for HAvBED reporting have been discontinued. However, EMSA is working with the California Department of Public Health (CDPH) and other partners to determine how to continue to integrate hospital data collection for California use.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
10. Hospital Incident Command System (HICS)	Virginia Hartley, ext. 413 hics@emsa.ca.gov	The Hospital Incident Command System (HICS) is sponsored by the California Emergency Medical Services Authority (EMSA). EMSA is assembling a National HICS Advisory Committee to assist with matters relating to the HICS Program. This committee will serve as technical advisers on the development, implementation, and maintenance of EMSA's HICS program and activities. An Introductory Webinar of the HICS National Advisory Committee took place on November 8, 2017. The Fifth Edition of HICS, Frequently Asked questions (FAQ), and additional program information are available on the recently revised EMSA website: http://www.emsa.ca.gov/disaster_medical_services_division_hospital_incident_command_system_resources.
11. Mission Support Team (MST) System Development	Michael Frenn, ext. 435	Position Duty Statements developed as part of the CAL-MAT program also included positions needed to staff MSTs, which would be needed to support EMSA's Mobile Medical Assets when deployed to major events. EMSA-DMS is recruiting persons interested in filling these positions as part of the recruitment for the CAL-MAT Program.

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December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
12. Response Resources	Markell Pierce, ext. 1443	The bi-annual inventory maintenance of the Mission Support Team (MST) caches was completed in 2017. The MST caches are constantly being refined based on After Action Reports following exercises and real word deployments. In addition, the Response Resources Unit (RRU) is currently working to add I.T. and telecommunications equipment to improve MST networking infrastructure and Internet functionality in the field. The RRU continued audits on the 41 Disaster Medical Support Unit (DMSU) vehicles located around the State. During the audits, EMSA verified that all the DMSU vehicles are being properly maintained and utilized according to written agreements. New audits are in progress focusing on Region 4 & 5. Annual servicing of the biomedical equipment for the California Medical Assistance Teams (CAL-MAT) caches was completed in 2017. Currently the CAL-MAT cache resupply process is underway for 2017/18. A multi-year contract to service the CAL-MAT biomedical equipment has been established. All our portable generators have been inspected and permitted by the Sacramento Metropolitan Air Quality Management District. Routine maintenance for generators, forklifts, and fleet vehicles is ongoing. There are currently no major problems.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
13. Information Technology	Rick Stricklin, ext. 1445	Identifying and inventor of IT equipment to be survey to be recycled is in-progress and near completion. Working thru the process of replacing failed wireless access point equipment. Continue to perform analysis of Station 1 network connectivity and type of services current and future providers can provide including redundancy during a disaster response. This includes continued evaluation of the Meraki wireless system to provide field connectivity for data (Cellular, VSAT, wired) and video capabilities during field deployments. Annual servicing of Disaster Medical Support Unit (DMSU) radio systems by Cal OES Public Safety Communications (PSCO) is being planned and the building of the Kenwood TK 980 800 MHz frequency re-banding load is expected to be completed 3rd quarter 2018. The EMSA Station 1 vehicle fleet will also be included in the annual servicing. Work continues with the C3 communications vehicle to identify outdated technology and discover new technologies to increase its capabilities and functionality in the field.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
14. Mobile Medical Shelter Program (MMSP)	Bill Hartley, ext. 1802	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. 1. The structures and durable equipment of the first MFH 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 has reconfigured the 2nd MFH into six (6) multiuse modules to distribute to local partners. We are working with the RDMHSs and LEMSAs to locate one module in each Cal OES 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. Placement of the first module in Long Beach is complete. Placement in Riverside and Santa Cruz was delayed due to the 2017 wildfires and is being scheduled soon. Sacramento and San Mateo are working on the logistics for storage and are committed to joining the program. 3. The third MFH was transferred on September 8, 2016 to the State Military Department for use by the California National Guard.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
15. Regional Disaster Medical/Health Specialists (RDMHS) Program and Medical Mutual Aid System	Nirmala Badhan, ext. 1826	The RDMHS program works with EMSA and California Department of Public Health (CDPH) staff to support major disaster planning activities in addition to supporting information management processes. The RDMHSs have been instrumental in the response to 2017 California wildfires which included Ambulance Strikes Teams for patient evacuations and MRC participation in shelter support.
16. Medical Reserve Corps (MRC)	Lauran Capps, ext. 466	36 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 9,300 plus of the DHV Program's 23,000 plus volunteers are Medical Reserve Corps volunteers. Ten MRC units deployed volunteers to California's October 2017 wildfire incidents, providing medical care at shelters and veterinary animal care as well.
17. Statewide Emergency Plan (SEP) Update	Jody Durden, ext. 702	The Governor's Office of Emergency Services (Cal OES) has completed updating the Statewide Emergency Plan (SEP) and is moving toward better implementation of the Emergency Functions (EFs). EMSA, along with CDPH, is a lead participant in the development of the Public Health and Medical Emergency Function (EF 8) of the SEP. EMSA also supports the development of six other EFs.
18. Southern California Catastrophic Earthquake Response Plan	Theresa Gonzales, ext. 755	Cal OES is currently leading the revision of the Southern California Catastrophic Earthquake Plan. EMSA is working with the California Department of Public Health to update the Public Health and Medical Fact Sheet portion of the plan.
19. Patient Movement Plan	Jody Durden, ext. 702	The draft Statewide Patient Movement Plan is currently posted on the EMSA website for public comment. The public comment period is scheduled to close on December 1, 2017. All comments will be considered for further revising the plan.
20. Bay Area Catastrophic Earthquake Plan	Bill Campbell, ext. 728	EMSA participated in the Medical Planning Group for the Bay Area Catastrophic Earthquake Plan revision. EMSA continues to participate in the socialization of the plan.

Emergency Medical Services Authority
Disaster Medical Services Division (DMS)
Major Program Activities
December 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
21. Northern California Catastrophic Flood Response Plan	Nirmala Badhan, ext. 1826	EMSA is working with the Governor's Office of Emergency Services (Cal OES) for the development of the Northern California Catastrophic Response Plan. EMSA worked closely with the California Department of Public Health to develop a Public Health and Medical Information Analysis Brief. This document is the basis of the Public Health and Medical section of the response plan. The draft plan was presented to Cal OES Executive leadership on May 31, 2017.

Emergency Medical Services Authority
EMS Personnel Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-9875	Updates
1. First Aid Practices for School Bus Drivers	Mark Olivas, ext. 445	There are 7 School Bus Driver training programs currently approved. There are currently 1 pending reviews. Technical assistance to school staff and school bus drivers is ongoing. The EMSA Child Care Training website is updated monthly.
2. Child Care Provider First Aid/CPR Training Programs	Mark Olivas, ext. 445	There are currently 18 approved First Aid/CPR programs. Staff are reviewing 2 program renewals. 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 includes First Aid and CPR training standards.
3. Child Care Preventive Health Training Programs	Lucy Chaidez, ext. 434	There are 26 preventive health and safety practices training programs approved. There are a total of 12 programs in the review process. EMSA hosted the Child Care Regulatory Workgroup quarterly meeting in September. EMSA presented with colleagues from CDE, California R&R, Child Care Law Center, UCSF Child Care Health Program, CA CQEL, and SF Children's Center for "Child Care Hot Topics" at the Child Care Resource and Referral and CAPPA Conference in October 2017. EMSA Preventive Health sticker sales are ongoing.

Emergency Medical Services Authority
EMS Personnel Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-9875	Updates
4. Child Care Training Provider Quality Improvement/Enforcement	Mark Olivas, ext. 445 and Lucy Chaidez, ext. 434	EMSA is continuing its work to revise the Chapter 1.1 Training Standards for Child Care Providers, including First Aid, CPR, and Preventive Health training standards. Technical assistance and education regarding compliance issues is provided 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. EMSA is participating in both the statewide Child Care Regulatory Workgroup and the CDPH Early Childhood Nutrition workgroup. We are also participating in a CDC workgroup, a "MiniCollN" to reduce childhood obesity; EMSA is a co-leader with CDPH and others in the group. EMSA is also participating in the CDSS Child Care Licensing stakeholder quarterly meetings to enhance services to families and children.
5. Automated External Defibrillator (AED) Requirements for EMT's, Public Safety and Layperson	Betsy Slavensky, ext. 461	Ongoing technical support and clarification is provided to public safety agencies, LEMSA's and the general public regarding all AED statutes and regulations. EMSA is working on a webpage to provide information regarding AED statutes for clarification. Review and approval of public safety AED programs according to Chapter 1.5 Section 100021 continues. Most recently, CAL FIRE updated their AED service provider program which was reviewed and approved.
6. BLS Training and Certification Issues	Betsy Slavensky, ext. 461	EMSA provides ongoing support and technical assistance to EMTs, prospective EMTs and 73 Certifying Entities. This remains limited to two days a week due to workload for the BLS Coordinator. EMSA continues to assist all certifying entities with questions and clarification on the new EMT regulations that were effective July 1, 2017.

Emergency Medical Services Authority
EMS Personnel Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-9875	Updates
7. State Public Safety Program Monitoring	Betsy Slavensky, ext. 461	EMSA provides ongoing review, approval & monitoring of EMSA approved Public Safety First Aid/CPR, EMR, EMT and CE programs for statutory and regulatory compliance. The BLS Coordinator provides support and clarification to LEMSAs and all statewide public safety agencies regarding the Chapter 1.5 regulations and approval requirements. EMSA has approved Public Safety First Aid/CPR courses in 2017 for POST, California State Parks and Recreation and Cal Fire. The training program database has been updated to allow the addition of public safety programs that are approved by EMSA and the LEMSAs. California Fire Fighter Joint Apprenticeship Committee has received a pre-apprenticeship grant and has submitted an EMT training program to EMSA for approval based upon Health and Safety Code 1797.109. The Cal JAC program has been reviewed and is pending a clinical care contract with an acute care hospital.
8. My License Office/ EMT Central Registry Audit	Betsy Slavensky, ext. 461	EMSA monitors 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 LEMSA Coordinator meetings with certifying entities to disseminate updates, changes and corrections. Website improvements, such as the updated EMT page, FAQs based upon the new regulation, and archived newsletters continue to be implemented for ease of certification staff use and EMT resources. Ongoing development and updates of discipline and certification procedures support central registry processes and reduce time spent on technical support. With the new EMT regulations and changes in the Registry, there has been a reduction in date corrections.
9. Epinephrine Auto-injector Training and Certification	Nicole Mixon, ext. 420	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 nine training programs and has issued 463 lay rescuer certification cards.

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
1. Trauma	Elizabeth Winward ext. 460	State Trauma Advisory Committee (STAC): The STAC meets in-person on November 7, 2017. The agenda includes updates on the 2018 Trauma Summit, TQIP, trauma regulation revision process, and Trauma Centers' status. Trauma Summit: The 2018 Summit location will be San Diego, CA. A "Save the Date" email was sent to all LEMSAs and those who attended the 2017 Summit. Topics and speakers are in the process of being confirmed. Regional Trauma Coordinating Committees (RTCC) 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. EMSA was represented at South West and South East RTCC meetings on October 19, and 20, 2018. Details of current activities can be found on the EMSA website at www.emsa.ca.gov Re-Triage Project The re-triage project was initiated January 1, 2107 as part of the Strategic Highway Safety Program. Data on re-triaged cases are being collected from 11 Trauma Centers across the state. Data will be analyzed to determine the time to definitive care on re-triaged cases. Performance Improvement and Patient Safety (PIPS) Plan The PIPS Plan is deferred due to staffing changes and will be re-established as a work project in the near future.

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
		<u>Regional Trauma Network for Re-Triage Subcommittee</u> The Regional Trauma Network for Re-Triage guidance document is on hold due to staffing changes and will be re-established as a work project in the near future.
2. STEMI/Stroke Systems of Care	Farid Nasr, ext. 424	<u>STEMI and Stroke Regulations</u> After Commission approved the STEMI and Stroke Regulations drafts in June 2017, EMSA has submitted these drafts to the Health and Human Agency and Department of Finance for final approval before submission to the Office of Administrative Law (OAL) for the final rulemaking action process. EMSA still waiting for this approval from Health and Human Agency and Department of Finance to proceed with the rest of the process.
3. EMS System, Standards, and Guidelines	Lisa Galindo, ext. 423 (July through December 2017, the Primary Contact will be Nancy Steiner-Keyson, ext. 423)	EMS System Standards and Guidelines #101 - 103 (dated June 1993 and March 1994) changes have been drafted and are undergoing Executive review. An EMS Plan Workgroup was developed in November 2015 to revise the required EMS Plan documentation and update the EMS Plan submission process. The workgroup has met regularly and developed draft changes to the required EMS Plan documentation. The proposed changes are currently undergoing Executive Review.

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
4. EMS Transportation	Laura Little, ext. 412	EMS Systems Regulations Work Group / Chapter 13 Task Force: On hiatus, pending outcome of litigation, related to the subject matter involved in the regulation draft. Request for Proposals: 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 in-person meetings, email, phone, and mail in order to help them create a RFP that meets all required criteria. Bi-Annual Statewide Public Safety Air Rescue Inspections: Bi-Annual inspections of State public safety agencies, specifically the California National Guard Air ALS Rescue vehicles, were to be inspected this year, but information has become available that the National Guard has not completed their approval process with the Sacramento County EMS agency. Technical Assistance: Provide daily technical assistance to public and providers on exclusive operating areas, interpretation of statute and regulations, EMS provider information and direction on who to contact outside of EMSA for further information.

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
5. Poison Center Program	Lisa Galindo, ext. 423 (July through December 2017, the Primary Contact will be Lori O'Brien, ext. 401)	The California Poison Control System (CPCS) is one of the largest single providers of poison control services in the U.S. The CPCS is made up of four designated Poison Control Centers. 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. <u>Quarterly Reports</u> Report for the 1st quarter, July 1, 2017–September 30, 2017 was received on 10/17/2017 and reviewed for consistency with contractual objectives. There were no areas of concern. <u>Request for Information (RFI)</u> RFI C17-029 was approved and sent out on October 10, 2017 seeking information from prospective service providers interested in serving as the sole provider of poison control services for the State of California. There were no responses. The RFI will be sent to an expanded list of providers. <u>Request for Offer (RFO)</u> RFO C17-030 seeking a California Multiple Award Schedules Contractor to perform a comprehensive program and fiscal evaluation of the CPCS was approved and sent out on October 11, 2017. Responses to the RFO are due November 8, 2107.
6. EMS Plans	Lisa Galindo, ext. 423 (July through December 2017, the Primary Contact will be Nancy Steiner-Keyson, ext. 423)	The EMS Authority continues to review EMS Plans and annual Plan Updates as they are submitted by the LEMSAs. Electronic reminders to the LEMSAs are being provided at a minimum of two months in advance of their scheduled submissions. A quarterly update has been provided to the Commission reflecting the progress and time lines of EMS Plan submissions.

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
7. EMS for Children Program	Heidi Wilkening, ext. 556	<u>Regulations:</u> The EMS for Children regulations were submitted to Agency for review on June 14, 2017. EMSA is awaiting reply from Agency to forward the regulations to the Office of Administrative Law and open the rulemaking package. <u>Educational Forum:</u> The 20th Annual EMS for Children Educational Forum will be held on Thursday, November 9, 2017 in Sacramento. Speakers have been recruited and additional skills stations have been added to the forum. <u>NEDARC Survey:</u> The EMSC Program survey for 9-1-1 EMS responding agencies opened on August 1, 2017. A notice was sent to the LEMSA administrators on August 1, 2017. As of November 6, 2017, California has a response rate of 67%. The survey was extended to November 30, 2017 and EMSA is working on obtaining a 100% response rate.

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
8. CEMSIS EMS Data	Adrienne Kim, ext. 742	CEMSIS now has 26 LEMSAs participating as some level in the submission of EMS data. On January 1, 2017, many LEMSAs transitioned to NEMSIS V3.4 and EMSA is providing technical assistance and guidance to LEMSAs that are still in the process of transitioning to NEMSIS Version 3.4 consistent with AB 1129 which implemented HSC 1797.227. <u>Electronic Mobile Device Grant:</u> All contracts have been signed. EMSA is waiting for invoices for distribution as well as quarterly reports. There have been 841 EHR devices that were purchased by the 10 LEMSAs. <u>Key Indicator Reports:</u> All LEMSAs who submit into CEMSIS were sent Key Indicators Reports. Responses are still pending. <u>Reports:</u> The annual EMS report for CY 2015 and 2016 is currently underway. The annual Trauma report for CY 2016 is underway following the new trauma coordinator.
9. CEMSIS – Trauma Data	Nancy Marker, 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 77 of the 79 designated Trauma Centers.
10. Communications	Heidi Wilkening, ext. 556	EMSA personnel is working on attending various California communications meetings to learn more on public concerns on issues related to Wireless 9-1-1. This position is currently vacant and a recruitment process will start in the near future.
11. Core Measures	Adam Davis, ext. 409	EMSA received Core Measure submissions from 28 of the 33 LEMSAs. EMSA Staff is developing the submissions into the report format for review by the Core Measures Task Force. The Task Force will be meeting in Fall of 2017 to review this report as well as revise and enhance the Core Measure Set in the NEMSIS 3 data standard. Reporting of 2017 Calendar Year data is expected to take place by March 31, 2018.

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
12. Grant Activity/Coordination	Lori O'Brien, ext 401	<u>Office of Traffic Safety (OTS) Grants:</u> Three grants have been closed out this quarter. 1. The **CEMSIS** project continues to improve the data traffic profile within the EMS and Trauma data that is collected in CEMSIS. Fourth quarter and final reports were completed and submitted to OTS on October 30, 2017. 2. The **Electronic Mobile Devices** grant is complete. Fourth quarter and final reports were completed and submitted to OTS on October 30, 2017. The grant provided a total of 841 devices (with operationally required accessories) to 97 different provider agencies. The number of personnel who have received some sort of training or education related to the implementation of the devices is 9,170. All invoices have been received from grantee LEMSAs and submitted to OTS. 3. The **Server** grant is complete with the purchase of a second server which exceeded the goals of the grant and provides increased capacity, redundancy, and archival space to protect the CEMSIS data. Fourth quarter and final reports were completed and submitted to OTS on October 30, 2017. Two new grants have been awarded for FFY 2018 and were started on October 1, 2017: 1. Grant number OTS TR18004 CEMSIS was awarded to EMSA in the amount of $319,000.00. This grant will continue to facilitate the collection and improve the quality of local EMS agency (LEMSA) pre-hospital and trauma data into the California EMS Information System (CEMSIS). 2. Grant number OTS TR 18005 CA-TQIP was awarded to EMSA in the amount of $30,700.00. The CA-TQIP grant provides the funds for EMSA to collaborate with the American College of Surgeons (ACS) Trauma Quality Improvement Program (TQIP) to improve outcomes for injuries focusing on traffic related incidents. The program will benchmark risk-adjusted outcomes regionally and as a state against all 650+ nationally participation ACS-TQIP centers; identify traffic related issues for regional/state level trauma system quality improvement; provide opportunities for stakeholders to improve post-crash survivability throughout the regional/state trauma system; identify best

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
		practices among CA-TQIP participants; gain education from the ACS tailored to CA-TQIP development; and obtain custom reports. <u>Health Resource Services Administration (HRSA) Grant:</u> EMSA staff continues the work associated with the Health Resources Services Administration (HRSA) grant in furthering the integration of the Emergency Medical Services for Children (EMSC) into the State EMS system. A Notice of Grant Award, H33MC07874-11-01 for EMSC Partnership Grants to the State of California, was provided to EMSA by HRSA on August 9, 2017. The amount of financial assistance is $55,114 for the period 03/01/2017 through 02/28/2018. A notice of funding opportunity (HRSA-18-063) was issued on November 3, 2017 for the project period of April 1, 2018 through March 31, 2022. Work has been started on this will be a competing continuation application, which is due January 8, 2018. <u>Preventative Health and Health Services Block Grant (PHHSBG):</u> EMSA staff remains continually involved in the Preventative Health and Health Services Block Grant. EMS Systems has nine programs identified with associated objectives and activities that were approved by CDPH. EMSA received the State Fiscal Year (SFY) 17/18 Preliminary Allocation memo in August 2017. EMSA's SFY 17/18 Preliminary Allocation is $2,727,130.
13. Office Support	Tiffany Pierce ext. 900	<u>Communications Manual:</u> Assisted by distributing individual emails to each LEMSA, which detailed the LEMSA's responsibility and role in updating the Communications Manual. Created a document to track the responses from the LEMSA's. <u>Distribution Lists:</u> Updated or created distribution lists 1. Updated EMSAAC distribution list. 2. Created a Trauma Summit distribution list 3. Reached out to organizations to confirm group members and/or acquire accurate email addresses to distribute event flyers (EMSC, Trauma Summit, etc.)

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
		Documents and Letters: Processed letters a documents. 1. Route and track all EMS Plans, Trauma System Status Reports, Grant letters, etc. 2. Review, edit, and format documents and letters from within and outside of division. 3. Follow up with staff to ensure that all documents and letters are fully processed and/or mailed out within specified time frames. 4. Make copies of all documents processed for Chron File. 5. Receive and appropriately file certified mail receipts. Ukrainian Medical Delegation: Assisted Leslie by editing documents and spreadsheets, and creating maps and directions for the tour. EMS for Children Educational Forum: Distributed the Save the Date flyer via email for the forum
		Staff Support: Created a spreadsheet to facilitate distribution of RFI C17-029. Office Supplies: -Coordinate with division staff to determine necessary office supplies. -Create, process, and track office supply orders. -Follow up with admin unit to ensure supply orders are being processed and fulfilled in a timely manner. Spice Works: Maintain, update, and edit Spice Works to track division assignments. Calendars and Meetings:

Emergency Medical Services Authority
EMS Systems Division
Major Program Activities
December 6, 2017

Activity & Description	Primary Contact EMSA (916) 322-4336	Updates
		Stay up-to-date with division and manager calendars to appropriately set up meetings with/for division staff. <u>2017 Food Drive:</u> Volunteered to lead 2017 Food Drive for EMSA. 1. Attended first meeting at the Sacramento Food Bank for information and ideas for this year's Food Drive. 2. Participated in tour of the Food Bank. 3. Met with EMSA staff member who previously ran event for ideas and advice. 4. Created online donation page. <u>Systems Division Device Tracking:</u> Created a spreadsheet for tracking EMS Systems devices that may be borrowed by all staff members. 1. Talked to IT staff about making specific devices "resources" to be reserved for use by EMSA staff (like the conference lines and rooms).

EMERGENCY MEDICAL SERVICES AUTHORITY
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DATE: December 6, 2017

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Jennifer Lim
Deputy Director of Legislative, Regulatory and External Affairs

SUBJECT: Legislative Summary for 2017

RECOMMENDED ACTION:

Information only.

FISCAL IMPACT:

None.

DISCUSSION:

AB 40 (Santiago D) CURES database: health information technology system.
Status: 10/9/2017-Approved by the Governor. Chaptered by Secretary of State - Chapter 607, Statutes of 2017.
Location: 10/9/2017-A. CHAPTERED
Summary: Would, no later than October 1, 2018, require the Department of Justice to make the electronic history of controlled substances dispensed to an individual under a health care practitioner's or pharmacist's care, based on data contained in the CURES database, available to the practitioner or pharmacist, as specified. The bill would authorize a health care practitioner or pharmacist to submit a query to the CURES database through the department's online portal or through a health information technology system if the entity operating the system has entered into a memorandum of understanding with the department addressing the technical specifications of the system and can certify, among other requirements, that the system meets applicable patient privacy and information security requirements of state and federal law.

AB 263 (Rodriguez D) Emergency medical services workers: rights and working conditions.
Status: 9/1/2017-From committee: Do pass and re-refer to Com. on RLS. (Ayes 9. Noes 1.) (September 1). Re-referred to Com. on RLS.
Location: 9/1/2017-S. RLS
Summary: Would require an employer that provides emergency medical services as part of an emergency medical services system or plan to authorize and permit its employees engaged in prehospital emergency services to take prescribed rest periods, including

specifying grounds for interruption of a rest period and compensation for an interrupted rest period. The bill also would require the employer to provide these employees with prescribed meal periods, including specifying grounds for interruption of a meal period and compensation for an interrupted meal period.

AB 735 (Maienschein R) Swimming pools: public safety.
Status: 9/1/2017-Failed Deadline pursuant to Rule 61(a)(12). (Last location was APPR. SUSPENSE FILE on 7/17/2017)(May be acted upon Jan 2018)
Location: 9/1/2017-S. 2 YEAR
Summary: Would require public swimming pools, as defined, that are required to provide lifeguard services and that charge a direct fee to additionally provide an Automated External Defibrillator (AED) during pool operations. Because the failure to comply with these provisions would be a crime, the bill would create a state-mandated local program. The bill would also require the State Department of Education, in consultation with the State Department of Public Health, to issue best practices guidelines related to pool safety at K–12 schools.

AB 820 (Gipson D) Emergency Medical Services Authority: task force: transportation alternatives.
Status: 4/28/2017-Failed Deadline pursuant to Rule 61(a)(2). (Last location was HEALTH on 3/23/2017)(May be acted upon Jan 2018)
Location: 4/28/2017-A. 2 YEAR
Summary: Would authorize the Emergency Medical Services Authority to establish a task force, as provided, to develop a report evaluating alternative destinations to a general acute care hospital for first responders to transport a patient who may be a danger to himself, herself, or others or gravely disabled as a result of a mental health disorder. The bill would require the report to be published on the authority's Internet Web site.

AB 1116 (Grayson D) Peer Support and Crisis Referral Services Act.
Status: 9/11/2017-Read second time. Ordered to third reading. Ordered to inactive file at the request of Senator Atkins.
Location: 9/11/2017-S. INACTIVE FILE
Summary: Would create the Peer Support and Crisis Referral Services Act. The bill would, for purposes of the act, define a "peer support team" as a local critical incident response team composed of individuals from emergency services professions, emergency medical services, hospital staff, clergy, and educators who have completed a peer support training course developed by the Office of Emergency Services, the California Firefighter Joint Apprenticeship Committee, or the Commission on Correctional Peace Officer Standards and Training, as specified.

AB 1649 (Muratsuchi D) Oil refineries: public safety.
Status: 10/8/2017-Approved by the Governor. Chaptered by Secretary of State - Chapter 590, Statutes of 2017.
Location: 10/8/2017-A. CHAPTERED
Summary: Would provide for the California Environmental Protection Agency, in consultation with specified federal, state, and local agencies, to examine ways to improve public and worker safety through enhanced oversight of refineries and to strengthen emergency preparedness in anticipation of any future refinery incident. The bill would require the California Environmental Protection Agency, in consultation with those agencies, to facilitate coordination among those agencies to protect the public, fence line communities, and refinery workers from risks associated with refinery operations throughout the state.

AB 1650 (Maienschein R) Emergency medical services: community paramedicine.
Status: 5/26/2017-Failed Deadline pursuant to Rule 61(a)(5). (Last location was APPR. SUSPENSE FILE on 5/10/2017)(May be acted upon Jan 2018)
Location: 5/26/2017-A. 2 YEAR
Summary: Would, until January 1, 2022, create the Community Paramedic Program in the authority. The bill would authorize the authority to authorize a local EMS agency that opts to participate in the program to provide specified services, such as case management services and linkage to nonemergency services for frequent EMS system users, through a local community paramedic program.

SB 432 (Pan D) Emergency medical services.
Status: 10/2/2017-Approved by the Governor. Chaptered by Secretary of State. Chapter 426, Statutes of 2017.
Location: 10/2/2017-S. CHAPTERED
Summary: The Prehospital Emergency Medical Care Personnel Act requires a county health officer to immediately notify prehospital emergency medical care personnel that they have been exposed to a reportable disease or condition that the county health officer determines can be transmitted through oral contact or bodily secretions. This bill would require the health facility infection control officer to give that notice immediately to a designated officer, as defined, upon determining, among other things, that the person to whom the prehospital emergency medical care personnel provided emergency medical or rescue services is diagnosed as being afflicted with a reportable communicable disease or condition, as specified, and to give notice to the county health officer with the name and telephone number of the prehospital emergency medical care personnel.

SB 443 (Hernandez D) Pharmacy: emergency medical services automated drug delivery system.
Status: 10/10/2017-Approved by the Governor. Chaptered by Secretary of State. Chapter 647, Statutes of 2017.
Location: 10/10/2017-S. CHAPTERED
Summary: Would authorize a pharmacy or licensed wholesaler that is also an emergency medical services provider agency to restock dangerous drugs or dangerous devices into an emergency medical services automated drug delivery system, as defined, that is licensed by the California State Board of Pharmacy if specified conditions are met, including that the

emergency medical services provider agency obtain a license from the board to operate the system, and requires dangerous drugs and dangerous devices stored or maintained in an emergency medical services automated drug delivery system to be used for the sole purpose of restocking a secured emergency pharmaceutical supplies container.

SB 523 (Hernandez D) Medi-Cal: emergency medical transport providers: quality assurance fee.
Status: 10/13/2017-Approved by the Governor. Chaptered by Secretary of State. Chapter 773, Statutes of 2017.
Location: 10/13/2017-S. CHAPTERED
Summary: Would, commencing July 1, 2018, and subject to federal approval and the availability of federal financial participation, would impose a quality assurance fee for each emergency medical transport provided by an emergency medical transport provider, as defined, subject to the quality assurance fee in accordance with a prescribed methodology. The bill would authorize the Director of Health Care Services to exempt categories of emergency medical transport providers from the quality assurance fee if necessary to obtain federal approval.

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

DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Rick Trussell, Chief
Fiscal and Administration Unit

SUBJECT: Administrative and Personnel Report

RECOMMENDED ACTION:

Information Only

FISCAL IMPACT:

None.

DISCUSSION:

Emergency Medical Services Authority (EMSA) Budget:

2017/18

The 2017/18 enacted California State budget includes departmental expenditure authority in the amount of $36.8 million and 69 permanent positions. Of this amount, $15.9 million is delegated for State operations and $20.9 million is delegated to local assistance.

Accounting records indicate that the Department has expended and/or encumbered $8.7 million or 23.6% of available expenditure authority. Of this amount, $3.9 million or 24.9% of State Operations expenditure authority has been expended and/or encumbered and $4.7 million or 22.6% of local assistance expenditure authority has been expended and/or encumbered.

The Department is still in the process of month-end closing (MEC) accounting activities and we are continuing to monitor and adjust both State operations and local assistance budgets to meet changing program priorities. An updated report will be distributed prior to the next Commission meeting.

2016/17

The 2016/17 enacted California State budget includes expenditure authority in the amount of $36.1million. Of this amount, $15.2 million is delegated for State operations and $20.9 million is delegated to local assistance.

Accounting records indicate that the Department has expended and/or encumbered $30.4 million or 84% of available expenditure authority. Of this amount, $12.1 million or 79.3% of State Operations expenditure authority has been expended and/or encumbered and $18.3 million or 87.5% of local assistance expenditure authority has been expended and/or encumbered.

The Department is still in the process of posting 2016/17 expenditures and performing accounting corrections, as needed. Once these tasks are completed an updated report will be distributed prior to the next Commission meeting.

EMSA Staffing Levels:

The Department is currently authorized 69 positions and also has 14 temporary (blanket positions and retired annuitants) positions for an overall staffing level of 83. Of the 83 positions, 9 positions are vacant at this time and we are actively recruiting to fill the positions.

	Division				
	Admin/Exec	**DMS**	**EMSP**	**EMS**	**Total**
Authorized	17.0	20.0	23.0	9.0	69.0
Temporary Staff	6.5	1.5	1.3	4.5	13.8
Staffing Level	**23.5**	**21.5**	**24.3**	**13.5**	**82.8**
Authorized (Vacant)	-4.0	-3.0	-2.0	0.0	-9.0
Temporary (Vacant)	0.0	-0.5	0.0	0.0	-0.5
Current Staffing Level	**19.5**	**18.0**	**22.3**	**13.5**	**73.3**

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

DATE: December 6, 2017

TO: Commission on EMS

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

PREPARED BY: Steven A. McGee, Administrative Adviser

SUBJECT: Legal Report

RECOMMENDED ACTION:

Receive information on Legal Office Activities.

FISCAL IMPACT:

None.

DISCUSSION:

Disciplinary Cases:

From August 11, 2017, to November 9, 2017, the Authority issued sixteen new Accusations against existing paramedic licenses, issued two Statements of Issues denying an unrestricted license, and issued seven administrative fines. Of the newly issued actions, three of the Respondents have requested that an administrative hearing be set. There are currently four hearings scheduled, and seven waiting to be scheduled. There are currently thirty-five open active disciplinary cases in the legal office.

Litigation:

Tagliere v. Backer, Los Angeles County Superior Court #BS1707101, Writ of Administrative Mandamus. Plaintiff has filed a writ seeking to overturn the revocation of his license subsequent to an administrative hearing.

Americare Medservices, Inc.v. City of Anaheim, et al., Appeal from the United States District Court for the Central District of California, No. 8:16-cv-01703-JLS. The Authority has filed an amicus brief asking the court to certify the matter to the California Supreme Court for an interpretation of Health and Safety Code 1797.201.

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

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

SUBJECT: Enforcement Report

RECOMMENDED ACTION:

Receive information on Enforcement Unit activities.

FISCAL IMPACT:

None.

DISCUSSION:

Unit Staffing:

As of October 25, 2017, the Enforcement Unit has 5 full-time Special Investigators, 1 Retired Annuitant working as Special Investigator and 1 vacant position, Associate Government Program Analyst (AGPA-Probation Monitor). One of the Special Investigator positions has been realigned to fulfill the primary functions of case management and probation monitoring.

Investigative Workload:

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

Cases opened since January 1, 2017, including:

Cases opened:	239
Cases completed and/or closed:	230
EMT-Paramedics on Probation:	230

In 2016:

Cases opened:	342
Cases completed and/or closed:	377
EMT-Paramedics on Probation:	226

Status of Current Cases:

The Enforcement Unit currently has 104 cases in “open” status.

As of October 25, 2017, there are 30 cases that have been in “open” status for 180 days or longer: three (3) Fire Fighters’ Bill of Rights (FFBOR) cases and eight (8) cases waiting for California Society of Addiction Medicine (CSAM) evaluation. Respondents are directed to a physician who specializes in addition medicine for an examination/review in cases involving alcohol or other substance abuse.

Those 30 cases are divided among 6 Special Investigators and are in various stages of the investigative process. These stages include 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.

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Laura Little, EMT
Transportation Coordinator

SUBJECT: EMS Plan Appeal Update

RECOMMENDED ACTION:

Receive information on the status of the EMS Plan Appeals.

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:

Kern County EMS Agency, El Dorado County EMS Agency, and Santa Clara County EMS Agency have filed appeals regarding the EMS Authority's EMS Plan determinations.

Kern County's appeal hearing has been rescheduled to be heard March 13-15, 2018, and will take place in Los Angeles.

El Dorado County's appeal hearing is still pending, as available dates have not been provided by El Dorado County EMS agency.

Santa Clara County EMS agency appeal hearing is still pending, as available dates have not been provided by Santa Clara County EMS agency.

The Commission will be updated on the status of appeal hearings at future Commission meetings.

EMERGENCY MEDICAL SERVICES AUTHORITY
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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Nancy Steiner-Keyson
Acting EMS Plans Coordinator

SUBJECT: EMS Plan Review Process

RECOMMENDED ACTION:

Receive updated information from the EMS Authority (EMSA) on the status of EMS Plan activity and the progress related to the EMS Plan Workgroup.

FISCAL IMPACT:

None.

DISCUSSION:

EMS Plan Activity:

EMSA is providing the Commission with an update on the statewide EMS Plan activity. Please refer to the matrix below for a summary of the following items:

- Appeals and EMS Plan Submissions
- EMS Plan Determinations and Average Review Time of Plans Submitted

EMS Plan Workgroup:

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, proposed online database configurations, and finalized the draft changes to the Minimum Standards/Recommended Guidelines section of *EMSA Guidelines,* #101, and Table section of *EMSA Guidelines, #103.*

EMSA has developed a dataset for the architectural structure of the EMS Plan design, and it is currently under executive review. Following the executive review, EMSA will begin the process of selecting a vendor.

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

EMS PLAN ACTIVITY

Report Summary As of September 30, 2017		
Appeals		**# of Plans**
Plans Not Approved Due to Transportation Issues and Under Appeal		3
EMS Plan Submissions	**# of LEMSAs**	**Percentage**
Timely Submissions	29	88%
Late Submissions	0	0%
Past Due	4	**12%**

Quarterly Report July 1 – September 30, 2017	
EMS Plan/Update Determinations	**# of Plans**
Plans/Updates Submitted*	9
Plans/Updates Approved	8
Plans/Updates Not Approved	**0**
Average Review Time of Plans Submitted	**# of Days**
LEMSA Submission of a Complete Plan Through EMSA Plan Determination	22

***** One plan update still undergoing review.

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10901 GOLD CENTER DR., SUITE 400
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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Priscilla Rivera, Manager
Personnel Standards Unit

SUBJECT: POLST eRegistry Update

RECOMMENDED ACTION:

Receive information regarding POLST eRegistry Pilot Project.

FISCAL IMPACT:

The California Health Care Foundation has granted up to $3 million to fund the different aspects of the POLST eRegistry Pilot Project that includes, but is not limited to, the local pilot sites, the technology vendor, independent evaluator, project director, project consultant.

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. To address some of the current limitations with the accessibility to the POLST information, SB 19 (Wolk, Chapter 504, 2015) was signed by the California Governor authorizing a POLST electronic registry (eRegistry) pilot project under the aegis of EMSA.

To facilitate oversight of this complex Pilot Project, a Multi-Agency Coordination Team (MAC) which is made up of representatives from the California Emergency Medical Services Authority (EMSA), California HealthCare Foundation (CHCF), and the Coalition for Compassionate Care of California (CCCC),was formed to insure joint collaboration as the POLST eRegistry Pilot Project moves forward.

Multi Agency Coordination Activity (MAC)

As a member of the MAC, the EMSA POLST eRegistry coordinator, with the support of other members of the EMSA leadership team continues to participate in weekly as well as needed MAC conference calls throughout the last quarter.

Report to the Legislature

A legislative report has been drafted by EMSA as required by SB 19. This report covers an explanation of how the registry will work, project set up, timelines and project plans. It is currently at Agency being reviewed for approval.

Pilot Site Update

The pilot site in Contra Costa County being led by the Alameda Contra Costa Medical Association, is continuing to work with their hospital stakeholders to overcome barriers and to ensure their active participation within the POLST eRegistry.

Vynca the technology vendor is collaborating with Contra Costa County EMS, Contra Costa Fire and American Medical Response (AMR) to ensure connectivity from the field is available for use by the EMS Providers in Contra Costa County. AMR implemented POLST for Contra Costa MEDS (on 10/10/17), by testing against the development/testing environment. Testing against the Vynca production registry is pending at this time.

The pilot site in the City of San Diego is being led by San Diego Health Connect (SDHC). SDHC is working with technology vendor, Stella Technology, to create registry that will function in an HIE environment. SDHC is working with their hospital stakeholders to overcome barriers and to ensure their active participation within the POLST eRegistry.

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Jennifer Lim, Deputy Director
Legislative, Regulatory and External Affairs.

SUBJECT: Approval of Office of Administrative Law Rulemaking Calendar

RECOMMENDED ACTION:

Approve the 2018 Rulemaking Calendar.

FISCAL IMPACT:

There is no fiscal impact.

DISCUSSION:

Background:

Government Code section 11017.6 requires every state agency responsible for implementing a statute pursuant to the Administrative Procedure Act to prepare, by January 30, a rulemaking calendar for that year. The rulemaking calendar must be (1) prepared in accordance with the format specified by the Office of Administrative Law (OAL), (2) approved by the head of the department or, if the rulemaking agency is an entity other than a department, by the officer, board, commission, or other entity which has been delegated the authority to adopt, amend, or repeal regulations, and (3) published in the California Regulatory Notice Register (Notice Register). (Gov. Code, sec. 11017.6).

2018 Rulemaking Calendar:

The rulemaking calendar represents estimation by the department, of rulemaking files that may be opened during the 2018 calendar year. Rulemaking files that may be opened to implement statutes enacted in the 2017 legislative session are listed on Schedule A. Schedule B contains rulemaking files that may be opened to implement statutes enacted prior to 2017. The rulemaking calendar provides OAL with an estimate

of the workload to be expected, and offers the advance notification of potential regulation amendments that may be of interest to stakeholders and the public.

Attachments: Schedule A: Proposed Regulations Implementing Statutes Enacted During the Year 2017.
Schedule B: Proposed Regulations Implementing Statutes Enacted Prior to the Year 2017.

Health and Human Services
2018 RULEMAKING CALENDAR

SCHEDULE A: PROPOSED REGULATIONS IMPLEMENTING STATUTES ENACTED DURING THE YEAR 2017

<table>
<tr><td colspan="2">Subject:
Nothing to report</td><td colspan="2">CCR Title & Sections Affected:</td><td colspan="4">Statute(s) Being Implemented:</td></tr>
<tr><td rowspan="2">Responsible Agency Unit:</td><td rowspan="2">Contact Person & Phone Number:

Corrine Fishman
(916) 431-3727</td><td colspan="4">Projected Dates:</td></tr>
<tr><td>Notice Published:</td><td>Public Hearing:</td><td>Adoption by your agency:</td><td>To OAL for review:</td></tr>
<tr><td colspan="6">Report on the status of all uncompleted rulemaking described on previous calendars:</td></tr>
</table>

Health and Human Services
2018 RULEMAKING CALENDAR

SCHEDULE B: PROPOSED REGULATIONS IMPLEMENTING STATUTES ENACTED PRIOR TO THE YEAR 2017

<table>
<tr><td colspan="2">Subject:
Paramedic Regulations</td><td colspan="3">CCR Title & Sections Affected:
Title 22, Division 9, Chapter 4
Sections:
100137,100140,100141,100141.1,100143.1,100143.2,100146,100148,100149,100150,100153,100154,100155,1001561-001165,100167,100170-100172</td><td>Statute(s) Being Implemented:
AB 1129, Chapter 377, Statutes of 2015.
AB 1598, Chapter 668, Statutes of 2014
Health and Safety Code Sections 1797.227, 1797.116, 1797.134
Government Code 8588.10
Penal Code 13514.1 & 13519.12</td></tr>
<tr><td rowspan="2">Responsible Agency Unit:

Emergency Medical Services Authority, Personnel Standards</td><td rowspan="2">Contact Person & Phone Number:

Corrine Fishman
(916) 431-3727</td><td colspan="4">Projected Dates:</td></tr>
<tr><td>Notice Published: 03/2018</td><td>Public Hearing: 03/2018</td><td>Adoption by your agency: 12/2018</td><td>To OAL for review: 12/2018</td></tr>
<tr><td colspan="6">Report on the status of all uncompleted rulemaking described on previous calendars:

This chapter was projected to open in February 2017.
This chapter is now projected to open in March 2018.</td></tr>
</table>

Subject: Training Standards for Child Care Providers	CCR Title & Sections Affected: Title 22, Division 9, Chapter 1.1 Sections: 100000.1 – 100000.35	Statute(s) Being Implemented: AB 290, Chapter 734, Statutes of 2013 Health and Safety Code Sections 1596.865, 1596.866 and 1596.8661

Responsible Agency Unit:	Contact Person & Phone Number:	Projected Dates:			
		Notice Published:	Public Hearing:	Adoption by your agency:	To OAL for review:
Emergency Medical Services Authority, Personnel Standards	Corrine Fishman (916) 431-3727	05/2018	05/2018	12/2018	12/2018

Report on the status of all uncompleted rulemaking described on previous calendars:

This chapter was projected to open in February 2017.
This chapter is now projected to open in May 2018.

Subject: California EMT Central Registry	CCR Title & Sections Affected: Title 22, Division 9, Chapter 10 Sections: 100342, 100344, 100345, 100346, 100347, 100348	Statute(s) Being Implemented: Health and Safety Codes 1797.107 and 1797.117

Responsible Agency Unit:	Contact Person & Phone Number:	Projected Dates:			
		Notice Published:	Public Hearing:	Adoption by your agency:	To OAL for review:
Emergency Medical Services Authority, Personnel Standards	Corrine Fishman (916) 431-3727	06/2018	06/2018	12/2018	12/2018

Report on the status of all uncompleted rulemaking described on previous calendars:

This chapter of regulations has not been on any previous calendars.

<table>
<tr><td colspan="2">Subject:
Process for EMT and Advanced EMT Disciplinary Action</td><td>CCR Title & Sections Affected:
Title 22, Division 9, Chapter 6 Section 100214.3(c).

In order to amend a regulatory provision held invalid by the California Superior Court in and for the County of Alameda, The Emergency Medical Services Authority (EMSA) will be requesting to amend Chapter 6 through a section 100.</td><td colspan="4">Statute(s) Being Implemented:
Health and Safety Code 1797.107 and 1798.200</td></tr>
<tr><td rowspan="2">Responsible Agency Unit:

Emergency Medical Services Authority, Personnel Standards</td><td rowspan="2">Contact Person & Phone Number:

Corrine Fishman
(916) 431-3727</td><td colspan="4">Projected Dates:</td></tr>
<tr><td>Notice Published:
NA</td><td>Public Hearing:
NA</td><td>Adoption by your agency:
NA</td><td>To OAL for review:
03/2018</td></tr>
<tr><td colspan="6">Report on the status of all uncompleted rulemaking described on previous calendars:

This chapter of regulations has not been on any previous calendars.</td></tr>
</table>

Subject: EMS for Children	CCR Title & Sections Affected: Title 22, Division 9, Chapter 14. Sections: New Chapter	Statute(s) Being Implemented: Health and Safety Code Sections 1797.107, 1799.202 – 1799.207

Responsible Agency Unit:	Contact Person & Phone Number:	Projected Dates:			
		Notice Published:	Public Hearing:	Adoption by your agency:	To OAL for review:
Emergency Medical Services Authority, Systems Division	Corrine Fishman (916) 431-3727	02/2018	02/2018	12/2018	12/2018

Report on the status of all uncompleted rulemaking described on previous calendars:
This chapter was projected to open in February 2017.
This chapter is now projected to open in February 2018.

Subject: Stroke Systems of Care	CCR Title & Sections Affected: Title 22, Division 9, Chapter 7.2. Sections: New Chapter	Statute(s) Being Implemented: Health and Safety Code Sections 1797.103, 1797.107, 1797.176, 1797.204, 1797.220 and 1798.150

Responsible Agency Unit:	Contact Person & Phone Number:	Projected Dates:			
		Notice Published:	Public Hearing:	Adoption by your agency:	To OAL for review:
Emergency Medical Services Authority, Systems Division	Corrine Fishman (916) 431-3727	02/2018	02/2018	012/2018	12/2018

Report on the status of all uncompleted rulemaking described on previous calendars:

This rulemaking was open on December 9, 2016 and expires on December 9, 2017.
We will reopen a new rulemaking in 2018.

Subject:	CCR Title & Sections Affected:	Statute(s) Being Implemented:
ST Elevation Myocardial Infarction (STEMI) Systems of Care	Title 22, Division 9, Chapter 7.1. Sections: New Chapter	Health and Safety Code Sections 1797.103, 1797.107, 1797.176, 1797.204, 1797.220 and 1798.150

Responsible Agency Unit:	Contact Person & Phone Number:	Projected Dates:			
		Notice Published:	Public Hearing:	Adoption by your agency:	To OAL for review:
Emergency Medical Services Authority, Systems Division	Corrine Fishman (916) 431-3727	02/2018	02/2018	12/2018	12/2018

Report on the status of all uncompleted rulemaking described on previous calendars:

This rulemaking was open on December 16, 2016 and expires on December 16, 2017.
We will reopen a new rulemaking in 2018.

Subject:	CCR Title & Sections Affected:	Statute(s) Being Implemented:
EMS System Quality Improvement	Title 22, Division 9, Chapter 12. Sections: 100390 - 100395	AB 1223, Chapter 379, Statutes of 2015 AB 1129, Chapter 377, Statutes of 2015 Health and Safety Code Sections 1797.107, 1797.120, 1797.225, 1797.227

Responsible Agency Unit:	Contact Person & Phone Number:	Projected Dates:			
		Notice Published:	Public Hearing:	Adoption by your agency:	To OAL for review:
Emergency Medical Service Authority, Systems Division	Corrine Fishman (9160 431-3727	09/2018	09/2018	03/2019	03/2019

Report on the status of all uncompleted rulemaking described on previous calendars:

This chapter of regulations has not been on any previous calendars.

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

DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Priscilla Rivera, Manager
Personnel Standards Unit

SUBJECT: Community Paramedicine Pilot Project

RECOMMENDED ACTION:

Receive information regarding the Community Paramedicine Pilot.

FISCAL IMPACT:

The community paramedicine project manager and the independent evaluator are funded by the California HealthCare Foundation. Local pilot site providers participate with in-kind contributions and any local grants or reimbursement.

DISCUSSION:

Strong progress continues with the Community Paramedicine Projects. The data, as well as the independent evaluator's public report continues to show these projects have improved patient care as well as having reduced hospital re-admissions and visits to emergency departments.

Data Reporting:

The Health Workforce Pilot Project (HWPP) regulations require organizations that sponsor pilot projects to retain an independent evaluator to assess trainee performance, patient acceptance, and cost effectiveness. A team of evaluators at the Philip R. Lee Institute for Health Policy Studies and the Center for the Health Professions at the University of California, San Francisco continue to serve as the independent evaluators for the HWPP #173.

The independent evaluators' data report, which summarizes the evaluators' findings regarding implementation during the months of April through June 2017 was submitted to OSHPD on September 30, 2017.

Patient Safety:

There were no patient safety issues reported to the EMSA pilot project manager or discovered by the independent evaluator during this reporting period.

Continuing Approval Request:

In accordance with the California Code of Regulations (22 CCR §92604), EMSA submitted and OSHPD approved EMSA's continuing approval request to allow HWPP #173 Community Paramedicine Pilot Project to run thru November 13, 2018.

Additional Pilot Sites:

EMSA has sought applications/proposals from healthcare agencies and EMS providers in collaboration with a local EMS Agency (LEMSA) interested in developing a community paramedicine pilot project designed to test an expanded role for EMT-P's.

In response to this inquiry, EMSA has reviewed and forwarded to OSHPD (*with their recommendation for approval*) the following applications/proposals:

Local EMS Agency	Sponsor	Concepts	Partners
Santa Clara County	Santa Clara County EMS Agency	Alt Destination Behavioral Health Alt Destination Sobering Center	County-operated licensed emergency psychiatric facility and the County-operated medically-attended sobering station.
Sierra Sacramento Valley	Dignity Health	Post Discharge	Mercy Medical Center - Redding American Medical Response
El Dorado County	Cal Tahoe JPA	Alt Destination Behavioral Health Post Discharge	Telecare El Dorado County Psychiatric Facility - Placerville Barton Memorial Hospital
Los Angeles County	Los Angeles City Fire Department	Alt Destination - Behavioral Health	Los Angeles City Fire Exodus Recover Center

Los Angeles County	Los Angeles City Fire Department	Alt Destination – Sobering Center	Los Angeles City Fire Dr. L Murphy Sobering Center
Marin County EMS Agency		Frequent 911 User	Marin Community Clinics Marin County Department of Health & Human Services Marin County Emergency Medical Services Agency Marin General Hospital Novato Fire Protection District San Rafael Fire Department
City & County of San Francisco	San Francisco Fire Department	Frequent 911 User	San Francisco Department of Health San Francisco Department of Homelessness and Supportive Housing King American Ambulance American Medical Response
Central California EMS Agency	Central California EMS Agency	Alt Destination - Behavioral	Central California EMS Agency American Ambulance Fresno County Behavioral Health and Public Health Departments

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

DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Sean Trask, Chief
EMS Personnel Division

SUBJECT: Pediatric Endotracheal Intubation

RECOMMENDED ACTION:

Receive information concerning the planned phaseout of pediatric endotracheal intubation for ground-based ambulance and advanced life support units.

FISCAL IMPACT:

There may be cost savings from not purchasing pediatric sized endotracheal tubes. However, there may be an alternative advanced airway that could offset these savings.

DISCUSSION:

At the September 12, 2017, meeting of the Emergency Medical Services Medical Directors of California's (EMDAC) Scope of Practice Committee recommended, to the Director of the EMS Authority, to phase out pediatric endotracheal intubation from the local optional scope of practice by July 1, 2018. Dr. Backer accepted this recommendation and released a memo to the local EMS agency medical directors, and administrators informing them of this decision.

The recommendation was made after three lengthy discussions over the course of three Scope of Practice Committee meetings in March, June, and September 2017.

Pediatric endotracheal intubation is an advanced airway intervention which is not part of the paramedic basic scope of practice, however this skill is permitted as a local optional scope item, with local EMS agency approval, for paramedics. When a local EMS agency wants to add or continue a paramedic local optional scope item, the local EMS agency medical director is required to submit an application for approval or renewal to the EMS Authority. The application and supporting documentation are reviewed by the Scope of Practice Committee (Committee). The Committee then makes a

recommendation to the Director of the EMS Authority to approve the request, request additional information, or deny the request.

In 2013, the Paramedic Regulations were revised which limited approved local optional scope items to a three year period. The purpose was to require a periodic review by the local EMS agencies to evaluate each local optional scope item and ensure it was still necessary and effective. As of January 1, 2017, pediatric endotracheal intubation was approved in 24 of the 33 local EMS systems in California. Those local EMS agencies wishing to renew this skill were required to apply for continuation of this skill. The Committee had been discussing this skill since March 2017 at their quarterly meetings.

At the September 12, 2017 Scope of Practice Committee meeting, the Committee made the recommendation to phase out pediatric endotracheal intubation by July 1, 2018. This recommendation followed a comprehensive review of the literature presented by Dr. Joelle Donofrio. The primary reasons for the recommendation are because pediatric endotracheal intubation is a low-frequency intervention with a high potential for complications and generally negative outcomes compared to less invasive interventions.

The Committee did not recommend a firm age cutoff since the age of transition from childhood to adult anatomy is between 8 and 12 years old. The cut-off will be determined by length—children who fit on a pediatric length-based tape (e.g., Broslow), which corresponds to approximately 40 kilograms.

Local EMS agency protocols may continue the procedure to visualize the airway with a laryngoscope and remove a foreign body with Magill forceps, which is part of the paramedic basic scope of practice.

The July 1, 2018, deadline allows sufficient time for local EMS agencies to revise local EMS protocols, to review alternative available airway devices and methods and provide necessary training to EMS personnel. Alternatively, advanced airways may include supraglottic airways such as the laryngeal mask airway and the i-Gel airway that are available in pediatric sizes. Since supraglottic airways are not part of the paramedic basic scope of practice, a local optional scope request needs to be submitted to the EMS Authority. A model request is being developed by EMDAC members.

Attachments: Pediatric Prehospital Intubation Presentation
Phase Out of Pediatric Endotracheal Intubation Memo

Pediatric Prehospital Intubation

J. Joelle Donofrio, DO

Associate EMS Fellowship Director, UCSD
EMS Medical Director, Rady Children's Hospital of San Diego
Assistant Professor of Clinical Medicine, UCSD School of Medicine

Overview

- ETI competency and retention
- Historical overview
- Specific scenarios
- Paramedic aspect
- Conclusion

Quick Test

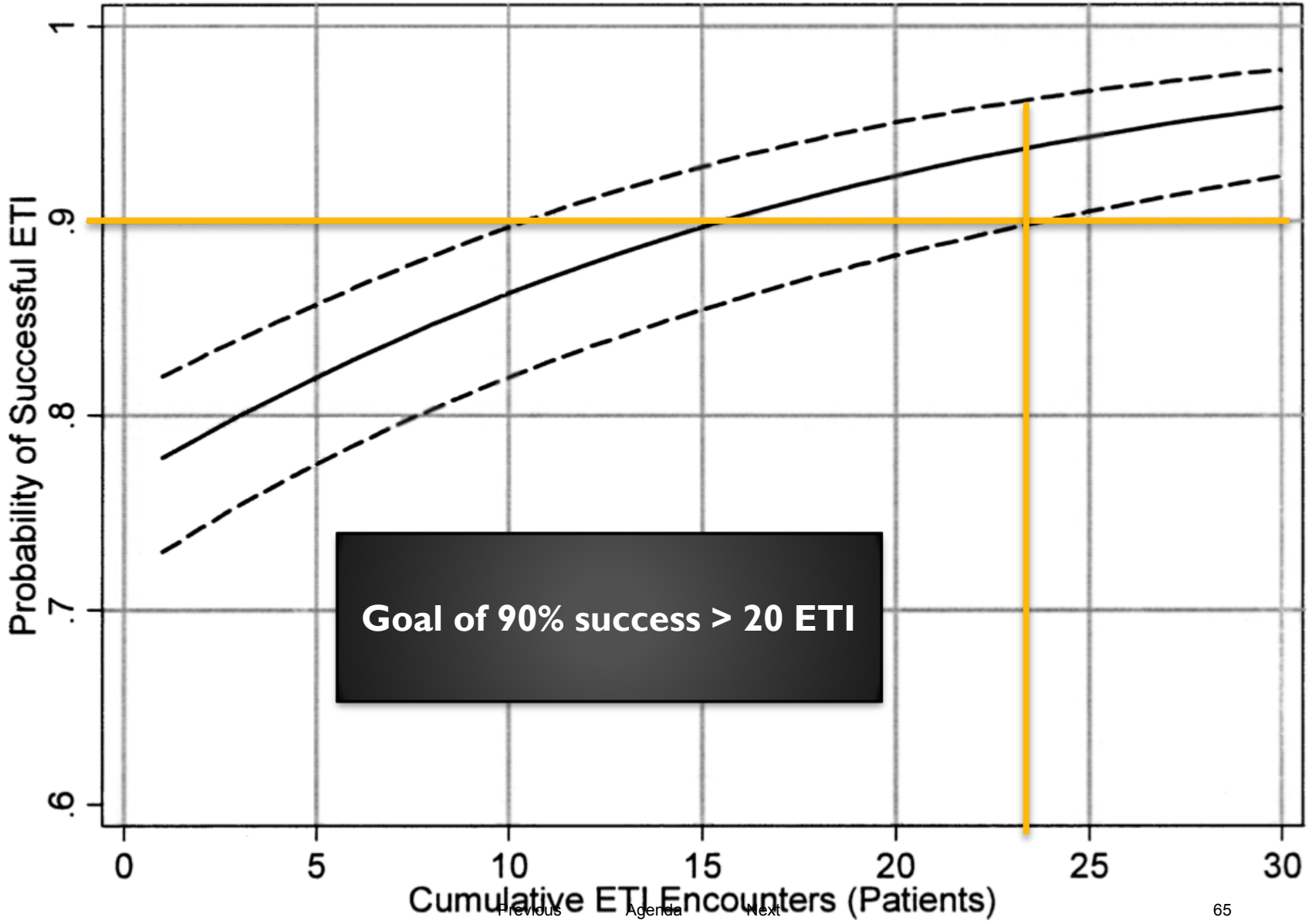
- 23 month old in cardiac arrest
  - ETT size?
  - Blade?
  - Depth?

- 4.5 year old in cardiac arrest
  - ETT size?
  - Blade?
  - Depth?

Initial Competency

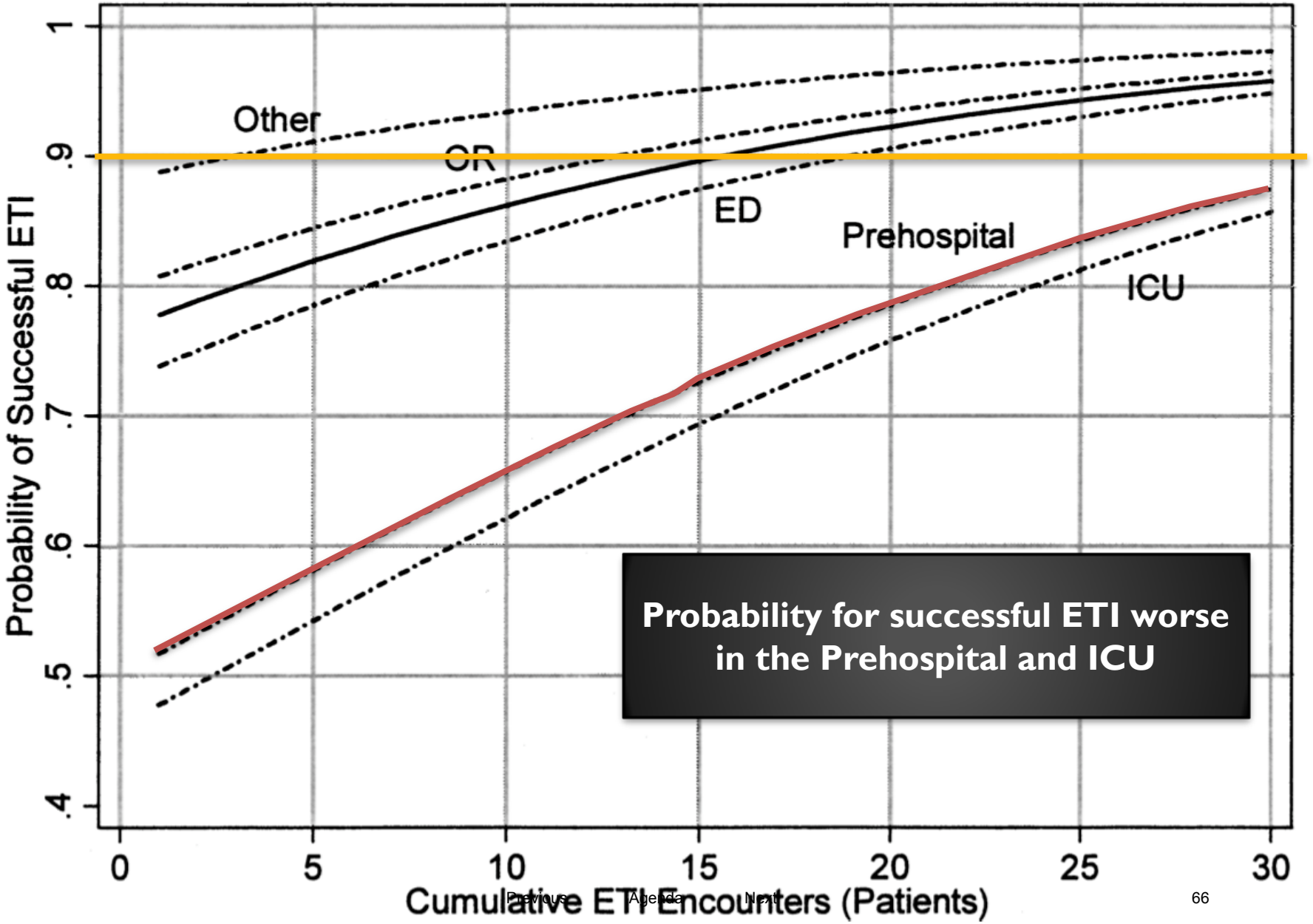
- What is considered competent?
  - Let's assume goal of 90% successful ETI
  - Do you train for competency in OR or in prehospital?
    - 90% ETI success rate in OR: **30 live ETI needed** (Toda 2013, adults)
    - 802 Paramedic Students in 60 programs over 2 years (Wang 2009, adults)
      - 11% with 0 ETI
      - 69% with 10 ETI
      - 22% with 20 ETI
      - **9% with >20 ETI**

Cumulative ETI and Probability of Successful ETI



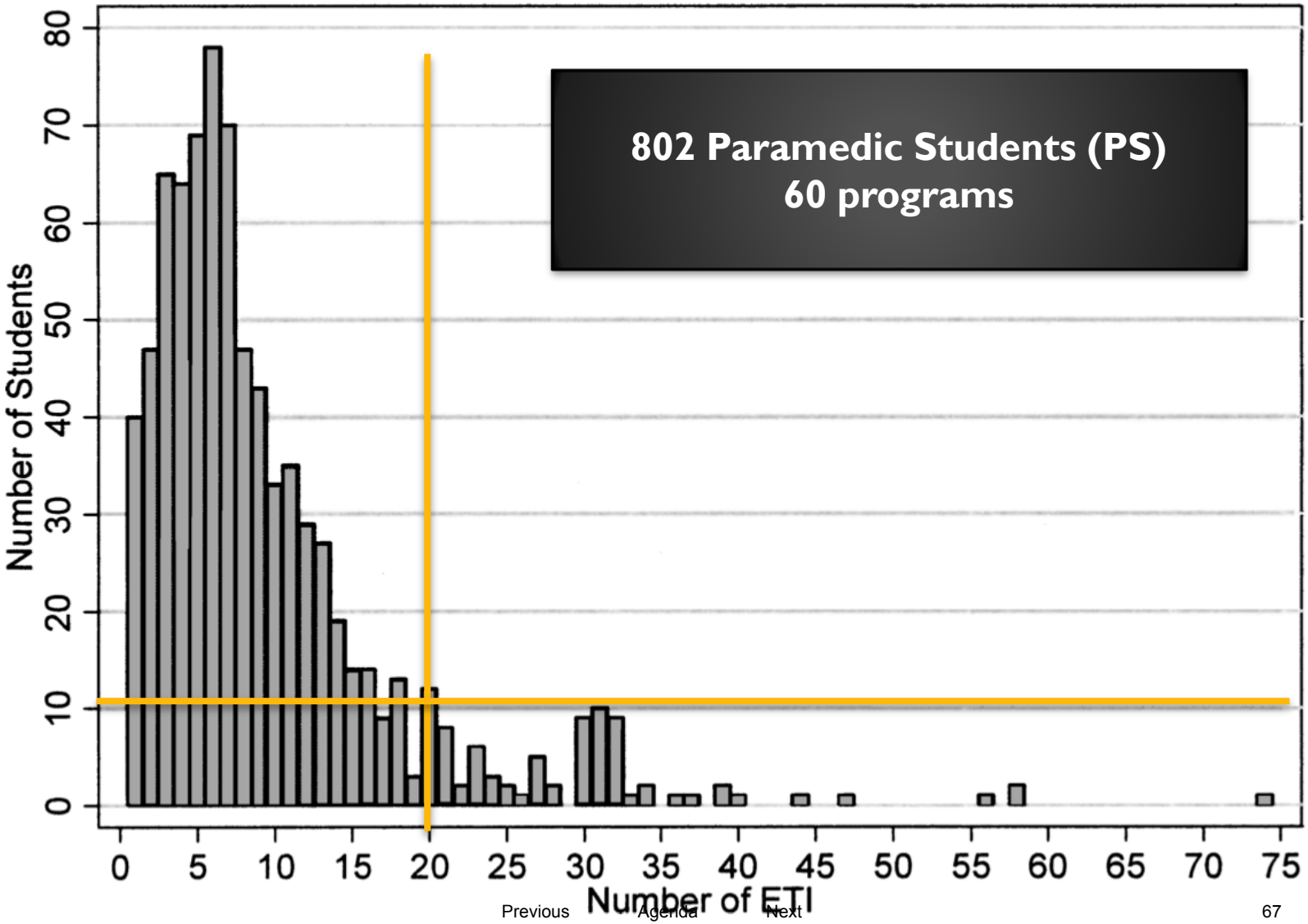
Wang HE et al. Defining the Learning Curve for Paramedic Student Endotracheal Intubation. Prehosp Emerg Care. 2009;9(2):156–162.

Location Specific ETI and Probability of Successful ETI



Wang HE et al. Defining the Learning Curve for Paramedic Student Endotracheal Intubation. Prehosp Emerg Care. 2009;9(2):156–162.

Size of Class and Number of ETI Performed



Wang HE et al. Defining the Learning Curve for Paramedic Student Endotracheal Intubation. Prehosp Emerg Care. 2009;9(2):156–162.

Training Issues in Pediatric Airway

- **Additional knowledge**
  - Different anatomy: large occiput, large tongue, anterior airway
  - BVM: proper seal, proper rate, proper size, suctioning
  - Pediatric ETI: tube, blade, depth

- **Enough pediatric live ETI opportunities?**

- **Minimum required?**
  - Ex: King County- Min required 2 peds ETI but average 6 (Prekker 2016)

Pediatric airway: it's not just the ETI

What is the skill retention for the basic maneuvers and the ETI?

Pediatric Skill Retention

- **Youngquist 2008**
  - 212 paramedics voluntary retraining exercise
  - Pediatric airway skills decay quickly
    - **66% (139/211) passed BVM testing**
    - **42% (88/212) passed ETI testing**
  - Skill drops significantly within 6 months and is unaffected by the number of pediatric runs/shift
  - Only 10% participation (245/2520 invited)
    - Will paramedics seek out education in areas they feel deficient in?

Pediatric Skill Retention

- **Lammers 2009**
  - 212 licensed Michigan Paramedics (91% of eligible paramedics in the region) tested in clinical assessment modules

- Cardiac arrest
  - 18% no BVM w/in 60sec
  - 51% no chest compressions w/in 60sec
  - 96% did not set up suction
  - 58% incorrect ET size

- Asthma
  - 47% did not correct ET size
  - 49% incorrect depth
  - 84% did not confirm tube placement other than auscultation
  - 45% did not secure ET tube

How have we done historically?

A walk through the literature

- **Milwaukee County** (Losek 1989)
  - 1 year retrospective study < 19 yo intubations over 1 year
  - 63 attempts
  - **78% success**
    - **46% failure on <18 mo**
  - Complications: ETT too small (4), accidental extubation (6), esophageal intubation (6)

- **Fresno County** (Aijan 1989)
  - 38 month retrospective study of pediatric (<19 yo) patients with cardiac arrest
  - 63 arrest patients, 28 attempts, **18 successful (64%)**
    - **Major complication rate 7%**
    - **Minor complication rate 39%**
      - 18 intubated patients: 8 died in ED, 9 survive to admission, **1 survived to discharge**

A walk through the literature

- **Georgia** (Boswell 1995)
  - 6 year retrospective study comparing peds (<15 yo) to adult ETI in patients with GCS <9 brought to TC by HEMS
  - 63 pediatric intubations, **60% success rate**
    - **25 non-ETI ped pts: 20 unsuccessful attempts, 14 were TBI, only 9 needed ETI in ED**
  - **Unsuccessful attempts: pediatrics 34% vs adult 9.8%**

- **King County** (Brownstein 1995)
  - 7 year retrospective review of 355 successfully intubated patients <16
  - **39% incorrect ET size**
  - Incorrect placement: **mainstem 34 (12.6%), esophagus 5 (1.8%)**
  - Overall **complication rate 22.6%; serious complications 10.7%**
  - **33 extubated in ED**
  - Did not look at failed ETT

A walk through the literature

- **Los Angeles and Orange County** (Gausche-Hill 2000)
  - 3 year randomized control trial
  - 830 patients <13 yo BVM vs ETI
  - **No significant difference in survival (30% BVM vs 26% ETI) or neurological outcome (23% BVM vs 20% ETI)**
  - **57.7% success rate**
  - **57.4% complication rate**
    - 3 esophageal intubations, 12 (6%) unrecognized dislodgements: 14/15 of these died
    - 15 (8%) recognized dislodged tube
    - 33 (18%) mainstem
    - 44 (24%) wrong ETT size

- **San Diego County** (Vilke 2002)
  - 4.5 year retrospective review
  - 1158 acute patients < 15 yo- 324 attempted intubations
  - **82% intubated**
    - 3 esophageal (did not look for other complications)

A walk through the literature

- **West Virginia rural trauma patients** (Ehrlich 2004)
  - 10 year retrospective review
  - 105 (<19yo) : 57% in field (F), 22% transferring hospital (RH), 21% at trauma center (TC)
  - First attempt success: **67% F**, 69% RH, 95% TC
  - **ETI failure rates highest in Field: 50% F**, 0% RH, 0% TC
  - **Airway complications highest in Field: 66% F**, 29% RH, 4% TC
  - **Only 9.3% could not be oxygenated or ventilated with BMV prior to ETI**

- **National Pediatric Trauma Registry** (DiRusso 2005)
  - 8 year database review
  - 50,199 patients: 5,460 (11.6%) intubated
    - 1,930 in field (F), 1,654 in referring hospital (RH), 1,876 trauma center (TC)
    - Mortality rates for intubated patients: **F 38.5%,** RH 16.7%, TC 13.2%
  - **Field intubation is an independent strong negative predictor of survival or good functional outcome despite adjustment for severity of injury**

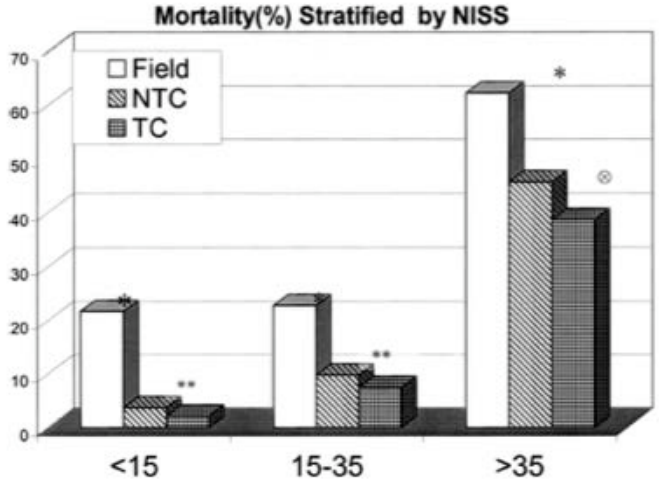


Fig. 4. *Percentage mortality stratified by degree injury (NISS) and place of intubation. Field, patients intubated in the field; Hospital,*

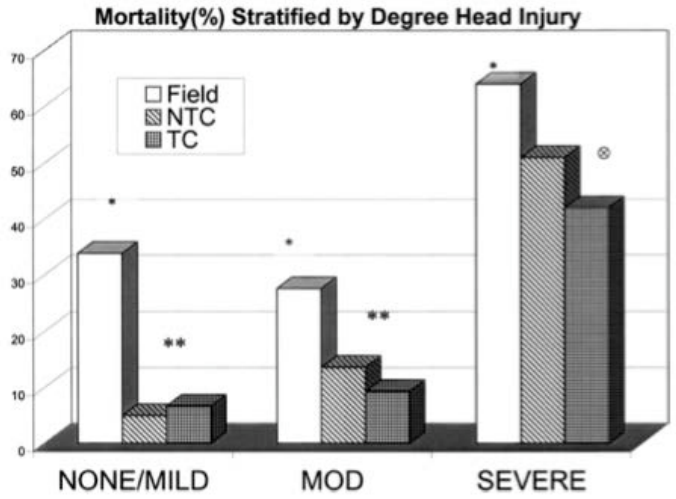


Fig. 5. *Mortality stratified by degree of head injury (RHISS) and place of intubation. NONE/MILD, no or mild closed head injury*

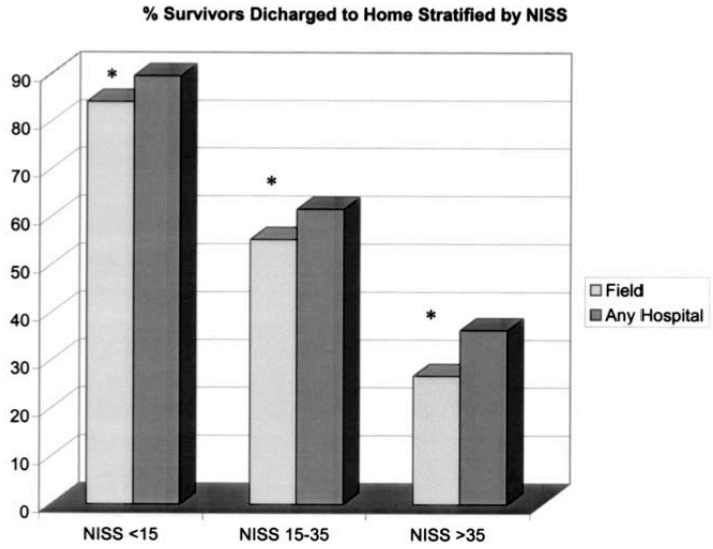
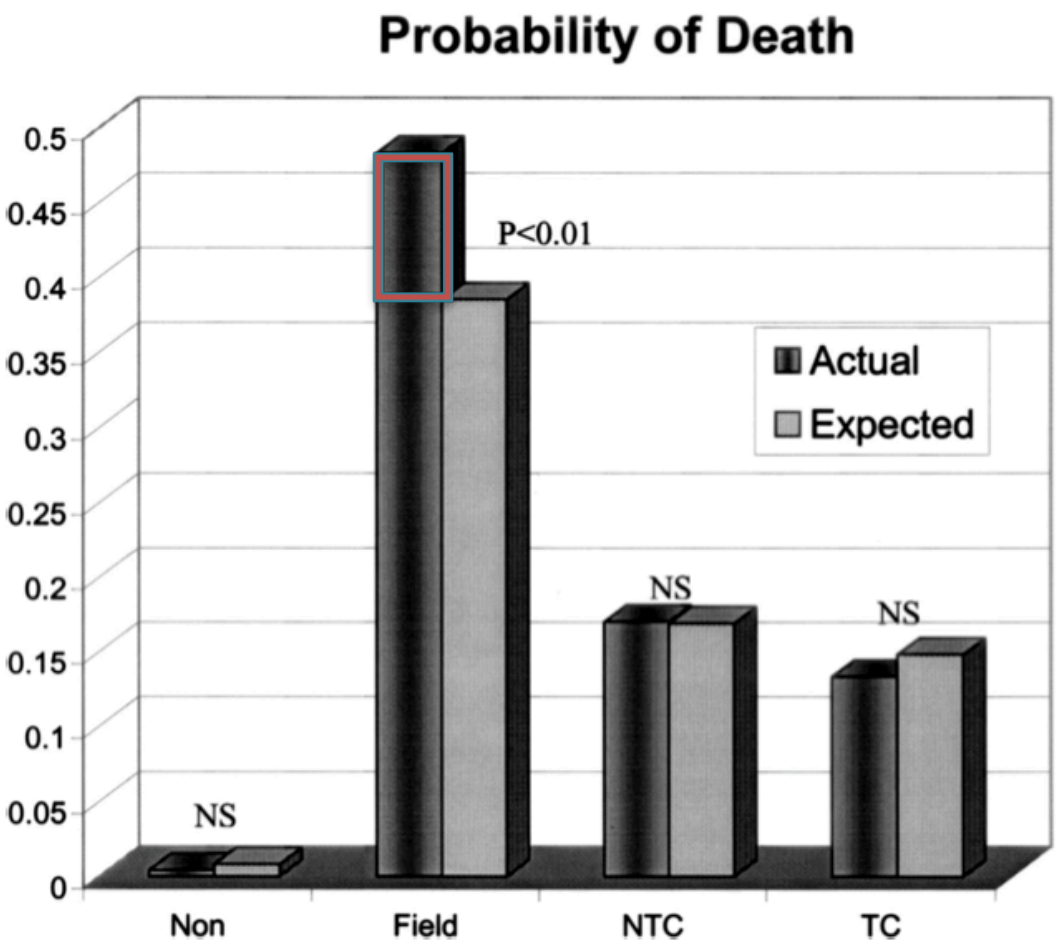


Fig. 6. *Percentage of survivors discharged to home stratified by injury severity (NISS). Field, patients intubated in the field; Any*

Mortality with field ETI of trauma patient is higher regardless of NISS and head injury and survival to DC home is lower.

DiRusso SM. Intubation of Pediatric Trauma Patients in the Field: Predictor of Negative Outcome Despite Risk Stratification. The Journal of Trauma: Injury, Infection, and Critical Care. 2005;59(1):84–91.



Observed probability of death is higher than expected with field intubations in pediatric trauma patients

Fig. 3. *Comparison of actual (observed) death rate versus expected death rates by intubation status or place of intubation. Non, patients not intubated; Field, patients intubated in the field; NTC, patients intubated in a non–trauma center hospital; TC, patients intubated at a trauma center; NS, no statistically significant difference between actual and expected.*

DiRusso SM. Intubation of Pediatric Trauma Patients in the Field: Predictor of Negative Outcome Despite Risk Stratification. The Journal of Trauma: Injury, Infection, and Critical Care. 2005;59(1):84–91.

A walk through the literature

- **Dutch study** (Gerritse 2008)
  - 5.5 years retrospective review
  - 300 < 16 yo seen by HEMS, 155 received ETI
    - Ground paramedic ETT: 41/95 intubated with GCS 3-4
    - **ETI correction needed by HEMS: 26/41 (63%)**
    - Survival lower if ETI by EMS and lowest if ET tube correction needed

- **King County** (Prekker 2016)
  - 6 year retrospective study
  - 299 ETI
  - **66% 1st pass attempt, 97% overall**
  - **25% complication rate**
    - **1 iatrogenic tracheal injury, 6 peri-intubation arrests**
    - **12 bradycardia**
    - **5 recognized esophageal intubations**
    - **16 recognized tube dislodgments; 3 unrecognized**
    - **47 mainstem**
  - **26 extubated in ED and 2 never needed ETI in ED**

A Walk through the literature

- **Resuscitation Outcomes Consortium cardiac arrest database** (Tijssen 2015)
  - 7 year retrospective database review
  - 2,244 OHCA (3d-19yo)
  - Improved survival: Shorter scene times, IV/IO attempts, IVF administration
  - **Advanced airways not associated with survival**

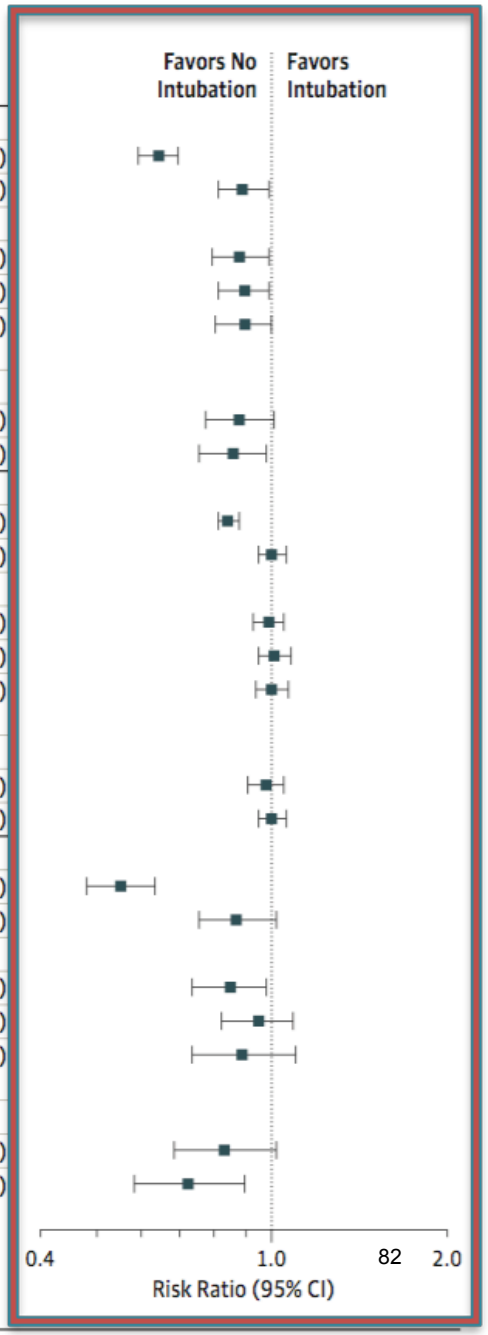
- **Cardiac Arrest Registry (CARES) database** (Hansen 2017)
  - 3 year retrospective database review
  - 17 states, 55 cities
  - 1724 < 18 non-traumatic cardiac arrest
    - EMS service who had BMV, ETI, and SGA options
    - 781 (45.3%) BVM; 727 (42.2%) ETI, and 215 (12.5%) SGA
    - 20.7% ROSC, 10.9% hospital discharge
  - **BVM associated with higher survival to hospital discharge compared to ETI and SGA**
    - **Odds ratio survival to discharge**
      - **ETI vs BMV 0.39 (95%CI 0.26-0.59)**
      - **SGA vs BMV 0.32 (95%CI 0.12-0.84)**

One last paper

- **"Get with the Guidelines-Resuscitation registration"** (Anderson 2016)
  - 14 year observational study from the <18 yo IN-HOSPITAL cardiac arrest patients
    - 2,294 total cardiac arrest cases, 1555 (68%) intubated
  - Survival was lower in ETI group (36% vs 41%, RR 0.89 95%CI 0.81-0.99)
  - **Among pediatric patients with in-hospital cardiac arrest, ETI during cardiac arrest compared with no ETI was associated with decreased survival to hospital discharge**

Figure 3. Main and Sensitivity or Secondary Analyses According to Outcome

	Not Intubated	Intubated	
	Patients With Events, No./Total (%)	Patients With Events, No./Total (%)	Risk Ratio (95% CI)
Survival			
Unadjusted analysis	495/739 (67)	667/1555 (43)	0.64 (0.59-0.69)
Main adjusted analysis	460/1135 (41)	411/1135 (36)	0.89 (0.81-0.99)
Sensitivity analyses			
Imputation of missing data	580/1376 (42)	513/1376 (37)	0.88 (0.79-0.99)
Excluding patients who received CPB	426/1058 (40)	382/1058 (36)	0.90 (0.81-0.99)
Excluding patients who received <2 min of chest compressions	343/881 (39)	307/881 (35)	0.90 (0.80-1.00)
Subgroup analyses			
Patients who were pulseless at any time	288/853 (34)	254/853 (30)	0.88 (0.77-1.01)
Patients with pulse present at initiation of CPR	193/325 (59)	166/325 (51)	0.86 (0.75-0.98)
ROSC			
Unadjusted analysis	636/739 (86)	1130/1555 (73)	0.84 (0.81-0.88)
Main adjusted analysis	771/1135 (68)	770/1135 (68)	1.00 (0.95-1.06)
Sensitivity analyses			
Imputation of missing data	952/1376 (69)	944/1376 (69)	0.99 (0.93-1.05)
Excluding patients who received CPB	690/1058 (65)	698/1058 (66)	1.01 (0.95-1.08)
Excluding patients who received <2 min of chest compressions	590/881 (67)	592/881 (67)	1.00 (0.94-1.07)
Subgroup analyses			
Patients who were pulseless at any time	530/853 (62)	518/853 (61)	0.98 (0.91-1.05)
Patients with pulse present at initiation of CPR	281/325 (86)	282/325 (87)	1.00 (0.95-1.06)
Favorable neurologic outcome			
Unadjusted analysis	244/563 (43)	313/1318 (24)	0.55 (0.48-0.63)
Main adjusted analysis	211/983 (21)	185/987 (19)	0.87 (0.75-1.02)
Sensitivity analyses			
Imputation of missing data	351/1376 (26)	298/1376 (22)	0.85 (0.73-0.98)
Excluding patients who received CPB	178/899 (20)	173/923 (19)	0.95 (0.82-1.09)
Excluding patients who received <2 min of chest compressions	154/762 (20)	139/769 (18)	0.89 (0.73-1.10)
Subgroup analyses			
Patients who were pulseless at any time	132/758 (17)	111/768 (14)	0.83 (0.68-1.02)
Patients with pulse present at initiation of CPR	107/254 (42)	79/260 (30)	0.72 (0.58-0.90)



Andersen LW et al. Association Between Tracheal Intubation During Pediatric In-Hospital Cardiac Arrest and Survival. JAMA. 2016;316(17):1786.

Wait a second… let's take a second look at that literature

Cardiac arrest

- **Prehospital**
  - Advanced airways not associated with survival (Tijssen)
  - BVM associated with higher survival to hospital discharge compared to ETI and SGA (Hansen 2017)

- **In hospital**
  - Among pediatric patients with in-hospital cardiac arrest, ETI during cardiac arrest compared with no ETI was associated with decreased survival to hospital discharge (Andersen 2016)

Trauma

- "Airway protocols clearly need to emphasize BVM in children until transfer to trauma center, especially if provider adequately establishes oxygenation and ventilation" (Ehrlich 2004)

- "Field intubation is an independent strong negative predictor of survival or good functional outcome despite adjustment for severity of injury" (DiRusso 2005)

Interesting Piece…

- Throughout literature, numerous cases that ended up not requiring ETI in ED, were extubated on arrival, and/or were discharged home

- Pediatric status epilepticus
  - Best to perform BVM while antiepileptic stops seizure

- Are there prehospital ETI occurring that do not deserve the risk of ETI?

What happens if you remove cardiac arrest, trauma, and seizures as indications for Peds ETI?

- 1989 Losek: 63 --> **6 in 1 year**
- 1995 Brownstein: 355 --> **~154 over 7 years**
- 2000 Gausche-Hill: 415 (ETI group)--> **28 over 3 years**
- 2002 Vilke: 264 --> **44 in 4.5 years**
- 2004 Ehrlich: 105 --> **20 in 10 years**
- 2016 Prekker: 299 ETT --> **50 over 6 years**

- **Roughly 10 pediatric ETI/Year in a system**

We've thought about the patient, but what about the paramedics?


F.D.N.
29

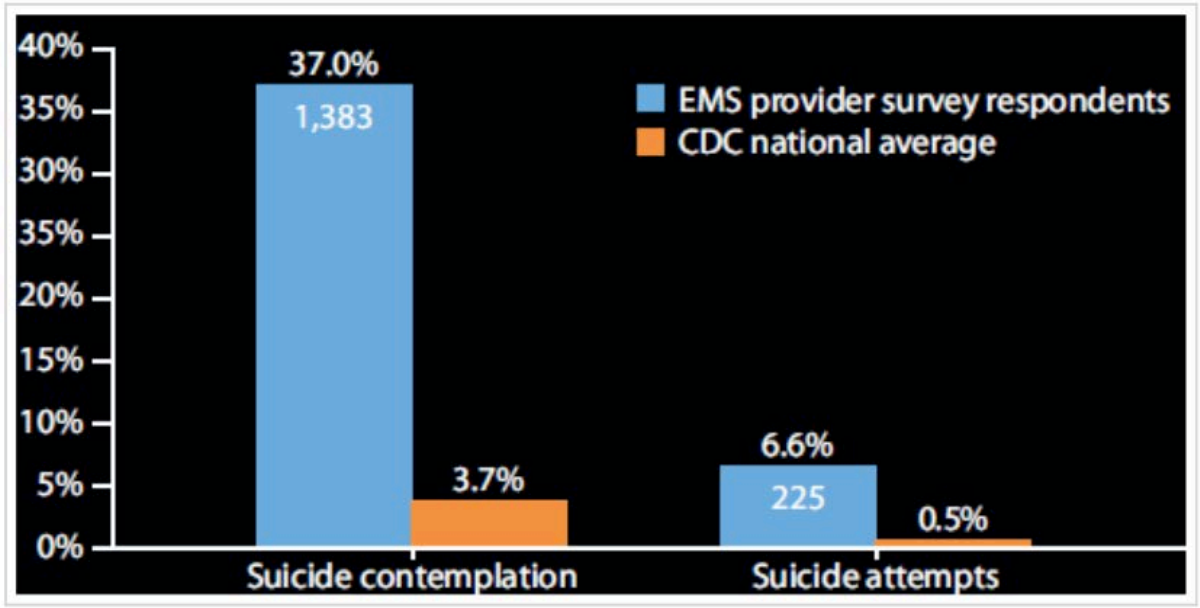
How does the failed pediatric ETI or ETI with major complications affect paramedic mental health?

"Many people often ask me: "You're a paramedic**, what's the worst thing you've ever seen**?" This question always sends shivers down my spine because I'm afraid of what memories might come up. My answer is never: 'When I witnessed a man blow his head off with a shot gun' or '**attempting to resuscitate a baby after a car accident**'. Instead, I avoid every possibility to talk about those things and just provide a case that does not want to make me run in the opposite direction."

http://www.huffingtonpost.com.au/john-mccormack/ptsd-how-working-as-a-paramedic-left-me-with-a-mental-health-em_a_22076604/

Paramedic Mental Health

- Very real issue
- Increased PTSD rates
- Increased suicide thoughts and attempts



http://www.jems.com/articles/print/volume-40/issue-10/features/survey-reveals-alarming-rates-of-ems-provider-stress-and-thoughts-of-suicide.html

California EMSC Technical Advisory Committee Recommendations

- **Unanimous agreement among TAC members to discontinue prehospital pediatric ETI**
  - Low frequency
  - High complication rate
  - Significant mental stress from poor outcomes

Pediatric ETI Conclusions

- Initial competency and maintenance difficult
- Very low frequency
- High complication rates
- May decrease survival in cardiac arrest and trauma
- Are there unnecessary ETI occurring prehospital?
- High stakes case for paramedics

…

- Do the risks outweigh the benefits?
  - Should we focus on the basics… oxygenation, ventilation and perfusion?

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EMERGENCY MEDICAL SERVICES AUTHORITY
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RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 324-2875

DATE: September 19, 2017

TO: Local EMS Agency Medical Directors
Local EMS Agency Administrators

FROM: Howard Backer, MD, MPH, FACEP
Director

SUBJECT: Phase Out of Pediatric Endotracheal Intubation

At their September 12, 2017 meeting, the Scope of Practice Committee recommended that all California LEMSAs remove pediatric endotracheal intubation from their local optional scope of practice for paramedics and that EMSA remove the practice from our optional scope. This decision followed a comprehensive review of the literature and a lengthy discussion in two Scope of Practice Committee meetings. It was further discussed in the plenary EMDAC meeting where there was general but not unanimous assent. The reason is that pediatric endotracheal intubation is a very low frequency intervention with a high potential for complications and generally negative outcomes compared to less invasive airway interventions. It is extremely difficult for paramedics to maintain this skill. The presentation, developed by J. Joelle Donofrio, DO, on the literature for pediatric intubation is attached.

The Committee did not recommend a firm age cutoff, since the age for transition from childhood to adult anatomy is between 8 and 12 years old. The cut-off will be determined by length—children who fit on a pediatric length-based tape (e.g., Broslow), which corresponds to approximately 40 kilograms.

I concur with the recommendation from the Scope of Practice Committee, and this memo is to notify local EMS agencies that endotracheal intubation for pediatric patients will be removed from the local optional scope of practice for paramedics no later than July 1, 2018.

The July 1, 2018 deadline allows sufficient time for local EMS agencies to revise local EMS protocols, to review alternative available airway devices and methods and provide necessary training to EMS personnel. Alternative advanced airways may include supraglottic airways such as the laryngeal mask airway and the i-Gel airway that are available in pediatric sizes. Since supraglottic airways are not part of the paramedic basic scope of practice, a local optional scope request needs to be submitted to the EMS Authority. A model request is being developed by EMDAC members.

Local EMS agency protocols may continue the procedure to visualize the airway with a laryngoscope and remove a foreign body with Magill forceps, which is part of the paramedic basic scope of practice.

An exclusion path for flight paramedics and potentially for critical care paramedics will be determined at a later date.

If you have any questions, please contact Sean Trask of my staff by email at sean.trask@emsa.ca.gov or by phone at (916) 431-3689.

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

DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Adam Davis
Quality Improvement Coordinator

SUBJECT: Ambulance Patient Offload Time (APOT) Report

RECOMMENDED ACTION:

Receive information regarding ambulance patient offload time preliminary results.

FISCAL IMPACT:

None.

DISCUSSION:

EMSA worked with the LEMSA Administrators to develop a standardized template (an excel spreadsheet) for APOT reporting. Upon distribution, participating LEMSAs have populated the spreadsheets with appropriate APOT data and have submitted their information to EMSA. To date, 14 of the 33 LEMSAs have provided at least one Quarter's worth of APOT information, represented 231 (non-unique) hospitals.

EMSA is currently reviewing the submissions to determine the best ways to visualize the information in a meaningful way. EMSA will be working the Executive Data Advisory Group to determine the appropriate data points to examine and determine the best approach to establishing benchmarks. Samples have been provided for the consideration of the Commission on EMS.

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Adrienne Kim
CEMSIS Program Coordinator

SUBJECT: CEMSIS Program Update

RECOMMENDED ACTION:

Receive information regarding current status of CEMSIS.

FISCAL IMPACT:

None.

DISCUSSION:

The report includes a summary of several items related to the status of the California EMS Information Systems (CEMSIS):

NEMSIS V3.5 Transition:

The National Highway Traffic Safety Administration (NHTSA) is currently planning on making a major update to the NEMSIS data standard to be effective January 2021. These changes will require software vendors to make changes to their software. During 2018 and 2019, there may be minor revisions that are yet to be determined.

Electronic Health Record Device Grant:

The EMS Authority continues to work with federal and state partners to provide funding opportunities to assist provider agencies who have difficulties obtaining the necessary hardware to operationalize electronic patient care records (ePCR). The EMS Authority received a grant from the California Office of Traffic Safety (OTS) for $1.2 million to provide local EMS agencies and provider agencies funding to purchase electronic mobile devices. Funding was prioritized to EMS providers in California that still employ physical hardcopy methods or use desktop applications to collect patient care data.

Funding by OTS was issued to the EMS Authority on October 1, 2016 using National Highway Traffic Safety Administration monies with the expectation of project completion within one year ending on September 30, 2017. Ten Local EMS Agencies were able to purchase 838 devices through this local assistance grant.

CEMSIS Transition:

The EMS Authority has successfully transitioned to National EMS Information System (NEMSIS) Version 3.4 effective January 1, 2017. Out of the 33 Local EMS agencies (LEMSAs), 26 are currently submitting version 3.4 data. CEMSIS has received approximately 1.8 million records to date for 2017. This represents around 40% of all calls within California. We are actively working with the majority of LEMSAs who are not yet reporting EMS data to CEMSIS to get their data included in the state data system.

The following is a summary of the LEMSA CEMSIS reporting as of December 2017:

LEMSAs Participating	**Quarter Started and Year**
Alameda County EMS Agency	First Quarter of 2017
Central California EMS Agency	First Quarter of 2017
Coastal Valleys EMS Agency	First Quarter of 2017
Contra Costa County EMS Agency	Second Quarter of 2017
El Dorado County EMS Agency	3rd Quarter of 2017
Inland Counties Emergency Medical Agency	First Quarter of 2017
Kern County EMS Agency	Second Quarter of 2017
Monterey County EMS Agency	Second Quarter of 2017
Mountain Valley EMS Agency	First Quarter of 2017
Napa County EMS Agency	Third Quarter of 2017
North Coast EMS Agency	First Quarter of 2017
Northern California EMS Agency	First Quarter of 2017
Orange County EMS Agency	Third Quarter of 2017
Riverside County EMS Agency	Second Quarter of 2017
Sacramento County EMS Agency	First Quarter of 2017
San Benito County EMS Agency	First Quarter of 2017
San Francisco County EMS Agency	First Quarter of 2017
San Luis Obispo County EMS Agency	Second Quarter of 2017
Santa Clara County EMS Agency	Second Quarter of 2017
Santa Cruz County EMS Agency	Second Quarter of 2017
Sierra-Sacramento Valley EMS Agency	First Quarter of 2017
Tuolumne County EMS Agency	Second Quarter of 2017
Ventura County EMS Agency	First Quarter of 2017
Yolo County EMS Agency	First Quarter of 2017

LEMSAs Testing	**Start Date**
Merced County EMS Agency	Second Quarter of 2017
San Diego County EMS Agency	First Quarter of 2017
Santa Barbara County EMS Agency	Fourth Quarter of 2017

LEMSAs Not Participating
Imperial County EMS Agency
Los Angeles County EMS Agency
Marin County EMS Agency
Solano County EMS Agency

The Commission will be kept informed on the progress of the CEMSIS.

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Adam Davis
Analyst, EMS Systems Division

SUBJECT: EMS Core Measures Report

RECOMMENDED ACTION:

Receive information regarding 2016 Core Measures Report.

FISCAL IMPACT:

None.

DISCUSSION OF REPORTING:

EMSA received Core Measures submissions from 28 of the 33 local EMS agencies (LEMSA) for 2016 Calendar Year data. EMSA has developed and released the the annual summary report which was made to LEMSAs for review and comment prior to publishing on the EMSA website. 28 of the 33 LEMSAs participated in the reporting of core measures information for 2016. All 28 participating LEMSAs reported 12 or more of the 17 clinical measures (70%).

EMSA is currently reviewing the Core Measures Project to accommodate the transition to the NEMSIS Version 3 Standards. EMSA initiated an ad-hoc work group comprised of EMS Stakeholders to enhance the existing Core Measure set. This group which met on November 2nd, 2017, reviewed each of the California Core Measures as well as those developed through the EMS Compass Initiative. The recommendations from the Ad-hoc group will be discussed and reviewed by the Core Measures Task Force at the next meeting to be scheduled in late-November or early-December of 2017, with the goal of updating the specifications into NEMSIS 3 format to be released very early in Quarter 1 of 2018 with reporting of 2017 Calendar Year data is expected to take place by March 31, 2018.

The Commission will be kept informed of the Core Measures Project activities as we move forward.

EMS Core Measures Project

Reporting Capability of EMSA and LEMSA Data Systems

and

Results from Performance Measures

Data Year 2016

With Comparison to Years 2013, 2014 and 2015

October 2017

Table of Contents:

EMS Core Measures Project, Data from 2016:

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 key component of a quality improvement program to ensure that EMS services operate safely and effectively and follow evidence based clinical practices to optimize outcomes.

Robust data systems, with the ability to report clinical indicators and performance measures, are a key tool to accomplish QI activities. The goal is to connect data from across the continuum of care from dispatch to pre-hospital to hospital disposition in order to optimally evaluate patient outcomes.

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) states 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 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.

Recent Data Legislation

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 which requires each provider to utilize electronic health record systems that are compliant with the "current version of NEMSIS" to collect EMS data;
- AB 503 which 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 which requires EMSA to adopt standards related to data collection for ambulance patient off-load time; and
- SB 19 which 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.

Each of these new laws may have some impact on the Core Measures effort, particularly AB 1129 and AB 1223.

Methodology

A task force consisting of data and quality leaders from local EMS agencies, LEMSA 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 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 reviewed each year to improve results.

LEMSA participation in the California Emergency Medical Services Information System (CEMSIS) is required, consistent with HSC 1797.102, to provide the EMS Authority with information necessary to access the effectiveness of emergency medical services in each EMS area or the system's service area. The LEMSAs run their core measure reports from their local database and submit aggregate results to EMSA. Since each of the 33 LEMSAs maintains their own EMS database and each is dependent on their EMS provider agencies to submit data, there is variability in their capability to report core measures and some intrinsic variation in results. While sampling is an approved mechanism for the LEMSAs to calculate core measure values and has been done in the past, no LEMSAs reported data sampling this year.

In addition to core measure results, EMSA requested that each of the LEMSAs provide the following information on their process of collection and reporting of their information.

Please include in your 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 ePCRs;*
  - *How the data from 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 depends on the development of compatible data systems at several levels of the EMS system, which will take several more years to achieve the level of confidence of other healthcare sector quality assessment reporting. Other challenges to reporting the core measures to EMSA are enumerated below. Of the 33 LEMSAs, 28 reported at least one clinical measure from 2016 data. With the upcoming transition to NEMSIS 3 and the ongoing transition by providers to electronic patient care records (ePCR), EMSA expects increased quality of data collected and improvements to reported values for the performance measures. EMSA will continue to work on these measures to improve the report specifications and to connect them to "best practices."

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 from NEMSIS 2 to NEMSIS 3 data systems.

Transition to NEMSIS compliant electronic data systems – Transition of EMS providers from manual paper records to electronic records continues. Abstracting information from paper forms is difficult, time-consuming, and inaccurate. This will continue to be a problem until all providers and LEMSAs are using ePCR with software that has a high degree of technological sophistication, including rules that forces users to complete forms before closing the record.

Hospital Outcome Data – One of the ongoing challenges is the difficulty in obtaining hospital outcome data on every ambulance transport. Several measures, for example resuscitation 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), the LEMSAs must invest considerable effort to acquire this information. Advances in health information exchange will make this much easier in the future.

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 by EMSA. 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 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, the accuracy of the data cannot be ascertained. This is compounded where there is manual data entry.

Documentation by Non-Trained Providers - EMS field personnel generally do not receive core measures specific training on data entry. Consequently, data entry is not consistent for all the required data elements. Additional education and training would reduce this problem. EMSA will work with the LEMSAs to alert providers to specific elements in core measures data to ensure that those fields are properly populated. New ePCR software has rules that can mandate and limit values for key fields. This can be integrated into quality improvement plans to help with quality assurance in the future. 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 tiered 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.

Partial System Representation – Only a portion of the actual EMS business conducted in California is represented in this report; the values reported by the LEMSAs do not represent 100% of the providers in the state. EMSA is providing local assistance grant opportunities through LEMSAs to assist all providers to adopt ePCR systems. Throughout the reporting year (2016) most LEMSAs were transitioning from NEMSIS 2.2.1 to NEMSIS 3 data standards. Due to the nature of the “transition” year, only NEMSIS 2.2.1 data was requested, which only represents a portion of the data year.

Contact Information for: The 2016 EMS Core Measures Project
Adam.davis@emsa.ca.gov
(916) 322-4336 ext. 409
http://www.emsa.ca.gov/ems_core_quality_measures_project

In future years, system improvements listed below will facilitate data collection and more accurate reporting. These advances should improve data validity and decrease variability related to documentation and measure specifications.

1. Additional LEMSAs successfully exporting data to CEMSIS
2. Transition from NEMSIS Version 2 to NEMSIS Version 3, an updated national data dictionary
3. CEMSIS accumulating sufficient records to generate reports on core measures from patient-level data

Improvements

While the number of LEMSAs (28 of 33) that submitted core measure values to EMSA decreased from the prior year, the number of measures reported by participating LEMSAs **remained the same or increased** (see Chart 2 "Histogram").

The following 9 (nine) measures experienced an increase in their median reported value from the previous year:

- TRA-1
- ACS-2
- CAR-2
- CAR-3
- CAR-4
- STR-2
- STR-5
- PAI-1
- SKL-2

Independent, 3rd Party Project Evaluation

Supported by a grant from the California Health Care Foundation, the EMS Authority contracted with the University of California Davis Institute for Population Health Improvement (UC Davis IPHI) to conduct an independent review of the California EMS Core Quality Measures Project. The report can be accessed at: http://www.emsa.ca.gov/Media/Default/PDF/UCDavisCoreMeasureProjectEvaluation.pdf

One of the most concerning observations was that few LEMSAs used these measures for quality improvement, which is their primary purpose. Data quality cannot account for all low values. LEMSAs that question the validity of their measure should sample records for a field audit. It is also simple to check with a LEMSA that is apparently high-performing to compare both their search algorithm and their clinical protocols.

The findings and recommendations by UC Davis IPHI will be assessed by EMSA and the Core Measures Task Force, to determine best approaches for project enhancement, providing value to stakeholders, and meeting California's commitment to statewide EMS as outlined in Title 22, Division 9, Chapter 12.

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Tables, Charts and Graphs Generated from Core Measure Reports

LEMSAs Reporting Data for Any Core Measures (Table 1):
Table 1 shows which LEMSAs submitted core measures data for years 2009-2016. For 2016 reporting year, 28/33 LEMSAs reported at least one measure. If a LEMSA submitted a value for any of the 17 clinical measures or the three Response and Transport measures found in *California EMS System Core Quality Measures, EMSA 166, Appendix E*, the cell associated with that data year is populated with an "X" and shaded green. For LEMSAs that did not submit any core measure information to EMSA, the cell for that corresponding year appears white.

Clinical Measures Response Count, Denominator Total, Submission Rate, Average, and Median as Reported by LEMSA (Table 2):
Table 2 shows the total number of LEMSAs that reported a value for the specific clinical measure, the aggregate denominator total (number of patient records) of all responses, the percent of LEMSAs that submitted a value for each measure (submission rate), the average and median reported value for each measure. This table includes information from each reporting period 2012- 2016.

Frequency Histogram of LEMSA Number of Responses to Clinical Measures (n=17) for 2012-2016 (Chart 1) and **LEMSA Response Count to 17 Clinical Measure for 2016 Data (Chart 2)**
The histogram shows the number of clinical measure results reported by each LEMSA grouped as follows: 17-15, 14-12, 11-9, 8-6, 5-3, 2-0 measures reported. Each of the 33 LEMSAs is tallied in one of these groups based on how many clinical measures they reported. Chart 2 also illustrates the number of clinical measures each LEMSA reported, organized by LEMSA alphabetically. Out of the seventeen clinical measures, 28 of 33 LEMSAs (84%) were able to report at least twelve measures, based on their 2016 data.

Clinical Measure Results:
This report includes the LEMSA 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 provides a table of the LEMSA response count for each measure, the population denominator for the measure, submission rate for the measure, average reported value, and median value for all responses for that 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 contains no value and is shaded grey. 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 comments and evaluation on the measure and responses.

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Table 1 LEMSAs Reporting Data for Any Core Measure

Core Measure Reporting by LEMSA

	2009	2010	2011	2012	2013	2014	2015	2016
Alameda County EMS		X	X	X	X	X	X	X
Central California EMS	X	X	X	X	X	X	X	X
Coastal Valleys EMS				X	X	X	X	X
Contra Costa County EMS		X	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	X
Kern County EMS		X	X		X	X	X	X
Los Angeles County EMS	X	X	X	X	X	X	X	X
Marin County EMS		X	X		X	X	X	X
Merced County EMS	X	X	X	X	X	X	X	X
Monterey County EMS		X	X	X	X	X	X	X
Mountain Valley EMS		X	X	X	X	X	X	X
Napa County EMS					X	X	X	X
North Coast EMS		X	X	X	X	X	X	X
Northern California EMS	X	X	X	X	X	X	X	X
Orange County EMS					X	X	X	X
Riverside County EMS		X	X	X	X	X	X	X
Sacramento County EMS		X	X	X	X	X		
San Benito County EMS					X	X	X	X
San Diego County EMS		X	X	X	X	X	X	X
San Francisco EMS	X	X	X	X	X	X	X	X
San Joaquin County EMS				X	X	X	X	X
San Luis Obispo County EMS		X	X		X	X	X	X
San Mateo County EMS		X	X	X	X	X	X	X
Santa Barbara County EMS	X	X	X		X	X	X	X
Santa Clara County EMS	X	X	X	X	X	X	X	X
Santa Cruz County EMS	X	X	X		X	X	X	X
Sierra-Sacramento Valley EMS	X	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	X
Yolo County EMS					X	X	X	X
Totals Measure Responses (including RSTs and 2015 Measures)	10	24	24	23	32	32	29	28

X=Reported At Least 1 Measure

No Measures Submitted

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Table 2 Aggregated Values across all LEMSAs of Clinical Measures Response Count*, Denominator Total, Submission Rate, Average and Median Value

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	10	10	29	26	22	27	27	25	28	28
Denominator Total	14036	19456	98274	101450	18553	13703	16385	4820	4580	30254	25155	26212	116267	8614	251438	9629	7170
Submission Rate (n=33)	81.82%	78.79%	87.88%	87.88%	81.82%	84.85%	87.88%	30.30%	30.30%	87.88%	78.79%	66.67%	81.82%	81.82%	75.76%	84.85%	84.85%
Average	0:23:49	70.04%	66.28%	80.97%	0:22:27	81.83%	27.78%	26.10%	14.64%	84.91%	0:20:24	69.34%	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%	27.49%	19.41%	10.75%	92.90%	0:20:29	88.70%	37.21%	29.00%	32.40%	73.37%	88.25%

29 Total Submissions considered in this table

2016

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	28	28	28	28	27	28	10	9	28	28	23	26	26	26	27	27
Denominator Total	19428	22953	98916	98592	13315	12654	15360	6692	5067	28935	28683	25880	118204	7734	242552	9229	6961
Submission Rate (n=33)	81.82%	78.79%	87.88%	87.88%	81.82%	84.85%	87.88%	30.30%	30.30%	87.88%	78.79%	66.67%	81.82%	81.82%	75.76%	84.85%	84.85%
Average	0:24:04	73.33%	62.56%	81.57%	0:24:22	79.41%	31.22%	36.46%	17.62%	86.81%	0:20:52	73.27%	42.68%	38.92%	41.22%	72.26%	83.11%
Median	0:23:37	76.15%	59.72%	91.52%	0:24:07	95.09%	32.46%	31.00%	15.40%	93.65%	0:20:59	90.34%	35.11%	24.30%	36.52%	71.96%	93.00%

28 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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Fourteen of the seventeen measures had a 75% response rate or greater. 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. RES-2 Beta2 agonist administration for adult patients
11. PED-1 Pediatric patients with wheezing receiving bronchodilators
12. PAI-1 Pain intervention
13. SKL-1 Endotracheal intubation success rate
14. SKL-2 End-tidal CO2 performed on any successful endotracheal intubation

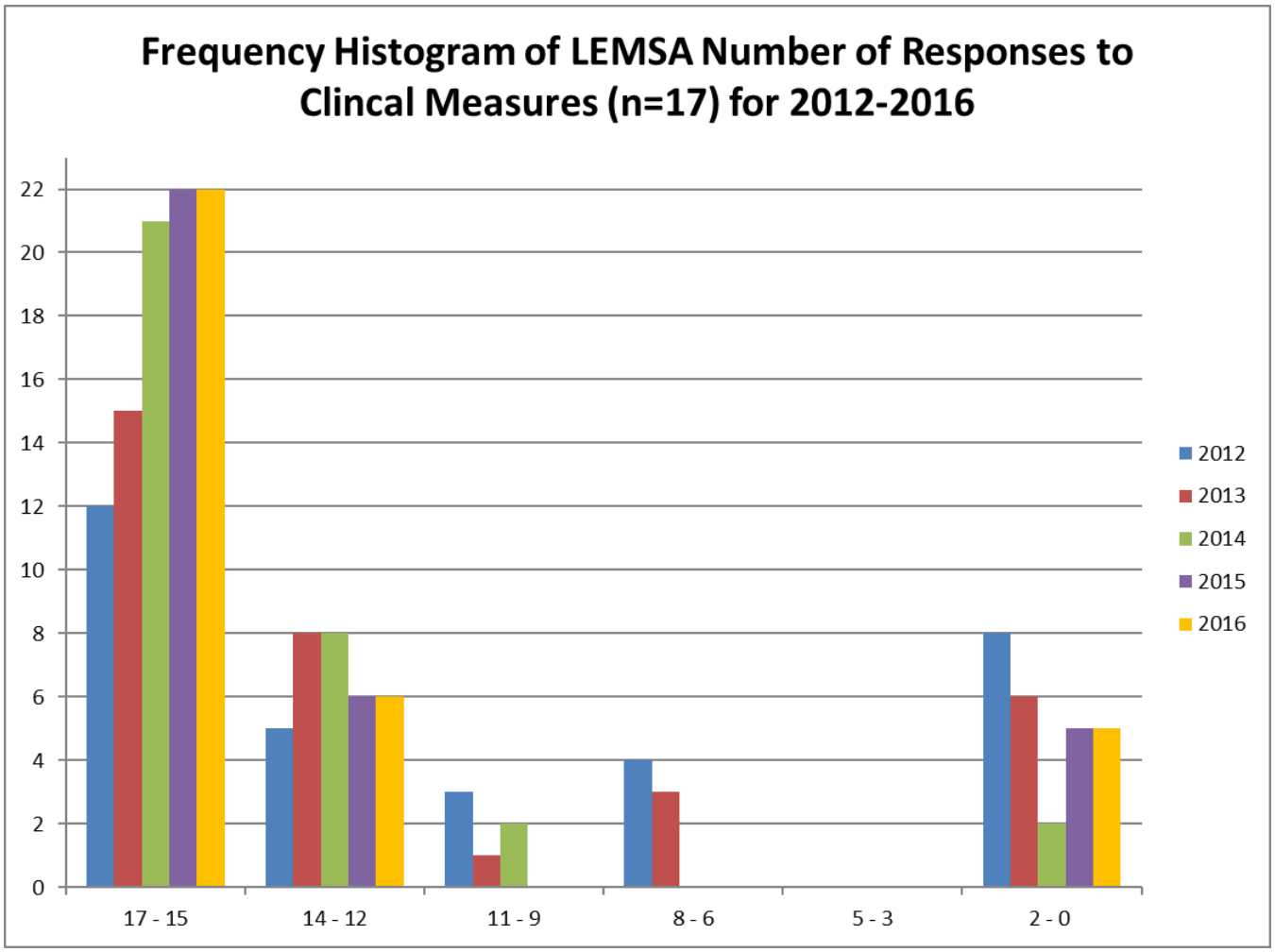
Measures with the lowest response rate include:

15. CAR-3 Out of hospital Cardiac Arrest Survival to Emergency Department Discharge
16. CAR-4 Out of hospital Cardiac Arrest Survival to Hospital Discharge
17. STR-5 Direct transport to stroke center for suspected acute stroke patients meeting criteria

Additional, non-clinical measures absent from this report include:

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

Chart 1 LEMSA Responses to Clinical Measures



Count of LEMSA reporting a value noted in the calendar year

Number of Measures	2012	2013	2014	2015	2016
17 - 15	12	15	21	21	22
14 - 12	5	8	8	5	6
11 - 9	3	1	2	2	0
8 - 6	4	3	0	0	0
5 - 3	0	0	0	0	0
2 - 0	8	6	2	4	5

Note: For 2016, all 28 LEMSAs that reported data provided results for at least 13 measures. The others (represented in the 0-2 category) reported no core measure results. The ability to report these measures is an indicator of the capability of the LEMSA data system to report the retrospective clinical data, and may not represent a LEMSA's commitment to data collection or quality improvement.

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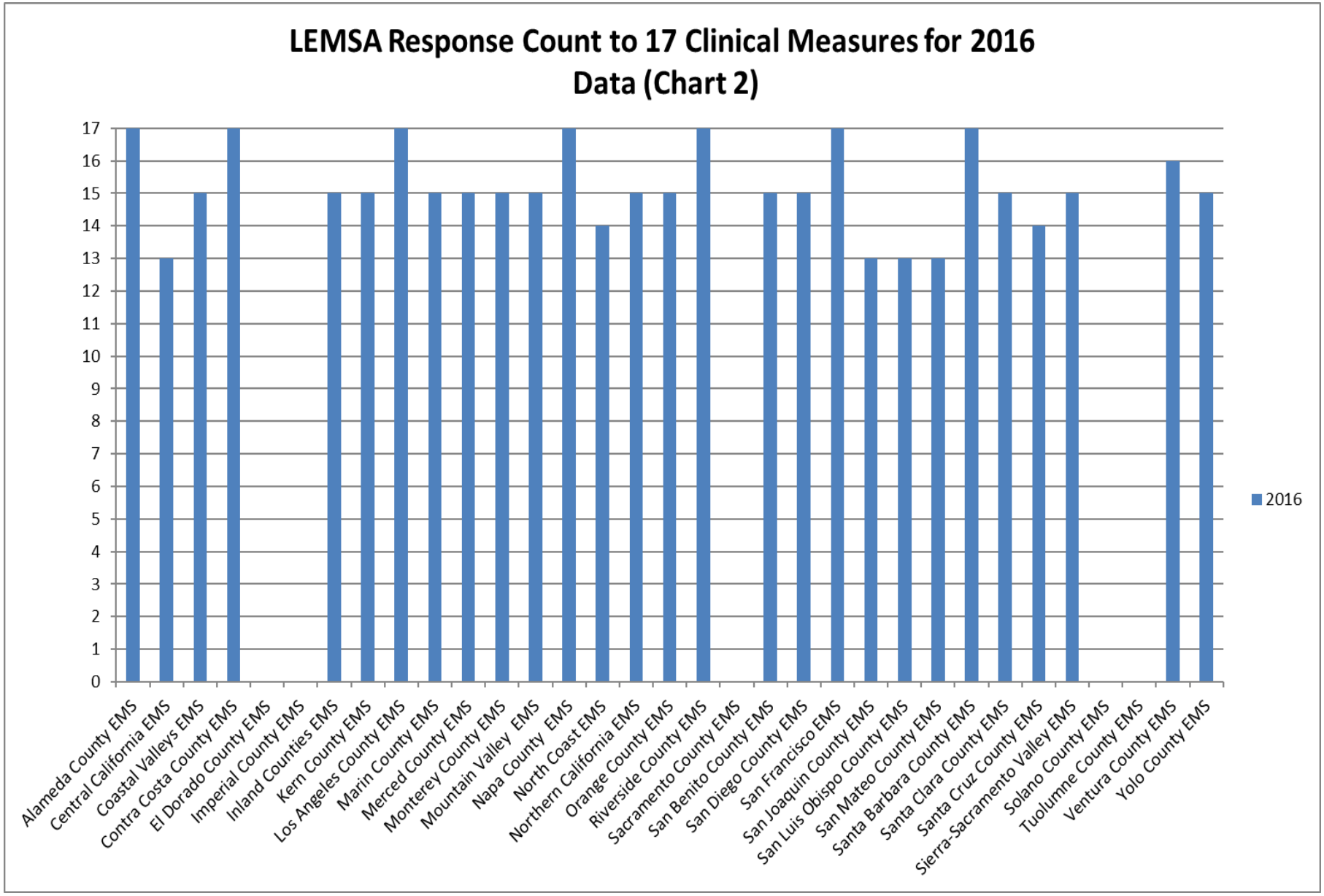

Note: This chart displays the number of clinical measures each LEMSA reported and does not include the three (3) response and transport measures

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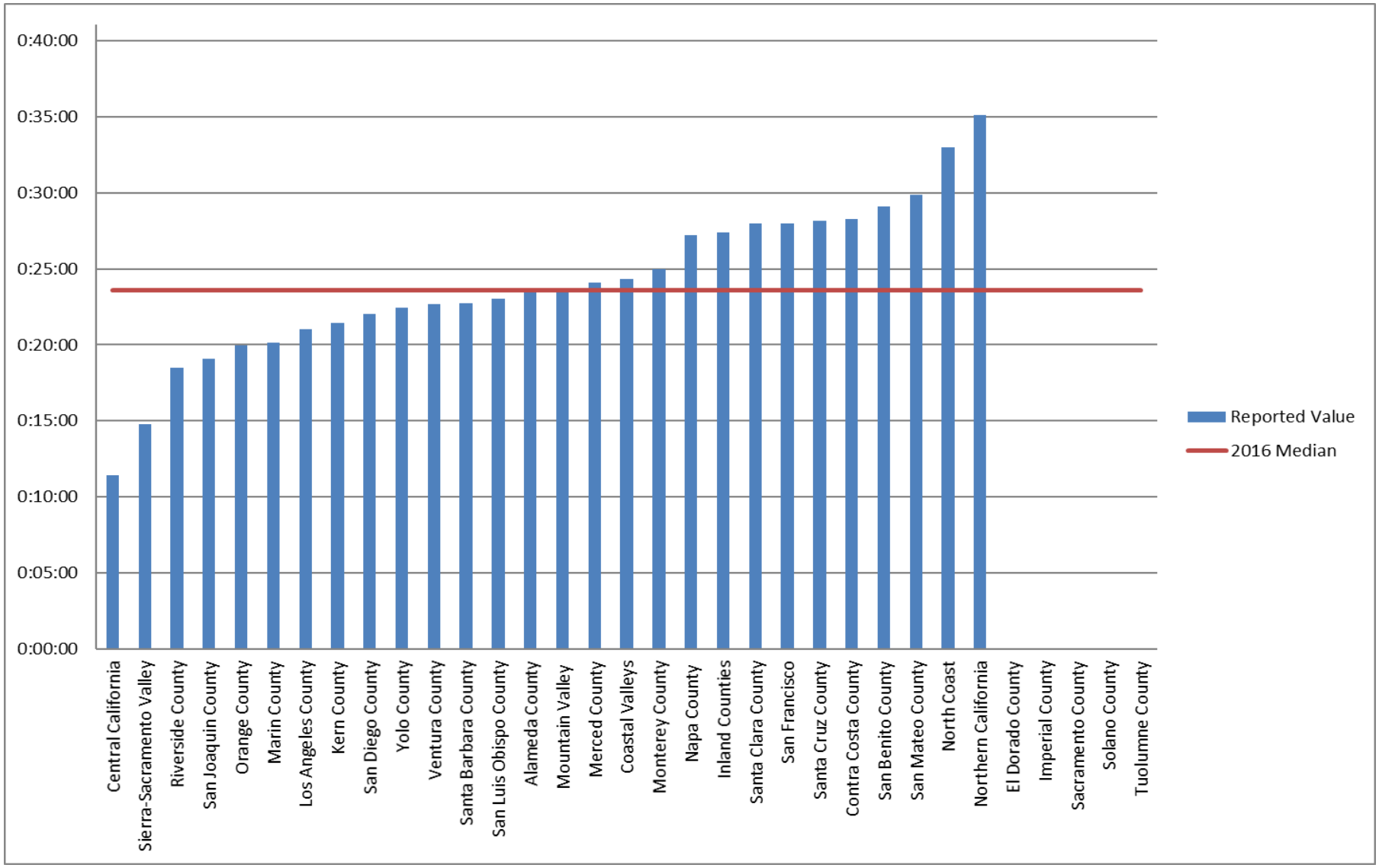
Clinical Measure Responses

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



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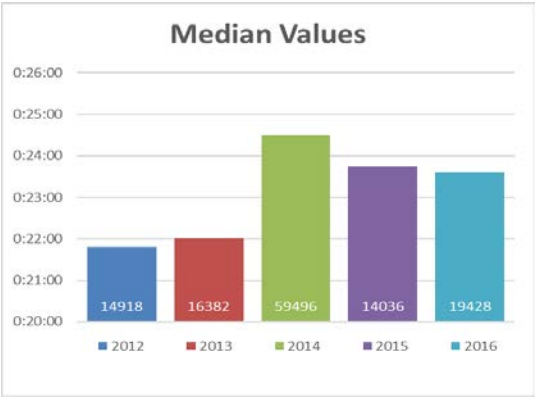
TRA-1: Scene Time for Trauma Patients – Part 2 of 2

	2016 Value	2016 Denom.
Central California	0:11:26	1066
Sierra-Sacramento Valley	0:14:45	456
Riverside County	0:18:29	2174
San Joaquin County	0:19:04	590
Orange County	0:19:59	180
Marin County	0:20:07	68
Los Angeles County	0:21:00	1448
Kern County	0:21:28	347
San Diego County	0:22:00	4032
Yolo County	0:22:28	220
Ventura County	0:22:40	177
Santa Barbara County	0:22:43	164
San Luis Obispo County	0:23:00	73
Alameda County	0:23:33	
Mountain Valley	0:23:40	470
Merced County	0:24:04	284
Coastal Valleys	0:24:19	311
Monterey County	0:24:58	
Napa County	0:27:11	130
Inland Counties	0:27:24	1273
Santa Clara County	0:27:58	432
San Francisco	0:28:00	1004
Santa Cruz County	0:28:09	677
Contra Costa County	0:28:18	1207
San Benito County	0:29:06	49
San Mateo County	0:29:52	526
North Coast	0:33:00	1980
Northern California	0:35:06	90
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	TRA-1
Response Count	28
Denominator Total	19428
Submission Rate (n=33)	81.82%
Average	0:24:04
Median	0:23:37



Of the 28 LEMSAs reporting these data for 2016, the median scene time was 23 minutes, 37 seconds. Adjustments were made in 2014 to the Trauma measures to analyze a larger population of trauma patients. Changes to the trauma measures include the removal of the revised trauma score to shift from examining those severely injured trauma patients, to all trauma patients meeting the CDC Trauma Triage Criteria. This likely accounts for the increase in median time. Median value for this measure has been relatively stable over four years of reporting, varying by only 2-3 minutes.

The common expectation is for short scene times, targeted at 15-20 minutes to remain within a "golden hour" for care in a hospital with surgical capability. The outcome benefit of rapid trauma response and scene time have both been challenged in the literature; however, there is definitely a group of trauma victims with major hemorrhage that benefit from rapid definitive surgical care. Reported scene times may be influenced by extrication. We would expect relatively little variation among LEMSAs on this measures.

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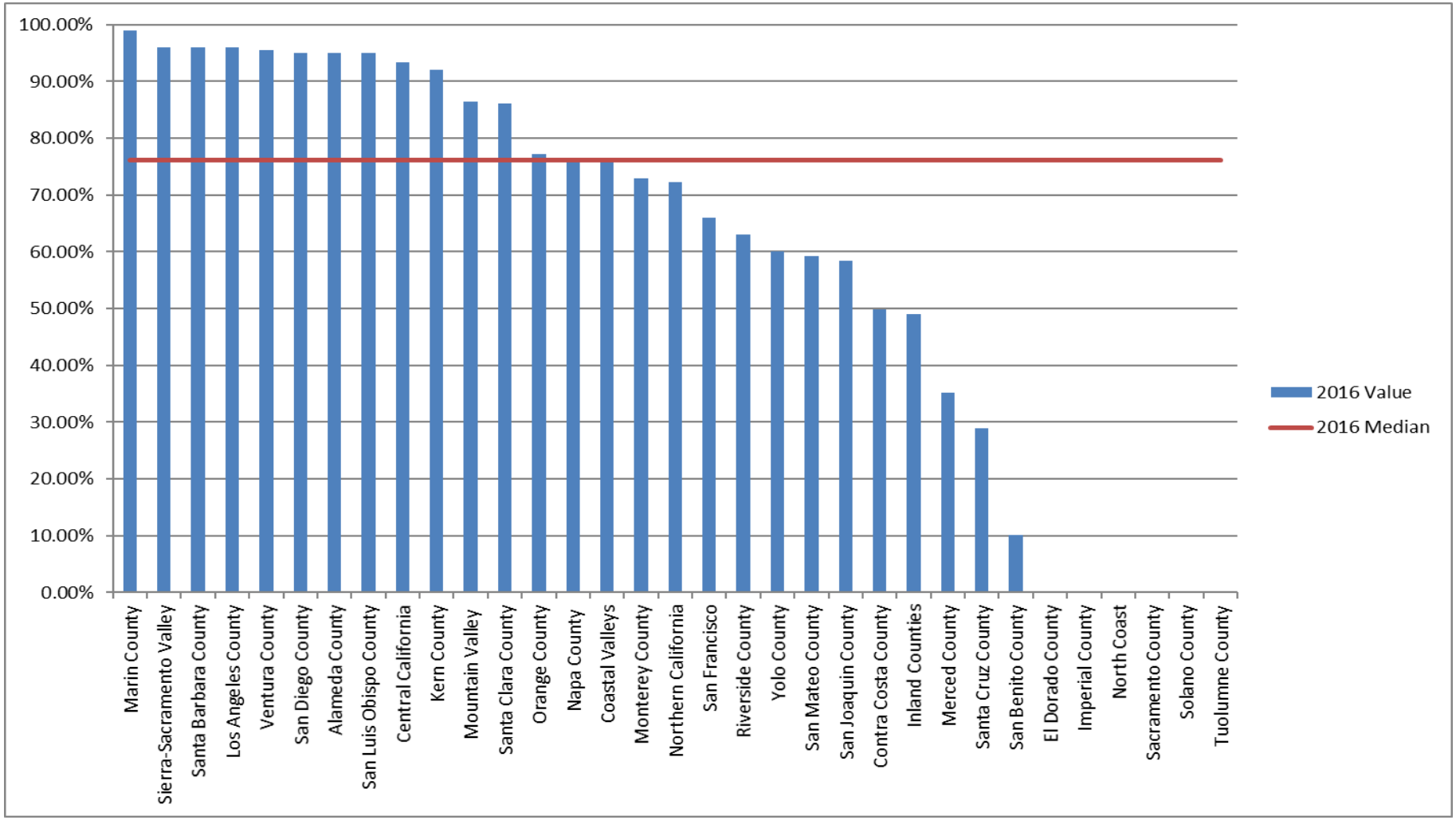
TRA-2: Direct Transport to Designated Trauma Center for Trauma Patients Meeting Criteria – Part 1 of 2



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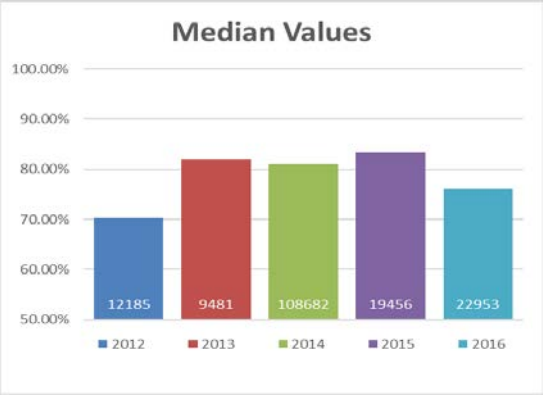
TRA-2: Direct Transport to Designated Trauma Center for Trauma Patients Meeting Criteria – Part 2 of 2

	2016 Value	2016 Denom.
Marin County	99.00%	68
Sierra-Sacramento Valley	96.05%	456
Santa Barbara County	96.00%	164
Los Angeles County	95.97%	1490
Ventura County	95.50%	177
San Diego County	95.05%	9278
Alameda County	95.00%	198
San Luis Obispo County	95.00%	73
Central California	93.34%	1066
Kern County	92.00%	347
Mountain Valley	86.38%	470
Santa Clara County	86.11%	432
Orange County	77.20%	180
Napa County	76.15%	130
Coastal Valleys	75.88%	311
Monterey County	73.00%	
Northern California	72.22%	90
San Francisco	66.00%	1023
Riverside County	63.00%	2174
Yolo County	60.00%	220
San Mateo County	59.32%	526
San Joaquin County	58.40%	590
Contra Costa County	49.90%	1207
Inland Counties	49.00%	1273
Merced County	35.21%	284
Santa Cruz County	29.00%	677
San Benito County	10.20%	49
El Dorado County		
Imperial County		
North Coast		
Sacramento County		
Solano County		
Tuolumne County		

Measure ID	TRA-2
Response Count	28
Denominator Total	22953
Submission Rate (n=33)	78.79%
Average	73.33%
Median	76.15%



Of the 28 LEMSAs reporting these data for 2016, the median of patients transported directly to a trauma center was 76.15%; This value decreased by has been very stable over the past three years.

Low values would be expected in some rural areas with prolonged transport times to a trauma center or where transport to a non-trauma center may be appropriate. The measure does not distinguish among level of trauma center.

Empty grey cells indicate no value reported

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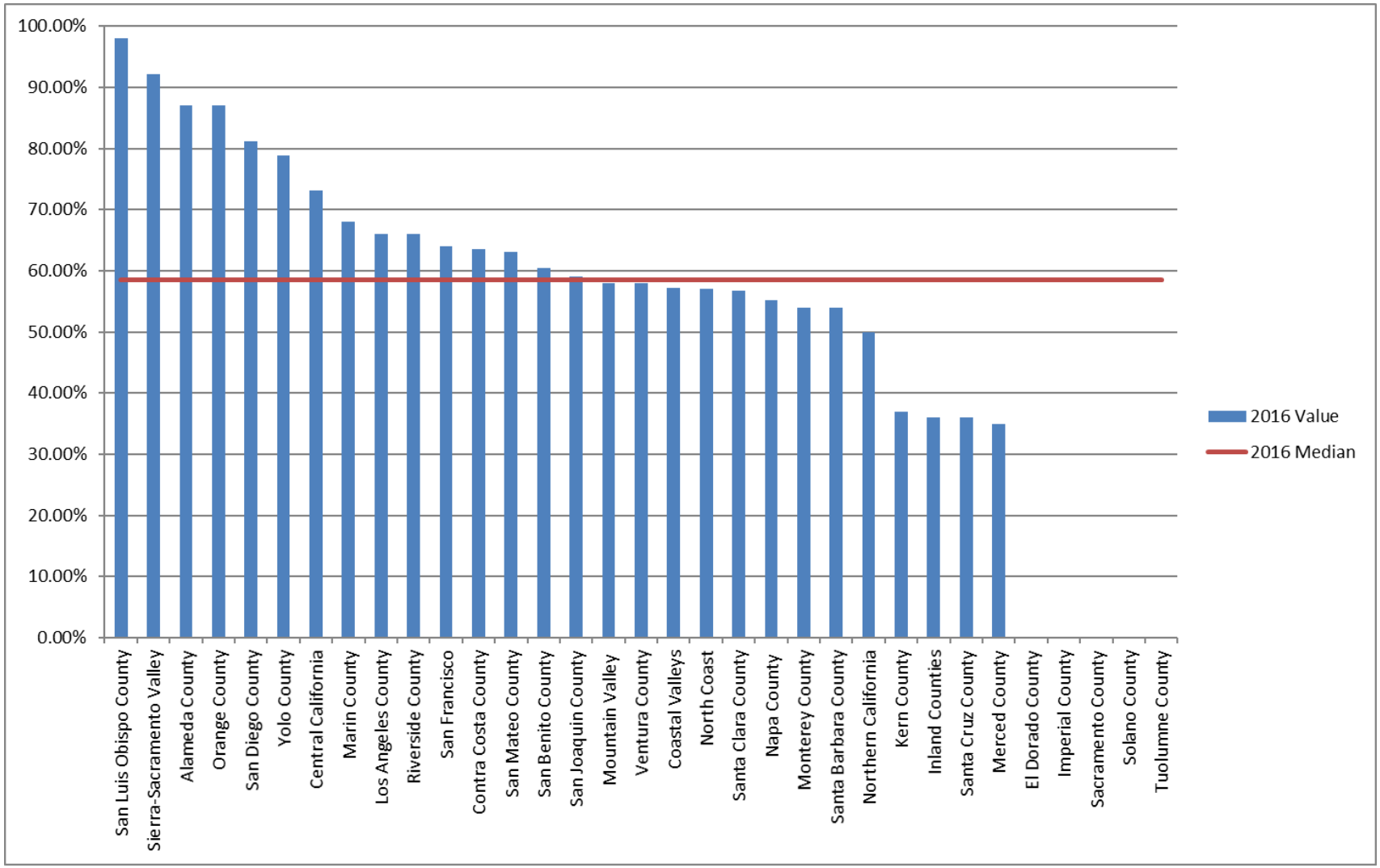
ACS-1: Aspirin Administration for Chest Pain/Discomfort Rate – Part 1 of 2



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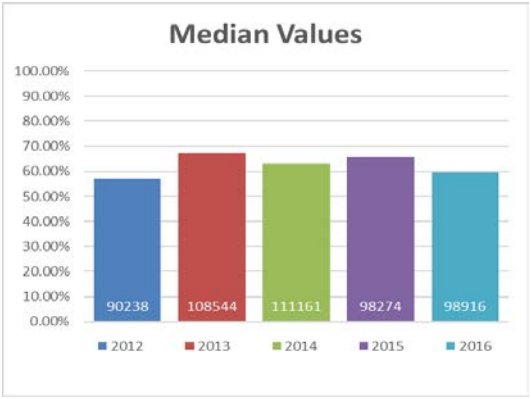
ACS-1: Aspirin Administration for Chest Pain/Discomfort Rate – Part 2 of 2

	2016 Value	2016 Denom.
San Luis Obispo County	98.00%	542
Sierra-Sacramento Valley	92.21%	4251
Alameda County	87.00%	3698
Orange County	87.00%	2150
San Diego County	81.20%	11058
Yolo County	78.81%	96
Central California	73.15%	5568
Marin County	68.00%	583
Los Angeles County	66.00%	16544
Riverside County	66.00%	9287
San Francisco	64.00%	2768
Contra Costa County	63.61%	3511
San Mateo County	63.08%	1877
San Benito County	60.44%	91
San Joaquin County	59.00%	2776
Mountain Valley	58.00%	1927
Ventura County	58.00%	1848
Coastal Valleys	57.27%	1142
North Coast	57.00%	1278
Santa Clara County	56.76%	3173
Napa County	55.18%	569
Monterey County	54.00%	
Santa Barbara County	54.00%	1123
Northern California	50.00%	512
Kern County	37.00%	4731
Inland Counties	36.00%	14476
Santa Cruz County	36.00%	901
Merced County	35.00%	2436
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Measure ID	ACS-1
Response Count	28
Denominator Total	98916
Submission Rate (n=33)	87.88%
Average	62.56%
Median	59.72%



Of the 28 LEMSAs reporting these data for 2016, the median percentage of patients receiving aspirin in the field for complaints of chest pain or discomfort suggestive of cardiac origin was 59.72% and has been very stable for the past few years.

While the median should be close to 90%, 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. The reported values ranged from 35-98%. The wide variation should not be attributed to performance should prompt evaluation of protocols and discussion with field providers.

Aspirin administration is the expected "standard of care" for chest pain and chest discomfort of cardiac origin and should be done for every suspected acute coronary syndrome patient. All 33 LEMSAs have aspirin administration in their protocol for management of suspected ACS patients.

Empty grey cells indicate no value reported

Contact Information:
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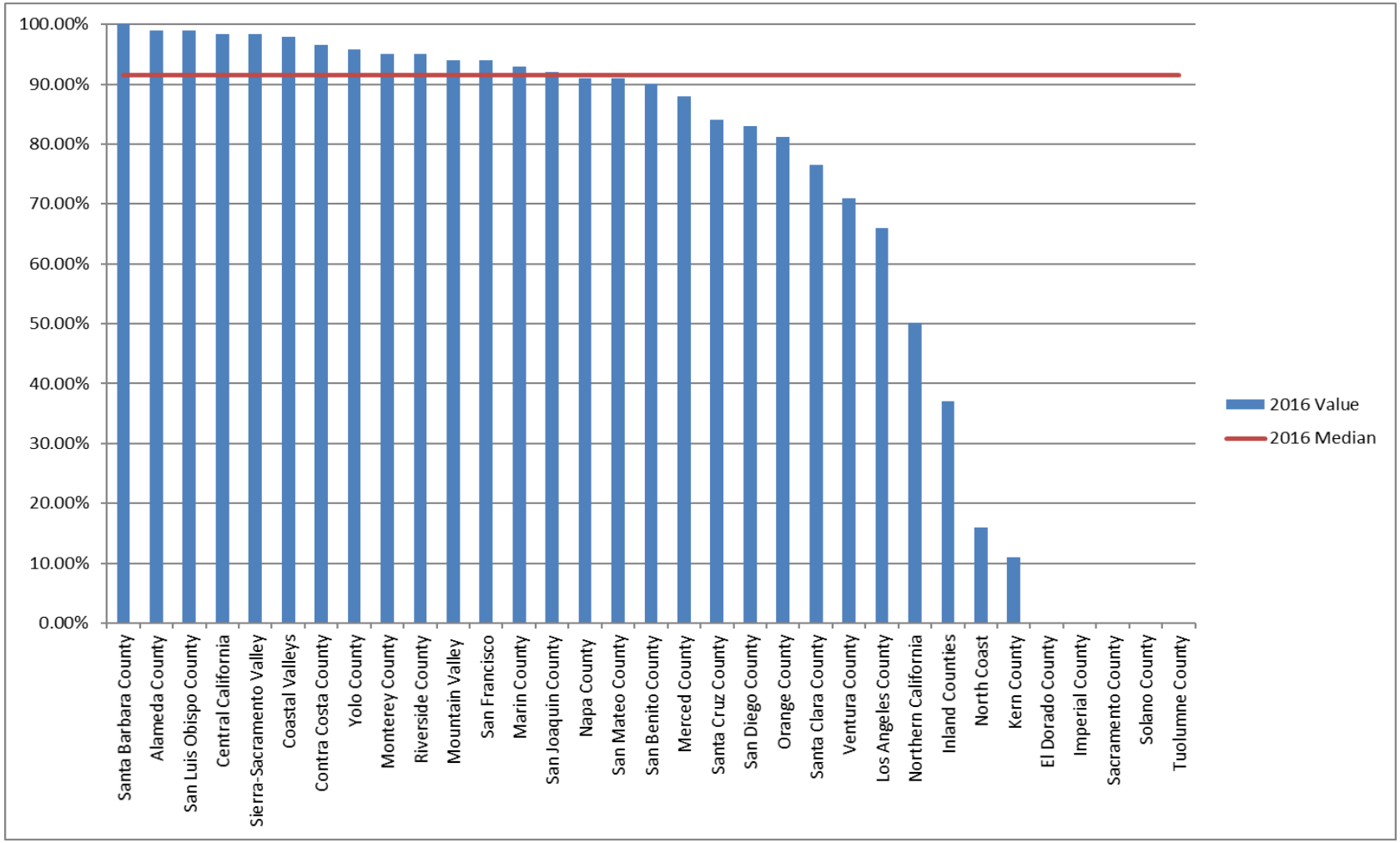
ACS-2: Prehospital 12 lead ECG for Chest Pain/Discomfort of Suspected Cardiac Etiology - Part 1 of 2



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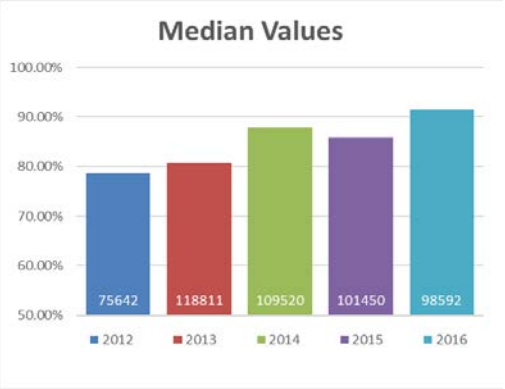
ACS-2: Prehospital 12 lead ECG for Chest Pain/Discomfort of Suspected Cardiac Etiology – Part 2 of 2

	2016 Value	2016 Denom.
Santa Barbara County	100.00%	89
Alameda County	99.00%	3698
San Luis Obispo County	99.00%	542
Central California	98.31%	5568
Sierra-Sacramento Valley	98.31%	4251
Coastal Valleys	97.99%	1142
Contra Costa County	96.60%	3511
Yolo County	95.74%	774
Monterey County	95.00%	
Riverside County	95.00%	9287
Mountain Valley	94.00%	1927
San Francisco	94.00%	2767
Marin County	93.00%	583
San Joaquin County	92.00%	2776
Napa County	91.04%	569
San Mateo County	91.00%	1877
San Benito County	90.11%	91
Merced County	88.00%	2436
Santa Cruz County	84.00%	901
San Diego County	83.06%	11058
Orange County	81.20%	2185
Santa Clara County	76.49%	3173
Ventura County	71.00%	1846
Los Angeles County	66.00%	16544
Northern California	50.20%	512
Inland Counties	37.00%	14476
North Coast	16.00%	1278
Kern County	11.00%	4731
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	ACS-2
Response Count	28
Denominator Total	98592
Submission Rate (n=33)	87.88%
Average	81.57%
Median	91.52%



Of the 28 LEMSAs reporting these data for 2016, the median number of patients receiving 12-Lead ECG in the field for complaints of chest pain or discomfort suggestive of cardiac origin was 91.52%.

The reported values for this measure ranged greatly from 11-100%, but there was moderate consistency in this measure with most LEMSAs reporting 80-100% compliance. Low values more likely represent data and methodological issues rather than actual performance. This measure is of importance with the widespread development of STEMI centers. Field EKG for chest pain or cardiac concerns represents a patient-centered practice that is in line with national guidelines and recommendations. It is now standard of care to perform prehospital 12 lead ECG with interpretation in the field to identify STEMI patients. 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 consistent recording and analysis of "in the field ECG." Thirty of 33 LEMSAs have developed STEMI systems and currently include field ECG in their management protocol.

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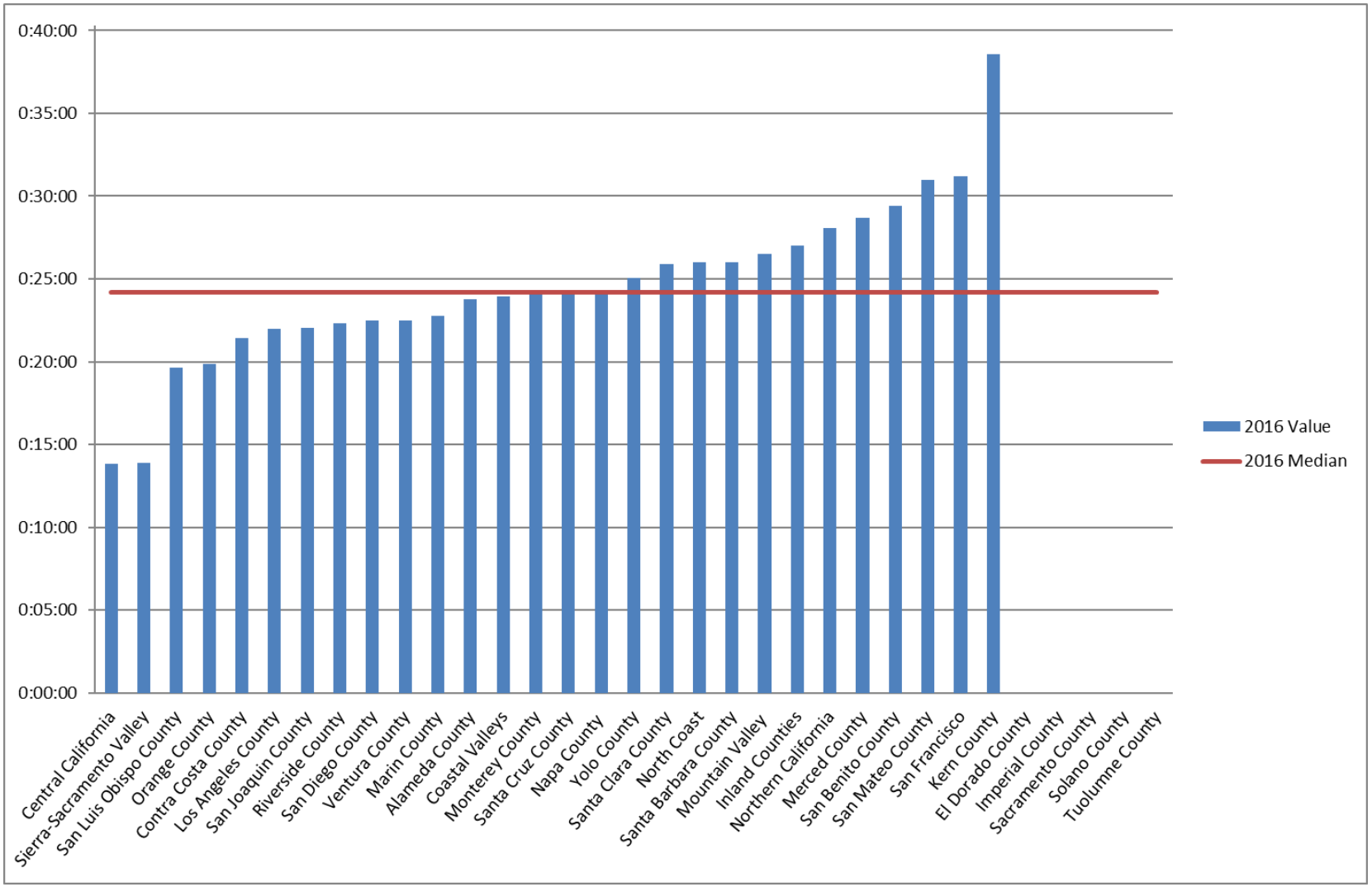
ACS-3: Scene Time for Suspected Heart Attack Patients – Part 1 of 2



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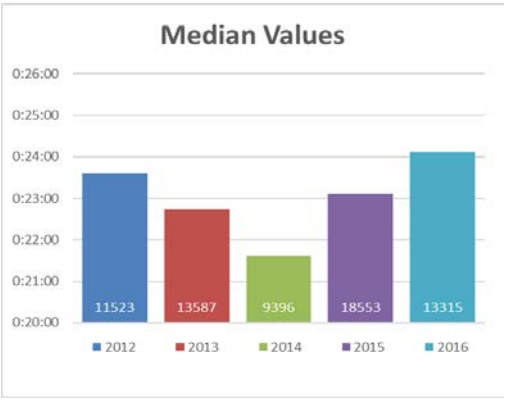
ACS-3: Scene Time for Suspected Heart Attack Patients – Part 2 of 2

	2016 Value	2016 Denom.
Central California	0:13:50	207
Sierra-Sacramento Valley	0:13:52	312
San Luis Obispo County	0:19:39	120
Orange County	0:19:51	138
Contra Costa County	0:21:27	3511
Los Angeles County	0:22:00	529
San Joaquin County	0:22:01	299
Riverside County	0:22:19	1418
San Diego County	0:22:30	551
Ventura County	0:22:31	154
Marin County	0:22:46	68
Alameda County	0:23:45	
Coastal Valleys	0:23:57	156
Monterey County	0:24:05	
Santa Cruz County	0:24:09	46
Napa County	0:24:12	88
Yolo County	0:25:02	117
Santa Clara County	0:25:54	224
North Coast	0:26:00	1560
Santa Barbara County	0:26:00	89
Mountain Valley	0:26:31	181
Inland Counties	0:27:02	739
Northern California	0:28:03	23
Merced County	0:28:41	2436
San Benito County	0:29:24	12
San Mateo County	0:31:00	257
San Francisco	0:31:13	63
Kern County	0:38:35	17
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Measure ID	ACS-3
Response Count	28
Denominator Total	13315
Submission Rate (n=33)	81.82%
Average	0:24:22
Median	0:24:07



Of the 28 LEMSAs reporting these data for 2016, the median scene time by ground ambulance for suspected heart attack patients with ST elevation on ECG was approximately 24 minutes and 07 seconds, an increase of roughly 1 minute.

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

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 take the patient to the hospital catheterization suite to open blocked vessels. LEMSAs with times above the mean should evaluate the provider procedures in the field to determine how to reduce the scene time.

Empty grey cells indicate no value reported

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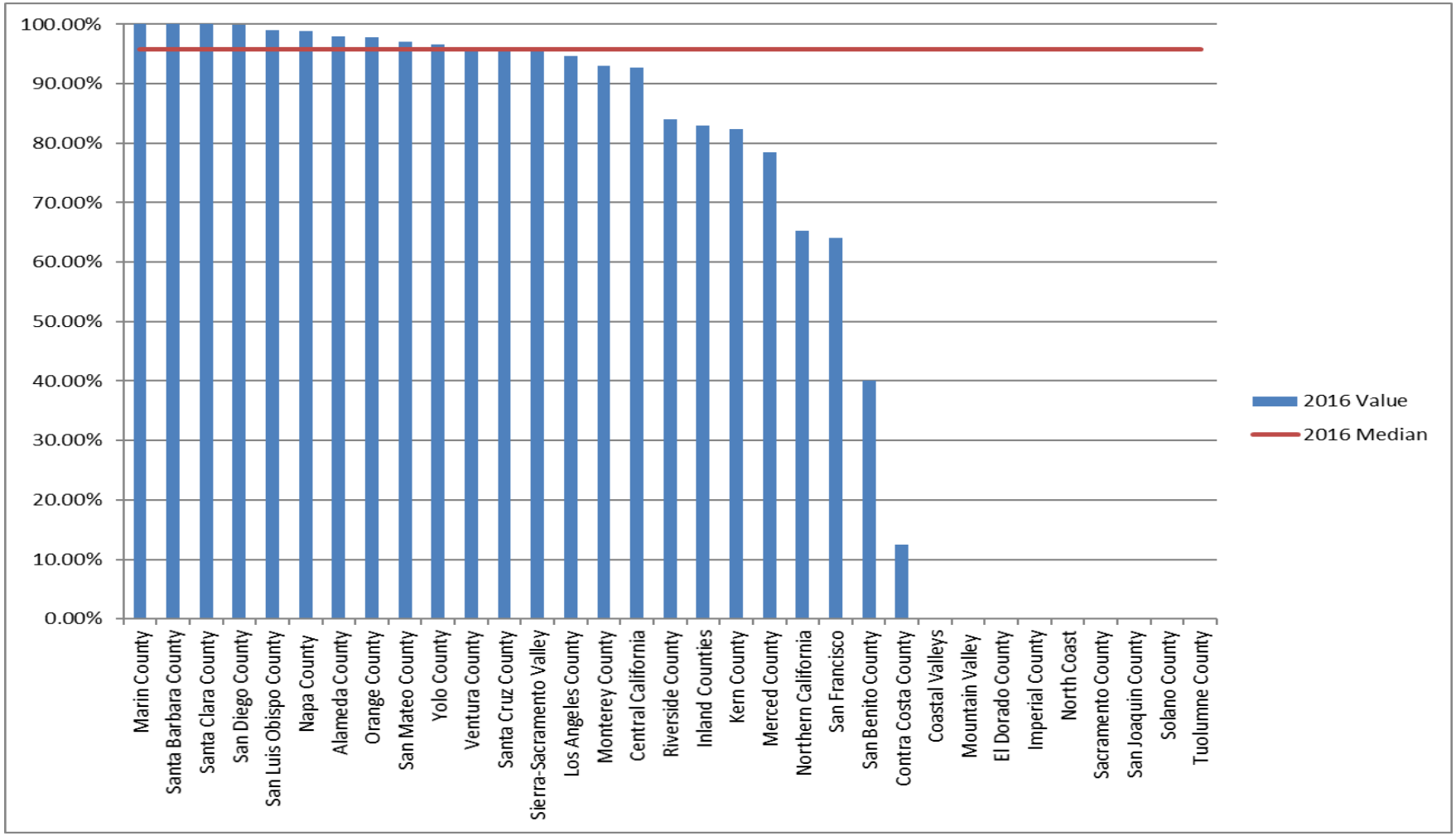
ACS-5: Direct Transport to Designated STEMI Receiving Center for Suspected Patients Meeting Criteria – Part 1 of 2



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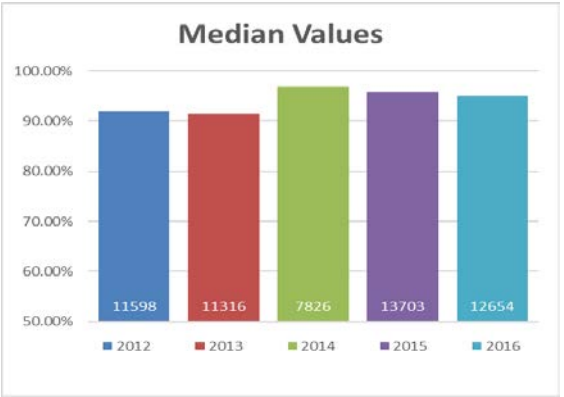
ACS-5: Direct Transport to Designated STEMI Receiving Center for Suspected Patients Meeting Criteria – Part 2 of 2

	2016 Value	2016 Denom.
Marin County	100.00%	68
Santa Barbara County	100.00%	189
Santa Clara County	100.00%	224
San Diego County	99.86%	721
San Luis Obispo County	99.00%	120
Napa County	98.86%	88
Alameda County	98.00%	603
Orange County	97.80%	138
San Mateo County	97.00%	270
Yolo County	96.58%	117
Ventura County	96.10%	154
Santa Cruz County	96.00%	46
Sierra-Sacramento Valley	95.51%	312
Los Angeles County	94.66%	543
Monterey County	93.00%	
Central California	92.75%	207
Riverside County	84.00%	1418
Inland Counties	83.00%	739
Kern County	82.35%	17
Merced County	78.49%	2436
Northern California	65.22%	23
San Francisco	64.00%	217
San Benito County	40.00%	15
Contra Costa County	12.47%	3511
Coastal Valleys	0.00%	272
Mountain Valley	0.00%	206
El Dorado County		
Imperial County		
North Coast		
Sacramento County		
San Joaquin County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	ACS-5
Response Count	27
Denominator Total	12654
Submission Rate (n=33)	84.85%
Average	79.41%
Median	95.09%



Of the 27 LEMSAs reporting these data for 2016, the median percentage of patients appropriately transported directly to a STEMI center was 95.09%, consistent with median in 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. 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 measures below 90% have well-developed STEMI systems, implying poor data quality or potential protocol violations.

27 of 33 LEMSAs have STEMI Receiving Center.

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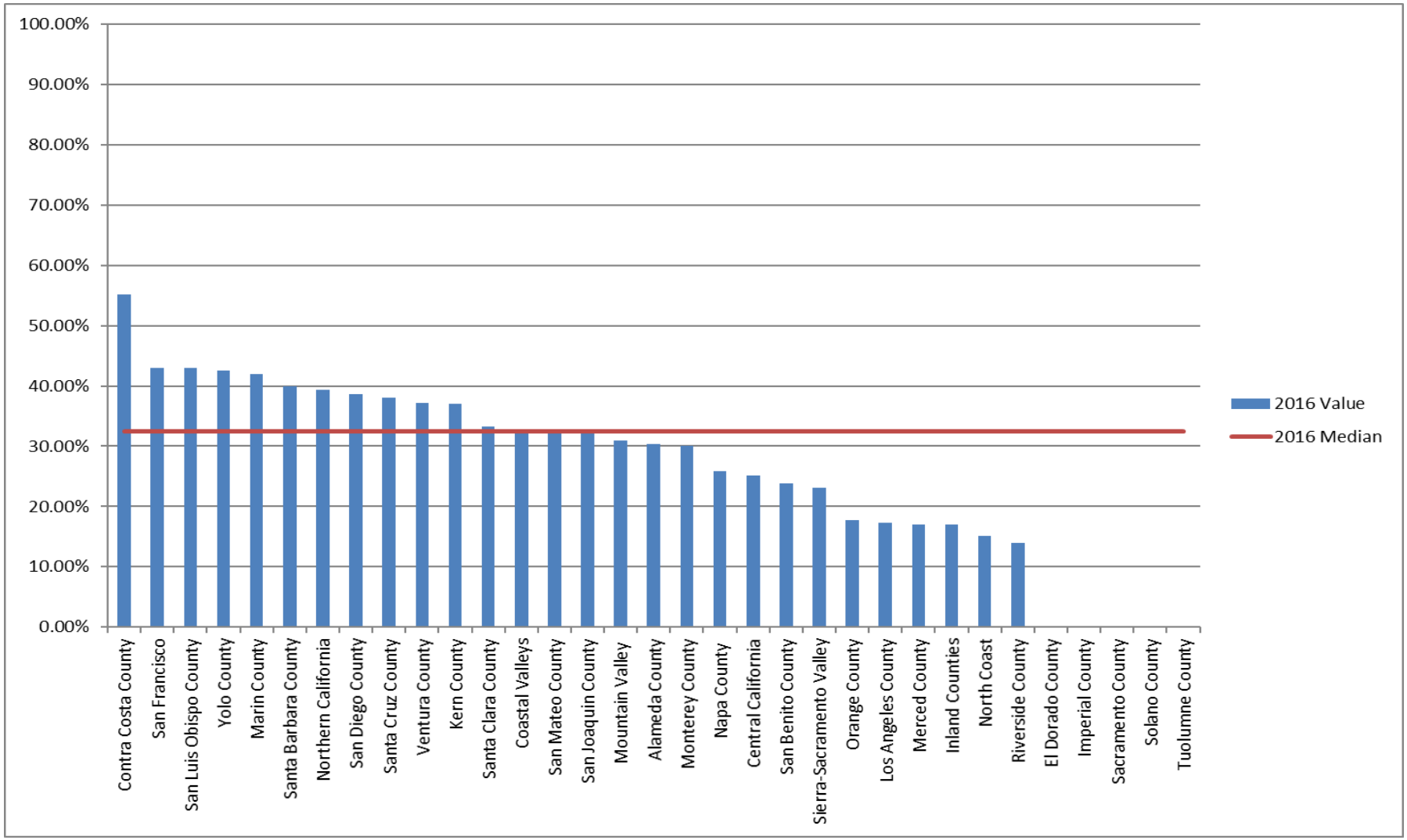
CAR-2: Out-Of-Hospital Cardiac Arrest Return of Spontaneous Circulation – Part 1 of 2



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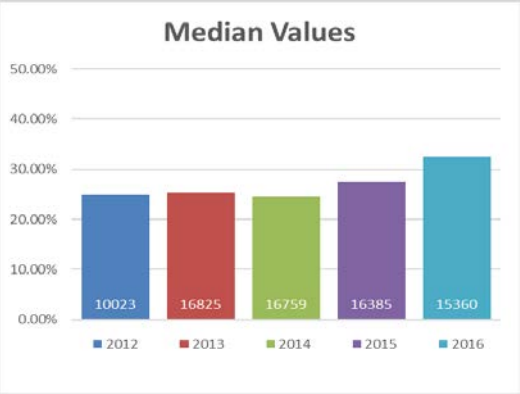
CAR-2: Out-Of-Hospital Cardiac Arrest Return of Spontaneous Circulation – Part 2 of 2

	2016 Value	2016 Denom.
Contra Costa County	55.20%	76
San Francisco	43.00%	312
San Luis Obispo County	43.00%	58
Yolo County	42.55%	94
Marin County	42.00%	85
Santa Barbara County	40.00%	208
Northern California	39.29%	84
San Diego County	38.64%	810
Santa Cruz County	38.00%	104
Ventura County	37.20%	272
Kern County	37.04%	135
Santa Clara County	33.27%	517
Coastal Valleys	32.67%	150
San Mateo County	32.57%	522
San Joaquin County	32.35%	479
Mountain Valley	30.94%	349
Alameda County	30.32%	1105
Monterey County	30.00%	
Napa County	25.81%	62
Central California	25.15%	1169
San Benito County	23.81%	21
Sierra-Sacramento Valley	23.16%	272
Orange County	17.80%	533
Los Angeles County	17.28%	4478
Merced County	17.06%	293
Inland Counties	17.00%	1778
North Coast	15.08%	179
Riverside County	14.00%	1215
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	CAR-2
Response Count	28
Denominator Total	15360
Submission Rate (n=33)	87.88%
Average	31.22%
Median	32.46%



Of the 28 LEMSAs reporting these data for 2016, the median number of patients that had a return of spontaneous circulation in the field after a cardiac arrest from all causes was 32.46%, an increase from the prior year reporting.

Nationally, this rate varies considerably by state and by local agency. Most jurisdictions reported rates from 17-43%, which is credible. 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. At this time, these results should not be considered accurate measures of performance. Values vary widely, depending on multiple factors. Results for this measure should be benchmarked against the LEMSAs that participate in CARES registry data collection: for 2016 presumed cardiac etiology of OOHCA, sustained ROSC was achieved in 31% of patients in California and essentially the same nationwide.

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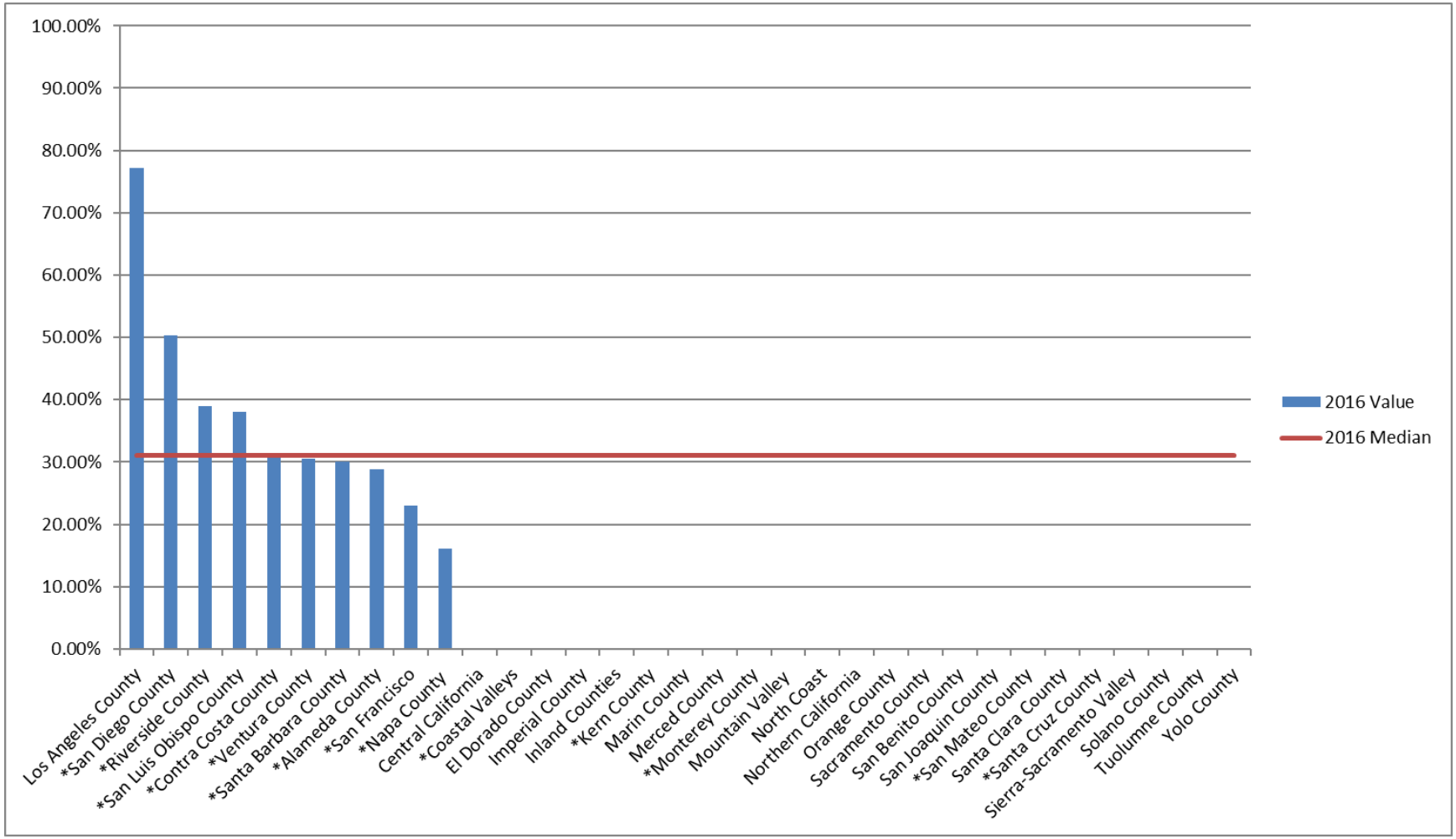
CAR-3: Out-Of-Hospital Cardiac Arrest Survival to Emergency Department Discharge – Part 1 of 2



An (*) denotes LEMSAs participating in the CARES Registry

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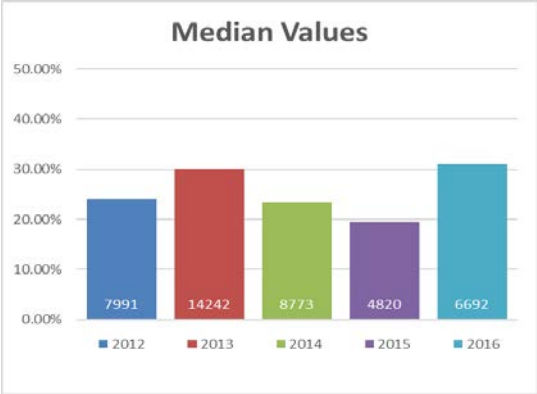
CAR-3: Out-Of-Hospital Cardiac Arrest Survival to Emergency Department Discharge – Part 2 of 2

	2016 Value	2016 Denom.
Los Angeles County	77.24%	3576
*San Diego County	50.39%	389
*Riverside County	39.00%	598
*San Luis Obispo County	38.00%	58
*Contra Costa County	31.50%	76
*Ventura County	30.50%	272
*Santa Barbara County	30.00%	208
*Alameda County	28.85%	960
*San Francisco	23.00%	493
*Napa County	16.13%	62
Central California		
*Coastal Valleys		
El Dorado County		
Imperial County		
Inland Counties		
*Kern County		
Marin County		
Merced County		
*Monterey County		
Mountain Valley		
North Coast		
Northern California		
Orange County		
Sacramento County		
San Benito County		
San Joaquin County		
*San Mateo County		
Santa Clara County		
*Santa Cruz County		
Sierra-Sacramento Valley		
Solano County		
Tuolumne County		
Yolo County		

An (*) denotes LEMSAs participating in the CARES Registry
Empty grey cells indicate no value reported

Measure ID	CAR-3
Response Count	10
Denominator Total	6692
Submission Rate (n=33)	30.30%
Average	36.46%
Median	31.00%



Of the 10 LEMSAs reporting these data for 2016, the median number of patients that had survived a return hospital cardiac arrest to be admitted to the hospital was 31%. 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. Values vary widely, depending on multiple factors. The California summary data from the CARES registry for survival to hospital admission is 26.3% and the national value is 26.9%. Values for a particular system should be benchmarked to CARES data and used to track improvements.

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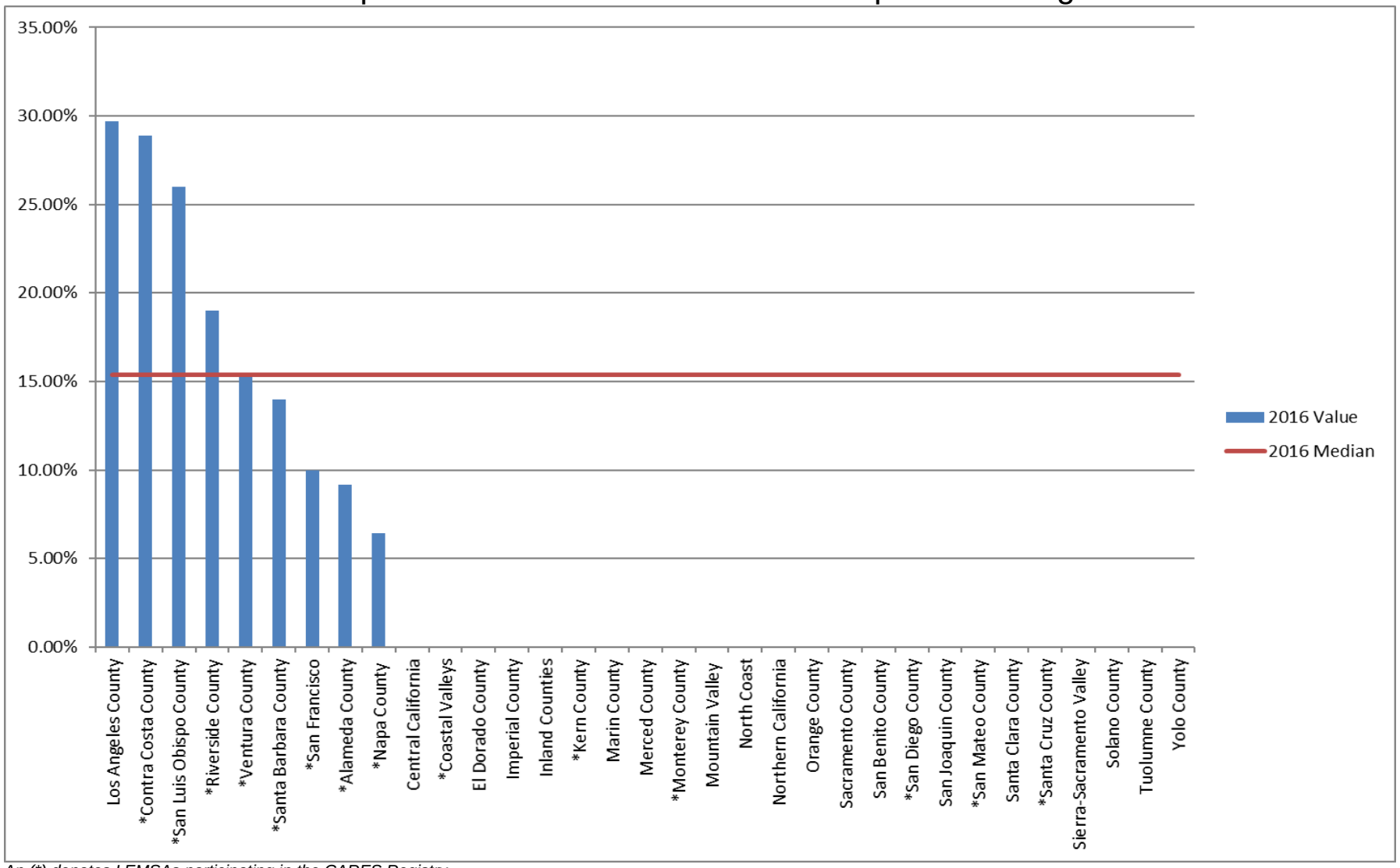
CAR-4: Out-Of-Hospital Cardiac Arrest Survival to Hospital Discharge – Part 1 of 2



An (*) denotes LEMSAs participating in the CARES Registry

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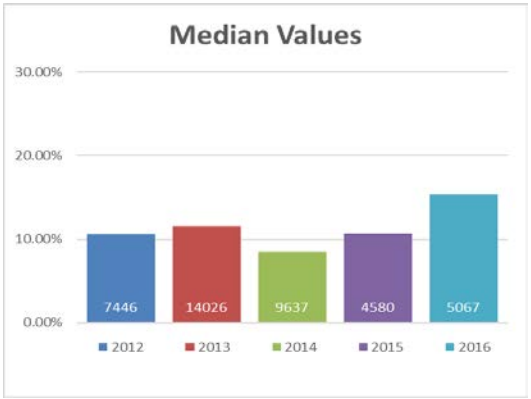
CAR-4: Out-Of-Hospital Cardiac Arrest Survival to Hospital Discharge – Part 2 of 2

	2016 Value	2016 Denom.
Los Angeles County	29.71%	2376
*Contra Costa County	28.90%	76
*San Luis Obispo County	26.00%	58
*Riverside County	19.00%	562
*Ventura County	15.40%	272
*Santa Barbara County	14.00%	208
*San Francisco	10.00%	493
*Alameda County	9.16%	960
*Napa County	6.45%	62
Central California		
*Coastal Valleys		
El Dorado County		
Imperial County		
Inland Counties		
*Kern County		
Marin County		
Merced County		
*Monterey County		
Mountain Valley		
North Coast		
Northern California		
Orange County		
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		
Tuolumne County		
Yolo County		

An (*) denotes LEMSAs participating in the CARES Registry
Empty grey cells indicate no value reported

Measure ID	CAR-4
Response Count	9
Denominator Total	5067
Submission Rate (n=33)	30.30%
Average	17.62%
Median	15.40%



Of the 9 LEMSAs reporting these data for 2016, the median percentage of patients that had survived an out of hospital cardiac arrest and were discharged from the hospital was 15.40%. This measure yielded the lowest number of responses from LEMSAs because of the difficulties in obtaining hospital outcome data. Values vary widely, depending on multiple factors. Accurate measure of this outcome is an important future quality improvement goal and supports the need to develop exchange of health information with hospitals. The California summary data from the CARES registry show the hospital discharge rate for OOHCA at 10.5% with the national average of 10.3%. Values for a particular system should be used to track improvements. An important refinement to this measure is the functional status on discharge.

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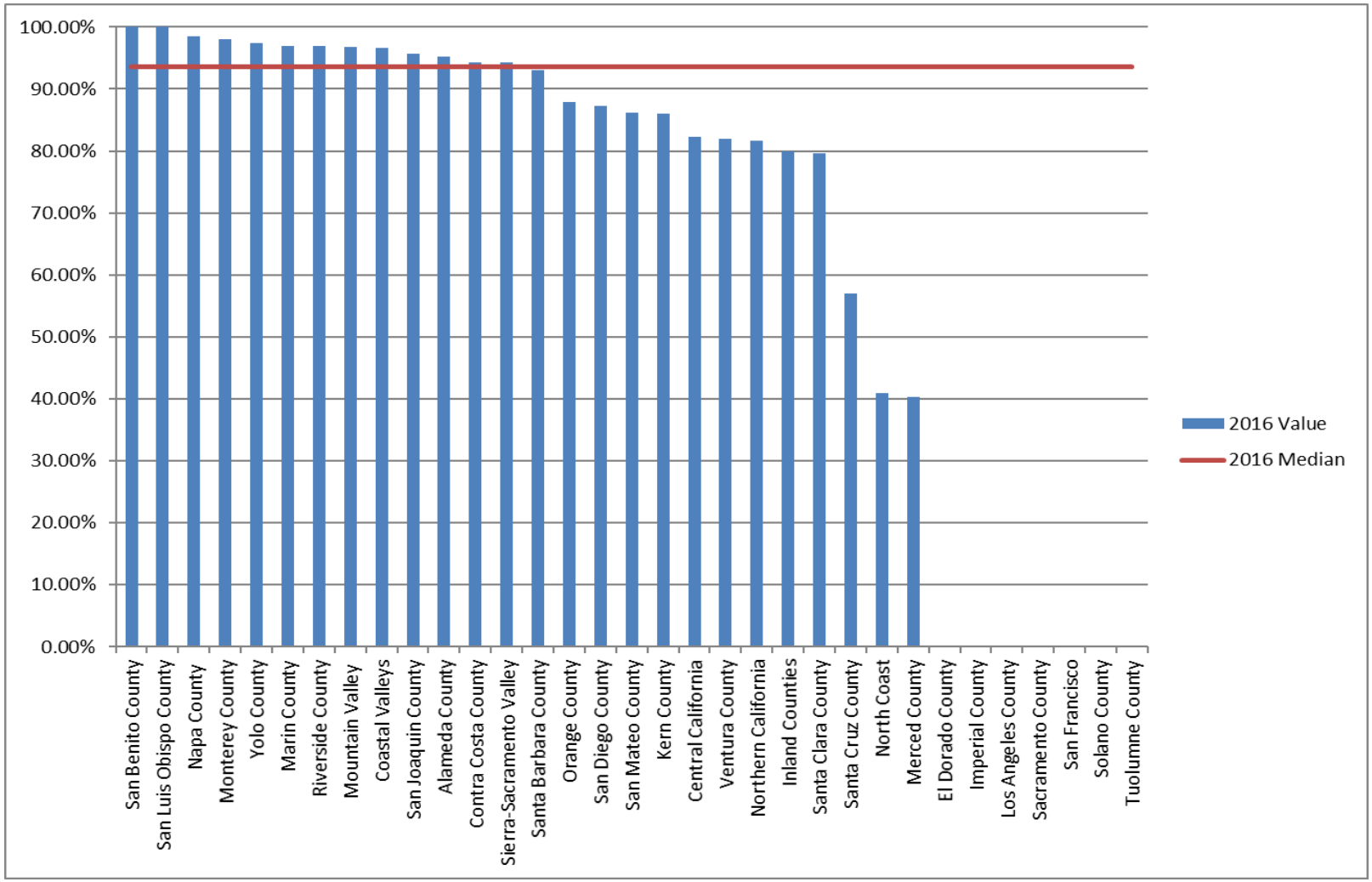
STR-2: Glucose Testing for Suspected Acute Stroke Patients – Part 1 of 2



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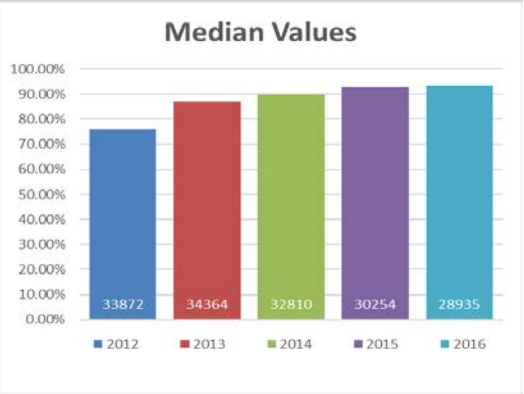
STR-2: Glucose Testing for Suspected Acute Stroke Patients – Part 2 of 2

	2016 Value	2016 Denom.
San Benito County	100.00%	54
San Luis Obispo County	100.00%	162
Napa County	98.43%	191
Monterey County	98.00%	
Yolo County	97.42%	271
Marin County	97.00%	173
Riverside County	97.00%	2741
Mountain Valley	96.80%	594
Coastal Valleys	96.58%	497
San Joaquin County	95.76%	851
Alameda County	95.28%	2141
San Francisco	95.00%	947
Contra Costa County	94.32%	1475
Sierra-Sacramento Valley	94.29%	963
Santa Barbara County	93.00%	391
Los Angeles County	90.13%	5035
Orange County	87.90%	797
San Diego County	87.22%	3043
San Mateo County	86.17%	839
Kern County	86.07%	1077
Central California	82.33%	1783
Ventura County	82.30%	288
Northern California	81.65%	109
Inland Counties	80.00%	2405
Santa Clara County	79.56%	1169
Santa Cruz County	57.00%	272
North Coast	41.00%	251
Merced County	40.38%	416
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	STR-2
Response Count	28
Denominator Total	28935
Submission Rate (n=33)	87.88%
Average	86.81%
Median	93.65%



Of the 28 LEMSAs reporting these data for 2016, the median percentage of patients receiving glucose testing in the field for a possible stroke was 91.65%. This has increased steadily over the five years of reporting. Inconsistent low values likely reflect data issues but should be evaluated for adherence to protocol. Diabetic causes of neurologic symptoms are important to exclude prior to transporting to a stroke center and are part of stroke protocols. 32/33 LEMSAs have protocols that advise routine evaluation of blood sugar in suspected stroke patients. This is considered a national prehospital standard of care.

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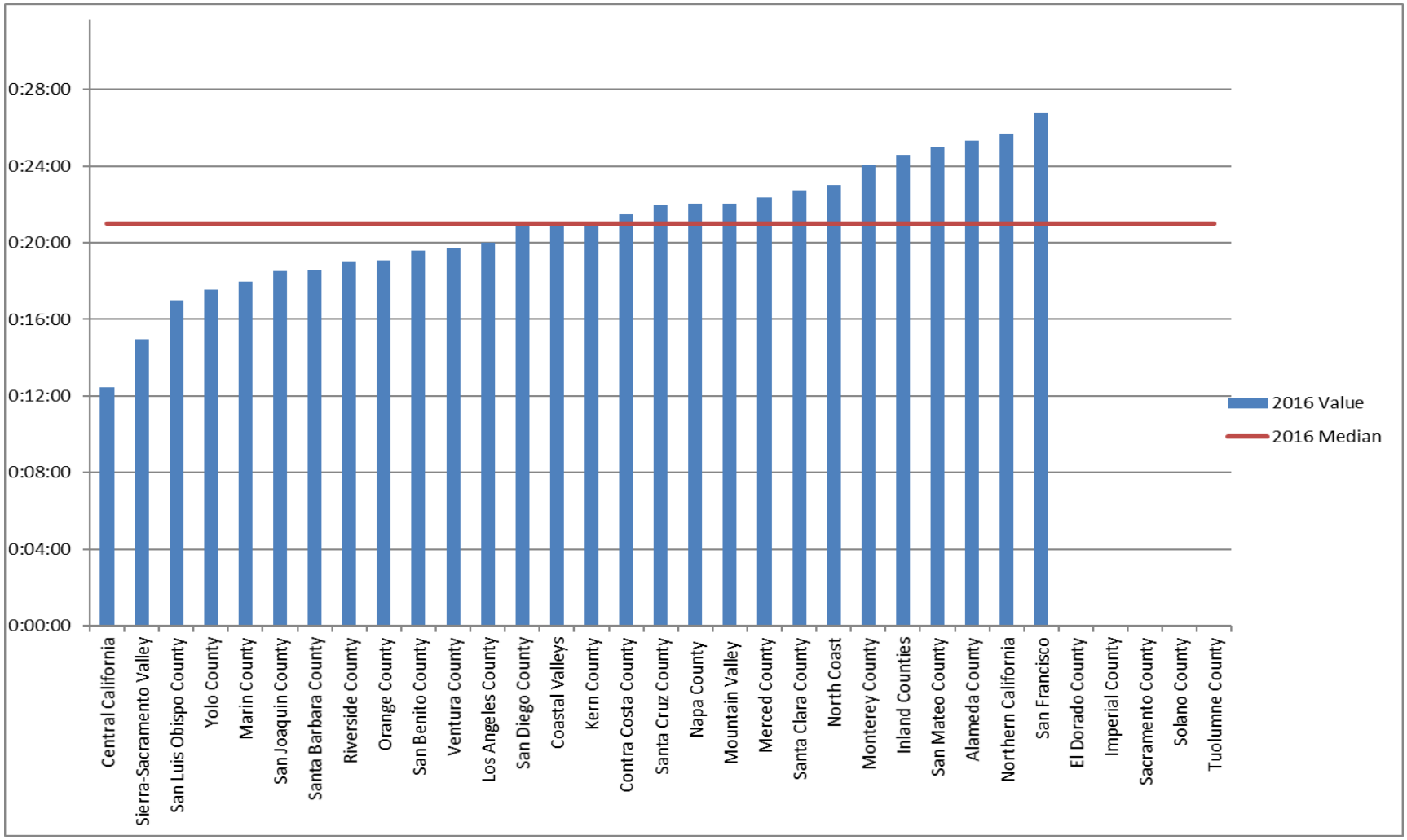
STR-3: Scene Time for Suspected Acute Stroke Patients – Part 1 of 2



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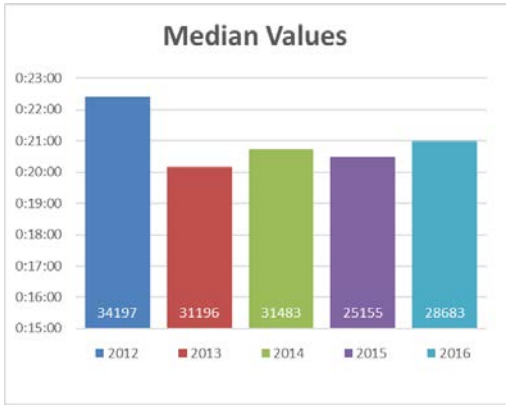
STR-3: Scene Time for Suspected Acute Stroke Patients – Part 2 of 2

	2016 Value	2016 Denom.
Central California	0:12:27	1783
Sierra-Sacramento Valley	0:14:58	963
San Luis Obispo County	0:17:00	162
Yolo County	0:17:34	268
Marin County	0:17:57	173
San Joaquin County	0:18:31	854
Santa Barbara County	0:18:33	391
Riverside County	0:19:03	2756
Orange County	0:19:05	748
San Benito County	0:19:36	54
Ventura County	0:19:43	313
Los Angeles County	0:20:00	4748
San Diego County	0:20:55	3043
Coastal Valleys	0:20:57	492
Kern County	0:21:00	1077
Contra Costa County	0:21:30	1475
Santa Cruz County	0:22:01	272
Napa County	0:22:02	190
Mountain Valley	0:22:03	588
Merced County	0:22:23	416
Santa Clara County	0:22:43	855
North Coast	0:23:00	1380
Monterey County	0:24:05	
Inland Counties	0:24:35	1865
San Mateo County	0:25:00	643
Alameda County	0:25:20	2141
Northern California	0:25:42	94
San Francisco	0:26:46	
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	STR-3
Response Count	28
Denominator Total	28683
Submission Rate (n=33)	78.79%
Average	0:20:52
Median	0:20:59



Of the 28 LEMSAs reporting these data for 2016, the median scene time by an ambulance for suspected stroke patients was approximately 20 minutes and 59 seconds, not significantly different from last year.

Times from all local jurisdictions reporting ranged between 12 and 27 minutes. Time targets may not be realistic for many patients who require more time for history, examination, and extraction from their residence. Stroke evaluation and treatment is a time sensitive measure, so extra minutes in the field add up with additional delays until thrombolytics can be administered or embolectomy can be performed. Shorter times to treatment have been definitively linked to better outcomes.

There are currently draft stroke regulations being finalized. In future reports, EMSA will be able to clearly identify the stroke systems statewide.

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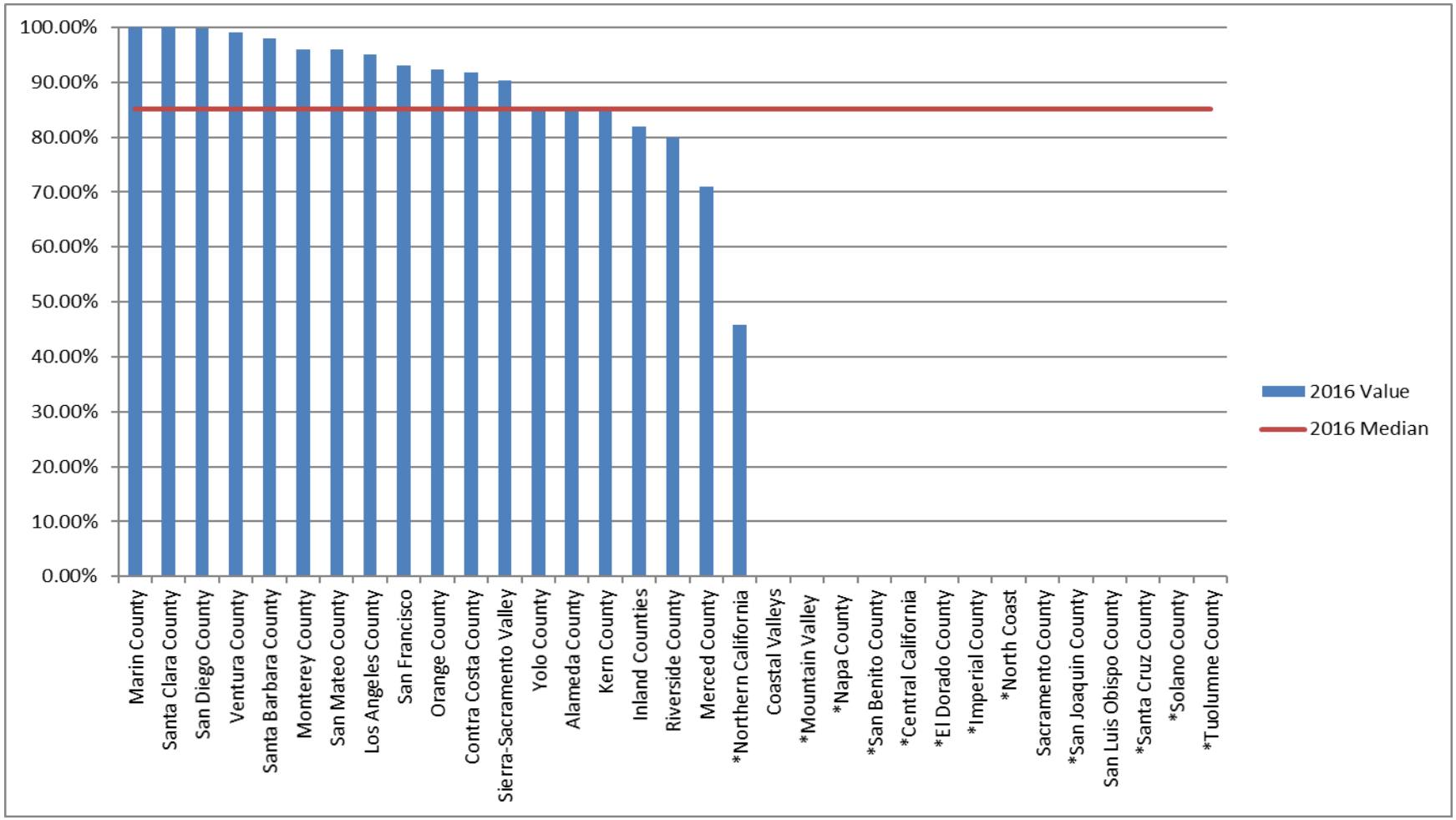
STR-5: Direct Transport to Stroke Center for Suspected Acute Stroke Patients Meeting Criteria – Part 1 of 2



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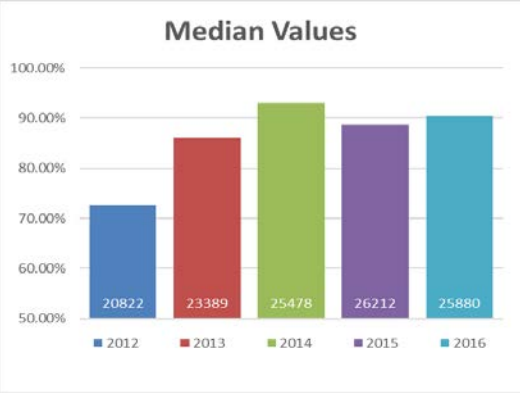
STR-5: Direct Transport to Stroke Center for Suspected Acute Stroke Patients Meeting Criteria – Part 2 of 2

	2016 Value	2016 Denom.
Marin County	100.00%	173
Santa Clara County	100.00%	855
San Diego County	99.75%	4457
Ventura County	99.00%	313
Santa Barbara County	98.00%	391
Monterey County	96.00%	
San Mateo County	96.00%	649
Los Angeles County	95.00%	4906
San Francisco	93.00%	948
Orange County	92.40%	797
Contra Costa County	91.80%	1475
Sierra-Sacramento Valley	90.34%	963
Yolo County	85.07%	268
Alameda County	85.00%	2141
Kern County	85.00%	1077
Inland Counties	82.00%	1865
Riverside County	80.00%	2756
Merced County	71.00%	416
*Northern California	45.74%	94
Coastal Valleys	0.00%	497
*Mountain Valley	0.00%	595
*Napa County	0.00%	190
*San Benito County	0.00%	54
*Central California		
*El Dorado County		
*Imperial County		
*North Coast		
Sacramento County		
*San Joaquin County		
San Luis Obispo County		
*Santa Cruz County		
*Solano County		
*Tuolumne County		

Measure ID	STR-5
Response Count	23
Denominator Total	25880
Submission Rate (n=33)	66.67%
Average	73.27%
Median	90.34%



Of the 23 LEMSAs reporting these data for 2016, the median number of patients transported directly to a Stroke center by ground ambulance was 90.34%, a slight increase over the previous reporting year.

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. However, given the rapid expansion of stroke specialty care systems and facility designation, most EMS systems should have stroke patients transported at least to Primary Stroke Centers, if not Comprehensive centers.

There are currently draft stroke regulations in the process of being finalized. The goal in a stroke system is to transport 100% of stroke patients to a designated stroke center.

An (*) denotes LEMSAs without an established Stroke System
Empty grey cells indicate no value reported

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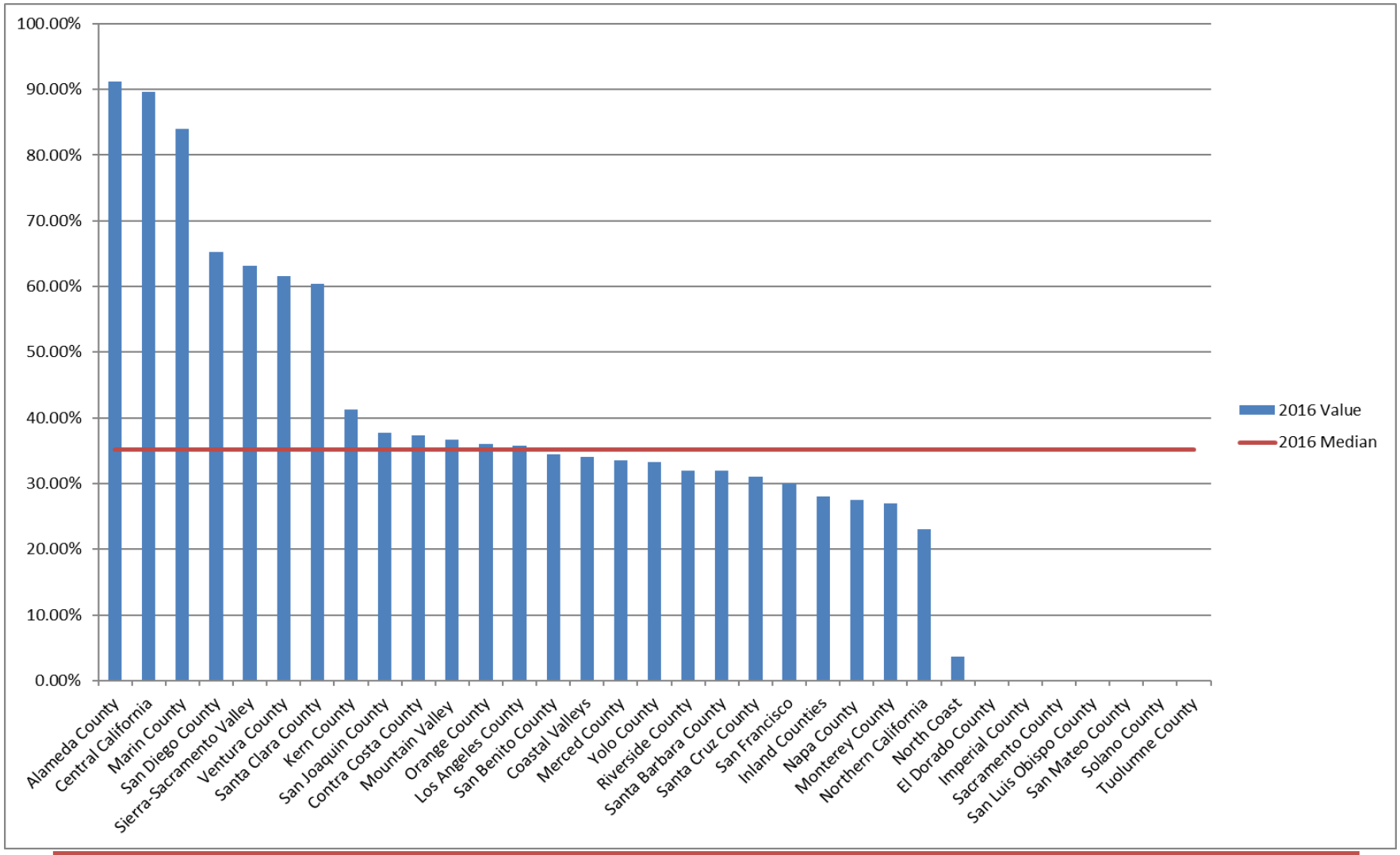
RES-2: Beta2 Agonist Administration for Adult Patients – Part 1 of 2



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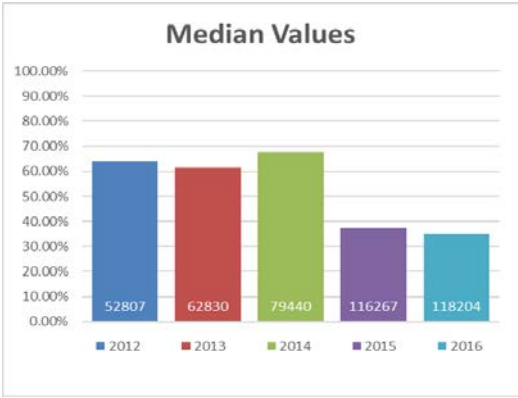
RES-2: Beta2 Agonist Administration for Adult Patients – Part 2 of 2

	2016 Value	2016 Denom.
Alameda County	91.22%	3121
Central California	89.68%	4998
Marin County	84.00%	176
San Diego County	65.19%	5975
Sierra-Sacramento Valley	63.16%	1824
Ventura County	61.60%	146
Santa Clara County	60.40%	1409
Kern County	41.24%	5749
San Joaquin County	37.77%	7108
Contra Costa County	37.36%	7722
Mountain Valley	36.67%	4691
Orange County	36.00%	4369
Los Angeles County	35.76%	21177
San Benito County	34.46%	148
Coastal Valleys	34.09%	2652
Merced County	33.56%	2810
Yolo County	33.25%	1606
Riverside County	32.00%	17755
Santa Barbara County	32.00%	1389
Santa Cruz County	31.00%	772
San Francisco	30.00%	2006
Inland Counties	28.00%	16222
Napa County	27.50%	1258
Monterey County	27.00%	
Northern California	23.09%	1416
North Coast	3.62%	1705
El Dorado County		
Imperial County		
Sacramento County		
San Luis Obispo County		
San Mateo County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	RES-2
Response Count	26
Denominator Total	118204
Submission Rate (n=33)	81.82%
Average	42.68%
Median	35.11%



Of the 26 LEMSAs reporting these data for 2016, the median percentage of patients receiving a Beta-2 Agonist/bronchodilator for bronchospasm in adults (age 14 or older) was 35.11%.

The marked variability for this measure suggests challenges identifying the appropriate denominator of patients for whom a bronchodilator is indicated.

Treatment protocols for which adult patients should receive Beta2 agonists may vary and clinical differentiation is difficult. This measure is also not likely to indicate improved outcome, since not all adult wheezing is asthma or reversible small airway disease.

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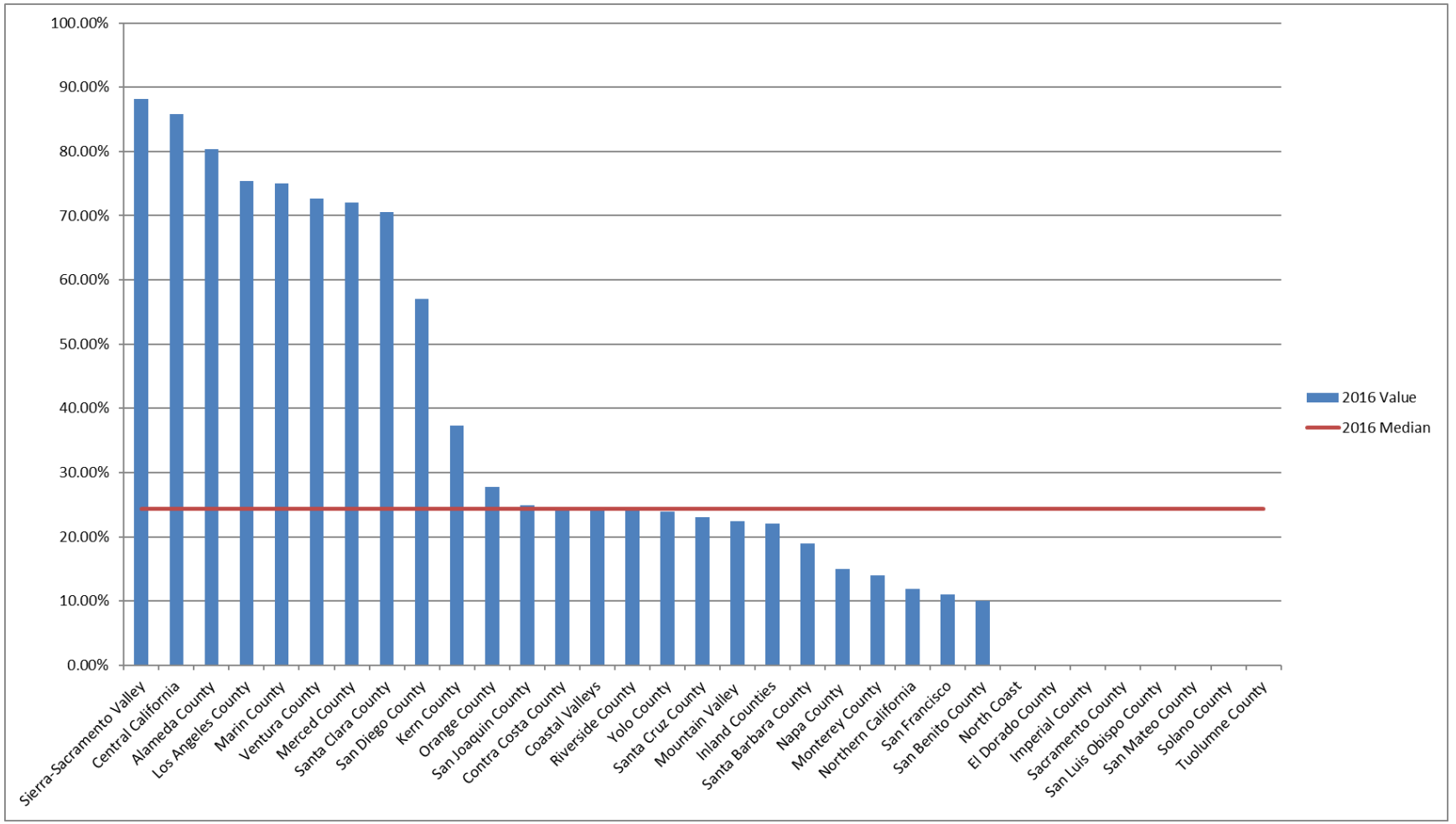
PED-1: Pediatric Patients With Wheezing Receiving Bronchodilators – Part 1 of 2



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

	2016 Value	2016 Denom.
Sierra-Sacramento Valley	88.21%	195
Central California	85.77%	274
Alameda County	80.31%	127
Los Angeles County	75.44%	509
Marin County	75.00%	8
Ventura County	72.70%	11
Merced County	71.98%	182
Santa Clara County	70.59%	51
San Diego County	57.02%	342
Kern County	37.31%	480
Orange County	27.80%	198
San Joaquin County	24.95%	601
Contra Costa County	24.50%	526
Coastal Valleys	24.10%	166
Riverside County	24.00%	1376
Yolo County	23.91%	184
Santa Cruz County	23.00%	35
Mountain Valley	22.48%	347
Inland Counties	22.00%	1606
Santa Barbara County	19.00%	53
Napa County	14.93%	67
Monterey County	14.00%	
Northern California	11.86%	59
San Francisco	11.00%	240
San Benito County	10.00%	20
North Coast	0.00%	77
El Dorado County		
Imperial County		
Sacramento County		
San Luis Obispo County		
San Mateo County		
Solano County		
Tuolumne County		

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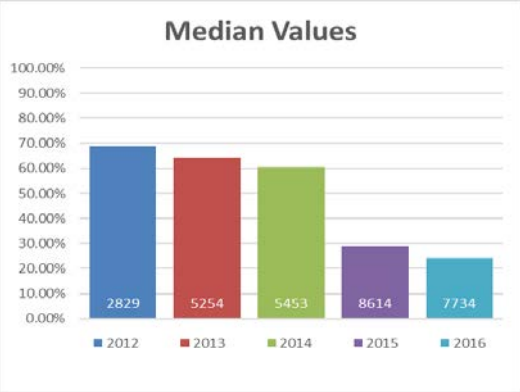
Measure ID	PED-1
Response Count	26
Denominator Total	7734
Submission Rate (n=33)	81.82%
Average	38.92%
Median	24.30%



Of the 29 LEMSAs reporting these data for 2016, the median number of pediatric patients receiving bronchodilators for asthma was 24.30%. The decrease over the last 5 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. Appropriate use of prehospital and emergency department bronchodilators can decrease hospital admission.

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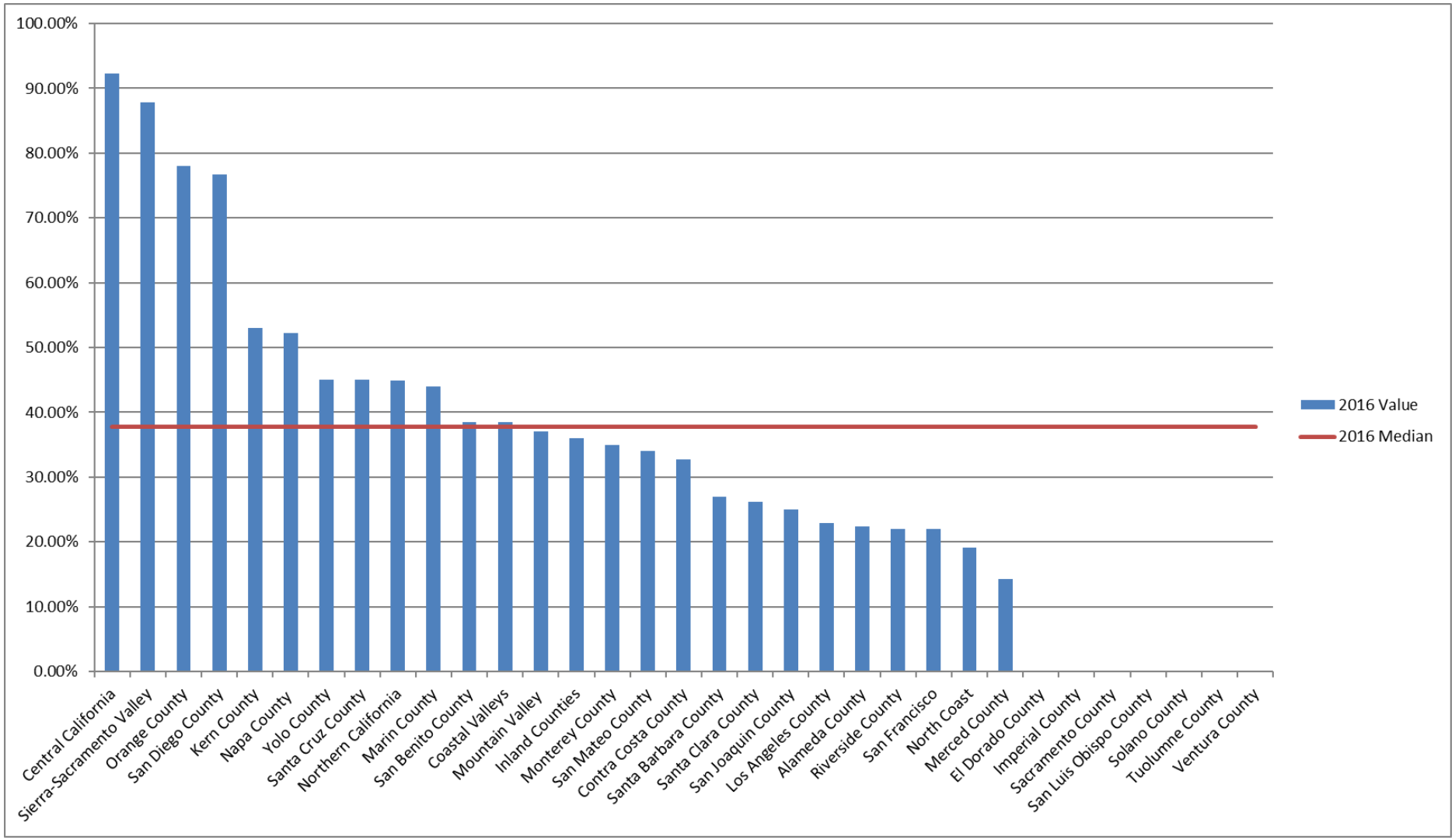
PAI-1: Pain Intervention – Part 1 of 2



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. These 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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PAI-1: Pain Intervention – Part 2 of 2

	2016 Value	2016 Denom.
Central California	92.25%	3433
Sierra-Sacramento Valley	87.87%	5135
Orange County	78.00%	50
San Diego County	76.76%	1252
Kern County	53.05%	17816
Napa County	52.17%	1725
Yolo County	45.03%	3120
Santa Cruz County	45.00%	798
Northern California	44.88%	1758
Marin County	44.00%	1768
San Benito County	38.50%	535
Coastal Valleys	38.48%	4592
Mountain Valley	37.04%	5243
Inland Counties	36.00%	19296
Monterey County	35.00%	
San Mateo County	34.00%	8154
Contra Costa County	32.70%	16103
Santa Barbara County	27.00%	2140
Santa Clara County	26.24%	6581
San Joaquin County	24.98%	13746
Los Angeles County	22.97%	34918
Alameda County	22.42%	31717
Riverside County	22.00%	38595
San Francisco	22.00%	17845
North Coast	19.13%	3324
Merced County	14.27%	2908
El Dorado County		
Imperial County		
Sacramento County		
San Luis Obispo County		
Solano County		
Tuolumne County		
Ventura County		

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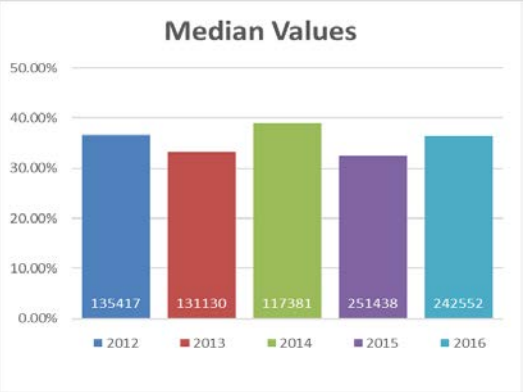
Measure ID	PAI-1
Response Count	26
Denominator Total	242552
Submission Rate (n=33)	75.76%
Average	41.22%
Median	36.52%



Of the 26 LEMSAs reporting these data for 2016, the median percentage of patients receiving intervention for any pain reported as 7 or greater on a 10-point pain scale was 36.52%. Pain intervention was defined as any analgesic medication or accepted procedure to reduce pain.

All paramedics have access to narcotics; however, protocols for use may vary significantly. Some may have received pain medication from first responders. The wide variation deserves closer investigation. Pain intervention is important for patient-centered care, and national quality goals focus on pain relief, despite the current opioid crisis. The median value for this measure should be cause for concern. Consideration should be given to refining the denominator to specific traumatic or medical conditions.

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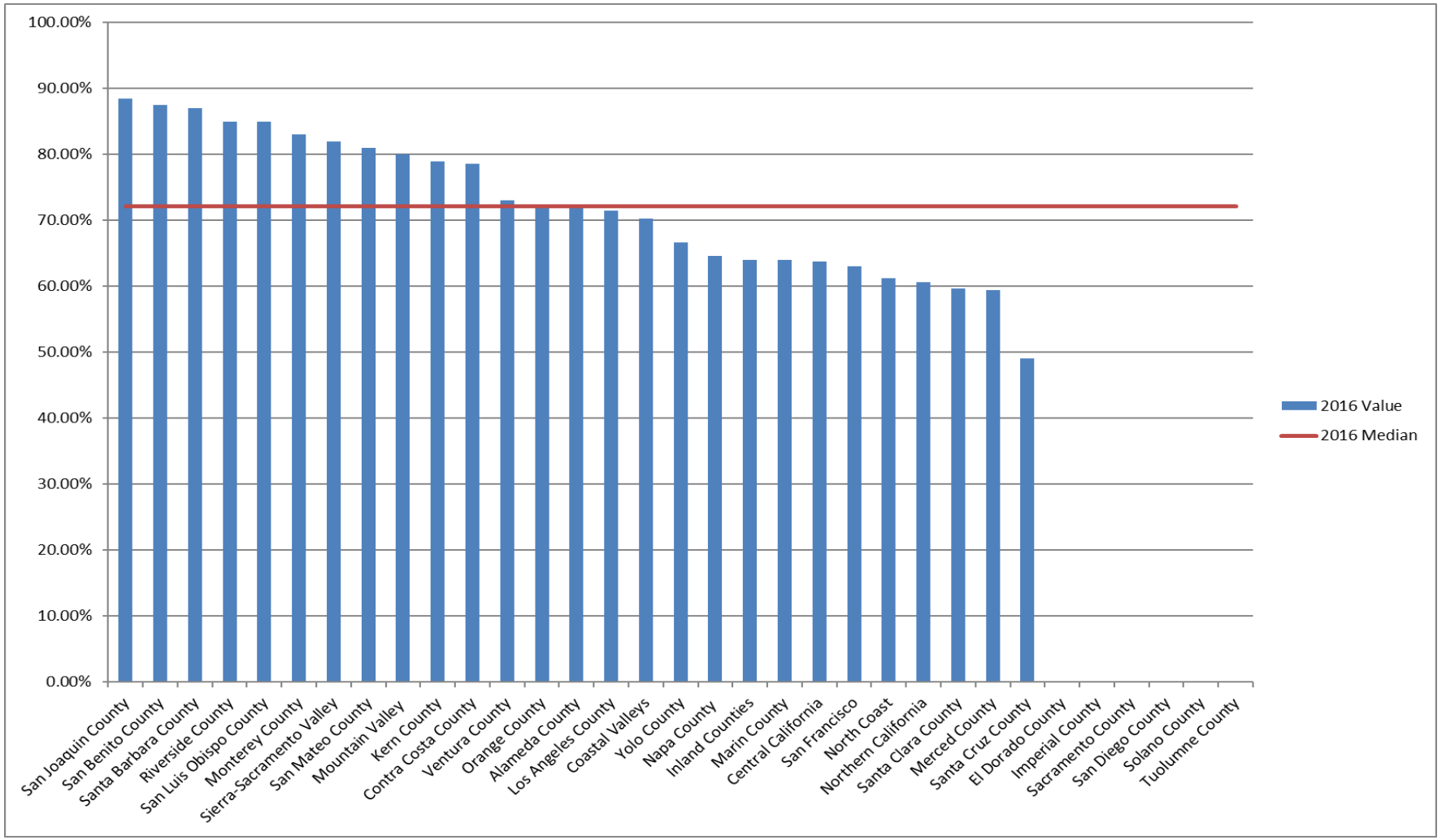
SKL-1: Endotracheal Intubation Success Rate – Part 1 of 2



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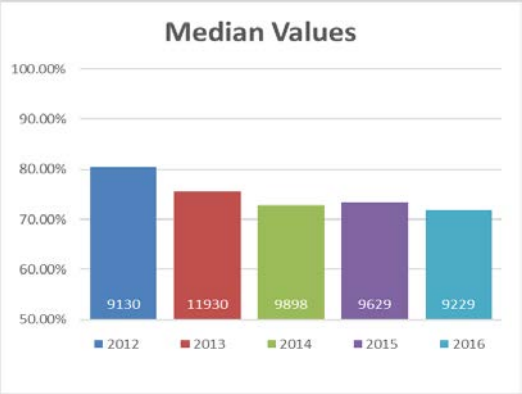
SKL-1: Endotracheal Intubation Success Rate – Part 2 of 2

	2016 Value	2016 Denom.
San Joaquin County	88.46%	338
San Benito County	87.50%	8
Santa Barbara County	87.00%	82
Riverside County	85.00%	1201
San Luis Obispo County	85.00%	74
Monterey County	83.00%	
Sierra-Sacramento Valley	81.91%	398
San Mateo County	81.00%	374
Mountain Valley	80.00%	125
Kern County	78.89%	595
Contra Costa County	78.60%	300
Ventura County	73.00%	63
Orange County	72.10%	315
Alameda County	71.96%	756
Los Angeles County	71.47%	1360
Coastal Valleys	70.21%	47
Yolo County	66.66%	18
Napa County	64.62%	65
Inland Counties	64.00%	1491
Marin County	64.00%	85
Central California	63.70%	460
San Francisco	63.00%	308
North Coast	61.25%	160
Northern California	60.61%	33
Santa Clara County	59.62%	208
Merced County	59.39%	293
Santa Cruz County	49.00%	72
El Dorado County		
Imperial County		
Sacramento County		
San Diego County		
Solano County		
Tuolumne County		

Measure ID	SKL-1
Response Count	27
Denominator Total	9229
Submission Rate (n=33)	84.85%
Average	72.26%
Median	71.96%



Of the 27 LEMSAs reporting these data for 2016, the median percentage of successful endotracheal intubations (within 2 attempts) was 71.96% Endotracheal intubation success rate by paramedics in the field vary widely from 49.00-88.46% with an average of 72.26%, depending on methods, population and protocol.

Other methods of airway management have recently been shown to be as effective as intubation. It is important to monitor this measure to verify skill maintenance, especially at a time when endotracheal intubation is being used less often.

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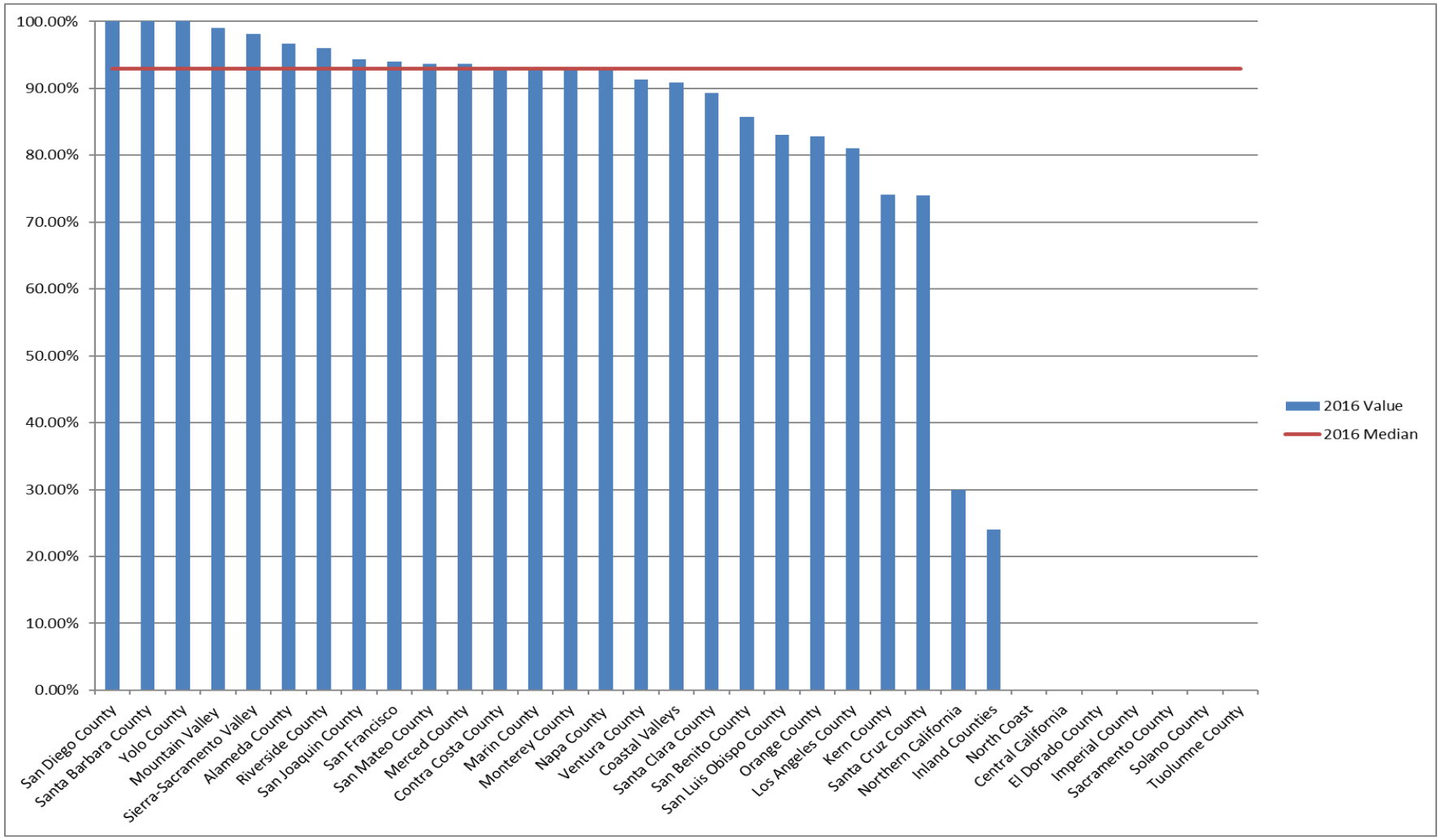
SKL-2: End-tidal CO2 Performed on any Successful Endotracheal Intubation – Part 1 of 2



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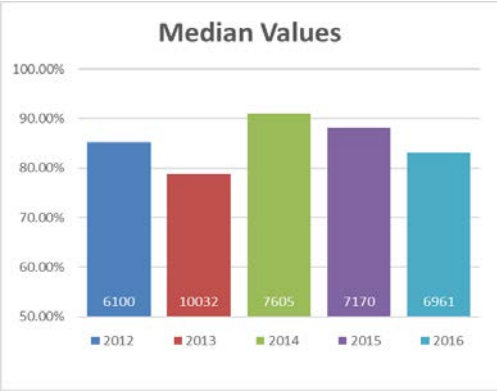
SKL-2: End-tidal CO2 Performed on any Successful Endotracheal Intubation – Part 2 of 2

	2016 Value	2016 Denom.
San Diego County	100.00%	197
Santa Barbara County	100.00%	71
Yolo County	100.00%	12
Mountain Valley	99.00%	100
Sierra-Sacramento Valley	98.16%	326
Alameda County	96.69%	544
Riverside County	96.00%	1025
San Joaquin County	94.31%	299
San Francisco	94.00%	352
San Mateo County	93.71%	302
Merced County	93.68%	174
Contra Costa County	93.20%	253
Marin County	93.00%	96
Monterey County	93.00%	
Napa County	92.86%	42
Ventura County	91.30%	46
Coastal Valleys	90.91%	33
Santa Clara County	89.34%	122
San Benito County	85.71%	7
San Luis Obispo County	83.00%	63
Orange County	82.80%	227
Los Angeles County	81.07%	972
Kern County	74.12%	595
Santa Cruz County	74.00%	35
Northern California	30.00%	20
Inland Counties	24.00%	950
North Coast	0.00%	98
Central California		
El Dorado County		
Imperial County		
Sacramento County		
Solano County		
Tuolumne County		

Empty grey cells indicate no value reported

Measure ID	SKL-2
Response Count	27
Denominator Total	6961
Submission Rate (n=33)	84.85%
Average	83.11%
Median	93.00%



Of the 27 LEMSAs reporting these data for 2016, the median percentage of End-Tidal CO2 monitoring with waveform capnography after any successful endotracheal intubations was 93%. The value increased from last year, but has been variable over the five years of measurement. 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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EMERGENCY MEDICAL SERVICES AUTHORITY
10901 GOLD CENTER DR., SUITE 400
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 324-2875

DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Craig Johnson
Chief, Disaster Medical Services Division

SUBJECT: Medical and Health Mutual Aid System Response to the October Fires

RECOMMENDED ACTION:

Receive information regarding the Medical and Health Mutual Aid System / Response to the October Fires.

FISCAL IMPACT:

None.

DISCUSSION:

Medical and Health Mutual Aid System:

The California Medical and Health Mutual Aid System (MHMAS) was modeled after the proven Fire and Law Mutual Aid Systems (FLMAS). The basis for the FLMAS is found in the California Disaster and Civil Defense Master Mutual Aid Agreement. This agreement is between the State of California (including all of its various departments and agencies), and the various political subdivisions, municipal corporations and public agencies. The agreement obligates each signatory entity to provide assistance by providing resources during an emergency and without expectation of reimbursement. Unlike the Fire and Law systems the MHMAS is voluntary and has no formal statutory, regulatory or other legislative basis. In addition, the vast majority of resources that are needed to create the MHMAS are private, and therefore expect reimbursement for costs of services rendered.

In accordance with the Standardized Emergency Management System (SEMS) the MHMAS adheres to the following hierarchy of event evolution for resource requesting and information reporting:

FIELD ⟶ LOCAL ⟶ OPERATIONAL AREA (OA) ⟶ REGION ⟶ STATE

In MHMAS, the position analogous to the Operational Area Fire Coordinator and/or Cal OES Coordinator is the Medical Health Operational Area Coordinator (MHOAC). This position has a defined statutory role and responsibility for development of a local medical and health disaster plan (H&S Code §1797.153) and for the provision of medical and health mutual aid within the Operational Area. The MHOAC is responsible for identifying and integrating local medical assets (hospitals, clinics, medical transportation, first responders, etc.) into the local medical and health disaster response plan. The MHOAC also pursues agreements with surrounding OAs for mutual assistance in the form of emergency ambulance response, medical transportation services, hospital bed capacity, etc.

The MHMAS also utilizes regions and is aligned with the same 6 Mutual Aid Regions utilized by Cal OES. Each Region has a Regional Disaster Medical Health Coordinator (RDMHC) and a Regional Disaster Medical Health Specialist (RDMHS). The RDMHC/S coordinates disaster information and medical and health mutual aid and assistance within the Mutual Aid Region or in support of other affected Mutual Aid Regions (H&S Code §1797.152). The RDMHC of the unaffected region, with assistance from the State, works through the RDMHC of the affected region.

The principal role of the State in the MHMAS is to provide support and coordination to the affected Region. The EMS Authority does this by mobilizing state controlled medical assets, facilitating the acquisition of the other medical resources, gathering information and fulfilling requests for services and support which may be made from the Region. Except when necessary, the State does not interact directly with the OA or local entity but communicates through the RDMHC program.

MHMAS October Fires Response:

The recent response to the Northern California October Fires, which severely impacted Sonoma and Napa Counties, illustrated the use of the MHMAS. Significant medical and health resources, beyond the local capability, were needed to support the response. The MHMAS enabled timely and effective coordination of disaster medical and health resources utilizing the MHOAC, RDMHC, and State programs.

In addition to medical transportation resources mobilized at the local level, there were 92 ambulances used, which included 14 Ambulance Strike Teams (ASTs) and 22 individual ambulances from four Cal OES Mutual Aid Regions (Regions 2, 3, 4 and 5). In addition, approximately 60 paratransit vehicles, buses, vans, and trucks were acquired through the mutual aid system to move patients and their accompanying equipment.

The MHMAS also enabled effective coordination and deployment of DHV/MRC volunteers to assist with shelter operations in the impacted counties. The MHOAC worked with local DHV administrators, RDMHS, and ultimately the State to coordinate the deployment of 364 DHV/MRC volunteers, including 12 Medical Reserve Corps teams. In addition, there are still ongoing requests for Behavioral Health and Environmental Health professionals.

Two state healthcare facilities were also evacuated, the Sonoma Developmental Center (241 patients/clients) and the Yountville Veterans Home (skilled nursing facility with 129 patients/residents). Because these were State responsibility missions, the State took the lead, in collaboration with the RDMHC and MHOAC programs, to coordinate acquisition of resources for the relocation and repatriation of the patients. The EMS Authority assisted the Sonoma Developmental Center Dixon Fairgrounds sheltering operations by providing 12 Mobile Medical Shelter structures, durable medical equipment, and Communications Platform (C3, VSAT and handheld radios).

Although the MHMAS worked well during the Northern California October Fires response there were many lessons learned that can help to improve the Medical and Health Mutual Aid System. Some of the key gaps identified during the response were:

- Additional training for partners on the Medical and Health Mutual Aid System and Resource Requesting process
- Procedures for costs and reimbursement for use of ambulances and Ambulance Strike Teams for patient evacuations and repopulation
- Systematic approach to identifying and deploying Behavioral Health and Environmental Health resources
- Process for identifying and supporting medical needs in shelters

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Sean Trask, Chief
EMS Personnel Division

SUBJECT: Nomination of Officers for March 2018 – March 2019

RECOMMENDED ACTION:

Open nominations for Commission Officers for 2018 - 2019.

FISCAL IMPACT:

No fiscal impact.

DISCUSSION:

Nominations for Commission Officers are opened at the last Commission meeting of the year, and the election is held at the first meeting of the following year.

The Commission will need to nominate a new Chair as Commissioner Burch has served two consecutive terms as the Chair. Per the Commission on EMS By-Laws, the Chair can only serve two consecutive terms.

The other officer positions are Vice Chair, Steve Drewniany, and Administrative Committee members Lewis Stone, Jaison Chand, and Daniel Margulies, MD. The Administrative Committee shall consist of the immediate Past Chairperson of the Commission and two other members. The Vice Chair is also eligible for re-election.

Current Commission Officers:

Chair	Dan Burch
Vice Chair	Steve Drewniany
Administrative Committee	Lewis Stone
	Jaison Chand
	Daniel Margulies, M.D.

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DATE: December 6, 2017

TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Sean Trask, Chief
EMS Personnel Division

SUBJECT: Approval of 2019 Meeting Dates

RECOMMENDED ACTION:

Review the approved meeting dates for Calendar Year 2018, and review the proposed meeting dates for Calendar Year 2019.

FISCAL IMPACT:

The cost of four meetings per year is approximately $55,000 for a total of approximately $110,000 for two years.

DISCUSSION:

At the December 6, 2006 Commission on EMS Meeting, the Commission approved scheduling the meetings two years in advance.

The following meeting dates and locations were approved on December 14, 2016 for calendar year 2018:

Calendar Year 2018:
March 21, 2018 in Garden Grove
June 20, 2018 in Sacramento
September 12, 2018 in San Diego
December 5, 2018 in San Francisco

The proposed meeting dates and locations for Calendar Year 2019 are:

Calendar Year 2019:
March 20, 2019 in Garden Grove
June 19, 2019 in Sacramento
September 18, 2019 in San Diego
December 4, 2019 in San Francisco