



YOLO COUNTY EMERGENCY MEDICAL SERVICES AGENCY AND EMERGENCY PREPAREDNESS



2017/2018 ANNUAL REPORT



YOLO COUNTY

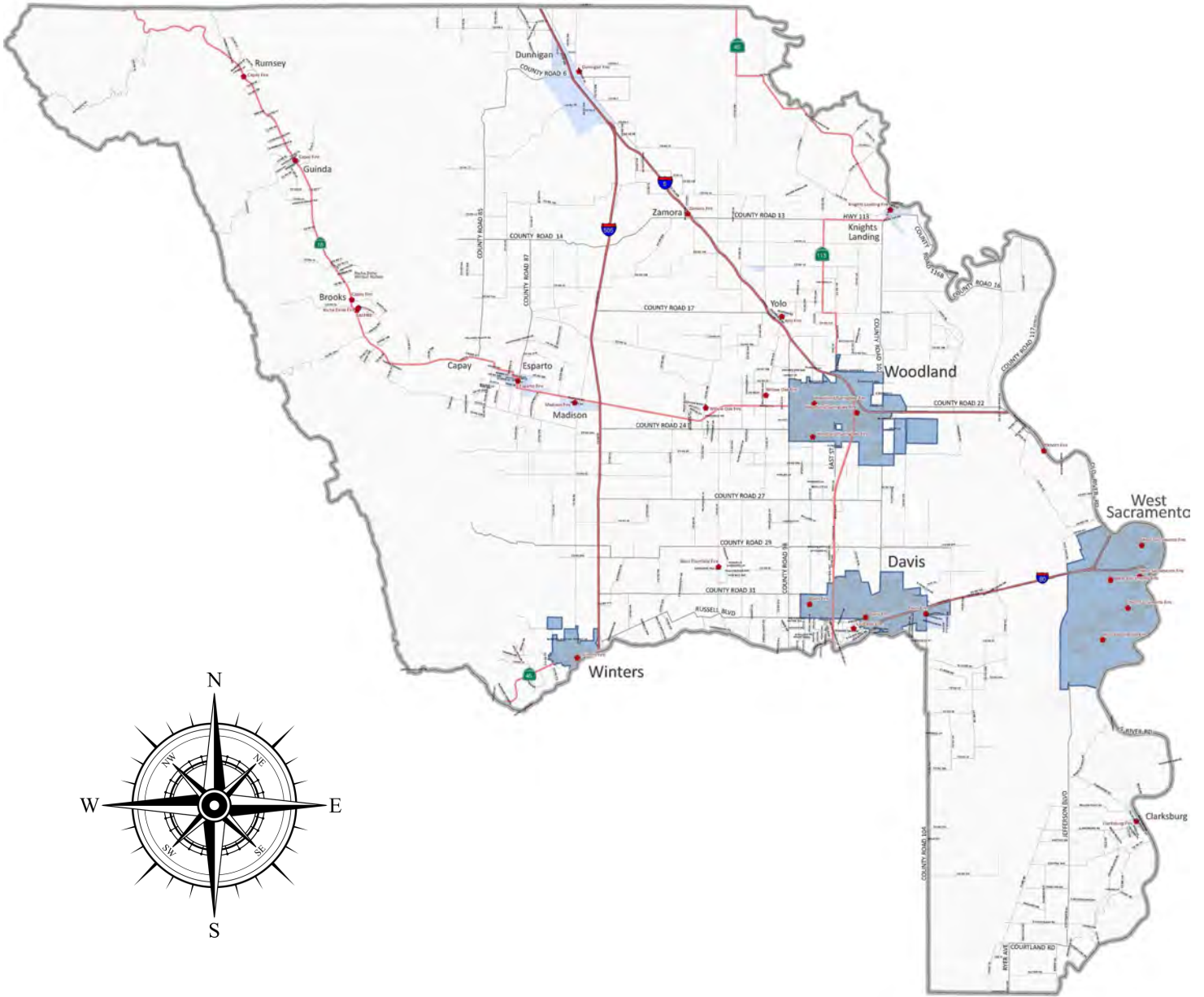


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Common Abbreviations

YEMSA - Yolo County Emergency
Medical Services Agency
EMS - Emergency Medical Services
EP - Emergency Preparedness
EMR - Emergency Medical Responder
EMT - Emergency Medical Technician

BLS - Basic Life Support
ALS - Advanced life Support
CCT - Critical Care Transport
EMD - Emergency Medical Dispatch
PSAP - Public Safety Answering Point

INTRODUCTION

The Yolo County EMS Agency (YEMSA) was created in July of 2013. The focus was to create a collaborative approach among the partners and the community to enhance the EMS delivery model and improve patient outcomes. We continue to open new doors with county agencies and community partners to align patients with essential services and seek innovative solutions to increase resilience throughout Yolo County and the region. YEMSA and Emergency Preparedness (EP) have worked closely to coordinate disaster preparedness and EMS response through training, exercises, and plan development. There are several new initiatives that add to our focus on evidence based best practices, regional growth, and partnerships. We are excited to be at the forefront of integrating EMS into the larger health system. This report will highlight the relationships and partnerships that have greatly enhanced the EMS system in Yolo County.



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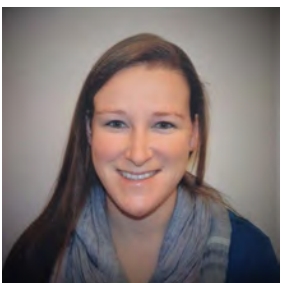
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MISSION - VISION - VALUES

Emergency Medical Services

Mission

The mission of YEMSA is to evolve a cost effective, collaborative and outcome based EMS Delivery System that produces clinically superior and culturally competent care. We strive to work effectively with our Public Safety and Public Health partners to solve problems, make decisions, and achieve common goals.

Vision

A comprehensive, accessible, and sustainable EMS delivery system, realized through collaboration, which provides clinically superior, efficient and innovative care.

Values



Leadership



Integrity



Innovative



Collaborative



Patient Centered

Emergency Preparedness

Mission

To prepare the residents of Yolo County for natural and intentional public health disasters and emergencies through improved operational readiness, planning, and mitigation activities and to ensure a timely response and successful recovery as a collaborative and resilient community.

Vision

Strengthen partnerships and resiliency in our county through preparedness activities and training.

Values



Trust



Resiliency



Collaboration



Education

SYSTEM PARTNERS



Fire Protection Districts

Capay Valley Fire
Clarksburg Fire
Dunnigan Fire
Elkhorn Fire
Esparto Fire
Knights Landing Fire
Madison Fire
West Plainfield Fire
Willow Oak Fire
Yolo Fire
Zamora Fire

Air Transport Providers

CALSTAR
REACH

911 - ALS - CCT Transport Providers

American Medical Response

Municipal Fire Departments

Davis Fire
UC Davis Fire
West Sacramento Fire
Winters Fire
Woodland Fire

BLS Transport Providers

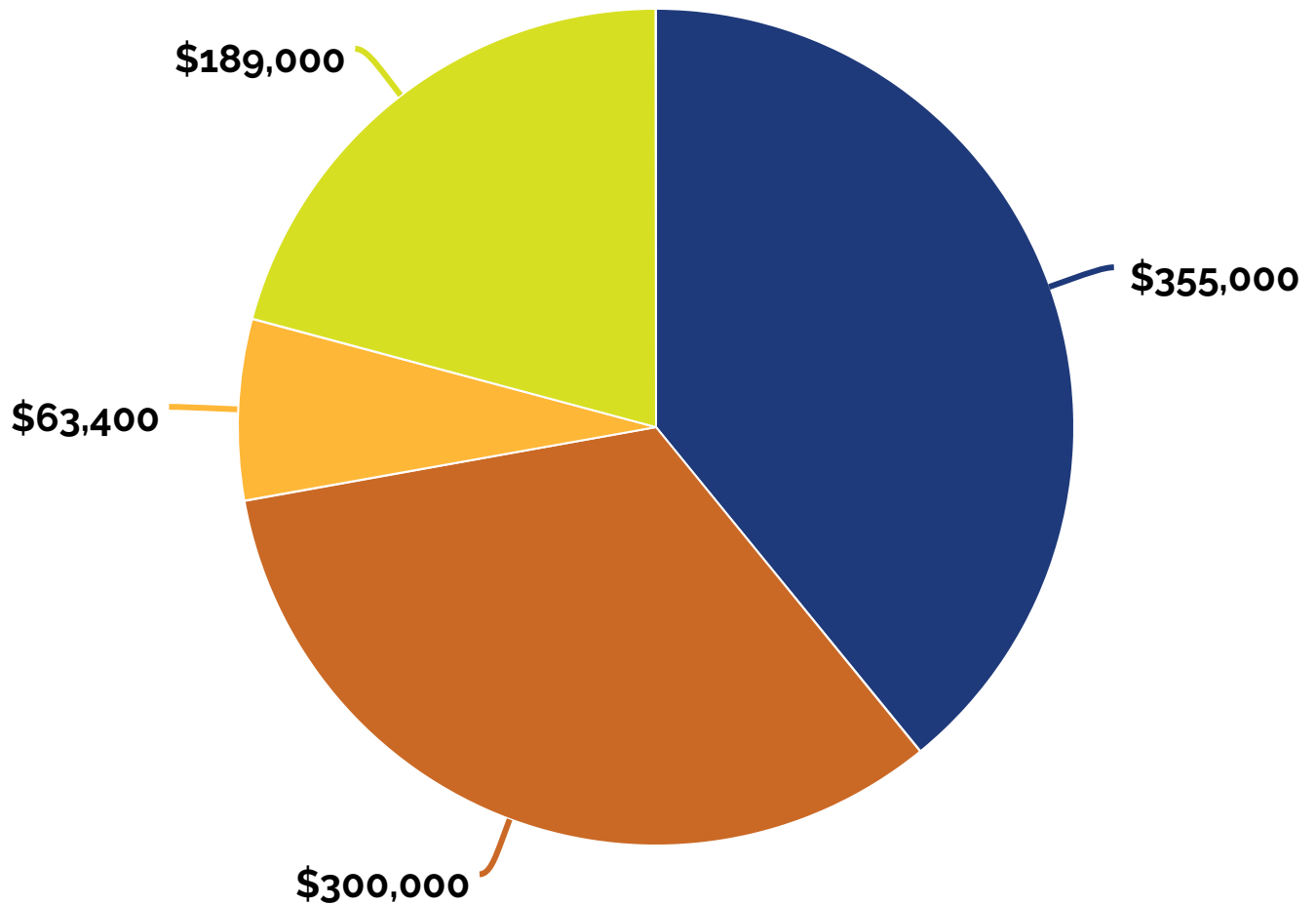
AMR - Sutter Health
NORCAL Ambulance
ProTransport-1
Sacramento Valley
Ambulance
Falck Northern California
Bay Medic

ALS Fire Departments

Yocha Dehe Fire

SYSTEM FUNDING

YEMSA is funded through the Exclusive Operating Area (EOA) franchise fee, penalty fees, and fees collected for certifications, ambulance permits, ambulance inspections, and hospital designations.



- Penalty Fees
- Franchise Fee
- Certifications, Permits, and Inspections
- Hospital Designations

Total : \$907,400

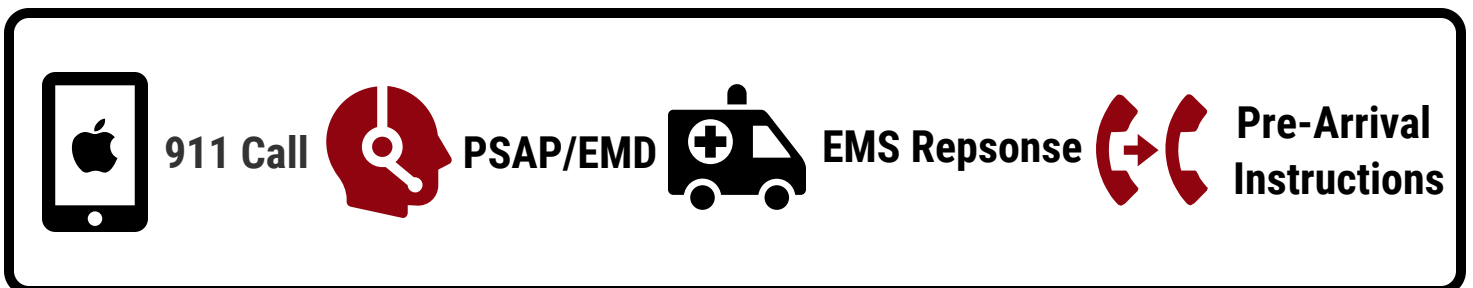
EMERGENCY DISPATCH SYSTEM

Yolo County is serviced by two primary Public Safety Answering Points (PSAP); Yolo Emergency Communications Center and the City of Davis Police Department. These communication centers are responsible for answering 911 calls and sending an appropriate EMS response.



Yolo Emergency Communications Center

The Yolo Emergency Communications Center is an Emergency Medical Dispatch (EMD) center that utilizes the Medical Priority Dispatch System. The dispatchers in this system triage calls using specific medical criteria that is based on signs and symptoms told to them by the caller. They send the proper level of care with the proper urgency and provide pre-arrival instructions, guiding the caller through life saving steps including CPR, choking, emergency childbirth, and other medical emergencies. These dispatchers play a vital role in the EMS Chain of Survival as the first point of contact with the public.



EMS SERVICE UTILIZATION

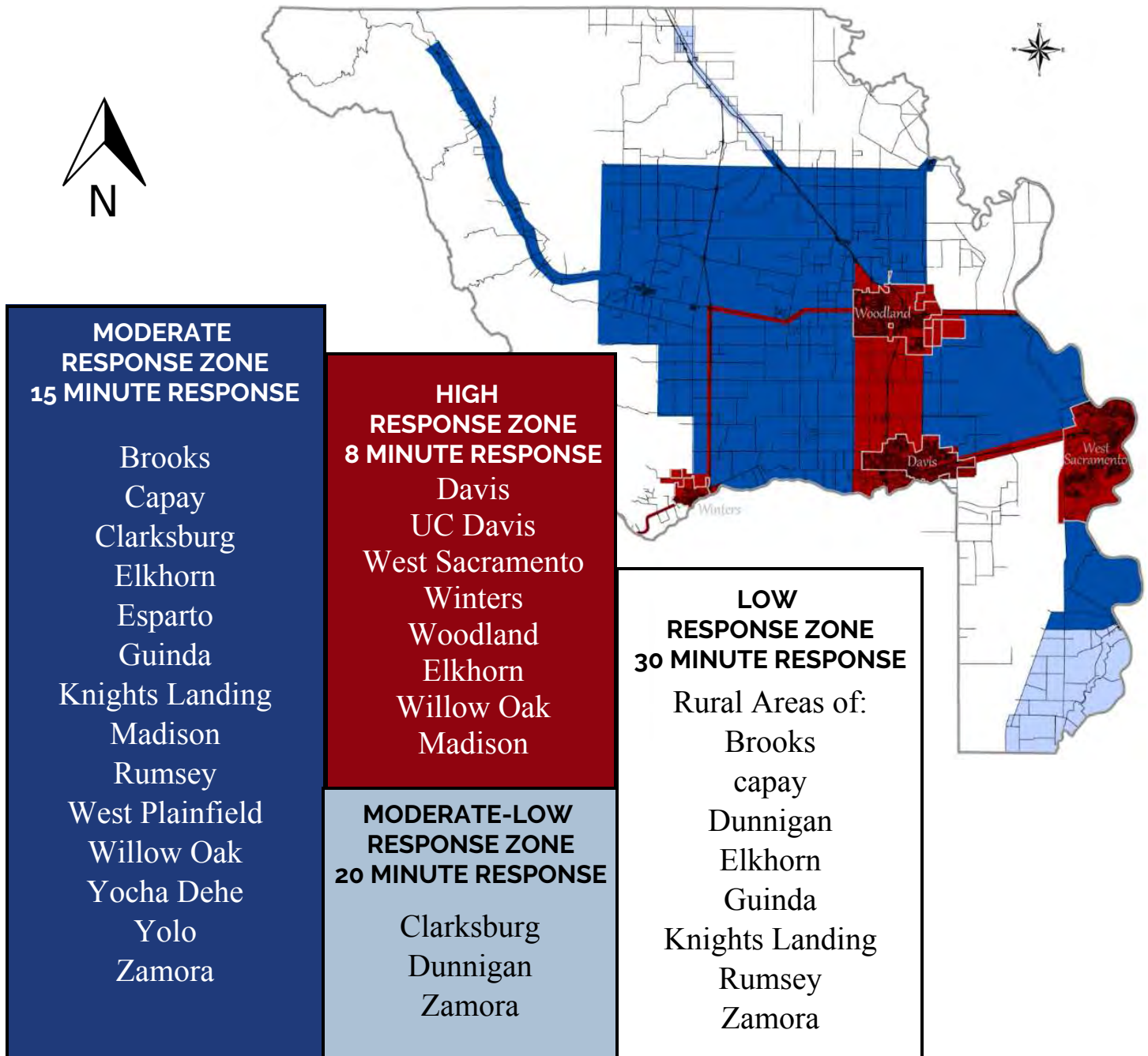


In 2017 Yolo County had an estimated population of 219,000. Woodland, West Sacramento, and Davis were the three largest cities in the county, each home to more than 53,000 people. Yolo County continues to grow each year and EMS utilization continues to increase.

Yolo County	2017
Population	219,116
Square Miles EMS Serves	1,024
Population per Square Mile	214
Total EMS Response	21,516
EMS Response per 1,000 people	98
Average EMS response per day	59
Population Below Poverty	19.30%
Median Household Income	\$57,663



AMBULANCE RESPONSE REQUIREMENTS



Response time requirements were established by stakeholders and representatives from the county fire departments and hospital providers. Yolo County has four 911 response zones for ambulance based Paramedic services. Each zone is geographically and demographically diverse, and average response times reported include urban, suburban, and rural responses. In addition to the response zones there are two response time requirements for ALS and CCT transfers from Yolo County hospitals.

AMBULANCE RESPONSE TIME PERFORMANCE

2017	Average Response Time	Required	Response %	Calls per Zone
High	4:53	8:00	95%	18,737
Moderate	9:55	15:00	96%	1,205
Moderate-Low	16:48	20:00	90%	248
Low	16:44	30:00	98%	75
ALS Interfacility	15:36	30:00	94%	910
CCT Interfacility	32:52	45:00	88%	341

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2017 COUNTY WIDE VOLUME
 21,516

Overall Response 94%

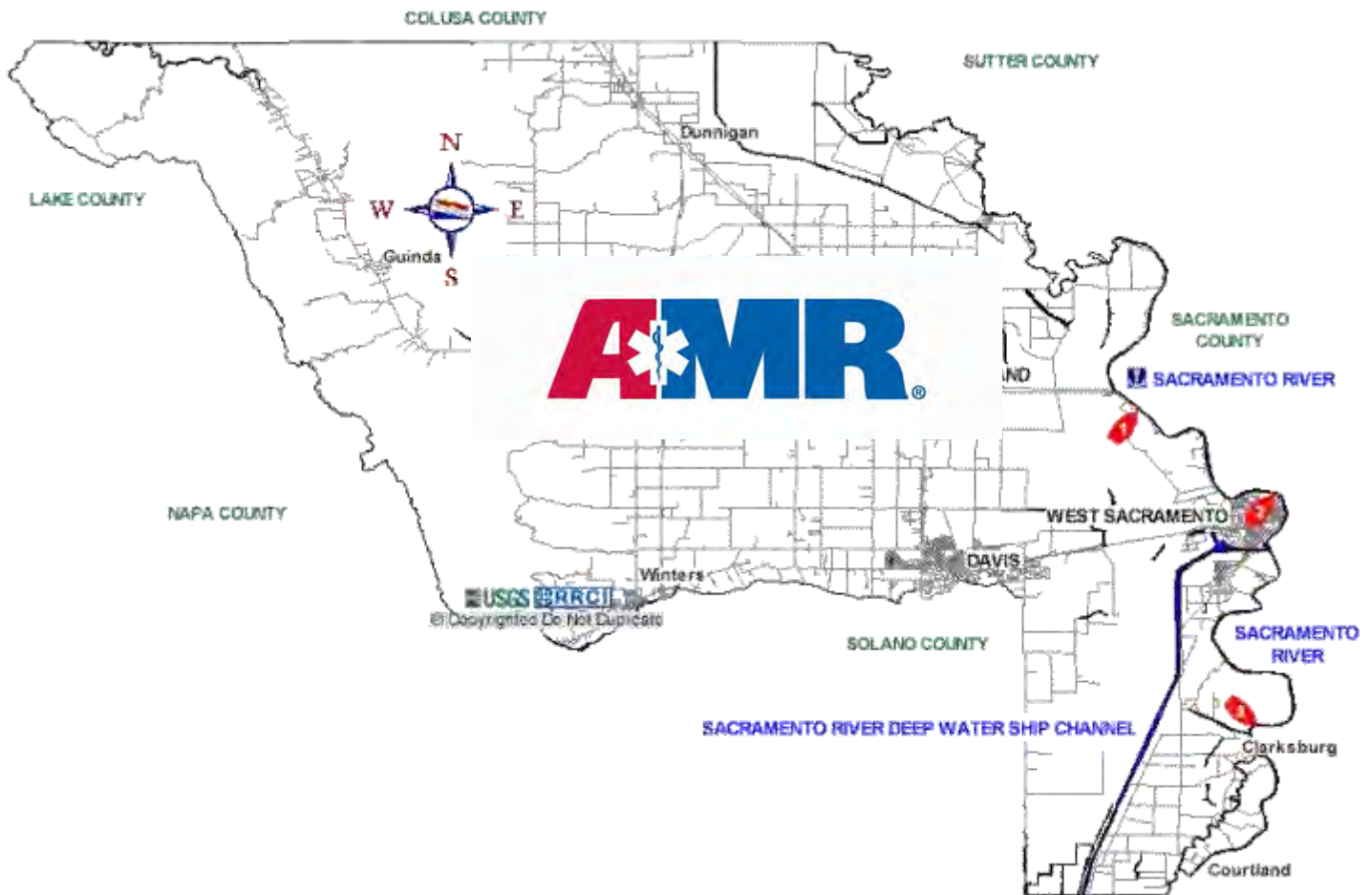
2016	Average Response Time	Required	Response %	Call Per Zone
High	4:44	8:00	95%	18,297
Moderate	10:03	15:00	97%	1,273
Moderate-Low	17:32	20:00	92%	251
Low	16:40	30:00	97%	79
ALS Interfacility	16:06	30:00	93%	1,027
CCT Interfacility	34:53	45:00	90%	339

.....
2016 COUNTY WIDE VOLUME
 21,266

Overall Response 95%

5 YEAR CONTRACT EXTENSION

YEMSA has been evaluating the effectiveness of the EOA Contract for 911 Advanced Life Support and Critical Care Ambulance since the execution of the contract in March, 2014. This contract was approved for a five-year period with a possible five-year extension based on performance. In November 2016, YEMSA created an Emergency Medical Care Committee (EMCC) Subcommittee to discuss any concerns or needs with our stakeholders.



Since the creation of the subcommittee, bi-monthly updates have been provided at the EMCC meetings. Based on the feedback from the subcommittee and contractual compliance numbers, YEMSA sent an offer letter to American Medical Response (AMR), the contracted provider, to extend the contract an additional five years. AMR accepted the five-year extension, which will be presented to the Board of Supervisors for approval in February of 2019.

SPECIALTY MEDICAL CENTERS

Specialty Medical Centers are hospitals with enhanced capabilities to treat specific pressing problems such as trauma, burns, heart attacks (STEMI), stroke, and pediatric patients. A Base Hospital is a local hospital that provides on-line physician consult to EMS personnel. These hospitals work with Yolo County to provide specialty care when it matters most.

Stroke Receiving Centers

Woodland Memorial Hospital

Sutter Davis Hospital

Mercy General Hospital

UC Davis Medical Center

Sutter Medical Center Sacramento

Mercy San Juan Medical Center

Methodist Hospital

Base Hospital

Woodland Memorial Hospital

STEMI Receiving Centers

Mercy General Hospital

UC Davis Medical Center

Sutter Medical Center Sacramento

North Bay Medical Center

Level I/II Trauma Centers

UC Davis Medical Center

Kaiser Vacaville

Pediatric Trauma Center

UC Davis Medical Center

Burn Receiving Center

UC Davis Medical Center

AIR MEDICAL TRANSPORT

Air Medical Transport provides specialized services throughout Yolo County in response to EMS calls where air medical transportation is essential to getting a critically ill or injured patient to definitive care. Air Medical Transport Providers are dispatched for emergency calls in rural areas of the county, severe traffic accidents, or when hospitals need to transport a critically ill patient to another facility. REACH and CALSTAR are authorized providers in Yolo County. Air Medical Transports make up less than 1 percent of patient transports in Yolo County.



2017

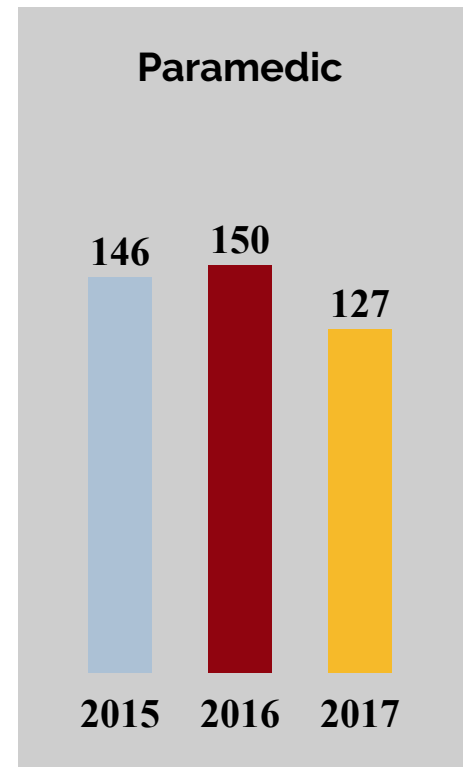
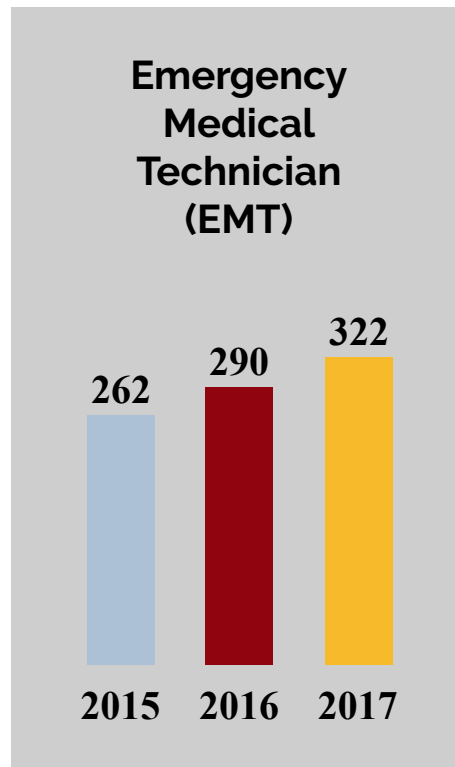
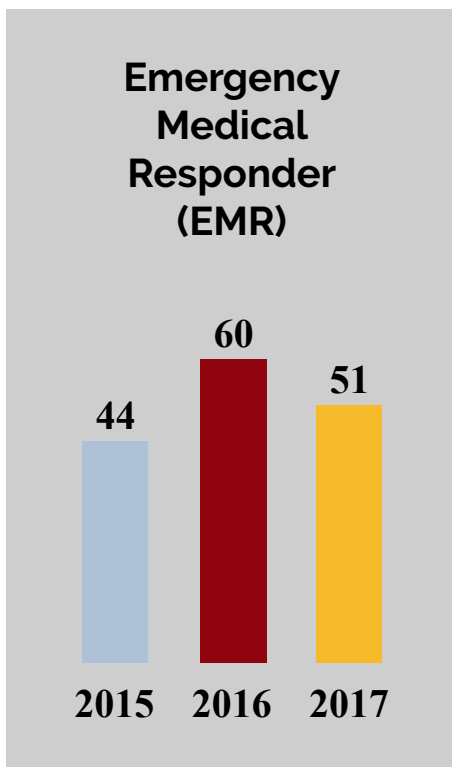
911 "Scene" Calls	13
Interfacility Transports	6
Total Air Transports	19

CERTIFICATION AND ACCREDITATION

Emergency Medical Responders (EMR) are required to possess a YEMSA EMR certificate before they can practice within the county. Applicants obtain an EMR certificate by providing proof of both employment within the county and completion of training by a certifying entity. An EMR certificate obtained through YEMSA is valid for two years.

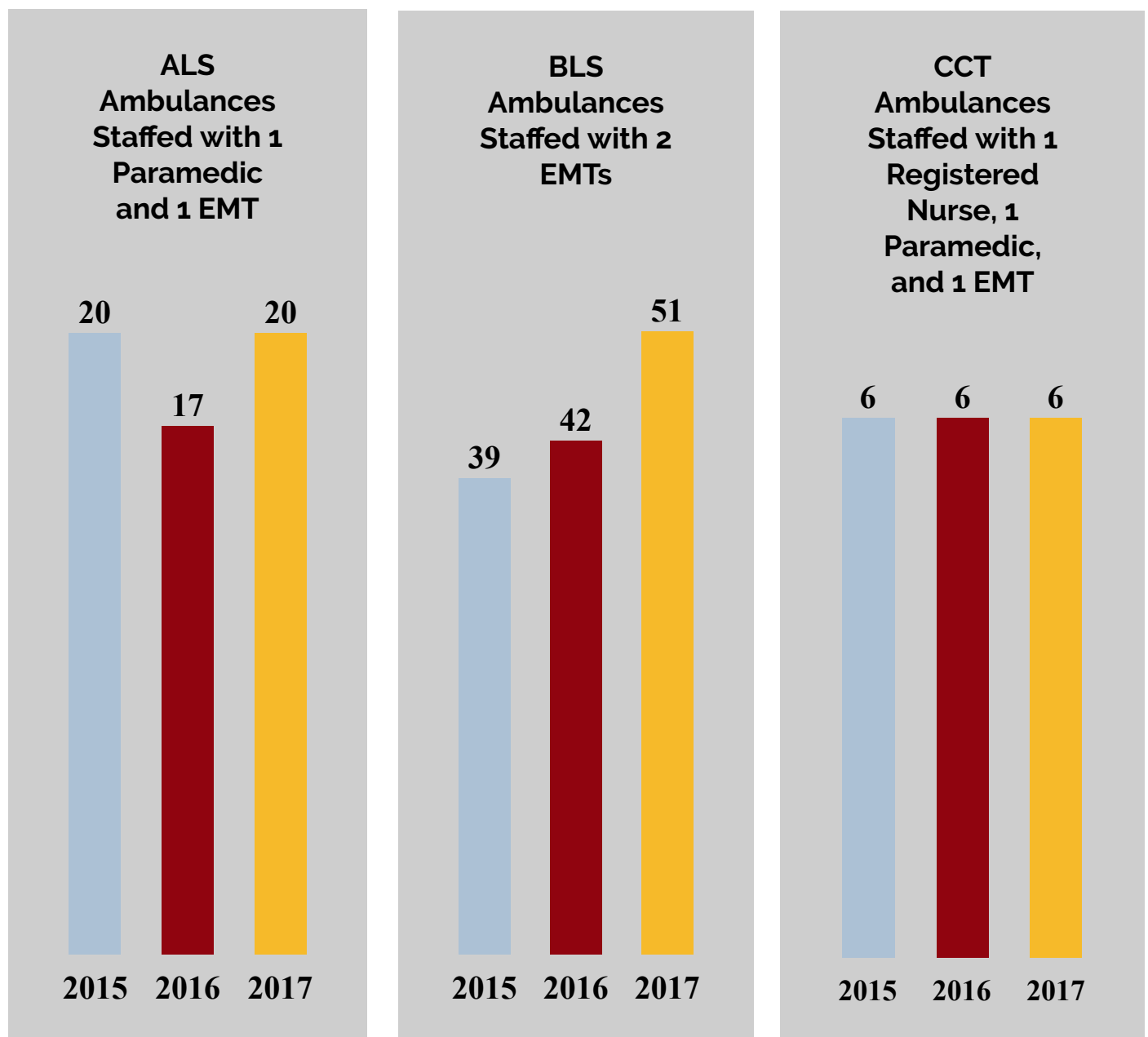
Emergency Medical Technicians (EMT) are required by state law to possess a State of California EMT certificate before they can practice. An EMT obtains a State of California EMT certificate by applying to one of California's local EMS agencies. An EMT certificate obtained through YEMSA is valid statewide for two years.

Paramedics are required to obtain a California Paramedic license from the State of California EMS Authority. Once a Paramedic has obtained a license, they must accredit themselves in the jurisdiction in which they are employed. Accreditation ensures Paramedics can work safely and competently within the YEMSA Protocols and Policies. Paramedics are required to verify compliance and update their accreditation with YEMSA every two years.



AMBULANCE PERMITS

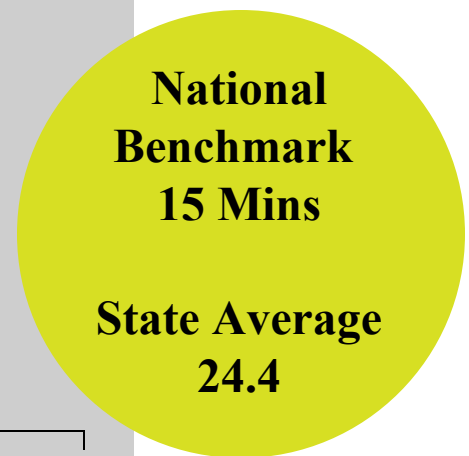
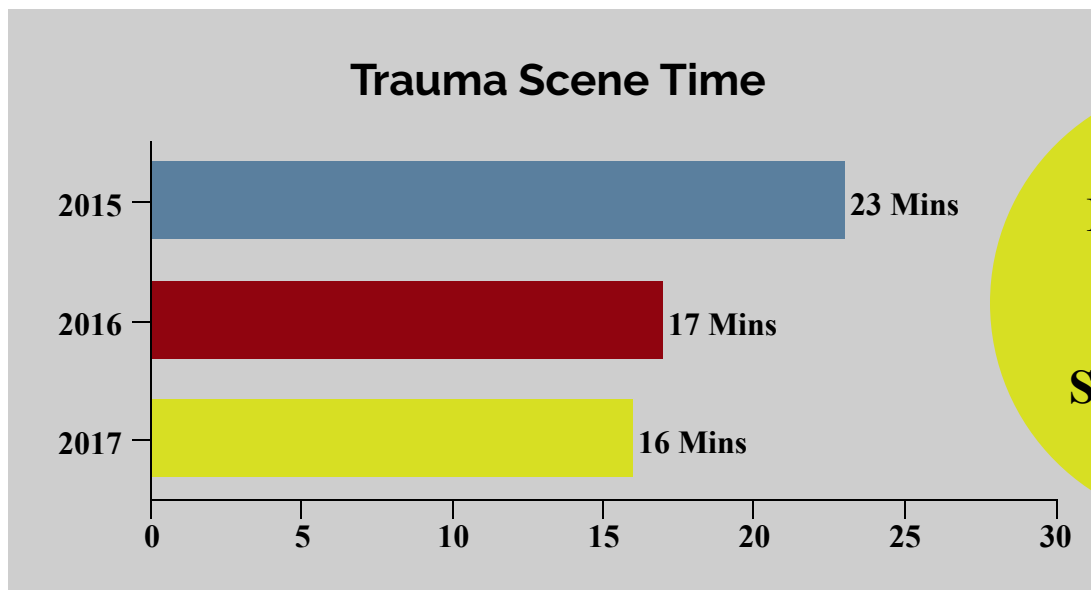
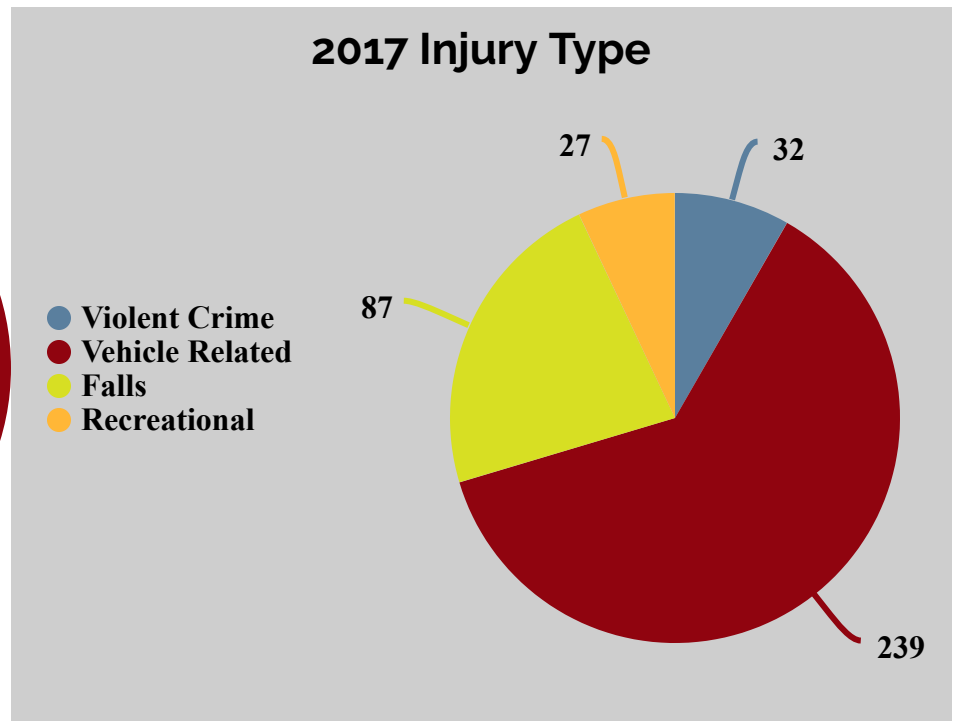
The YEMSA ambulance ordinance requires each ambulance provider to obtain a permit before initiating patient transport in Yolo County. YEMSA reviews each application and inspects each ambulance to ensure public health and safety. YEMSA is also responsible for investigating alleged violations of the ambulance ordinance by permit holders and when necessary takes appropriate enforcement action to suspend or revoke an ambulance permit.



TRAUMA SYSTEM OF CARE



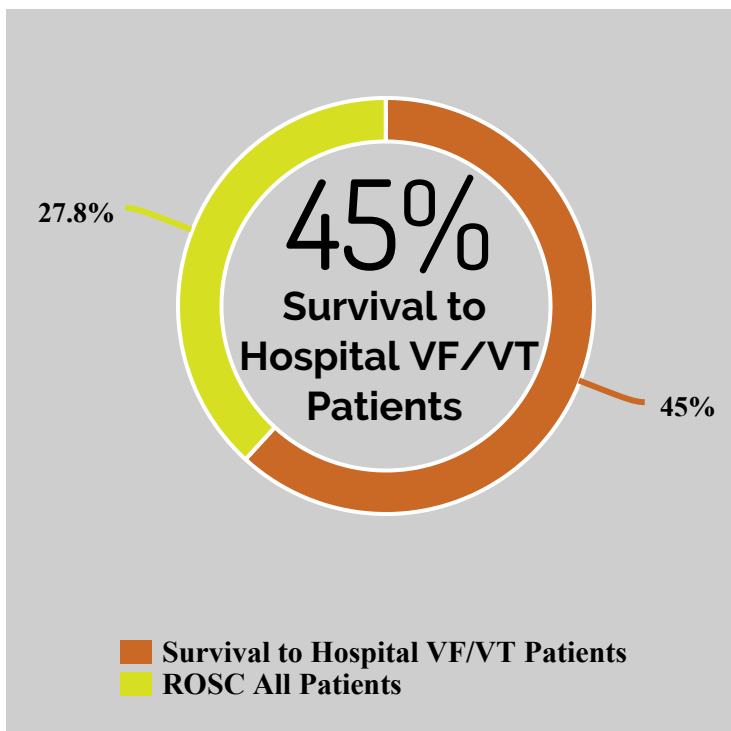
A trauma system is designed to facilitate rapid identification, management, and transport of critical trauma patients to a designated trauma center. Time is a critical factor that directly correlates to increased morbidity and mortality.



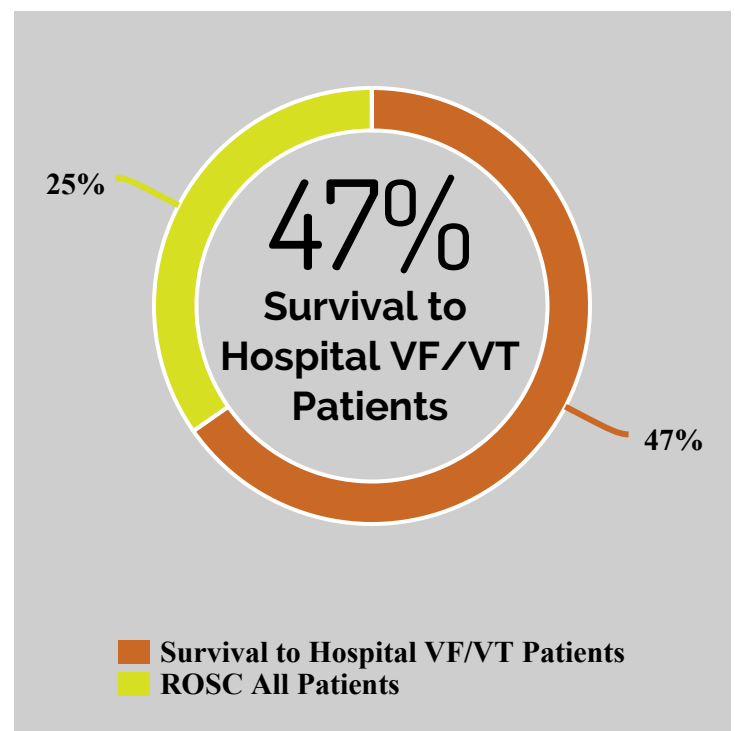
CARDIAC ARREST SYSTEM OF CARE

Cardiac arrest is one of the leading causes of death in adults. It is an electrical malfunction in the heart that causes an irregular rhythm (arrhythmia) and disrupts the flow of blood to the brain, lungs, and other organs. When a person has a cardiac arrest, survival depends on immediately getting CPR from someone nearby. Almost 90 percent of people who suffer out-of-hospital cardiac arrests die. CPR, especially if performed in the first few minutes of cardiac arrest, can double or triple a person's chance of survival. Ventricular tachycardia (VT) and ventricular fibrillation (VF), are two arrhythmias that with quick CPR and use of an AED, are considered more survivable than other cardiac arrest arrhythmias.

2016 Cardiac Arrest Data



2017 Cardiac Arrest Data



**National Standard
Return of Spontaneous
Circulation**

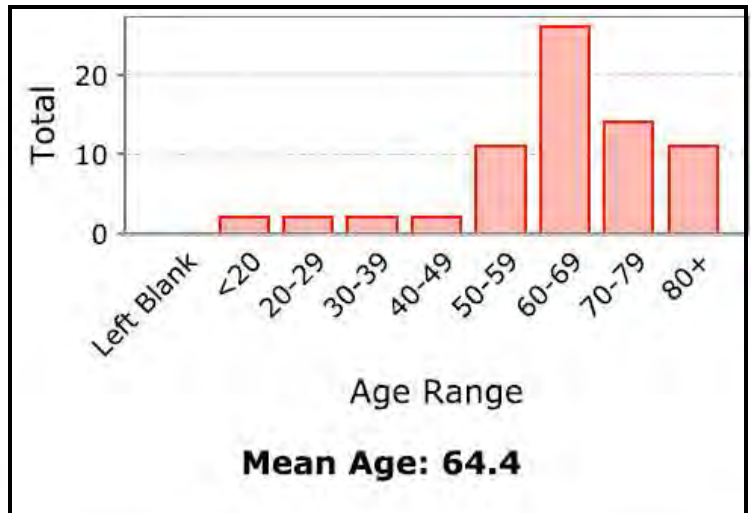
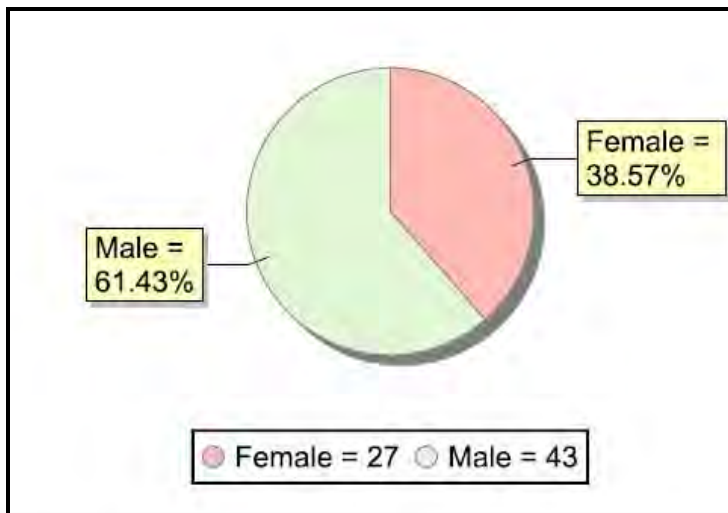
21%



CARDIAC ARREST REGISTRY TO ENHANCE SURVIVAL (CARES)

In January 2018 Yolo County EMS started participating in a national cardiac arrest survival registry program which allows for comparative bench-marking and improvement in cardiac arrest emergency care. Through our partnership with CARES, we collect uniform and reliable outcome information that will help enhance the delivery of CPR by bystanders and improve prehospital cardiac arrest care in our communities. CARES data shows that patients are more likely to survive to hospital discharge when they receive care that meet or exceeded the CARES standards. The next few pages will highlight this data for the first 2 quarters of 2018.

Jan - June 2018 Cardiac Arrest Demographics



Location Type	Count
Home/Residence	57 - 81.4%
Healthcare Facility	5 - 7.1%
Public/Commercial Building	4 - 5.7%
Street/Hwy	2 - 2.9%
Nursing Home	1 - 1.4%
Place of Recreation	1 - 1.4%

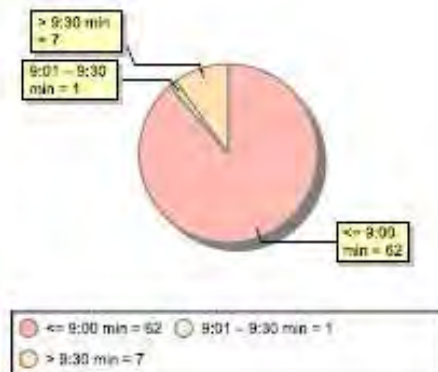
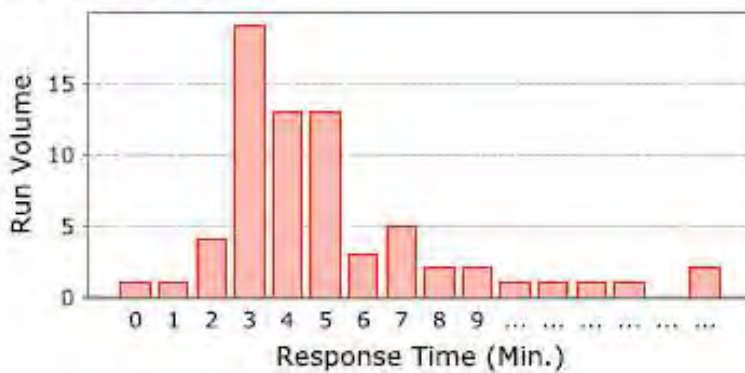


CARDIAC ARREST REGISTRY TO ENHANCE SURVIVAL (CARES)

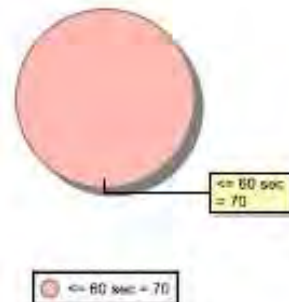
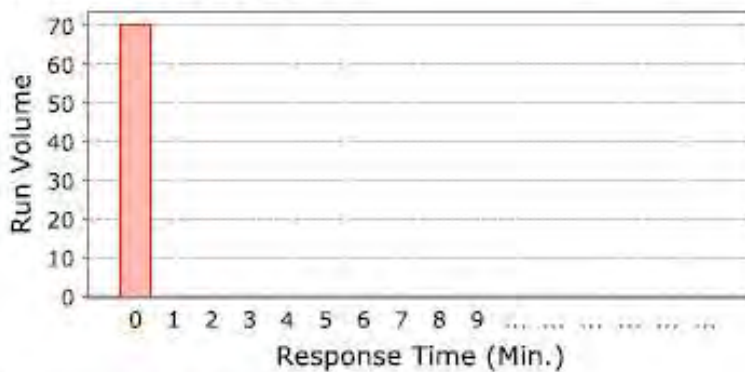
The CARES program provides valuable data about ambulance response times to cardiac arrests. Quick response from the ambulances combined with early BLS care by the local fire department greatly increases the chance of survival for cardiac arrest patients.

January - June 2018 Cardiac Response Times

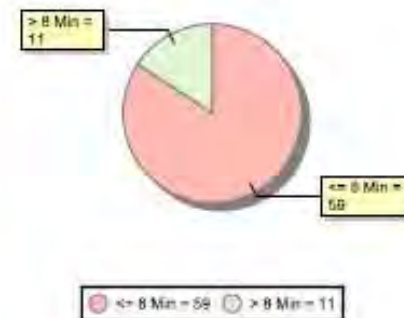
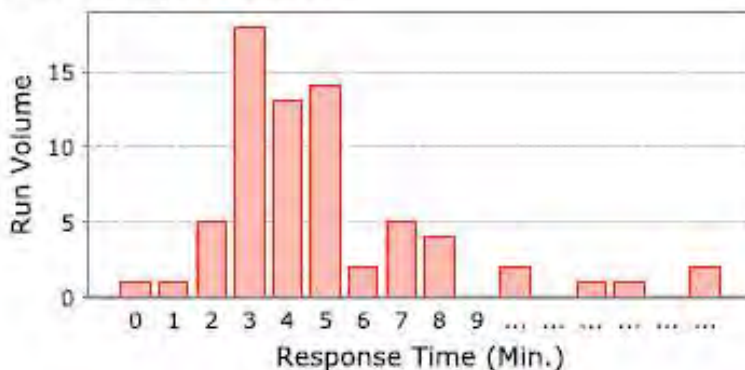
EMS Times: 911 to Arrival



EMS Times: 911 to Dispatch



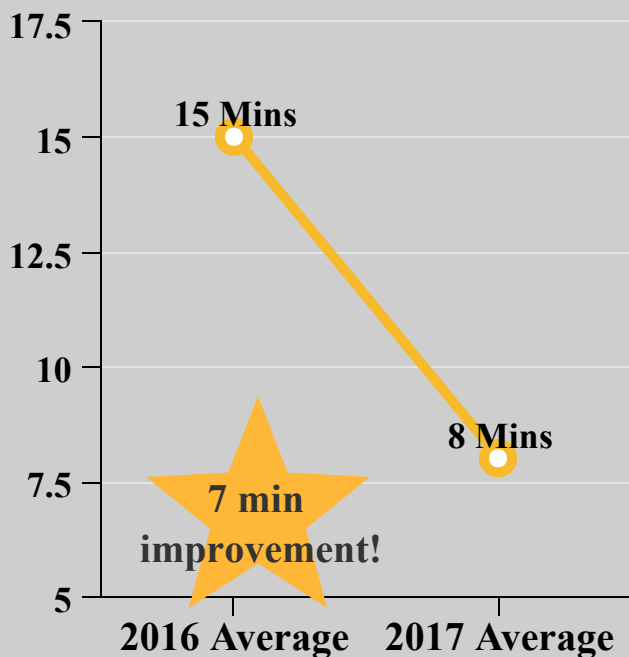
EMS Times: Dispatch to Arrival



STEMI SYSTEM OF CARE

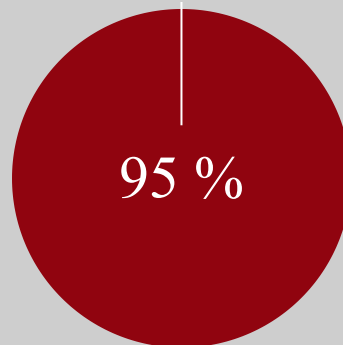
ST-Elevation Myocardial Infarction (STEMI), known as a heart attack, occurs when blood flow decreases or stops to a part of the heart, causing damage to the heart muscle. 12-Lead Electrocardiogram (ECG) is the process of recording electrical activity of the heart. Paramedics in the field use this as a diagnostic tool to identify a heart attack and to provide early notification to the hospital through electronic transmission. This early notification allows for the hospital to set up the Cardiac Catheterization Lab (Cath Lab) and have all diagnostic equipment and personnel ready to perform interventional treatment.

Patient Contact to 12-Lead ECG

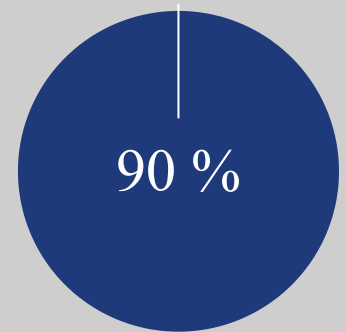


12-Lead Transmission to STEMI Center

2016 Transmission



2017 Transmission



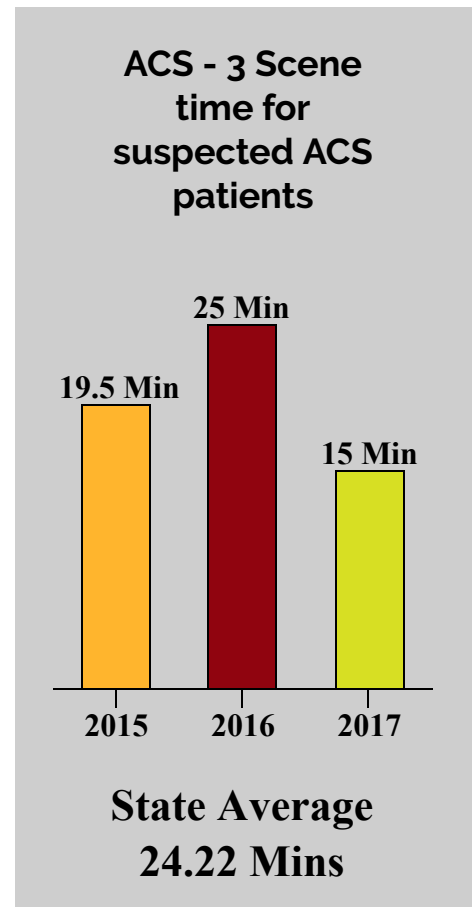
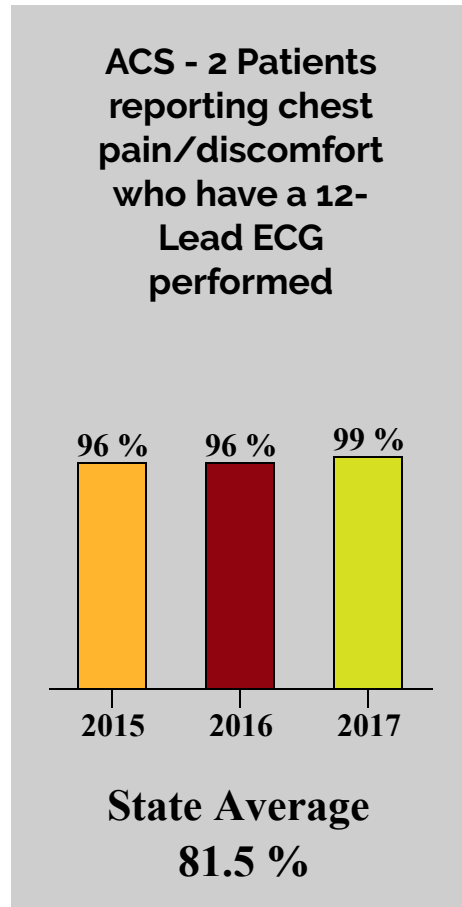
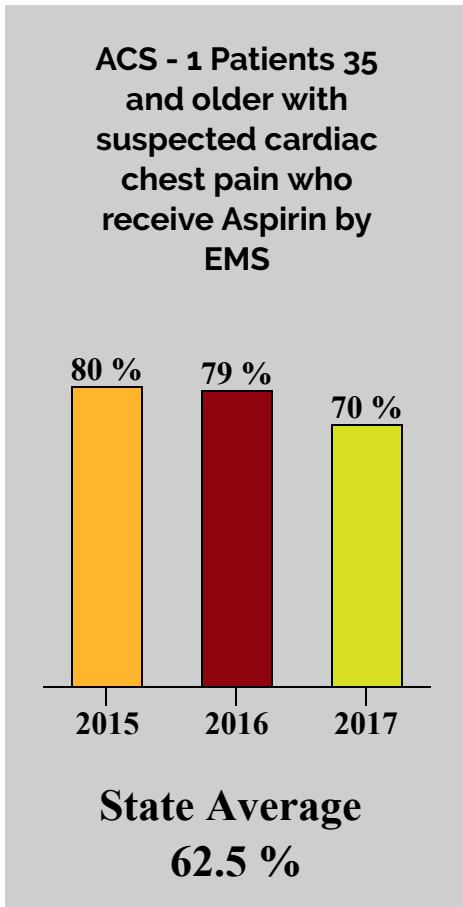
National Benchmark
10 Minutes

77 STEMI Activations
2017

National Benchmark
90%

STEMI PREHOSPITAL CORE MEASURES

California Core Measures are a set of quality indicators that are established from evidence based data on processes and treatments that have proven to provide the best possible outcomes for patients. Yolo County continues to meet and exceed state and national benchmarks in all areas.



First Medical Contact (FMC) to intervention is the time from initial contact with a patient to the time the patient receives interventional treatment. Early reopening of blocked coronary arteries reduces the amount of damage to the heart and improves the prognosis of the heart attack.



STROKE SYSTEM OF CARE

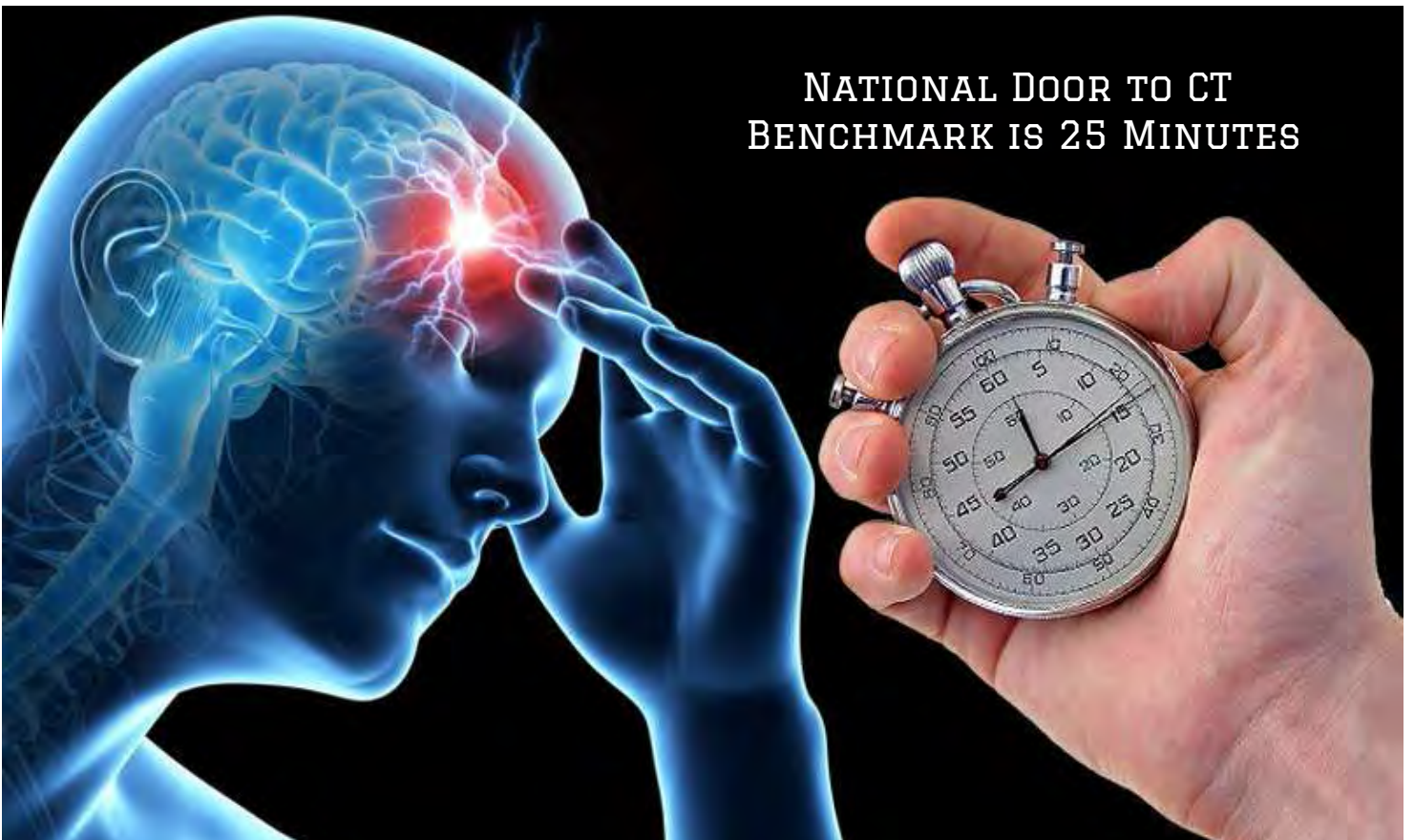


Stroke is one of the leading causes of death and disability in the nation. The YEMSA Stroke System of Care facilitates rapid assessment and transport of patients to designated primary stroke centers. Early recognition by EMS of a stroke allows for early activation of the primary stroke center, shortens time to Computerized Tomography (CT) scan, and improves the timelines of treatment.

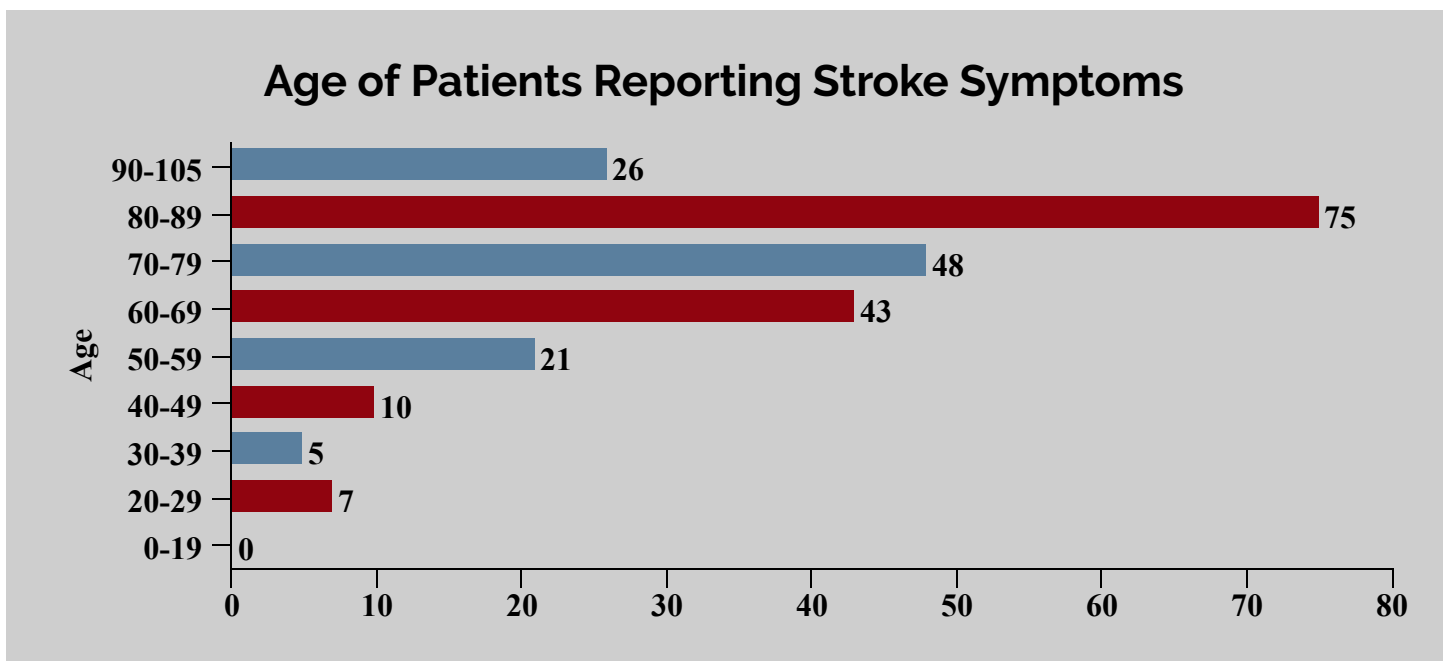
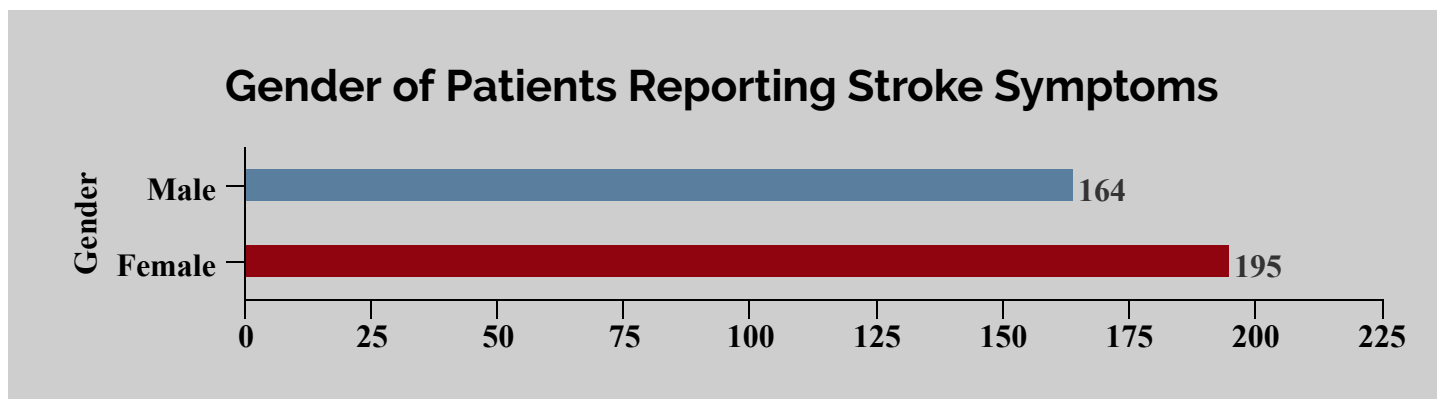
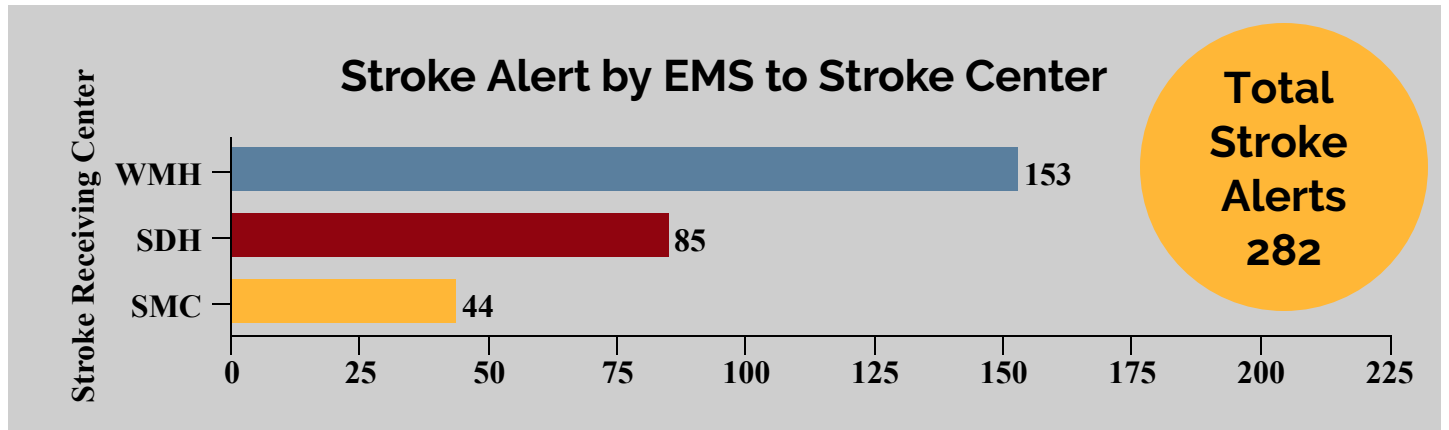
20 MINUTES

YOLO COUNTY AVERAGE DOOR TO CT TIME

NATIONAL DOOR TO CT
BENCHMARK IS 25 MINUTES

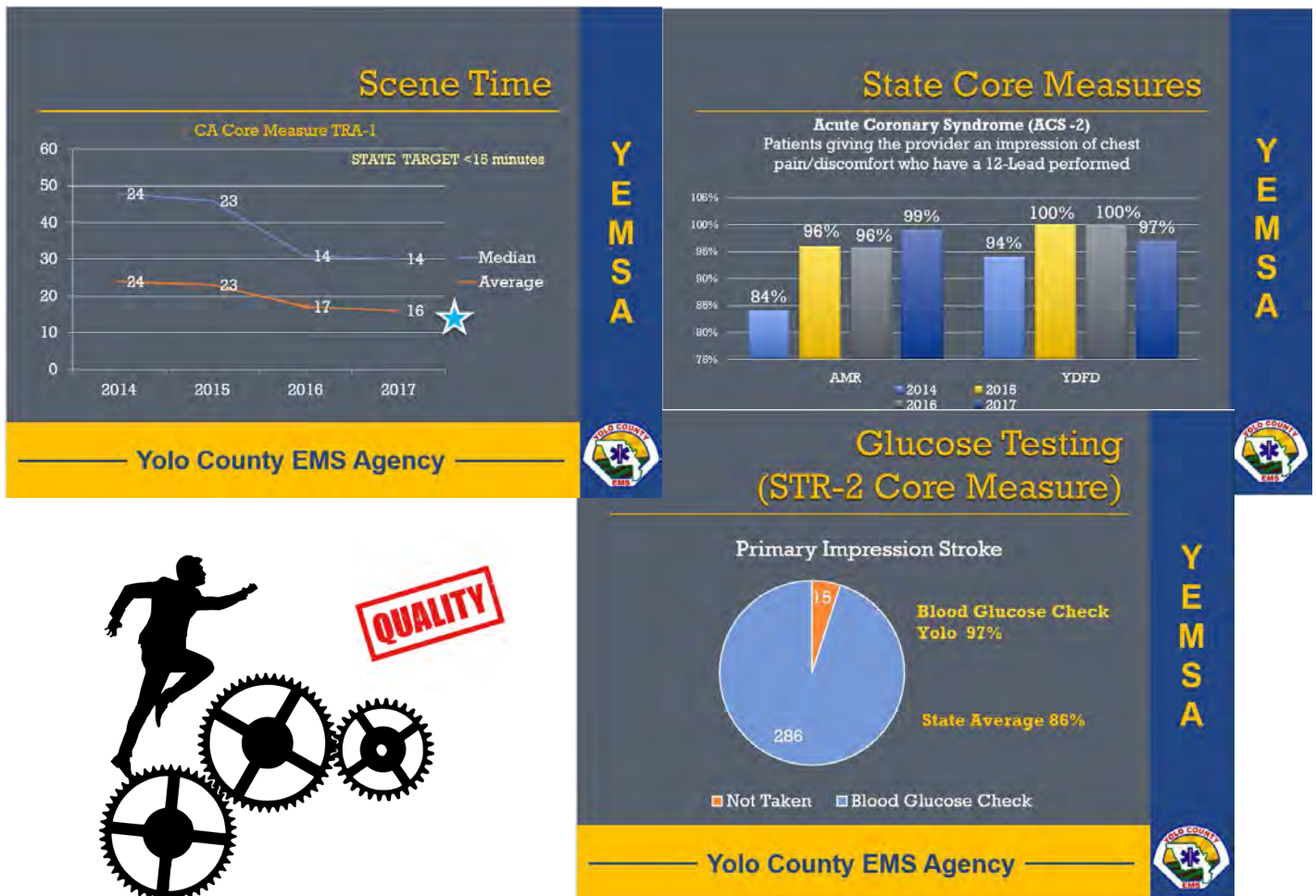


STROKE SYSTEM OF CARE



QUALITY IMPROVEMENT PLAN

The EMS System relies on many different components of healthcare to coordinate and continuously work together to provide the highest quality of prehospital medical care to the community. Improving outcomes and affecting the quality of care for the community depends on a comprehensive and structured approach to seeking and recognizing those opportunities to enhance the system. The purpose of the **Yolo County EMS Quality Improvement Plan** is to improve the quality and effectiveness of EMS through standardization, coordination, and the evaluation of patient care and system design strategies. This is an inclusive multidisciplinary process and is accomplished through continuous measurements of key performance indicators and the evaluation of whole system measures which leads to the opportunity to strengthen or correct processes, provide needed training and education, monitor system design strategies, and recognize excellence and performance improvements. The performance indicators are shared with the Quality Improvement Committee who then create annual plans for system improvement.



SYSTEM ENHANCEMENTS

The Yolo County EMCC has created a sub-committee of its members to create priority recommendations for the utilization of Yolo County EMS Agency penalty fees. These fees are used to enhance the EMS System through partnership, training, membership, and software tools.

Training

Mindflash

AHA Training

MCI/iMCI Drills

Sponsorships

EMS Symposium



Fire-EMS Software

Code Stat

ReddiNet

PulsePoint

FirstWatch

YEMSA App



LEMSA Resources

Memberships

Medical Director



Partners

Yolo Emergency Communications Agency (YECA) EMD-Q

UC Davis Fire Training Program

Sheriff Physical Agility Testing - EMS Standby



SYSTEM ENHANCEMENTS

Mass Casualty Incident Training

Mass Casualty Incident (MCI) training exercises were created to observe and test the capabilities of a multi-agency response involving all stakeholders within the Yolo County emergency response area. The drills are designed to test the emergency response system in its entirety and are coordinated by bringing together the major stakeholders from the West Valley Regional Fire Training Consortium (WVRFTC), AMR, and YEMSA.



There were two multi-agency drills held during the fiscal year. The first was a statewide tabletop and hands on exercise. This was designed to incorporate the larger emergency response system within Yolo County, the Region, and the State. The second exercise was a full scale live drill. The scenario was a large truck into a crowd at a farmers market. This drill was supported by all stakeholders in Yolo County as well as a large group of volunteers. Both drills provided valuable feedback on the strengths of the county response as well as areas for improvement.



SYSTEM ENHANCEMENTS

Mass Casualty Incident Training



SYSTEM ENHANCEMENTS

FirstWatch

Yolo HSTD

10/30/2018 9:50:18 AM

Yolo	Enroute	Arrived	Elapsed - Avg	Elapsed - Max
Woodland Memorial Hospital	0	0		
Sutter Davis Hospital	0	1	07:40	07:40
Kaiser Hospital Vacaville	0	0		
North Bay Medical Center	0	0		
Sutter Hospital Medical Center - Sacramento	0	0		
UC Davis Medical Center	0	0		
Mercy General Hospital	0	0		
Methodist Hospital of Sacramento	0	0		
Mercy San Juan Hospital	0	0		
Kaiser Hospital South Sacramento	0	0		
Kaiser Hospital Sacramento North	0	0		

Sutter Davis Hospital - 2000 Sutter PI

Agency	Unit	Enroute	(Elapsed)	Arrived	(Elapsed)	Problem/Nature
AMRSutterHealth	YO322	10/30/2018 9:23:56 AM	18:29	10/30/2018 9:42:25 AM	07:40	

[\[Click to show trigger criteria\]](#)

Data Status:

Abbrev	Source	Last Updated	Last Heartbeat	Last Call (minutes ago)	Data Status	
YoloCounty	VCAD	0	10/30/2018 9:49:11 AM	10/30/2018 9:50:10 AM	1	OK

YEMSA introduced FirstWatch which turns raw data into useful, actionable information to improve operations, performance, clinical measures, and provide early warning for crucial events. The Online Compliance utility (OCU) is a real-time web enabled tool for use by providers and authorities to simplify and manage contractual compliance. The OCU is capable of capturing late response analysis, evaluating complex business logic, supporting documentation attachments and auto generated reporting output. Benefits include real-time access to calls outside defined standards, a simple universal tool designed for both authority and provider, 3rd party transparency, and automated rules designed to simplify and streamline the process.



SYSTEM ENHANCEMENTS

ReddiNet

ReddiNet is an emergency medical communications system that is used to report hospital, patient, and emergency event status. Yolo County uses ReddiNet during MCIs and other large scale events to provide incident notification, emergency room capacity bed polling, estimated number of victims, ambulance dispatch arrival, victim status information, victim identification, and family reunification. ReddiNet is also utilized by Emergency Preparedness and the Healthcare Preparedness Coalition to monitor bed availability in skilled nursing facilities and for situational awareness of the system. The system is accessible on both a desktop or phone App.



The screenshot shows the 'Add Patient' screen of the ReddiNet mobile application. At the top, there are buttons for 'Cancel', 'Add Patient', and 'Submit'. Below this is a 'Hospital' dropdown menu currently set to 'Not selected'. The 'PATIENT INFORMATION' section includes fields for 'First Name', 'Last Name', and 'Triage Tag' (with a 'Scan' button). There are radio buttons for 'Gender' (Male and Female) and a 'Age' field with 'Years' and a numeric keypad (Y, M, W, D). The 'PATIENT STATUS' section has a 'Status' dropdown set to 'Immediate' and another numeric keypad (I, D, M). At the bottom, there is a red button labeled 'Scan Triage Tag'.

Patient Tracking



Emergency Room
Bed Availability



Family Reunification



SYSTEM ENHANCEMENTS

PulsePoint

PulsePoint

**LEARN CPR. GET THE APP.
SAVE A LIFE.**



Targeted toward off duty EMS professionals and citizens trained in CPR, the PulsePoint app alerts users when a cardiac arrest occurs in a community, directs them to the location, and provides CPR guidance while EMS is enroute.

Fire Districts	Total Followers	CPR Alerts Enabled
Capay Valley Fire	582	341
Dunnigan Fire	618	379
Madison Fire	627	380
UC Davis Fire	2924	1638
West Plainfield Fire	677	393
West Sacramento Fire	2585	1391
Willow Oak Fire	989	542
Winters Fire	1136	650
Woodland Fire	2587	1338
Yocha Dehe Fire	643	391
Yolo Fire	1256	717
Yolo EMS	2162	1176

*16,786 Yolo
County Citizens
have downloaded
the app!
9,336 have signed
up for CPR alerts!*

SYSTEM ENHANCEMENTS

First Responder and Public Safety Naloxone Project

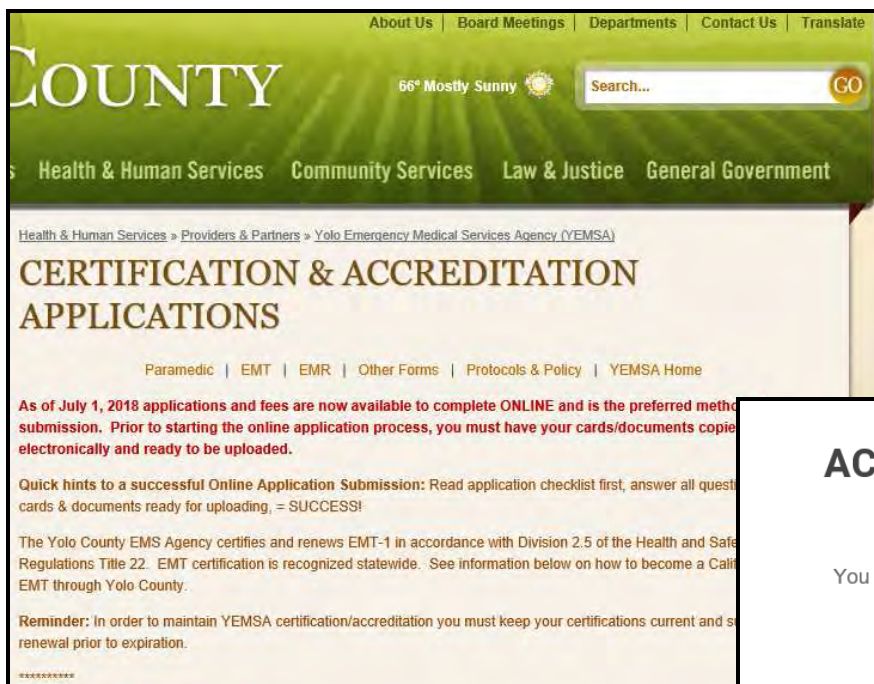
The National opioid epidemic has changed the way the medical community thinks about treatment for victims experiencing an opioid overdose. In 2017 the California EMS Authority (EMSA) approved the use of Naloxone (Narcan) for BLS first responders and public safety officers. The sooner an overdose is reversed the better chance the patient has for a full recovery. Opioids are highly addictive and can effect all socioeconomic levels. YEMSA is committed to supporting programs that help prevent opioid overdose.



SYSTEM ENHANCEMENTS

New Online Application System

YEMSA released a new online application system for EMR, EMT, and Paramedic certifications. The goal of the new online application format is to enable applicants to submit their information electronically, improve accuracy, and to make the entire process more efficient. Applicants are now able to access the application directly on the Yolo County EMS website. They will submit all required documentation which will then be directly and securely sent to YEMSA for processing. Applicants no longer need to hand deliver or mail their applications. It also provides a secure payment option.



Easily found on the Yolo County Website!

PARAMEDIC RENEWAL ACCREDITATION APPLICATION

For RENEWING Accreditation Only

You must have documents (cards & forms) ready electronically PRIOR to starting the online application process.

Be sure to read carefully and answer all questions.

Legal First Name: *	Middle Initial:	Last Name: *
<input type="text"/>	<input type="text"/>	<input type="text"/>
Alias(es) and/or Maiden Name:		
<input type="text"/>		
Leave blank if none		
Date of Birth: *		
Month *	Day *	Year *
MM <input type="text"/>	DD <input type="text"/>	YYYY <input type="text"/>



Simple user friendly format!

EMERGENCY PREPAREDNESS

Plans



This year we released a new draft of the Yolo County ESF 6 Mass Care and Sheltering Plan. This updated version included specific lessons learned from the 2017 Oroville Evacuation Response where a County-operated Shelter opened to house over 700 displaced residents from neighboring counties.

We oversee the Disaster Healthcare Volunteers Database within Yolo County. As we examined ways to improve operational readiness we saw a need to create a Disaster Healthcare Volunteer Plan to better outline volunteer management in areas such as volunteer expectations, credentialing, identification, activation, mobilization, and deployment.

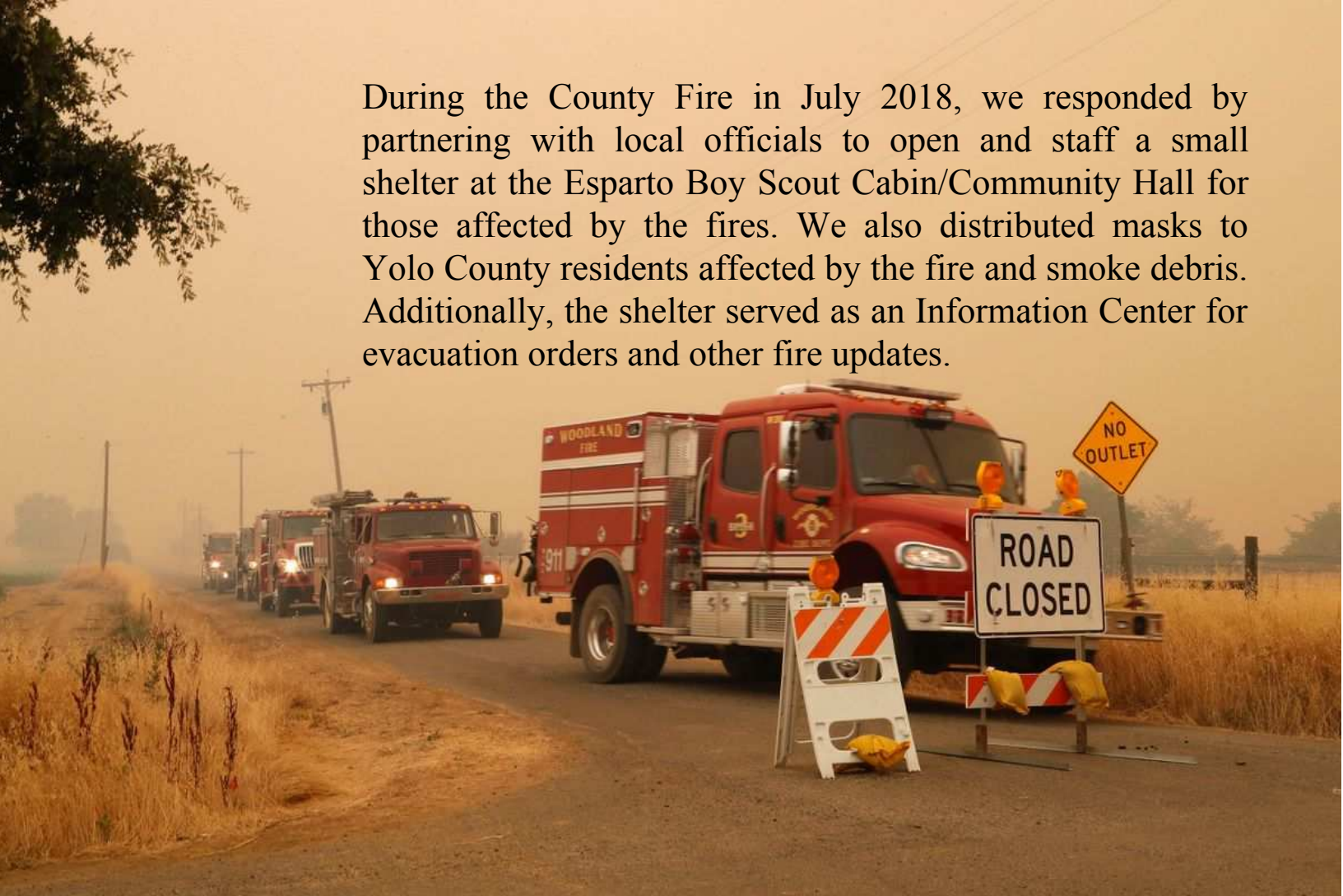


Updating and exercising on the Medical Countermeasures (MCM) plan establishes a structure for the coordinated mobilization and distribution of MCM in response to a disease outbreak, bioterror attack, or similar public health emergency.

EMERGENCY PREPAREDNESS

Incident Response

During the County Fire in July 2018, we responded by partnering with local officials to open and staff a small shelter at the Esparto Boy Scout Cabin/Community Hall for those affected by the fires. We also distributed masks to Yolo County residents affected by the fire and smoke debris. Additionally, the shelter served as an Information Center for evacuation orders and other fire updates.



EMERGENCY PREPAREDNESS

Emergency Supply Cache

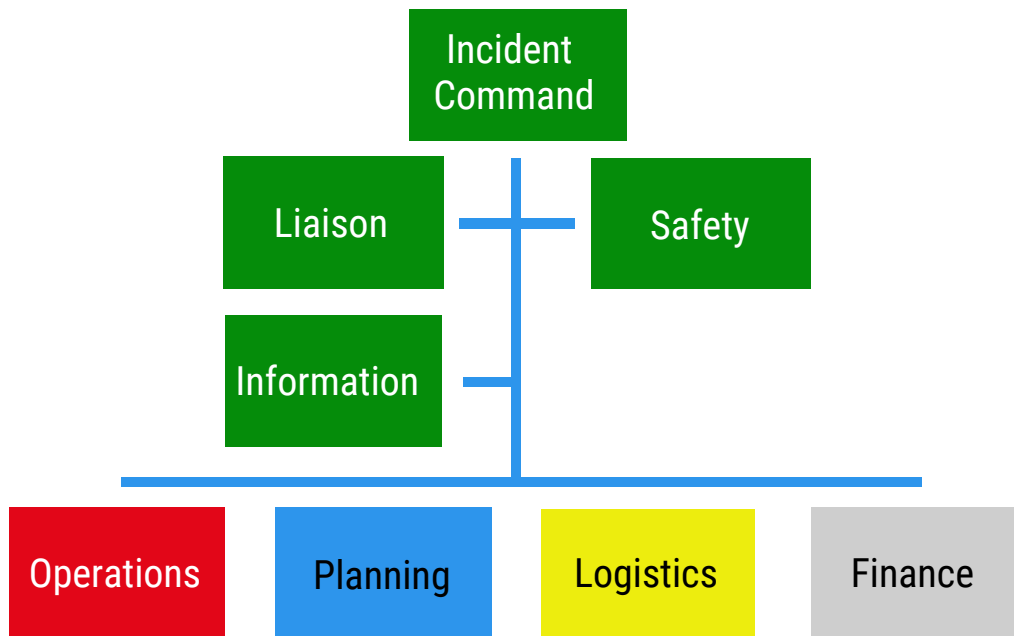
Based on lessons learned from the Oroville Dam Evacuations in 2017, we revised the Emergency Support Function (ESF) 6 Mass Care and Sheltering capabilities within Yolo County through updating the ESF 6 Mass Care and Sheltering Response Plans. Emergency Preparedness has been building a mass care and sheltering resource supply cache and keeping a stocked ESF 6 Response Trailer during fire and flood seasons. This allows for a quick response during an emergency and organization for staff responding. Supplies range from blankets and cots to medical equipment and clerical items. An online data base keeps track of items and provides inventory when additional items are needed.



EMERGENCY PREPAREDNESS

Training

As part of the Yolo County HHSA Community Health Branch Strategic Plan, we were tasked with conducting quarterly training at HHSA Excellence meetings on Incident Command System (ICS) roles and responsibilities, and emergency response and recovery actions. These trainings build upon each other and will better equip Yolo County HHSA Management staff for their roles in emergency response.



EMERGENCY PREPAREDNESS

Disaster and Medical Surge Exercises

Disaster Preparedness brings a collaborative network of healthcare organizations as well as public and private sector response partners together to assist in medical surge incidents and disaster response and recovery efforts.



Training/Exercise/Response	Frequency
Radio/Satellite Phone/Situation-Status Drills	Monthly
Healthcare Preparedness Coalition Meetings	Monthly
ReddiNet Triage and Tracking Exercises	Bi-Monthly
Disaster Healthcare Volunteers Communication Drills	Quarterly
Statewide Medical and Health Exercises	Annually
County Emergency Operations Center Functional Exercises	Annually

COMMUNITY AND EDUCATION

County Employee First Aid and CPR

When a person suffers cardiac arrest, survival depends on immediately receiving chest compressions from someone nearby. For every minute that passes without chest compressions the victims chance of survival decreases. By training the citizens in our community on how to provide hands only CPR we can greatly increase the chances of cardiac arrest victims survival. One way YEMSA is working toward this goal is by offering First Aid and CPR classes to Yolo County Employees. In 2017, approximately 300 County Employees were trained in hands only CPR with an additional 120 employees during the first half of 2018. Bystander CPR is one of the most important links in the cardiac arrest chain of survival.



COMMUNITY AND EDUCATION

Yolo County EMS Symposium

YEMSA hosted its first annual EMS Symposium in April of 2018. The Symposium was designed for First Responders, EMTs, Paramedics, and Registered Nurses working in emergency medical services. The Symposium was attended by over 200 EMS professionals and was sold out months in advance.



The goal was to bring together EMS professionals to share ideas and learn new and innovative medicine that will enhance their clinical care in the communities they serve. We are excited to make this an annual event and will be hosting our second Symposium on April 8, 2018 in Davis. The theme will be When Time Matters - Vascular Emergencies.

Educational Sponsorship



For the last 4 years YEMSA has sponsored EMS professionals to attend the California Emergency Medical Services for Children (EMSC) Pediatric Conference. Continuing education is an incredibly important component of emergency medicine. YEMSA is committed to providing educational opportunities for our local EMS professionals in order to have a clinically superior EMS system.



COMMUNITY AND EDUCATION

Mission: Lifeline EMS Gold Award

Yolo County EMS received the American Heart Association's Mission: Lifeline®EMS Gold Award for implementing quality improvement measures for the treatment of patients who experience severe heart attacks. Agencies that receive the Mission: Lifeline Gold award have demonstrated at least 75 percent compliance for each required achievement measure for two years.

Achievement: Percentage of patients with non-traumatic chest pain greater than (>) 35 years, treated and transported by EMS who received a prehospital 12-Lead Electrocardiogram (ECG).

Achievement: Percentage of STEMI patients treated and transported directly to a STEMI Receiving Center, with prehospital FMC to device time less than (<) 90 minutes.

Achievement: Percentage of eligible STEMI patients treated and transported to a STEMI receiving center for fibrinolytic therapy with a door-to-needle time < 30 minutes.



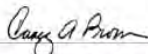
The American Heart Association proudly recognizes

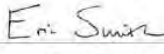
**Yolo County EMS Agency
Woodland, CA**

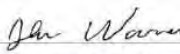
Mission: Lifeline®-EMS – GOLD
Achievement Award – EMS Agency

The American Heart Association/American Stroke Association recognizes this EMS provider organization for demonstrating continued success in using the Mission Lifeline®-EMS program. Thank you for applying the most up-to-date evidence-based treatment guidelines to improve patient care and outcomes in the community you serve.*




Nancy Brown
Chief Executive Officer
American Heart Association


Eric Smith, MD
Chairperson (Past With The Guidelines®)
Steering Committee


John Warner, MD
President American Heart Association

*For more information, please visit Heart.org/MLQualityAwards.

COMMUNITY AND EDUCATION

Cardiac Arrest Field Save Award Ceremony

Yolo County EMS had the honor of recognizing Winters Firefighters, Winters Police Officers, and AMR Paramedics for their quick response and ultimate cardiac arrest “field save” of a 44-year-old man who suffered from sudden cardiac arrest at his home in Winters. The patient’s teenage son was also recognized for his heroic efforts in recognizing the need for immediate CPR and providing it to his father until first responders arrived. The patient’s son learned CPR while participating in the Winters Fire Cadet Program. The patient was revived on scene and then taken to a hospital that specializes in the care of cardiac arrest patients. The hospital was able to quickly reverse a complete blockage in the patient’s heart. He had a full recovery and was released home to his family just 3 days later. This was a great example of the Cardiac Arrest chain of survival and how, when all the links are connected, a life can be saved!



COLLABORATION AND PARTNERSHIPS

Appointed Regional Disaster Medical Health (RDMH) Coordinator and Specialist for Region IV



Kristin Weivoda was appointed by Region IV Health Officers, California State Emergency Medical Authority (EMSA), and California Department of Public Health (CDPH) as the Regional Disaster Medical Health Coordinator (RDMHC). The RDMH is responsible for regional mutual aid efforts; managing and improving the regional medical and health mutual aid and mutual cooperation systems; coordinating medical and health resources; supporting development of the operational area medical and health disaster response system; and supporting the state medical and health response system through the development of information and emergency management system. The coordinator position is volunteer but is supported by an RDMH specialist (RDMHS) which is funded through the California Emergency Medical Services Authority. The specialist manages day to day operations and coordination of regional response to disasters.

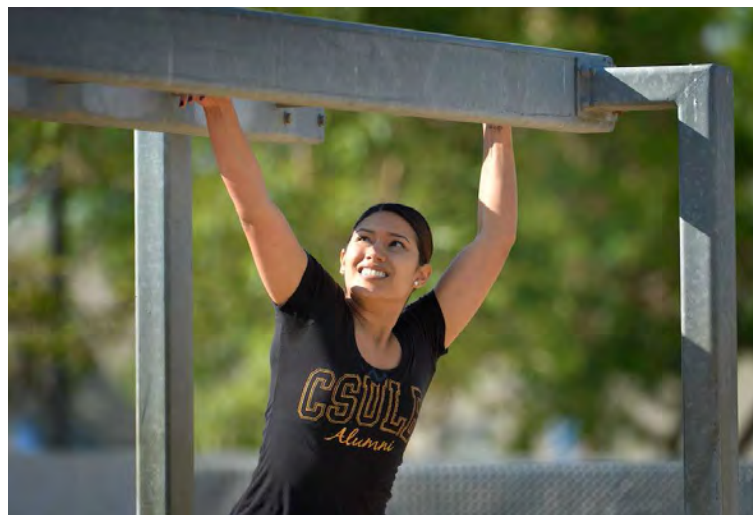
Appointed State Trauma Advisory Committee (STAC) LEMSA Admin - Rural Representative

The California State Emergency Medical Authority (EMSA) appointed Kristin Weivoda to the State Trauma Advisory Committee (STAC) representing Rural EMS on trauma expertise, state trauma system policy guidance, and other projects. STAC is an 18 member body, appointed by the Director of EMSA under Health and Safety Code 1797.133, to assist in implementing trauma care and coordinating statewide activities. STAC is comprised of Physicians, Nurses, Administrators, and other EMS professionals for the purpose of advising the EMSA Director on matters pertaining to the planning, development, and implementation of the local trauma systems.

COLLABORATION AND PARTNERSHIPS

Sheriff Physical Agility Testing - EMS Standby

YEMSA has been providing BLS standby support for the Sheriff's department during candidate physical agility testing. Although the goal is that all participants are healthy and do not sustain any injuries, it is prudent to have emergency care available if needed. We really appreciate the opportunity to partner and support other agencies within the county.



FUTURE SYSTEM ENHANCEMENTS

New and Innovative EMS Medications and Devices

Two new medications, Acetaminophen and Ketamine, will be available to paramedics for pain management. We have also applied for an additional pain medication called Toradol. Pain management options allows EMS professionals the opportunity to assess the patients individual pain management needs and treat them accordingly. These medications also provide alternative pharmacological options to opioids.



A new device called i-gel will be an additional option for advanced airway management. This device is safe for all ages and is less invasive than other devices.

Tranexamic Acid was released as an optional scope for paramedics in Yolo County after a multi-agency trial study through the California EMS Authority (EMSA) showed benefits for patients suffering from severe traumatic injuries with uncontrolled bleeding.



FUTURE SYSTEM ENHANCEMENTS

High Performance CPR Tool Kit

Research indicates that High Performance CPR (HP CPR) can save lives. In order to have effective HP CPR all involved must work as a team. The value of HP CPR must be communicated to all who participate in the cardiac arrest chain of survival. YEMSA will be releasing a High Performance CPR Tool Kit in 2019. This will be based on the model by the Resuscitation Academy in King County Washington. It will function as a tool to build team dynamics for all agencies working together in the EMS system. When all providers perform HP CPR the same way, survival increases.




Teamwork is key: collaborate, communicate, and coordinate!

FUTURE SYSTEM ENHANCEMENTS

Policy and Protocol Newsletter

Clinical knowledge and understanding is the cornerstone of superior prehospital medicine. YEMSA is always looking for innovative ways to share new research that guides the development and changes of the treatment policies and protocols. We will be releasing a Policy and Protocol Newsletter two times a year that correspond with our policy and protocol updates.




YOLO COUNTY EMS AGENCY

Policy and Protocol Update

Issue I September 2018

IN THIS ISSUE:

- Treatment Protocols Reformatted
- High Performance CPR
- Chest Pain and STEMIs
- Tranexamic Acid (TXA)
- Code 3 Transports
- Stroke Patient Care
- Fluid Therapy
- Future System Goals



Treatment Protocols Reformatted

Over the last year YEMSA has been working on reformatting the treatment protocols. Many of these changes have been based on feedback and requests from you, the EMS professionals. Our goals with these changes are to remove areas of confusion, decrease the need for navigating multiple protocols, provide clarification with language changes, and ultimately make them more user friendly.

The most significant change you will notice is the incorporation of pediatric, adult, and BLS. This change gives providers guidelines that follows the natural progression from BLS to ALS. The new format also includes color coding to better help the provider quickly find the information relevant to their skill level. For example, the BLS section is color coded with an orange header and the ALS section is color coded with a green header. Adult treatment is now on the left side of the protocol and pediatric is on the right side of the protocol. Pediatric treatment is color coded in light purple. For protocols where adult and pediatric have the same treatment the body of the protocol will be white with both the pediatric and adult headers above.

The new format also includes a "Direction" section that provides guidelines about destination requirements, specialty hospitals, required actions, and when to contact the base hospital physician, receiving hospital physician, or trauma hospital physician.

All the treatment protocols have been organized into two, alphabetized sections: Protocols and Procedures. You will also find that some of the policies, which had treatment criteria, have been reformatted into a protocol or have been combined with a current protocol. This limits the need to navigate multiple policies and protocols for the same patient.

Specialty Center Catchment Maps and Charts have been moved to a new section called Quick References. Additional references will be added to this section in the future. Some of the treatment protocols have been updated to reflect current research and best practice guidelines. These changes will be discussed in more detail in the articles to follow. Finally, a small amount of policies and protocols were found to be out dated or no longer relevant and therefore removed.

We ask that you take time to review each protocol and its new location. Although we will cover the most significant changes in this newsletter there are small changes that will not be covered.

We would like to thank everyone that provided suggestions and feedback. These changes would not have been possible without you. Please continue to share your suggestions, thoughts and concerns. Our goal is to have a clinically superior, efficient, and innovative system which can only be accomplished through collaboration!

www.YEMSA.org (530) 666-8527 1

FUTURE COMMUNITY AND EDUCATION

CPR Classes for Resource Families (Foster Parents)

YEMSA will be providing Yolo County foster families with bystander CPR training. CPR is a requirement for all foster parents. In partnering with the Yolo County Foster Care Program, we can provide free CPR classes to both new and current foster parents. Empowering parents to feel confident in being able to save a child is an incredible experience.



HOW TO HELP A CHOKING CHILD

FUTURE COLLABORATION AND PARTNERSHIPS

Yolo County Communicable Disease Exposure Plan



In partnership with local Fire Agencies, YEMSA has created the Yolo County Communicable Disease Exposure Control Plan (ECP). The plan outlines requirements that reduce the potential for exposure and provides supportive direction. In addition to the ECP, YEMSA will assist fire agencies with training for their Designated Infection Control Officer (DICO), creating agency policy and training tools for employees, and provide guidance when an exposure happens.



Yolo County EMS and EP



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2017/2018 Annual Report
