



Ventura County Public Health
Emergency Medical Services Agency



2022 ANNUAL REPORT



VENTURA COUNTY
PUBLIC HEALTH
A Department of Ventura County Health Care Agency

Ventura County Emergency Medical Services Agency

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Visit us on the web at www.vchca.org/ems



EMERGENCY MEDICAL SERVICES



POPULAR SERVICES



QUICK LINKS



EMSI NEWS FEED

- Police: Off-duty EMT shows loan, immediately renders aid.
September 01, 2022
- N.J. to get \$40M+ in Johnson & Johnson opioid case settlement.
September 01, 2022
- 2 Care, firefighters assaulted by overdose patient.
September 01, 2022
- Video: 2 Toxic EMS providers hurt in fatal ambulance collision.
August 31, 2022
- Hundreds gather to celebrate 5th of Calif. EMS captain.
August 31, 2022

powered by EMS 1



EMS AGENCY

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WHO WE ARE

As a division of the Public Health Department, the Ventura County Emergency Medical Services Agency provides system guidance and oversight through pre-hospital provider driven policy development and a comprehensive quality improvement program...

[Read More](#)



EMS SOCIAL MEDIA



EMS CORNER

- EMS Calendar - Track the Latest Events
- EMS System Performance
- PSC Meetings
- Critical Incident Stress Management
- Cardiac Arrest Survivors Support
- Emergency Preparedness

EMS PROGRAMS

- Emergency Medical Services Home
 - EMT Providers and Job Links
- CPR/AED Training Organization List
- Automatic External Defibrillator (AED) Program In County Facilities
- Encouraging Lay Rescuer AED Providers
- Drowning Prevention
- Education and Training
- Trauma System
- Continuous Quality Improvement
- Medical Marijuana Identification
- Ventura County Healthcare Coalition (VCHCC)
- EMS Data Systems
- Medical Reserve Corps

PUBLIC HEALTH MAIN MENU

- Public Health Home
- Our Mission & Vision
- Organization Chart
- Frequently Asked Questions
- Our Phone Numbers
- Public Health Locations
- Full List of Services and Resources

SUPPORT US

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Administration Message

Ventura County EMS Agency (VCEMS) is pleased to provide our 2022 Annual System Report, reviewing the operations and performance of VCEMS and the Ventura County EMS System. We hope you find the information in this year's report informative and inspirational.

Through a highly coordinated system of public-private partnerships, our Ventura County EMS system providers responded to over 78,000 emergency medical responses in 2022, resulting in over 59,000 ambulance transports.

As we all know, the COVID-19 pandemic sustained through 2022 and continued to tax much of our healthcare system resources. As with previous years, in addition to responding to the COVID challenges, we maintained our normal EMS system operations, including provider and personnel oversight, quality assurance, and contract compliance.

National Emergency Medical Services Week 2022 was recognized on May 15 – 21, 2022, under the theme, "Rising to the Challenge". Ventura County EMS professionals continued to rise to the challenge by expanding their capacity to meet our community's emerging needs by providing important out of hospital care, preventative medical education and activities, lifesaving and time critical interventions and acute and non-acute medical services.

In July 2022, Ventura County Board of Supervisor's directed VCEMS to conduct a competitive procurement process, known as a Request for Proposal (RFP), to identify future countywide ambulance system delivery. The process involves contracting with a outside consultant to evaluate the current system and to develop recommendations for future system needs. The RFP process is currently underway and is expected to continue into early 2024.

In October, VCEMS was able to participate in recognizing National Breast Cancer Awareness Month with a limited edition pink uniform shirt, which also provided a financial contribution to support the American Cancer Society.



In November, following a review process, VCEMS approved All Town Ambulance for a non-emergency BLS ambulance permit, allowing them to begin operating within Ventura County. This addition was welcomed by our hospital and healthcare partners to assist with the busy interfacility transport volume.

We know the future will continue to be challenging, however, you should know that your daily contributions, dedication, and commitment to the Ventura County EMS System is seen and greatly appreciated.

Steve Carroll, Paramedic
EMS Administrator

Daniel Shepherd, MD
EMS Medical Director

Angelo Salvucci, MD FACEP
Assistant EMS Medical Director

Executive Summary

Ventura County is a geographically diverse region covering over 2200 square miles with a population of over 850,000. With 10 incorporated cities, a number of unincorporated communities, 43 miles of coastline, two offshore islands, two military installations, a variety of lakes and a large area of national forest and state park land, Ventura County offers a distinct mix of urban cities, rural sectors and wilderness.

The Ventura County EMS System is comprised of various disciplines, including fire departments, law enforcement, ambulance services, hospitals, and other provider agencies. These agencies respond to provide lifesaving care to those in need 24 hours a day, seven days a week. From the dispatchers who talk with 9-1-1 callers and the responders who provide care in the field and transport patients, to the emergency room staff who receive the patients, the EMS Agency ensures the highest quality pre-hospital care for those in need of emergency medical services in Ventura County through an integrated and coordinated system of services.



A division of the Health Care Agency Public Health Department, the EMS Agency monitors and evaluates the quality of advanced life support (ALS) and basic life support (BLS) emergency medical care provided to the residents of and visitors to Ventura County by authorized pre-hospital personnel, provider agencies, and hospitals. In this role, the EMS Agency:

- Serves as the lead agency for the emergency medical services system in the county and coordinates all system participants in its jurisdiction, encompassing both public and private sectors.
- Provides system guidance and direction through provider and community driven policy development aimed at establishing and maintaining standards for care.
- Monitors patient care through a comprehensive quality improvement program.
- Ensures medical disaster preparedness through the emergency planning process and coordinates response to local disasters and incidents with multiple casualties.
- Ensures prehospital personnel excellence through training, certification, accreditation and continuing education program review.

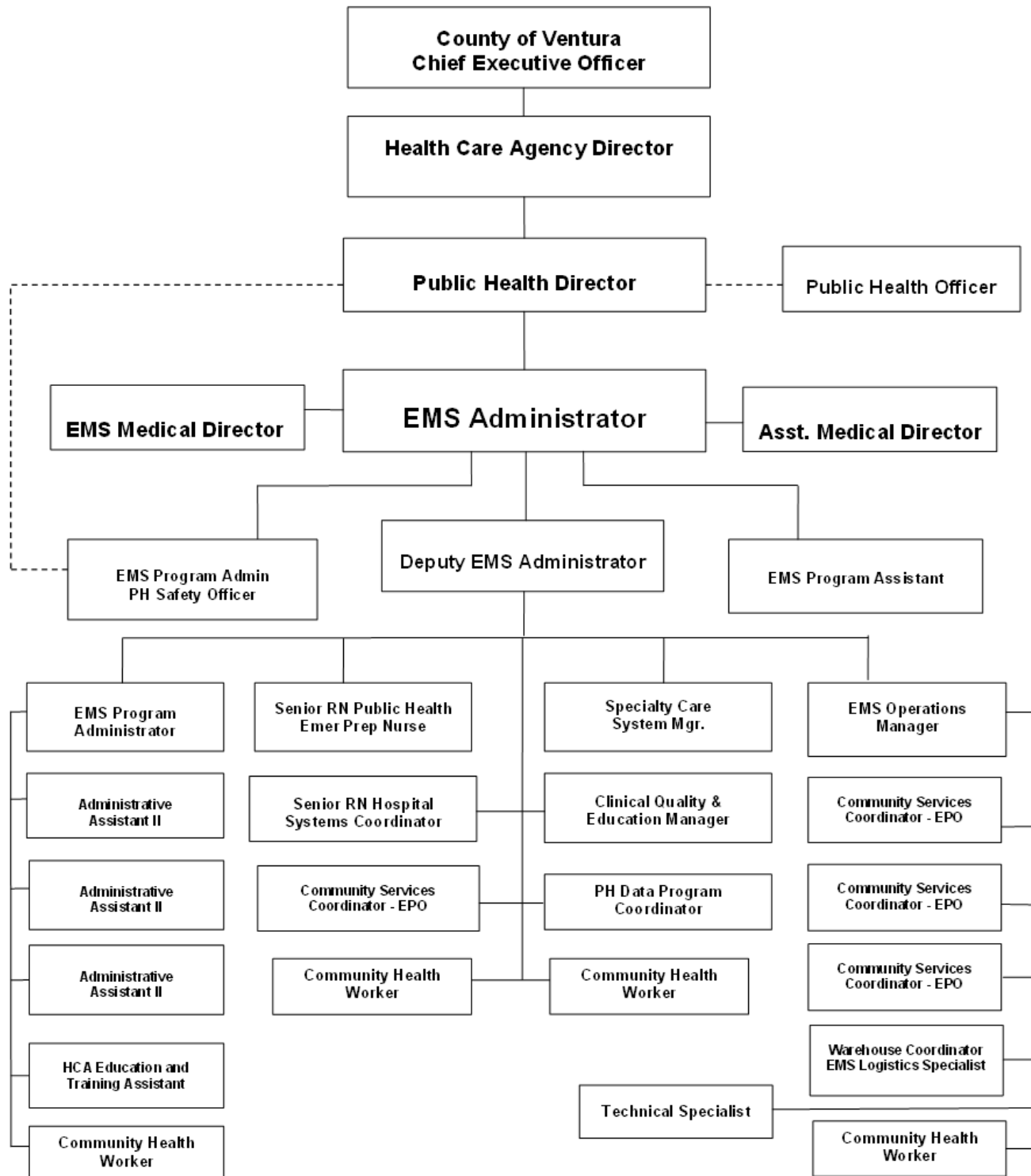
In FY 22-23, Ventura County EMS Agency had a budget of \$4,503,784, which includes a mix of service fees, provider charges and penalties, traffic fine collections, grant funding and county general funds. The EMS Agency also provides administration of the Maddy Fund, which reimburses physicians and emergency rooms for a portion of uncompensated care with traffic fine funding. \$1,011,558 was dispersed from the Maddy Fund in 2022 to settle the hospital and physician claims and for pediatric trauma funding.

The EMS Agency is staffed with 19 full-time personnel, a medical director and an assistant medical director. Positions include EMS Administrator, Deputy Administrator, Specialty Care Systems Manager, Senior Hospital Systems Coordinator, Clinical Quality Manager, four Program Administrators, Program Assistant, four Community Services Coordinators, EMS Logistics Specialist, two Administrative Assistants, EMS Certification Specialist and one Community Health Worker. In addition, the EMS Agency has employed several Community Health Workers and Technical Specialists to assist with response to the COVID-19 emergency.

The EMS Agency is proud of its strong team of professionals that are called to action with every 9-1-1 call. This team is made up of people who care about serving the community while maintaining high standards in a demanding career. No matter the uniform, all team members strive for excellence each and every time they respond. Through a state-of-the-art communication system, ongoing training and modern equipment, Ventura County EMS providers can respond quickly and efficiently to the needs of the community.

The 2022 annual report is designed to provide an overview of the Ventura County EMS operations, specialty care and emergency preparedness programs, and provide updates on program activities and performance data.

Ventura County Emergency Medical Services Agency Organizational Chart 2022



EMS Agency Staff Responsibilities

Name	Title	Contact Info	Primary Responsibilities
Steve Carroll, Paramedic	EMS Administrator	Steve.carroll@ventura.org 805-981-5305	<ul style="list-style-type: none"> EMS System Delivery and Emergency Preparedness oversight Ambulance contract administration and compliance monitoring Agency operations oversight, fiscal management and MHOAC
Daniel Shepherd, MD	EMS Medical Director	Daniel.shepherd@ventura.org 805-981-5304	<ul style="list-style-type: none"> Medical direction and oversight of EMS and specialty care systems, QI program, system wide committees and various EMS projects Local policy, procedure and protocol development and maintenance
Angelo Salvucci, MD,	Assistant EMS Medical Director	Angelo.salvucci@ventura.org 805-981-5301	<ul style="list-style-type: none"> Medical direction and oversight, including development and maintenance of local policies, procedures and protocols
Chris Rosa, MS, Paramedic	Deputy EMS Administrator	Chris.rosa@ventura.org 805-981-5308	<ul style="list-style-type: none"> Assist with oversight of day-to-day EMS System operations Oversight of Emergency Preparedness and MHOAC designee Oversight of prehospital education providers and data systems
Adriane Gil-Stefansen, Paramedic	Deputy EMS Administrator	adriane.stefansen@ventura.org 805-981-5307	<ul style="list-style-type: none"> Assist with oversight of day-to-day EMS System operations Oversight of Specialty Care Systems and QI programs Maintenance of policies for the QI, Stroke and STEMI systems
Karen Beatty, RN, EMT	Senior Hospital Systems Coordinator	Karen.beatty@ventura.org 805-981-5309	<ul style="list-style-type: none"> Trauma and hospital systems preparedness oversight Facilitates medical/health disaster preparedness and training efforts Coordinates community preparedness initiatives
Andrew Casey, Paramedic	Clinical Quality Manager	Andrew.casey@ventura.org 805-981-5311	<ul style="list-style-type: none"> Collection and monitoring of EMS Program data Oversight of the Quality Improvement Program Education and Training Oversight and Policy Development
Julie Frey	EMS Program Administrator/ CISM Coord.	Julie.frey@ventura.org 805-981-5306	<ul style="list-style-type: none"> EMD and CISM Program Coordinator Community Paramedic Program Liaison Prehospital Services Committee Coordinator
Randy Perez, Paramedic	AED Program Administrator/ PH Safety Officer	Randy.perez@ventura.org 805-981-5310	<ul style="list-style-type: none"> Countywide AED Program Administrator Ventura County Public Health Department Safety Officer PSFA Naloxone, CPR and Stop the Bleed Program coordination
Peter Grimm	EMS Investigator	Peter.grimm@ventura.org 805-204-9580	<ul style="list-style-type: none"> Investigates certification eligibility and coordinates discipline Monitors probation compliance and conducts program audits
Haley Ebert	Data Coordinator	Haley.ebert@ventura.org 805-981-5375	<ul style="list-style-type: none"> Assist EMS, CD and Epidemiology with data analysis Monitors and evaluates program activities and statistical data
Kyle Culkin, MSN, RN, PHN	Emergency Preparedness Nurse	Kyle.Culkin@Ventura.org (805) 981-5279	<ul style="list-style-type: none"> Provide CPR and skills training to all VCPH nursing staff Develop/update emergency preparedness plans and exercises Audit VCPH vaccine storage locations to maintain compliance
Erik Hansen, EMT	EMS Operations Specialist	Erik.hansen@ventura.org 805-981-5322	<ul style="list-style-type: none"> Emergency preparedness and communications coordination Medical volunteer management and CAHAN Administration Stop the Bleed Program coordination
Jeff Vahl, EMT	Community Services Coord.	Jeffrey.vahl@ventura.org 805-981-5261	<ul style="list-style-type: none"> Medical/health logistics and disaster preparedness coordination HCA Department Operations Center coordination
Alphonso Rivera, EMT	Community Services Coord.	Alphonso.rivera@ventura.org 805-981-5267	<ul style="list-style-type: none"> Medical/health logistics and disaster preparedness coordination HCA Department Operations Center coordination
Traci Holt, EMT	Community Services Coord.	Traci.holt@ventura.org 805-981-5294	<ul style="list-style-type: none"> Medical/health disaster preparedness coordination Medical Reserve Corps Coordination
Diane Gilman	EMS Admin. Assistant II	Diane.gilman@ventura.org 805-981-5331	<ul style="list-style-type: none"> Fiscal accounting, processing and EPO grant tracking Provide administrative support
Martha Garcia	EMS Admin. Assistant II	MarthaL.garcia@ventura.org 805-981-5303	<ul style="list-style-type: none"> Certification, accreditation and authorizations of personnel Monitor and audit personnel training requirements
Sherylyn Andaya	EMS Admin. Assistant II	sherylyn.andaya@ventura.org 805-981-5301	<ul style="list-style-type: none"> Certification, accreditation and authorization of personnel Provide administrative support
Delfina Zermeno	EMS Certification Specialist	Delfina.Zermeno@ventura.org 805-981-5301	<ul style="list-style-type: none"> Certification, accreditation and authorization of personnel Provide administrative support
Roberta Coffman	Com. Health Wkr.	Roberta.coffman@ventura.org	<ul style="list-style-type: none"> Medical/health logistics and disaster preparedness coordination
Kristinna Swilling	Com. Health Wkr.	Kristinna.swilling@ventura.org	<ul style="list-style-type: none"> VCHCC and disaster preparedness coordination
Justis Hamilton	Com. Health Wkr.	Justis.hamilton@ventura.org	<ul style="list-style-type: none"> VCHCC and disaster preparedness coordination
Eduardo Herrera	Com. Svcs. Coord.	Eduardo.herrera@ventura.org	<ul style="list-style-type: none"> Medical/health logistics and disaster preparedness coordination
Logan Sylvester	Com. Health Wkr.	Logan.sylvester@ventura.org	<ul style="list-style-type: none"> Medical/health logistics and disaster preparedness coordination
Gregory Teran	Technical Spec.	Gregory.teran@ventura.org	<ul style="list-style-type: none"> Medical/health logistics and disaster preparedness coordination

Certification / Accreditation / Authorization

MICN Authorization



Mobile Intensive Care Nurse (MICN) – The MICN is a registered nurse authorized by the medical director of the Agency as qualified to communicate instructions to pre-hospital personnel according to EMS policy and procedures. In addition, MICNs are trained in certain aspects of multi-casualty incident management and act as destination coordinators during a declared MCI, regardless of incident size.

VCEMS MICN Authorizations - 2022	
MICN Authorization	18
MICN Re-Authorization	65
Number of Active MICNs in VCEMS System	140

EMT Certification



Emergency Medical Technician (EMT) - The EMT provides basic assessment and treatment to patients that access the Ventura County EMS System. The EMT is trained in basic life support skills including patient assessment and treatment of minor medical conditions and injuries. Once an EMT is certified by a Local EMS Agency, he/she is authorized to operate as an EMT anywhere in the State of California.

VCEMS EMT Certifications - 2022	
EMT Certifications	373
EMT Re-Certifications	531
Number of Certified EMT's in VCEMS System	2188

Certification / Accreditation / Authorization

Paramedic Accreditation

Paramedic – The paramedic provides advanced emergency medical care for patients who access the Ventura County EMS system. The paramedic is highly trained in various aspects of patient care and assessment, and is continuously evaluated to ensure knowledge of skills and treatment modalities remains current. The paramedic operates under clearly defined medical control guidelines and protocol established by the VCEMS Medical Director.

VCEMS Paramedic Accreditations - 2022

Number of Accredited Paramedics in VCEMS System	247
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EMS Education Programs

VCEMS Authorized Prehospital Training Programs - 2022

EMT – Initial and Refresher	5
Paramedic Training Program	1

Additional information regarding CE Provider Programs, EMT, and Paramedic Training Programs can be found online at the California EMS Authority Education Database:

[Training Programs \(ca.gov\)](https://www.cemsauthority.com/training-programs)

COVID-19 Incident Response and Coordination

The countywide response to COVID-19 continued in 2022, with VCEMS coordinating and/or supporting Medical and Health Operational Coordination (MHOAC) program initiatives. VCEMS worked closely with leaders from various healthcare facilities, in addition to county-level leaders and representatives at a regional and state level to ensure that healthcare infrastructure remained intact.



EMS Logistics

- Coordinate EMS warehouse operations, while securing additional warehouse space in support of longer-term COVID programs.
- Personal Protective Equipment (PPE) distribution – hospitals, first responders, and other medical entities/providers
- Increased logistical support for vaccine points of distribution (PODs) supporting COVID-19, MPX, TDAP, and Influenza clinics.
- Distribution of critical medical equipment to hospitals (ventilators, Powered Air Purifying Respirator (PAPR), emergency surge beds).
- Distribution of COVID testing kits and therapeutics to hospitals and healthcare entities.

Medical/Health Guidance, Coordination and Testing

- Maintained COVID-19 specific treatment guidelines for prehospital personnel responding to 911 calls to ensure that guidance was current compared to the regularly changing info from CDC and CDPH.
- Worked with agencies to ensure adequate isolation and quarantine measures were taken to limit additional exposure/spread.
- Worked with the Ventura County Fire Department to open and oversee a vaccine POD focused on prehospital and law enforcement personnel.
- Led weekly calls with all first responder agencies to ensure they were provided up-to-date information related to the ongoing public health emergency, in addition to weekly calls with hospitals to share information and coordinate response to COVID surge.
- Expanded a program that provided training for paramedic and EMT level providers hired by the county to staff vaccination sites.
- Through the MHOAC program, worked with local agencies and healthcare facilities to process emergency staffing and equipment requests that allowed them to operate throughout the surge.

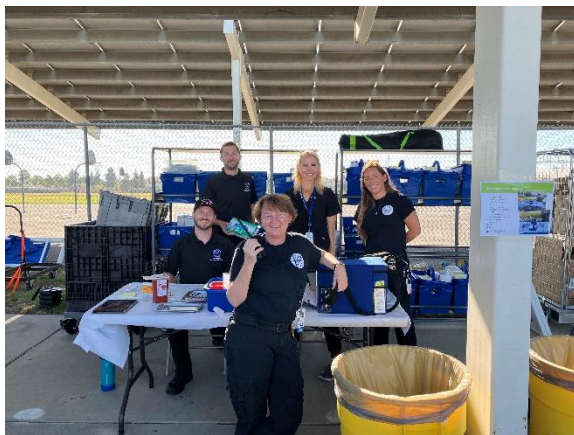


Stop the Bleed Training

Stop the Bleed is a national awareness campaign and call-to-action. Stop the Bleed is intended to cultivate grassroots efforts that encourage bystanders to become trained, equipped, and empowered to help in a bleeding emergency before professional help arrives. Uncontrolled bleeding is a major cause of preventable deaths. Approximately 40% of trauma related deaths worldwide are due to bleeding, establishing hemorrhage as the most common cause of preventable death in trauma. A person who is bleeding can die from blood loss within five minutes, so quickly stopping the bleeding is critical. The ability to recognize life-threatening bleeding and the ability to intervene effectively can save a person's life. Whether a bleeding injury is the result of a shooting or a home accident, one person who is on the scene, at the right time, and who has the right skills can make a life or death difference. The program consists of educating the public in lifesaving skills required in the first few minutes of major trauma and strategically locating "Bleeding Control Kits" in government buildings throughout Ventura County. In 2022, VCEMS in collaboration with local hospitals and fire personnel taught multiple Stop the Bleed classes focusing on these lifesaving skills.



Public Health Nursing Training



Utilizing lessons learned from incidents such as the COVID-19 pandemic, emergency preparedness planning and ongoing annual training has been implemented for all Ventura County Public Health (VCPH) nursing staff. Exercises and training efforts enable VCPH to be better prepared for a multifaceted response to a variety of large-scale incidents. Training focuses on improving and maintaining critical skills while including special considerations for at-risk populations such as the elderly, children, and those with disabilities, access and functional needs.

Ventura County Medical Reserve Corps

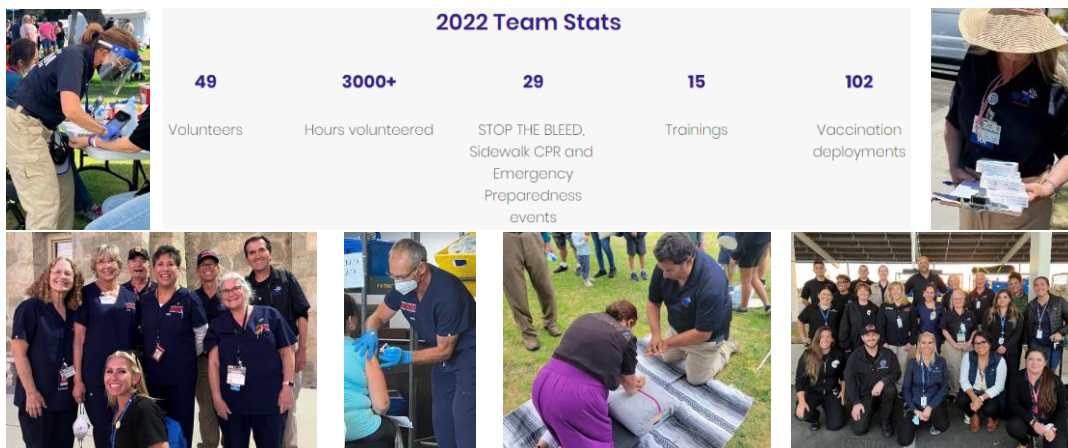
The Ventura County Medical Reserve Corps (MRC) Unit 0959 continued to support Ventura County Emergency Medical Services COVID-19 activities with vaccinations, test-kit distribution, and logistics efforts throughout Ventura County. The volunteers aided with the Omicron staffing crisis by supporting Public Health at multiple clinics and mobile teams to ensure the continuing COVID-19 response was not interrupted. The team also deployed with Public Health Immunization Program to support the MPX response by providing educational materials and vaccinations to high-risk populations, TDAP vaccinations for incoming middle school students, and supported the annual influenza vaccination clinics.

In winter, MRC supported two emergency deployments by staffing local area hospitals emergency departments throughout the COVID-19/RSV/Influenza surge and shelter operation support during the series of atmospheric river events.

With the COVID-19 response stabilizing, MRC was able to switch gears and get back into community outreach events demonstrating STOP THE BLEED, Sidewalk CPR, emergency preparedness, COVID-19 test kit distribution, and careers in EMS at various events throughout the county that included the Wings Over Camarillo Air Show, Ventura PRIDE, Surfer's Point, Downtown Oxnard Farmer's Market, Public Safety Community Block Party with Ventura Fire/Police, Simi Valley National Night Out, Underwood Farm's Public Safety Weekend, and ABC7 Spark of Love!

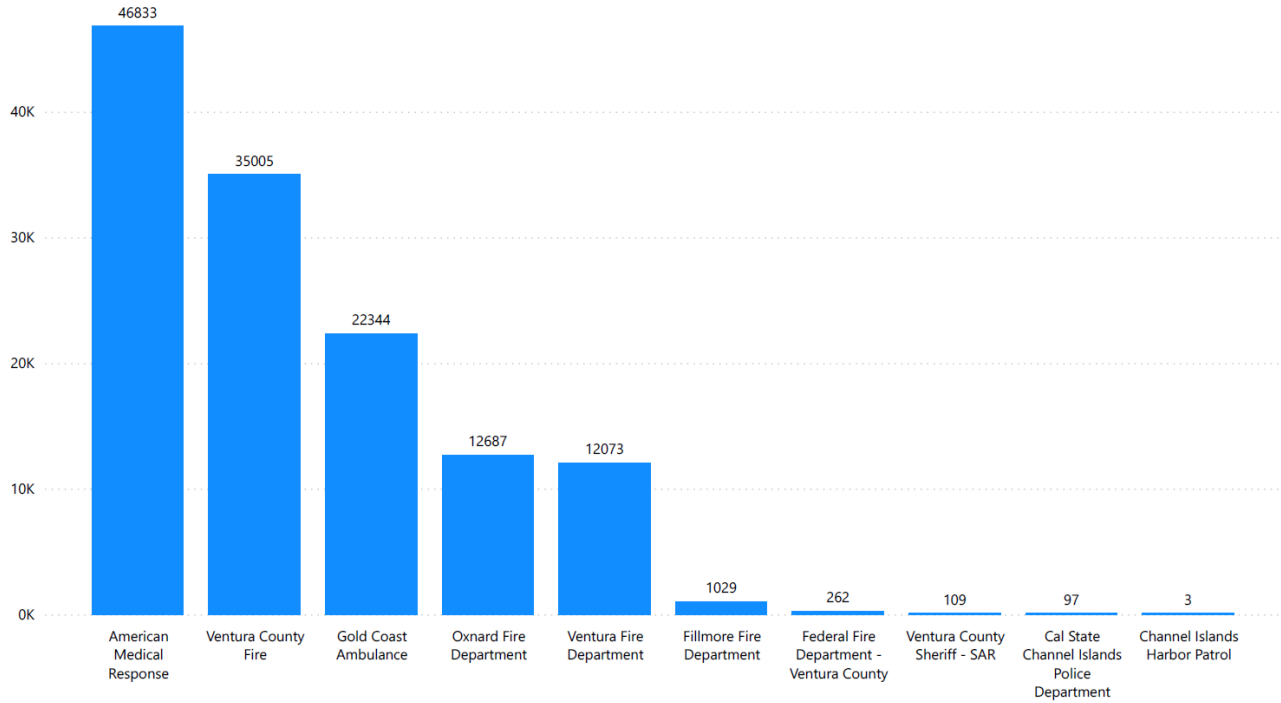
In 2022, new MRC funding included the NACCHO RISE - Respond, Innovate, Sustain and Equip and NACCHO ORA - Operational Readiness Awards. This was tremendous for the team and allowed them to expand community outreach with new booth displays, manikins, and literature, new uniforms, medical carts, training supplies, CPR certifications, a/v equipment and a new response trailer.

These 49 unpaid volunteers composed of physicians, physician assistants, nurse practitioners, paramedics, emergency medical technicians, and non-medical professionals were honored with a year-end celebration with many 5-, 10- and 15-year award presentations. Thank you to all the volunteers that serve our county!



Ventura County EMS System Volume

EMS Incidents, by Agency - 2022



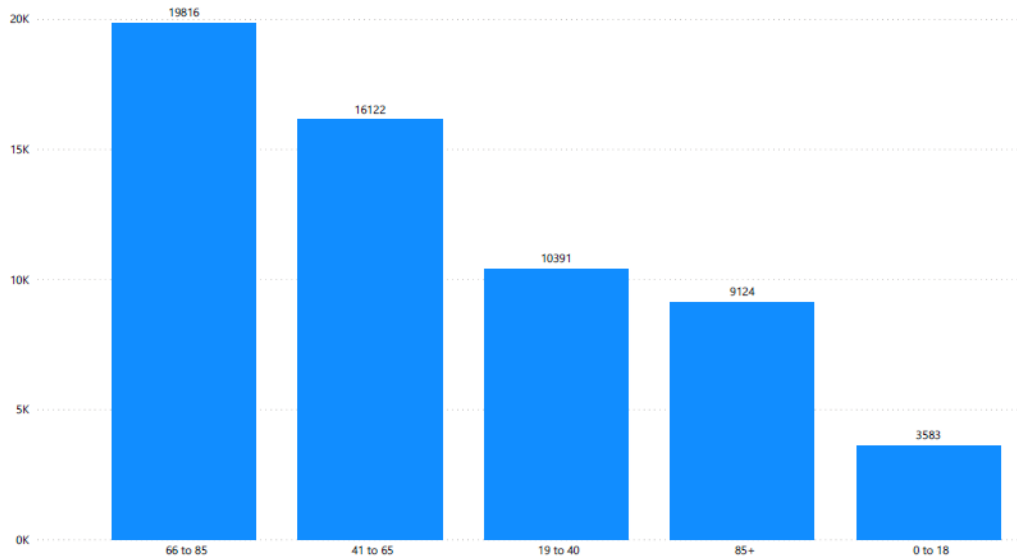
AMR = American Medical Response
 OXD = Oxnard Fire Department
 FLM = Fillmore Fire Department
 CSU = Cal State Channel Islands University PD

VNC = Ventura County Fire Protection District
 VEN = Ventura Fire Department
 FFV = Federal Fire Department – Ventura County
 VHP = Ventura Harbor Patrol

GCA = Gold Coast Ambulance
 LMT = Lifeline Medical Transport
 SAR = Ventura County Sheriff’s Search and Rescue Aviation Unit
 CIH = Channel Islands Harbor Patrol

Patient Demographics (transported only) – 2022

Count of Incidents, by Age Group 2022



Medical Responses by Agency and Patient Demographic data is collected through the ImageTrend Electronic Patient Care Reporting System posted within the Ventura County EMS system and may differ slightly from other data sources due to collection process variances.

Emergency Medical Dispatch



The County of Ventura has 9 primary Public Safety Answering Points (PSAP), including California Highway Patrol (CHP), California State University Channel Islands (CSUCI), Naval Base Ventura County (NBVC), Oxnard Police Department (OPD), Port Hueneme Police Department (PHPD), Santa Paula Police Department (SPPD), Simi Valley Police Department (SVPD), Ventura City Police Department (VPD) and Ventura County Sheriff's Office (VCSO). When a primary PSAP receives a call for a medical or fire emergency, the call is transferred to the secondary PSAP at the Ventura County Fire Communications Center (FCC), where fire and ambulance resources are coordinated. All Fire and EMS resources in Ventura County are dispatched by FCC. This

regionalized operation results in increased coordination and communication among response partners, reduced duplication, and closest unit response to emergencies regardless of geographic jurisdiction. FCC is the only Emergency Medical Dispatch (EMD) provider in Ventura County. EMD is a program designed to provide predetermined medical protocols/medical instructions to victims and bystanders before the arrival of first responders. EMD trained personnel use Medical Priority Dispatch Systems ProQA Dispatch Software to help emergency dispatchers move smoothly through case entry and key questioning.

Quality Assurance - ProQA helps FCC maintain a consistently high level of service by improving call taker compliance to the International Association of Emergency Dispatcher (IAED) Protocols. ProQA automatically presents questions and instructions in the proper order. It automatically skips questions and instructions that are not appropriate for the specific circumstances of each case. This automation frees call takers to focus their attention on providing quality service. ProQA also saves every action taken by the call taker so that the information can be exported for use in Quality Assurance (QA) program software. Ventura County Fire Department has contracted with Priority Dispatch to review high risk calls and random sample calls from each dispatcher for quality assurance.

**Ventura County Fire
Communications Center**



Emergency Medical Dispatch

Countywide Emergency Medical Dispatch Activity by Call Type

PROBLEM TYPE	2022 TOTAL INCIDENTS	PROBLEM TYPE	2022 TOTAL INCIDENTS
ABDOMINAL PAIN	1913	HEAT / COLD EXPOSURE	134
AIRCRAFT EMERGENCY	25	HEMORRHAGE / LACERATION	2233
ALLERGIES / ENVENOMATION	549	JUVENILE BEHAVIORAL TRANSPORT	32
AMBULANCE ONLY	157	LIFT ASSIST	787
ANIMAL BITES / ATTACKS	145	MEDICAL ALARM	1674
ASSAULT	1806	MOTORCYCLE COLLISION	159
ASSIST OTHER AGENCY MEDICAL	114	MUTUAL AID - MEDICAL	8
BACK PAIN	750	OBVIOUS OR EXPECTED DEATH	215
BEHAVIORAL EMERGENCY	1646	OVERDOSE / POISONING	2128
BREATHING PROBLEMS	6819	PENETRATING WOUNDS	9
BURNS / EXPLOSIONS	32	PREGNANCY RELATED EMERGENCY	186
CARDIAC / RESP ARREST	1198	REMOTE RESCUE	108
CHEST PAIN	4290	SICK PERSON	11069
CHOKING	418	STABBING	157
INHALATION EXPOSURE / HAZMAT	70	STEMI TRANSPORT	87
CONVULSIONS / SEIZURES	2744	STROKE (CVA)	1989
DIABETIC PROBLEMS	1100	STROKE TRANSPORT	48
ELECTROCUTION / LIGHTNING	8	TRAFFIC COLLISION	5300
ENTRAPMENT NON VEHICLE	79	TECHNICAL RESCUE	29
EYE PROBLEMS / INJURIES	75	TRAUMA TRANSFER	53
FALLS	12926	TRAUMATIC INJURIES	2096
GUNSHOT	140	UNCONSCIOUS / FAINTING	5734
HEADACHE	432	UNKNOWN PROBLEM	5243
HEART PROBLEM	1047	WATER RESCUE	69
TOTAL 2022 MEDICAL RELATED RESPONSES - 78030			

Fire Departments



Federal Fire Department – Ventura County

Covers all areas of Naval Base Ventura County, including San Nicholas Island, from four stations.



Fillmore Fire Department

Covers the City of Fillmore from one station.



Oxnard Fire Department

Covers the City of Oxnard from eight stations.



Ventura City Fire Department

Covers the City of Ventura from six stations.



Ventura County Fire Department

Covers the cities of Simi Valley, Moorpark, Thousand Oaks, Camarillo, Port Hueneme, Ojai, Santa Paula and all unincorporated areas of Ventura County from 33 stations.

Sheriff's Air Rescue



Ventura County Sheriff's Department Aviation Unit

Covers all areas of the county, including remote wilderness within the Los Padres National Forest and Santa Monica Mountains National Recreation Area.

Ambulance Providers

American Medical Response

Covers the cities of Simi Valley, Moorpark, Thousand Oaks, Camarillo, Ventura, Santa Paula, Fillmore, and unincorporated areas within exclusive operating areas 2, 3, 4, 5 and 7.



Gold Coast Ambulance

Covers the city of Ojai, as well as the unincorporated areas of Oak View, Meiners Oaks and Casitas Springs designated and exclusive operating area 1 and covers the cities of Oxnard and Port Hueneme, and the surrounding unincorporated areas designated as exclusive operating area 6.



All Town Ambulance

In November 2022, VCEMS licensed a new ambulance service. All Town Ambulance provides non-emergency basic life-support ambulance service countywide.



Law Enforcement / Harbor Patrol

California State University, Channel Islands

Covers first responder emergency medical services for the campus of the State University, as well as the communities immediately surrounding the campus.



Channel Islands Harbor Patrol

Covers the Channel Islands Harbor, as well as the ocean area surrounding the harbor.



Ventura Harbor Patrol

Covers the Ventura Harbor, as well as the communities immediately surrounding the harbor and the ocean area surrounding the harbor.



Ambulance Contract Administration and Oversight



On July 1, 2021, the County entered into a new three-year agreement with the existing “grandfathered” providers for the provision of emergency ambulance service in the seven Ventura County EMS exclusive operating areas (EOA). The agreement also provides the opportunity for two one-year extensions. Gold Coast Ambulance Service serves Area 1 and Area 6; and American Medical Response (AMR) serves Areas 2, 3, 4, 5 and 7.

Through “performance-based” ambulance service agreements, the Ventura County Emergency Medical Services Agency conducts comprehensive monitoring and evaluation of the EMS System to ensure compliance with standards, policies and procedures in order to provide our jurisdiction with the best possible prehospital emergency medical care.

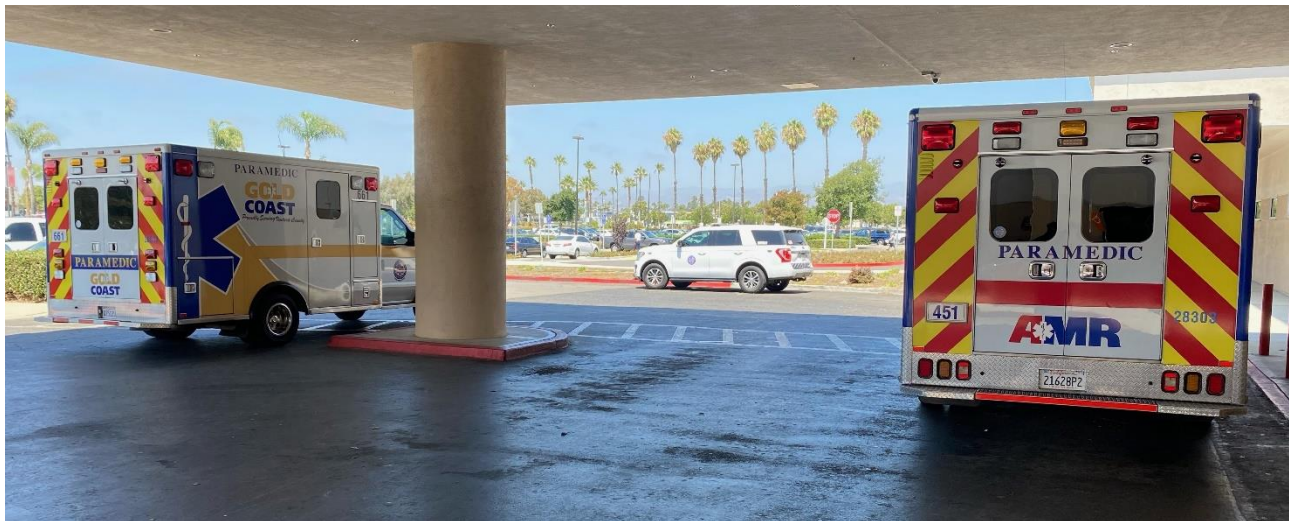
The ambulance agreements outline the services to be performed by the contracted providers including, but not limited to:

- Providing emergency ambulance service on a continuous 24/7 basis
- Collecting data utilizing the VCEMS electronic patient care record system
- Ensuring compliance with response time standards
- Participation in the Continuous Quality Improvement Program
- Providing staffing consistent with VCEMS policies and procedures
- Conducting required staff training and education
- Providing comprehensive fleet maintenance and ambulance replacement
- Conducting public information and education

EOA Zones

- 1 = Ojai/Oak View
- 2 = Santa Paula/Fillmore/Piru
- 3 = Simi Valley
- 4 = Thousand Oaks/Moorpark
- 5 = Camarillo
- 6 = Oxnard/Port Hueneme
- 7 = Ventura

All emergency ambulances in Ventura County are dispatched through contract with the Ventura County Fire Communications Center using the Central Square Computer Aided Dispatch system. Ambulances are deployed countywide based on established System Status Management plans and all are equipped with modern mobile dispatch computers and automatic vehicle location systems. All emergency ambulances are equipped with mobile and portable radios programmed to the County’s uniform channel listing, which allows all first responders and ambulance personnel to communicate on common radio frequencies.



Ambulance Contract Administration and Oversight

Response Time Performance Standards

Ambulance response time compliance is monitored through the FirstWatch Online Compliance Utility program. Contract performance standard is 90% monthly compliance in each ambulance zone. Response time criteria is measured monthly, and requirements vary based on population density and call priority. Metropolitan/Urban areas require an ambulance response time of 8 minutes for emergencies and 15 minutes for non-emergencies. Suburban/Rural areas require an ambulance response time of 20 minutes. Certain low density and geographically remote areas are allowed an ambulance response time of 30 minutes and highly remote "Wilderness" areas are contracted as "ASAP" zones. Non-compliant responses, without an approved exemption, are assessed a financial penalty based on contract guidelines. In 2022, there was one month in Area 1 where the 90% requirement was not met, which was a minor variance that did not represent a material breach according to the contract terms. All other areas were fully compliant with the monthly 90% compliance requirements in 2022.

The FirstWatch system was updated in July 2021 to provide additional capability. The updated system now shows pre-exemption compliance data known as "raw compliance" and allows for the ambulance provider to provide a corrected arrival time for responses that were verified "on-scene" through GPS by the ambulance automatic vehicle location device. Monthly compliance reporting is available at [EMS System Performance \(vchca.org\)](https://www.vchca.org).

2022 Annual Response Time Compliance Report

Reporting Period 01/01/2022 - 12/31/2022

Zone	Total Incidents	On Time	Late	Do Not Count	Cancelled Enroute Compliant	Adjusted Total Incidents	Adjusted Late	Raw Compliance	Time Corrections Approved (Compliant)	Time Corrections Approved (Late)	Raw Compliance with Time Correction	Exemptions Requested	Exemptions Approved	Compliance Calculated Incidents	Compliance Calculated Late	Contracted Response Time Compliance
EOA 1	2793	2471	322	0	228	2565	322	87.45%	46	4	89.08%	124	116	2449	164	93.30%
EOA 2	4607	4129	478	0	373	4234	478	88.71%	114	6	91.26%	90	87	4147	283	93.18%
EOA 3	9896	8681	1215	2	755	9139	1215	86.71%	206	16	88.78%	371	364	8775	661	92.47%
EOA 4	15971	14388	1583	1	1003	14967	1583	89.42%	316	27	91.35%	211	208	14759	1086	92.64%
EOA 5	8283	7371	912	3	532	7748	911	88.24%	156	9	90.14%	194	191	7557	573	92.42%
EOA 6	20389	18166	2223	0	1343	19046	2223	88.33%	225	37	89.32%	875	871	18175	1164	93.60%
EOA 7	15424	13607	1817	0	1668	13756	1817	86.79%	337	31	89.02%	525	523	13233	988	92.53%

2022 Monthly Response Time Compliance Report

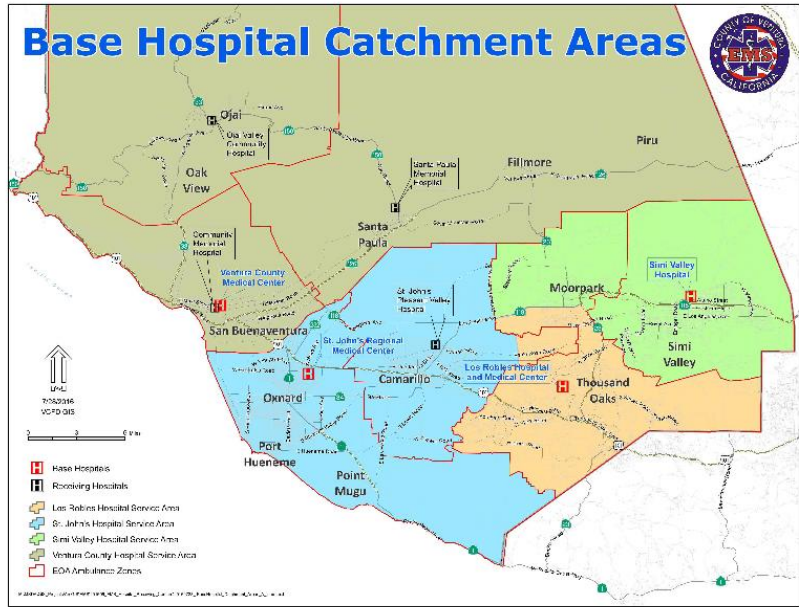
	GCA 1	AMR 2	AMR 3	AMR 4	AMR 5	GCA 6	AMR 7	Average
JAN	93.63%	94.22%	90.90%	93.34%	91.90%	92.35%	92.26%	92.66%
FEB	95.12%	94.89%	91.30%	91.52%	93.52%	93.10%	90.52%	92.85%
MAR	90.36%	92.35%	91.75%	93.21%	92.32%	94.22%	93.01%	92.46%
APR	90.05%	91.91%	92.04%	91.72%	91.16%	91.88%	92.07%	91.55%
MAY	94.21%	91.98%	90.22%	93.70%	92.12%	92.93%	93.49%	92.66%
JUN	94.20%	92.76%	93.31%	92.55%	92.28%	94.88%	93.67%	93.38%
JUL	91.67%	95.39%	94.29%	92.58%	93.84%	95.11%	91.08%	93.42%
AUG	89.66%	93.01%	92.99%	92.83%	91.73%	93.56%	92.08%	92.27%
SEP	95.18%	90.86%	92.61%	93.16%	95.32%	92.43%	91.92%	93.07%
OCT	94.88%	95.56%	95.12%	92.79%	93.35%	94.12%	94.05%	94.27%
NOV	94.63%	93.77%	91.96%	91.73%	90.65%	94.97%	94.07%	93.11%
DEC	95.57%	91.33%	92.79%	92.37%	90.98%	93.35%	92.03%	92.63%

17 Ventura County Emergency Medical Services Agency
Ambulance Service Areas

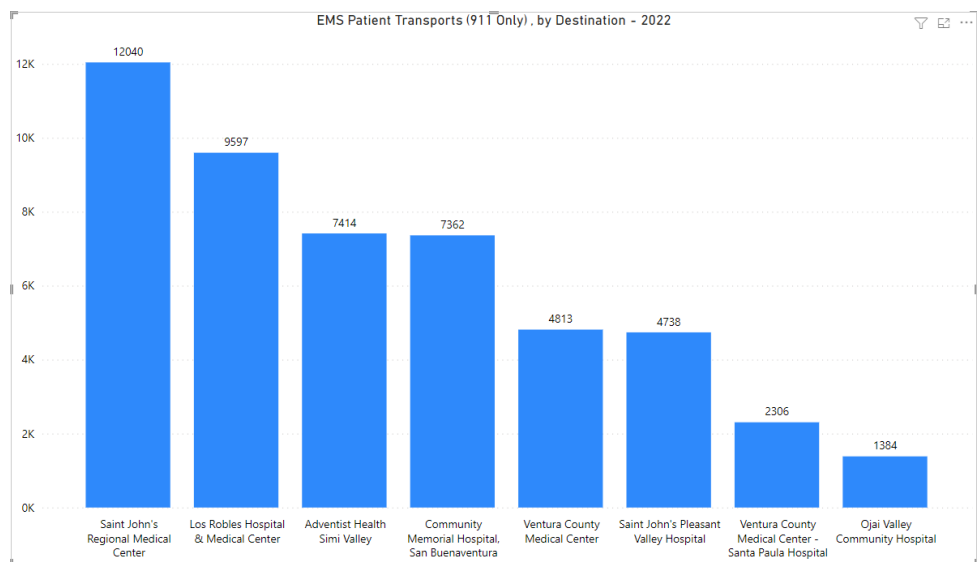


Ventura County Base and Receiving Hospitals

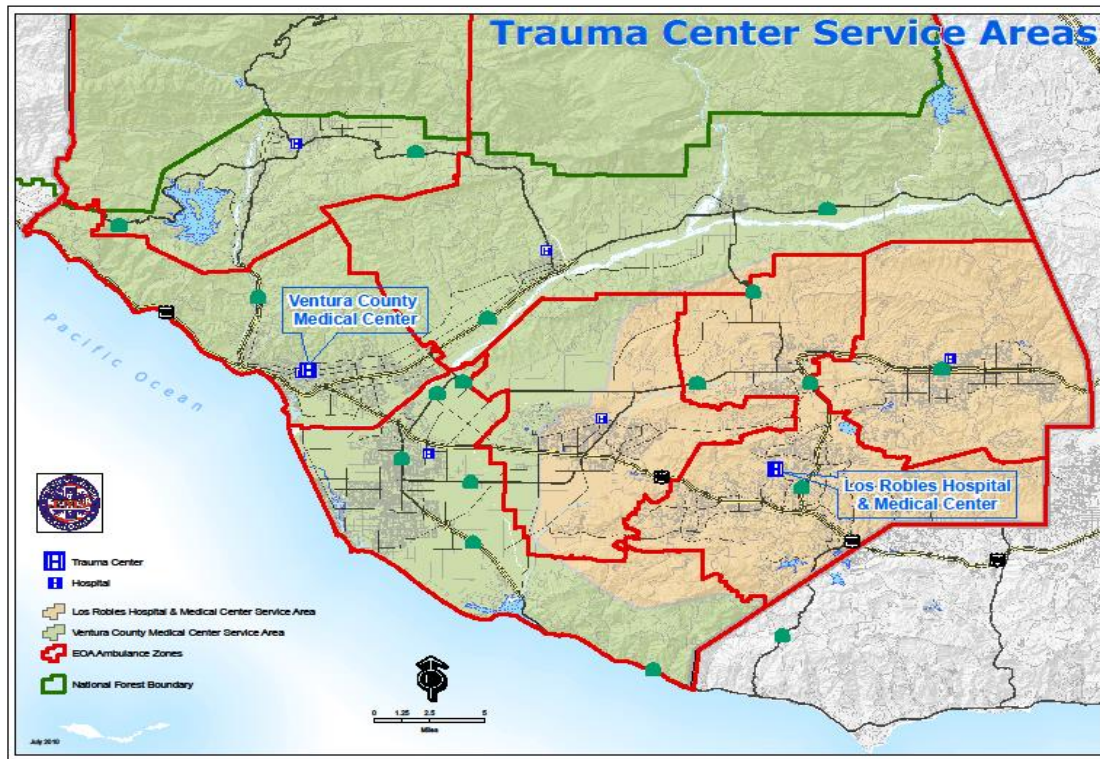
There are eight acute care hospitals in Ventura County, all of whom have emergency departments and receive ambulances with patients involved in prehospital incidents. Four of these hospitals are designated as Base Hospitals, providing oversight and direction to the county’s prehospital providers. Hospitals who provide specialty care services are recognized by EMS policy, and patients who triage into specialty criteria are preferentially directed to the closest, most appropriate hospital for care. A patient who arrives at a hospital by private vehicle may be rapidly assessed, and if any specialty criteria is met, an ambulance may be summoned immediately to transfer the patient to a specialty hospital. Ventura County boasts one of the best systems in the nation for rapid assessment and re-triage to specialty care.



HOSPITAL CAPABILITIES	Receiving Hospital	Base Hospital	Level II Trauma Center	Acute Stroke Center	Thrombectomy Capable Acute Stroke Center	STEMI Receiving Center	Labor & Delivery
CMH	X			X		X	X
LRHMC	X	X	X	X	X	X	X
OVCH	Standby						
PVH	X			X			
SPH	X						X
AHSV	X	X		X		X	X
SJRMC	X	X		X	X	X	X
VCMC	X	X	X	X			X



Ventura County Trauma System



Ventura County's trauma system was initiated in July 2010, and since then, has provided specialty trauma care to thousands of patients with traumatic injuries. The County's system of prehospital triage, rapid transport, and emergency department care has resulted in lives saved and reduction in disabilities associated with trauma.

Through prehospital triage and rapid emergency department assessment, patients with life-or-limb threatening injuries are rapidly identified and triaged to the closest, most appropriate trauma center. Patients who self-refer to a non-trauma center hospital may be rapidly triaged by the emergency department physician and immediately transferred to a trauma center by 911 ambulance.

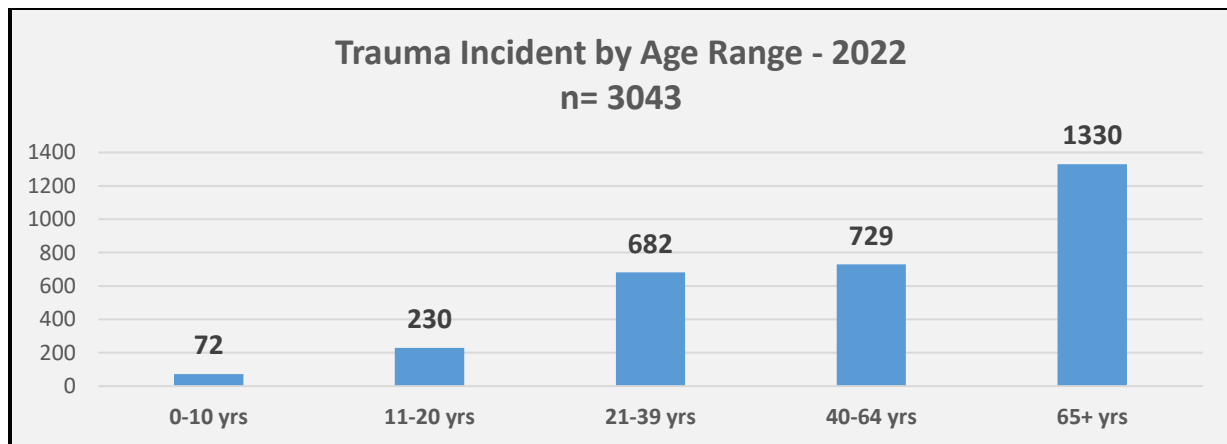
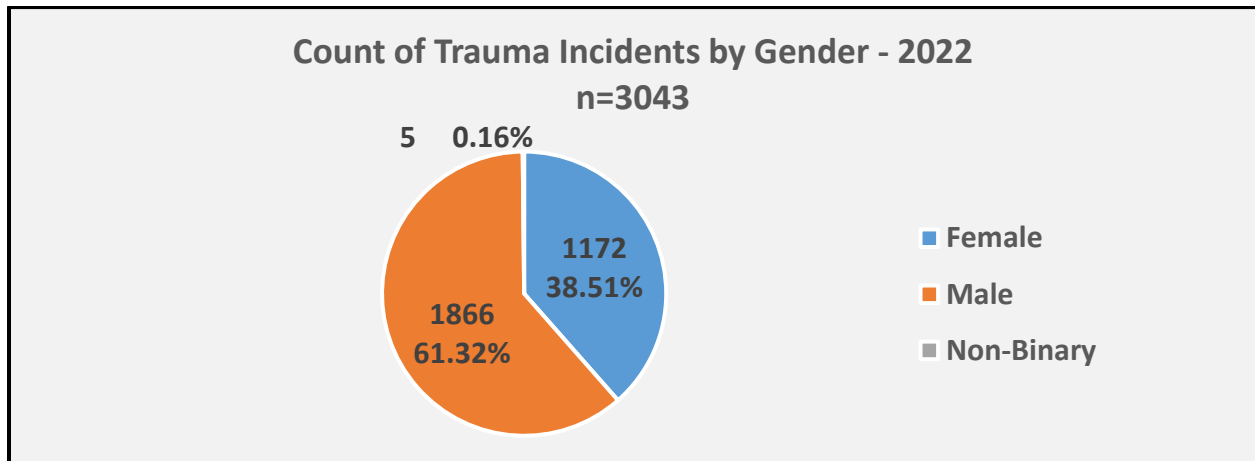
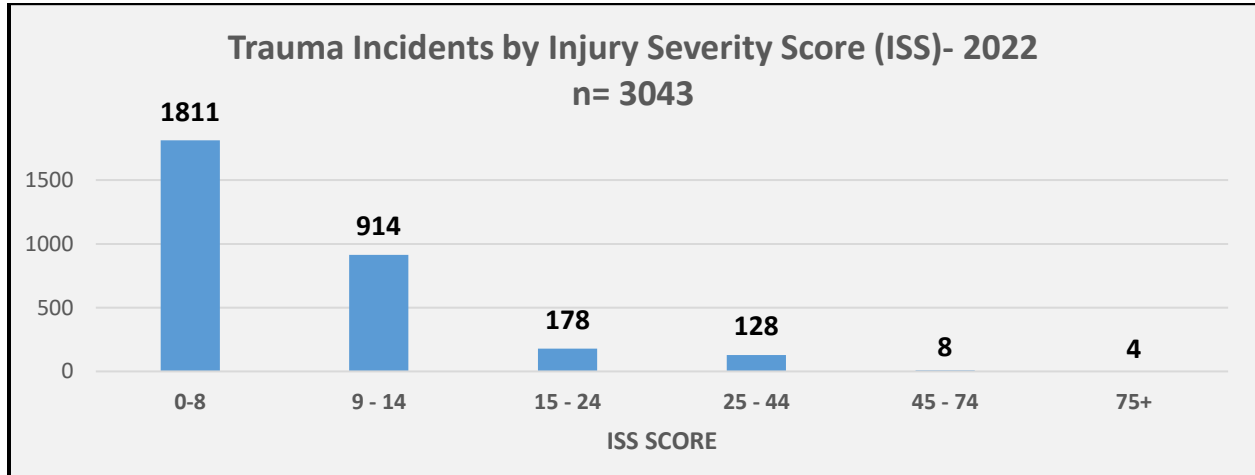
There are two Level II Trauma Centers in the County, both of whom are County-designated and accredited by the American College of Surgeons (ACS): Los Robles Hospital & Medical Center and Ventura County Medical Center. Trauma Center catchment areas are assigned according to drive time from an incident to the trauma center. With the population centers and division of trauma destinations, most trauma patients from a 911 incident arrive at a trauma center within fifteen minutes after an ambulance departs the scene.

2022 Ventura County Trauma Destinations

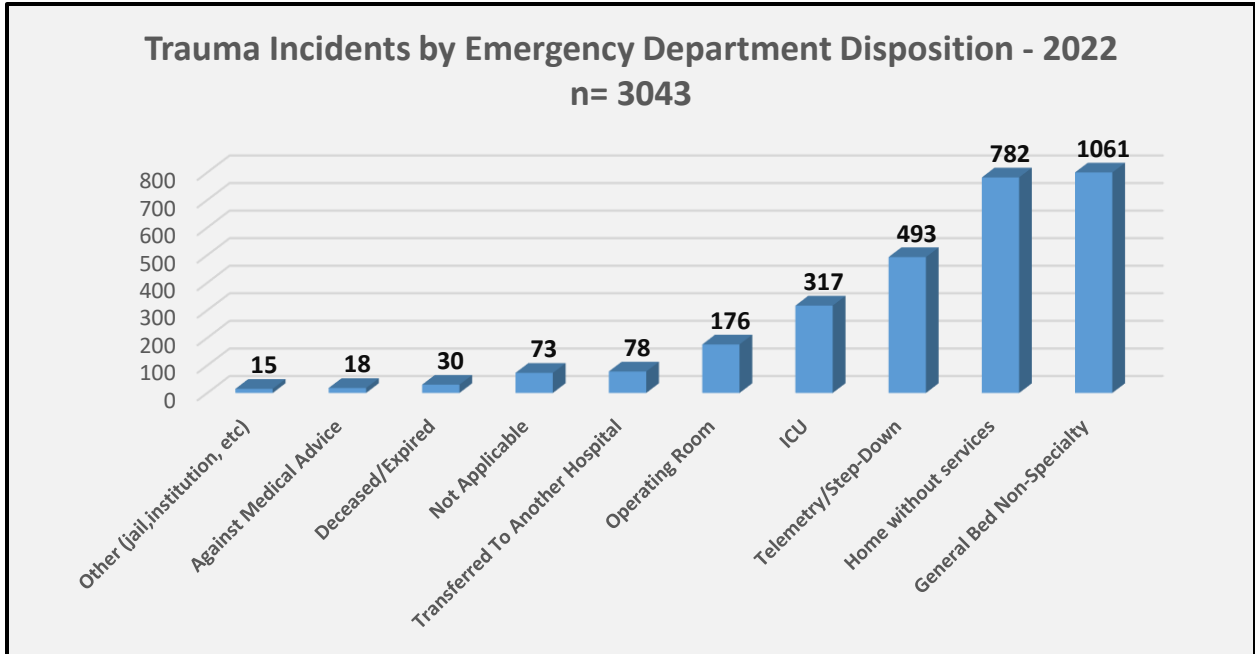
<u>Trauma Catchment Base Hospital</u>	<u>-Trauma Center</u>		
Destination	Step 1 TOTAL 357	Step 2 TOTAL 287	Step 3 TOTAL 462
<u>VCMC Trauma Catchment Calls</u>	<u>208</u>	<u>235</u>	<u>276</u>
Community Memorial Hospital	1	0	4
-Henry Mayo Newhall Memorial Hospital	3	2	4
-Los Robles Hospital and Medical Center	2	6	10
Ojai Valley Hospital	0	1	2
-Santa Barbara Cottage Hospital	0	0	2
Santa Paula Hospital	1	0	2
St. John's Regional Medical Center	1	2	8
-Ventura County Medical Center	200	224	244
<u>LRHMC Trauma Catchment Calls</u>	<u>110</u>	<u>95</u>	<u>156</u>
Adventist Health Simi Valley	1	1	2
Henry Mayo Newhall Memorial Hospital	0	1	2
-Los Robles Hospital and Medical Center	105	90	148
-Northridge Medical Center	0	1	3
-Providence Holy Cross	1	0	0
St. John's Hospital Camarillo	2	0	1
-Ventura County Medical Center	1	2	0
2022 Step 1-3 by Hospital			N
Adventist Health Simi Valley			4
Community Memorial Hospital			5
-Henry Mayo Newhall Memorial Hospital			12
-Los Robles Hospital and Medical Center			361
-Northridge Medical Center			4
Ojai Valley Hospital			3
-Providence Holy Cross			1
-Santa Barbara Cottage Hospital			2
Santa Paula Hospital			3
St. John's Hospital Camarillo			3
St. John's Regional Medical Center			11
-Ventura County Medical Center			671
TOTAL			1080
2022 Step 4 by Hospital			N
Adventist Health Simi Valley			357
Community Memorial Hospital			325
-Henry Mayo Newhall Memorial Hospital			2
-Los Robles Hospital and Medical Center			607
Ojai Valley Hospital			102
Santa Paula Hospital			63
St. John's Pleasant Valley Hospital			266
St. John's Regional Medical Center			656
-Ventura County Medical Center			459
TOTAL			2837

Ventura County Trauma System Statistics

The **Injury Severity Score (ISS)** is an established medical score to assess trauma severity. It correlates with mortality, morbidity, and hospitalization time after trauma, and is used to define the term “major trauma.” A major trauma is defined as the ISS being greater than 15.



Ventura County Trauma System Statistics



Ventura County established, and provides leadership for, two active committees that provide system oversight, policy review, and peer education. We have continued to meet through virtual meetings during the year.

The Tri-County Trauma Audit Committee (TAC) is a confidential, closed committee consisting of trauma surgeons, program managers and prehospital coordinators from three Level II, and two-Level III trauma centers, located in Ventura, Santa Barbara, and San Luis Obispo Counties. The committee provides a collaborative forum in which trauma cases that meet specific audit filter criteria may be discussed and reviewed. Representatives from all five trauma centers present cases for confidential peer review and bring an important perspective to Ventura County’s trauma system and regional trauma care.

The Trauma Operational Review Committee (TORC) is a confidential, closed committee consisting of representatives from the local EMS agency, first responder and transport provider agencies, non-trauma hospitals and trauma centers in Ventura County. The committee provides a collaborative forum in which system issues surrounding trauma care may be brought for discussion and improvement, such as prehospital destination determinations and interfacility transfers for trauma care.

VCEMS STEMI SYSTEM

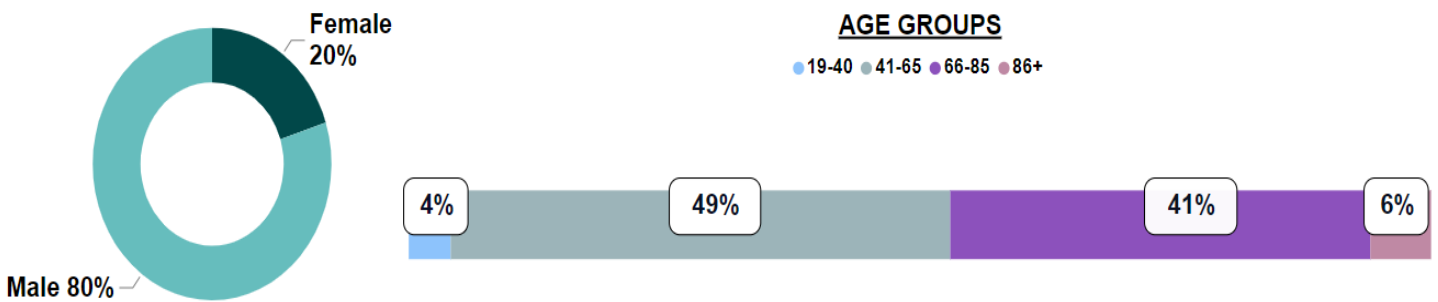
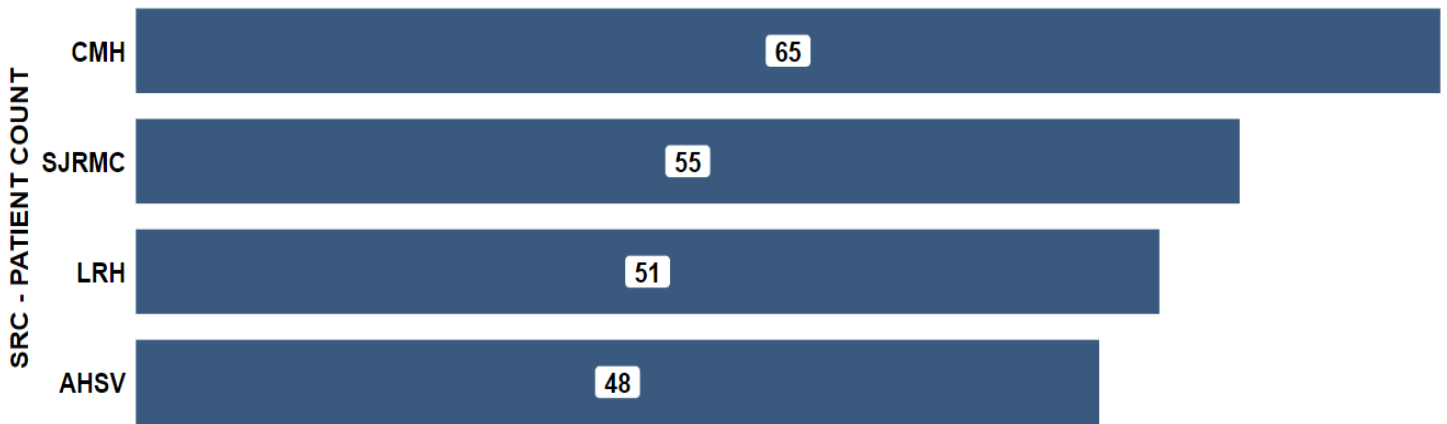
Patients suffering from an ST Elevation Myocardial Infarction (STEMI) have the best chance of survival when they receive rapid assessment and transport to a receiving hospital with specialized equipment and personnel to treat these deadly heart attacks.



The Ventura County STEMI System began in 2007 and currently has four STEMI Receiving Centers (SRC). STEMI system performance is based on standards developed by the American College of Cardiology, the American Heart Association, and the California Department of Public Health. For 2022 patient care metrics, Ventura County provider agencies received the *Mission Lifeline Gold, Target: Heart Attack Honor Roll* recognition from the American Heart Association. This represents the 7th year in a row where Ventura County has attained the Gold level or higher.



2022 PATIENT DATA



Does NOT include Cardiac Arrests

VCEMS STEMI SYSTEM



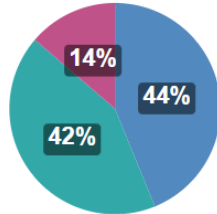
Patients arrive at the SRC by EMS, Walk-In, or by Transfer from a STEMI Referral Hospital (SRH). One of the key measures is early recognition that the patient is having a STEMI. This is accomplished by quickly performing a 12-Lead ECG.

TIME TO OBTAIN 1ST ECG

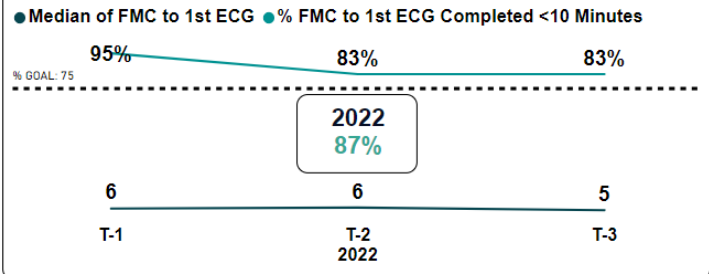
FMC = First Medical Contact

HOW PATIENTS ARRIVED AT THE SRC

- EMS
- Walk-in
- Transfer

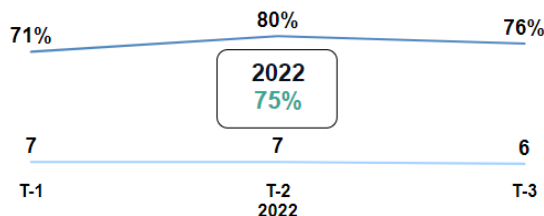


EMS



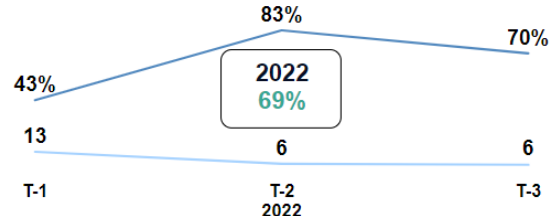
SRC WALK-IN

- Median of SRC Door to 1st ECG
- % of SRC Door to 1st ECG < 10 Minutes



SRH WALK-IN

- Median of SRH Door to 1st ECG
- % of SRH Door to 1st ECG < 10 Minutes



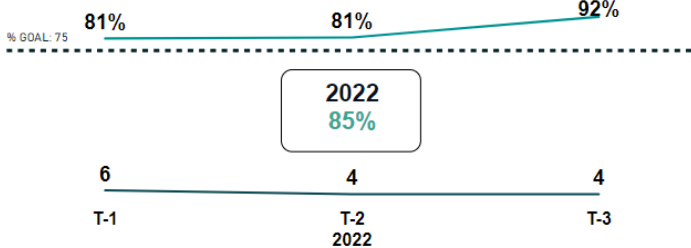
After EMS has identified that the patient is having a STEMI, another key component to the STEMI System is early SRC notification. This is accomplished through a phone call referred to as a Base Hospital Contact. The early notification allows the specialized cardiac team at the SRC to prepare the cardiac catheterization lab prior to patient arrival.

EMS TIMES

+PECG = PREHOSPITAL ECG
BHC = BASE HOSPITAL CONTACT

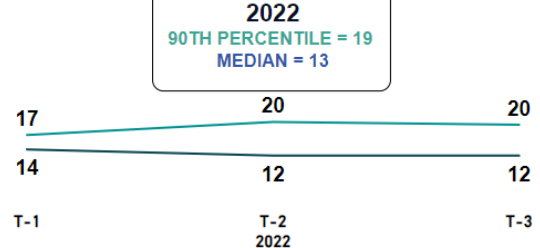
+PECG TO BHC

- Median of +PECG to BHC
- % of +PECG to BHC < 10 Minutes



ON-SCENE TIME

- Median of EMS On-Scene Time
- 90th Percentile of EMS On-Scene Time



When the patient is a Walk-In to an SRH, the patient requires transfer to the SRC. The transfer process goes through the 911 system in order to have the closest ambulance respond and transfer the patient expeditiously to the SRC.

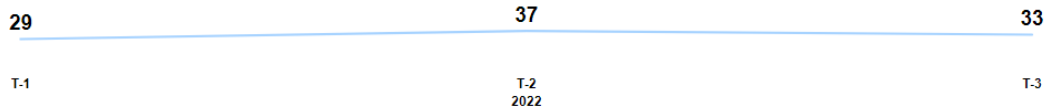
TRANSFER TIMES

DIDO = DOOR-IN TO DOOR-OUT

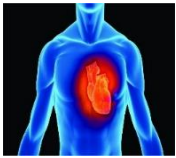
2022 DIDO in 30 Minutes
47%

2022 DIDO in 45 Minutes
80%

MEDIAN OF DIDO



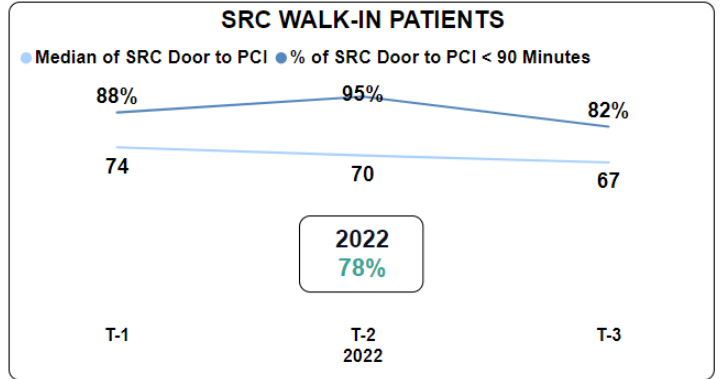
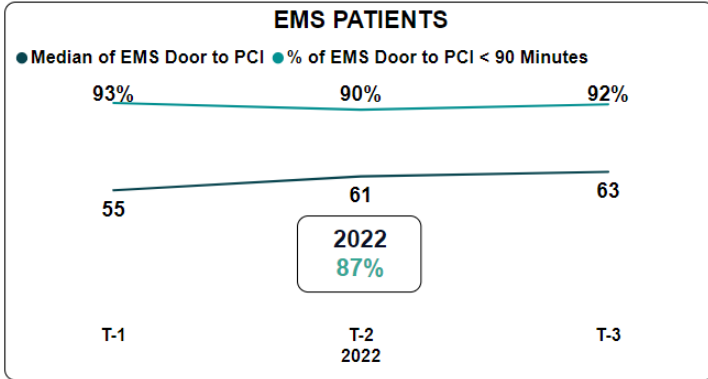
VCEMS STEMI SYSTEM



Once a STEMI is recognized, the goal is for the patient to receive timely Percutaneous Cardiac Intervention (PCI). PCI is a procedure that helps to restore blood flow to the heart. It is performed in a specialized catheterization lab (cath lab) located at the SRC.

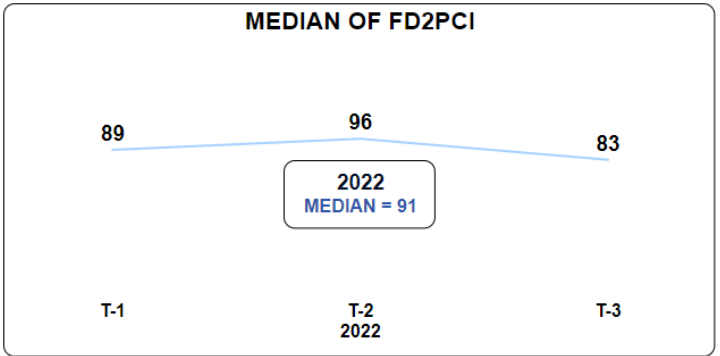
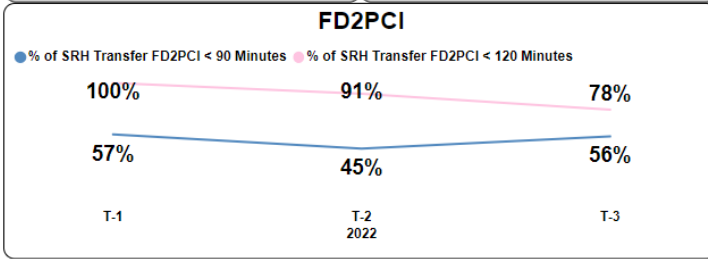
PCI DATA

PCI = PERCUTANEOUS CARDIAC INTERVENTION



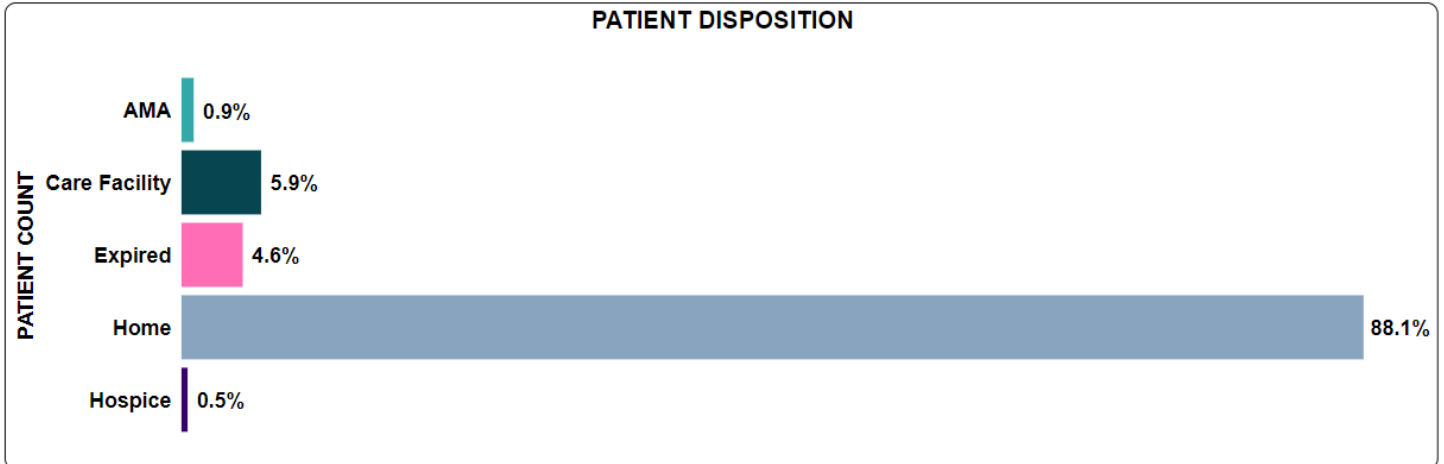
TRANSFERRED SRH WALK-IN PATIENTS

FD2PCI = FIRST DOOR TO PCI



The ultimate STEMI System goal is that our patients return home after their care.

PATIENT DISPOSITION

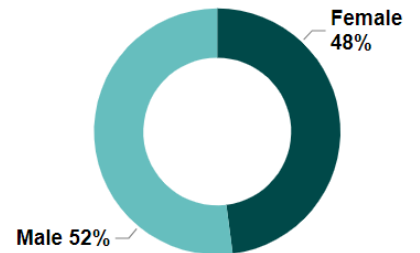
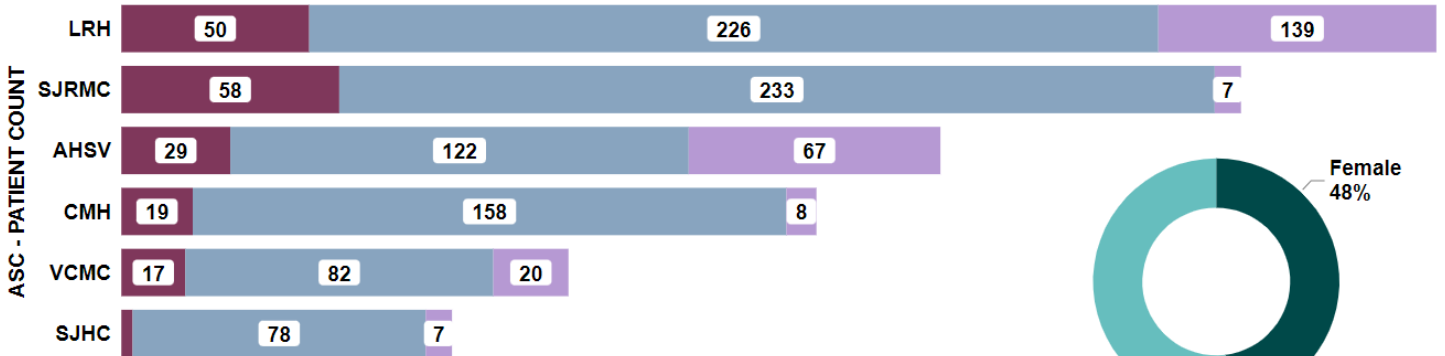




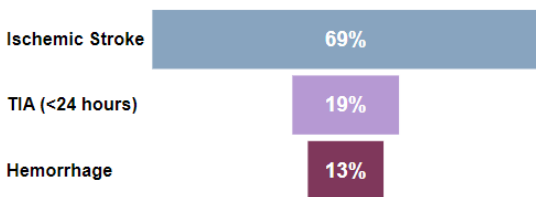
The Ventura County Stroke System is comprised of both pre-hospital providers (Paramedics and EMTs) and Acute Stroke Centers (ASC) who specialize in the treatment of strokes. Including one Comprehensive Stroke Center (CSC) and 2 Thrombectomy Capable Acute Stroke Centers (TCASC). Strokes are the leading cause of serious long-term disability and the 5th leading cause of death nationally.

2022 PATIENT DATA

● Hemorrhage ● Ischemic Stroke ● TIA (<24 hours)

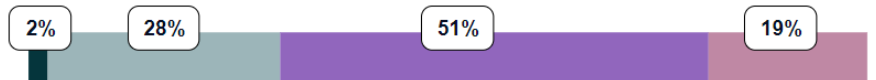


% BREAKDOWN OF TYPE



AGE GROUPS

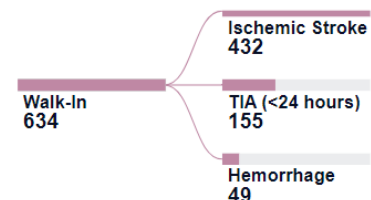
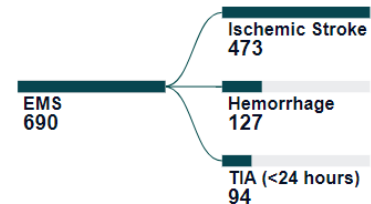
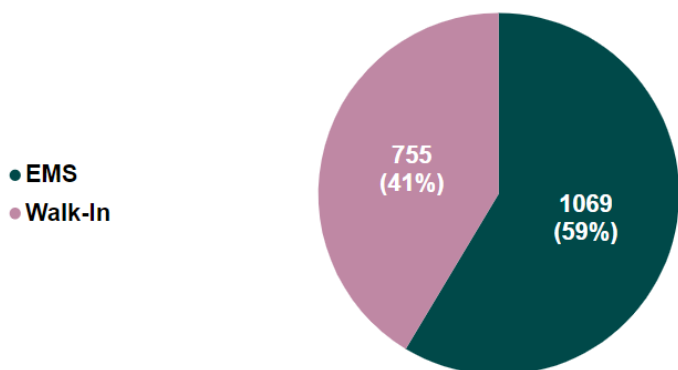
● 18-40 ● 41-65 ● 66-85 ● 86+



The primary objective of the stroke system is to coordinate timely care of patients who have a stroke. Patients are categorized as “Stroke Alerts” or “LVO Alerts” based on results from 2 prehospital screening scales: The Cincinnati Prehospital Stroke Scale and The Ventura LVO Score (VES). When one of these Alerts is identified in the field, EMS provides early notification to the hospital which allows time to mobilize needed resources prior to the patient’s arrival.

HOW STROKE & LVO ALERT PATIENTS ARRIVED AT THE ASC OR TCASC

STROKE & LVO ALERT PATIENTS DIAGNOSED WITH STROKE

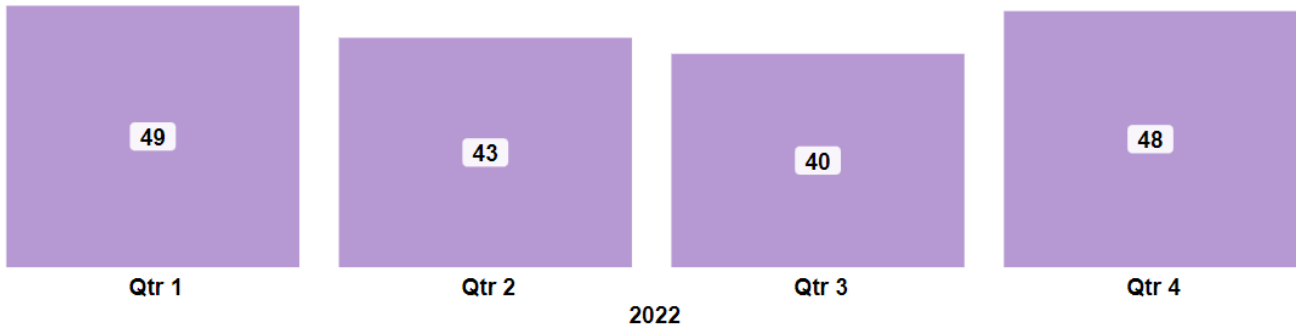


VCEMS STROKE SYSTEM



Since 2017 Ventura County has been using the VES to help identify patients who may have a Large Vessel Occlusion (LVO) and direct them to one of the TCASCs for possible intervention.

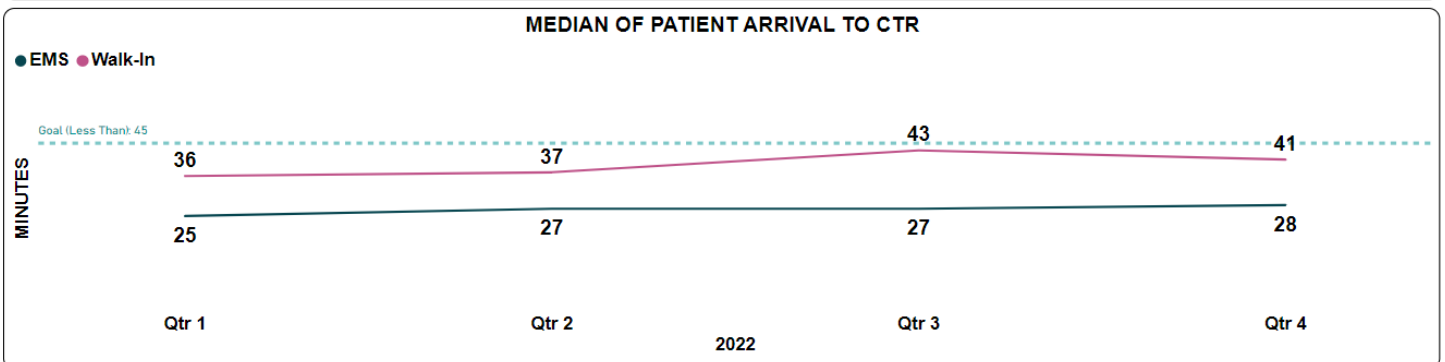
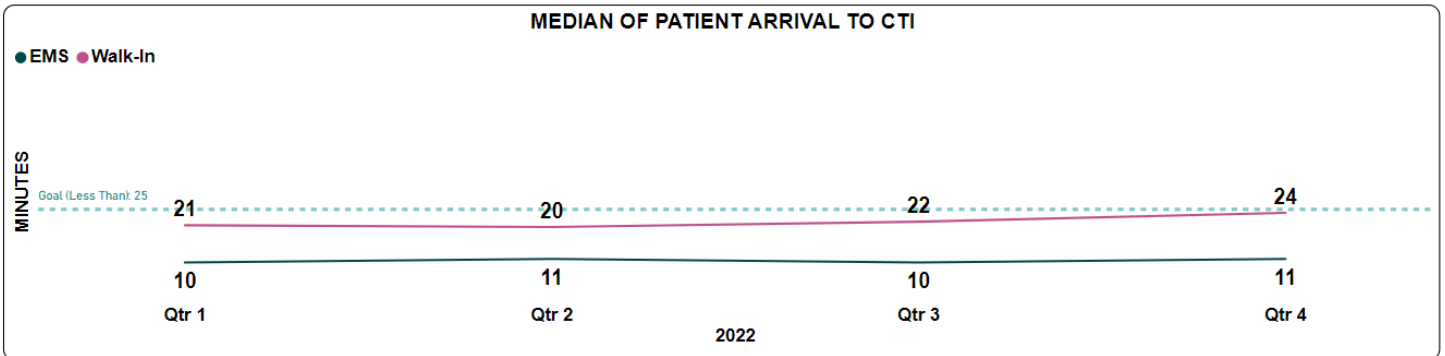
NUMBER OF LVO ALERT PATIENTS TRANSPORTED DIRECTLY TO A TCASC



With these specialized alerts, patients are often brought directly to the Computed Tomography (CT) Scanner when they arrive. CT Scans help to aid in the identification of patients eligible for time sensitive treatments/interventions. Two important time intervals for CT Scan metrics are the CT Initiated (CTI) and The CT Reported (CTR) times. CTI is the time the patient has their CT Scan begin. CTR is the time when the results of the CT Scan are read by the physician.

CT TIMES

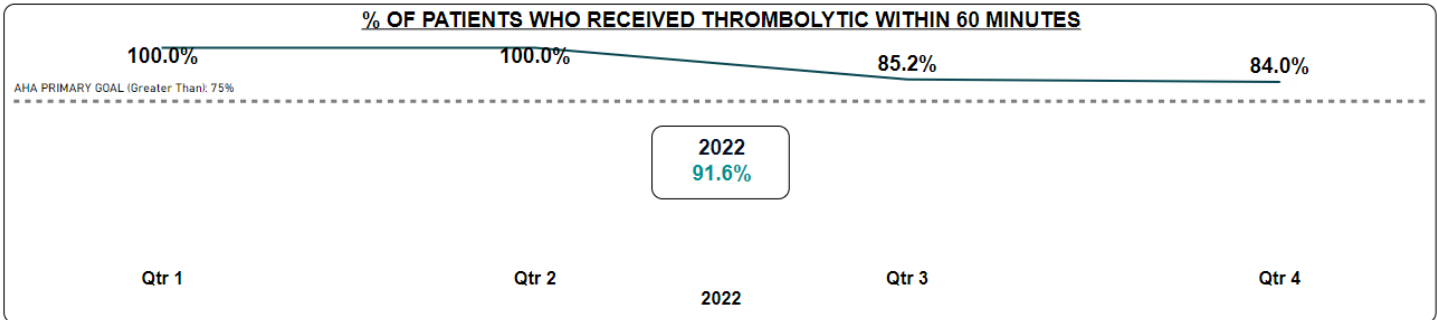
CTI = CT INITIATED
CTR = CT REPORTED





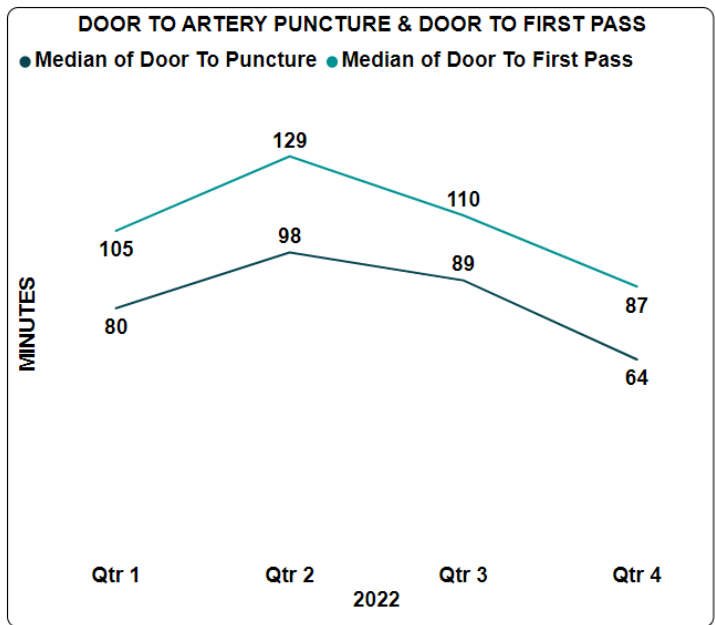
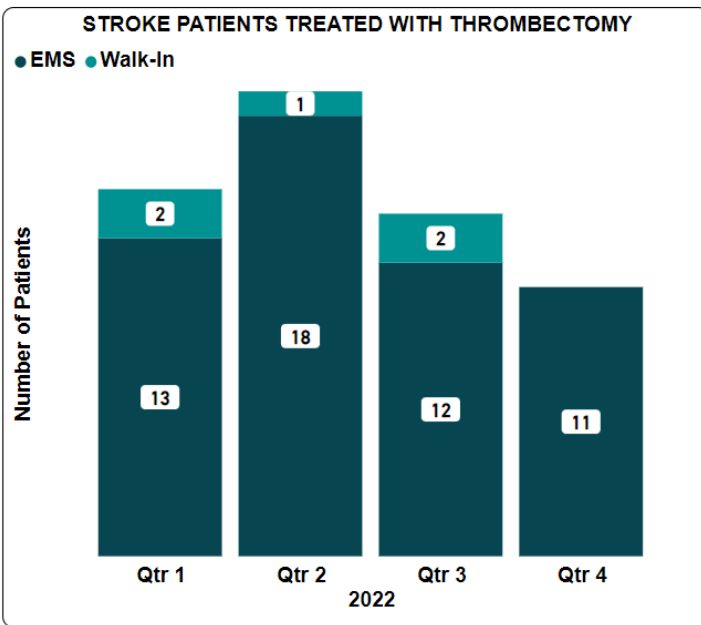
Treatment for strokes is time sensitive. If identified within specific time parameters, there is potential to treat with medication administration (thrombolytic) and/or mechanical thrombectomy (clot removal for LVOs). Early treatment can minimize damage to the brain and help reduce disability.

STROKE TREATMENT - THROMBOLYTIC



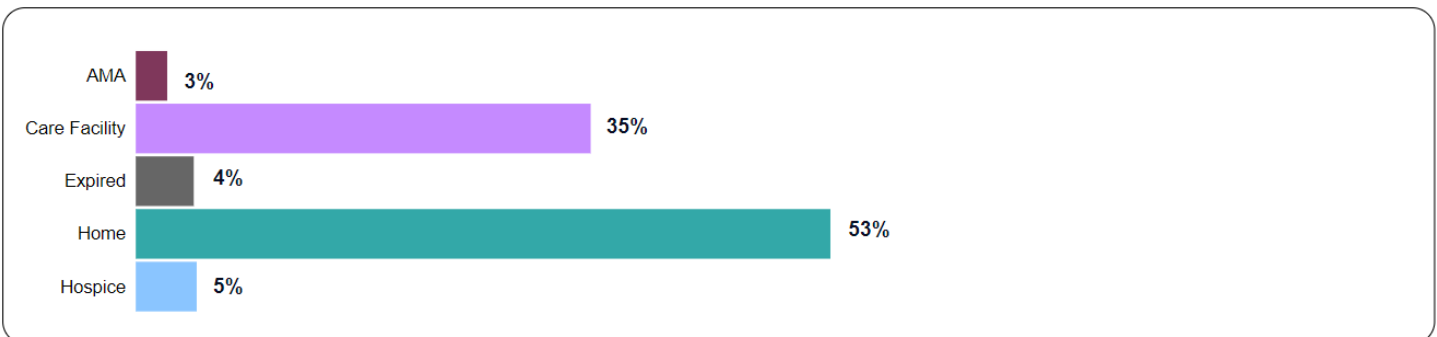
STROKE TREATMENT - THROMBECTOMY

Puncture = Puncture of the artery
First Pass = Deployment of clot retrieval device



Where patients are discharged from the hospital is often based on their ongoing needs for rehabilitation and recovery. Most patients are able to return home after their stroke.

DISPOSITION



Cardiac Arrest Management (CAM)



Cardiac Arrest Management (CAM) represents fifteen years of hard work from all our EMS Stakeholders. We have tracked our cardiac arrest statistics since 2007 and joined the national Cardiac Arrest Registry to Enhance Survival (CARES) Program in 2008, making a commitment to improve our survival rates. By using the “pit crew” technique combined with the latest resuscitation science, a prescribed set of actions were developed. Each first responder is trained with a job to do and understands their position’s responsibility when arriving on scene of a patient who is not breathing and does not have a pulse. In 2022 we saw our performance data start to return to pre-COVID -19 statistics. For **all presumed cardiac etiology**, we saw an increase to 10.7% from 8.4% in 2021, of patients discharged from the hospital with a cerebral perfusion category (CPC) of a 1 or 2. CPC 1 or 2 means they left the hospital with little to no brain deficit after surviving a cardiac arrest. We have exceeded the CARES National Benchmark in this category for the last 7 years. For **Utstein** patients, we saw an increase to 43.3% from 33.3% in 2021 for patients discharged from the hospital that survived their cardiac arrest regardless of their CPC status. This also exceeds the CARES National Benchmark. We continue to utilize the “Pulse Point” application for our cardiac arrest response, which alerts bystanders when there is a cardiac arrest in their vicinity.

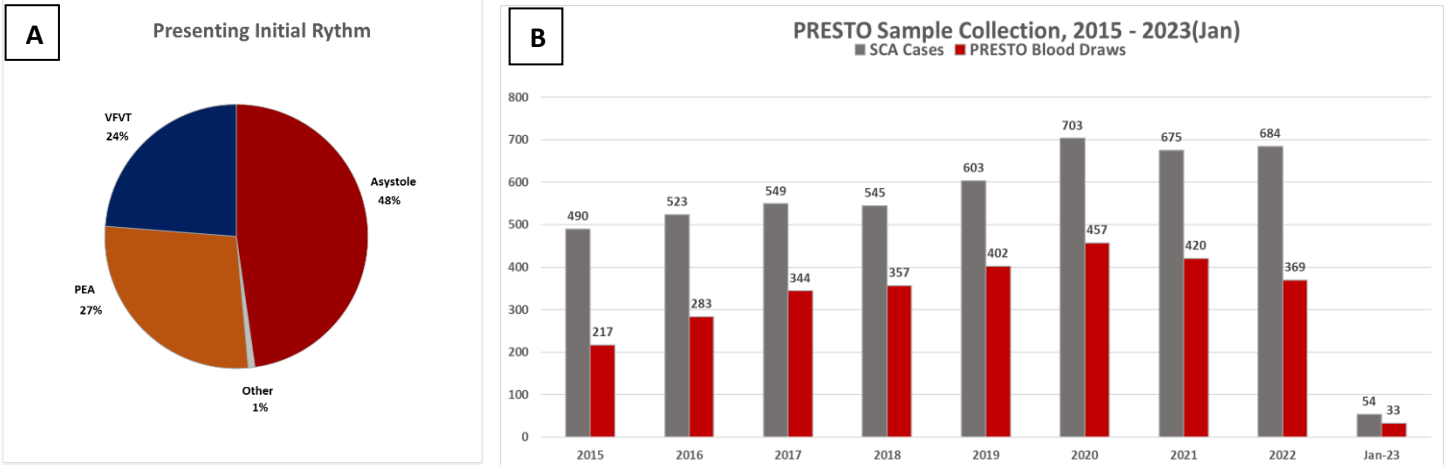
Performance Data

ALL PRESUMED CARDIAC	2019	2020	2021	2022
Presumed Cardiac Etiology	419	469	462	431
Bystander CPR Provided	55.1%	53.5%	53.3%	54.9%
Survival to Hospital Discharge	12.6%	8.7%	9.1%	13.0%
CARES National Benchmark for survival to Hospital Discharge	9.9%	8.0%	8.1%	8.5%
Survival to Hospital Discharge for CPC 1 or 2	10.5%	7.2%	8.4%	10.7%
CARES National Benchmark for survival to Hospital Discharge CPC 1 or 2	7.9%	6.3%	6.4%	6.8%
UTSTEIN				
Bystander Witnessed, Shockable Rhythm	63	54	72	67
% of presumed cardiac arrests that are Utstein cases	15.0%	11.5%	15.6%	15.5%
Bystander CPR Provided	74.6%	64.8%	79.2%	67.2%
Survival to Hospital Discharge	49.2%	22.2%	33.3%	43.3%
CARES National Benchmark for survival to Hospital Discharge	33.4%	28.8%	29.2%	30.9%

P.R.E.S.T.O. Study Update

The **PREdiction of Sudden death in mulTi-ethnic cOmmunities Study** represents seven plus years of hard work from all our EMS Stakeholders. We have tracked all Ventura County residents who suffered cardiac arrest and had resuscitation attempted since Feb 1, 2015. For each such case a blood sample is drawn by paramedics as specified in the protocol. This serves as the basis for the research conducted by the PRESTO group to improve the prediction of cardiac arrest by analysis of pre-hospital records, lifetime clinical history, and blood samples.

Performance Data for Feb 1, 2015-Jan 31, 2023



Bystander CPR: 54%
Response time: 6.3 ± 3.0 min
Response time > 5 min: 68%
Sustained ROSC: 30%
STHD: 13%

Figure A summarizes main findings of resuscitation outcomes since Feb 2015 among Ventura county residents who suffered a cardiac arrest related to heart disease. Overall, these results are significantly better than the national average. **Figure B** shows yearly trends in sample collection for the PRESTO study among overall cardiac arrest cases.

There is a steady annual increase in rates of sample collection since 2015. These positive performance trends from EMS stakeholders continue to facilitate the PRESTO study goals.

New PRESTO Research Findings have been published: At least 6 peer-reviewed scientific papers were published from the PRESTO Study. The highest impact paper was published in the Lancet Digital Health and reported novel findings regarding sex-specific warning symptoms that predict imminent cardiac arrest. Click this link for press release and picture of Ventura EMS leadership ([PRESTO PRESS RELEASE](#)) which was disseminated by >200 news outlets worldwide, including BBC radio news. Other scientific papers published novel findings regarding 1) Determinants of survival in sudden cardiac arrest 2) Cardiac arrest during the COVID pandemic 3) sudden cardiac arrest during sports activity in the elderly 4) unique biomarkers that are specific for predicting cardiac arrest 5) mechanisms and management of pulseless electrical activity. Furthermore, several other papers are currently in progress, under review or awaiting publication.



The Ventura County Health Care Coalition (VCHCC) continued to respond to the COVID-19 pandemic as we significant winter surges that placed unprecedented strain on our acute care hospitals and other healthcare facilities. Ongoing engagement with coalition members resulted in key updates and guidelines from Federal, state and local officials being disseminated from a single source, versus each facility needing to search out the information on their own.

COVID Therapeutics were another significant area that VCHCC was able to assist with. As new therapeutic options emerged and/or existing options lost their Federal approvals, VCHCC worked hand-in-hand with the Ventura County Medical and Health Operational Area Coordinator (MHOAC) to assist in the receipt and processing of therapeutic allocations and warehousing of emergency caches that could be rapidly deployed to facilities in need. VCHCC also played a key role in develop and maintenance of therapeutics website that could be accessed for key information for healthcare providers and members of the public looking for vital information on these new and emerging medications.

Beyond the world of COVID, VCHCC was also actively engaged in other aspects of medical and health emergency preparedness in the form of planning and exercises for a variety of scenarios.



Some of the larger milestones that were achieved in 2022 was the long-awaited rollout of an evacuation band project for long term care facilities in Ventura County. This project involves the use of wrist bands adorned with “jewels” that highlight, by color, patient categories that need to be tracked. Examples of color-coded categories include memory issues, DNR, allergies, or high fall risk. Detailed guidance and templates were rolled-out along with this equipment and the material was delivered to facilities in the county.

Other significant updates and activities included the roll-out of the pediatric and neonatal surge annex and the burn surge annex, which are both grant-required additions to the VCHCC's emergency response plan. These types of incidents are considered low-frequency high-risk, and would place a significant strain on the medical health system in Ventura County due to their demand for specialized training equipment and other resources.



The pediatric surge annex was then followed-up with a tabletop exercise that brought together several different agencies and acute care hospitals to discuss the specific actions and needs related to a pediatric multi-casualty incident. Exercises such as these highlight the special considerations that need to take place and help emergency responders understand the training and coordination required.

Looking into the future, the Ventura County Healthcare Coalition is looking to draft new plans, including a continuity of operations plan, as well as update other existing plans. Most importantly, the coalition is looking to re-engage with its member facilities on initiatives outside of the COVID-19 pandemic. These initiatives include re-engaging and expanding members of the HCC board, as well as engaging in a medical response and surge exercise (MRSE) exercise in the Spring of 2024. This exercise will test various capabilities related to redundant communications, patient surge in healthcare facilities, and family assistance / reunification with other HCC partners. Training/education, collaboration and recruiting will be a key focus of coalition leadership and officers in 2023 and 2024, as we look to emerge from the pandemic and identify strategic initiatives moving forward.





Quality Improvement Program

The Ventura County EMS Quality Improvement Program uses patient care data from our stakeholders to evaluate system performance. Hospitals submit data through IQVIA Get With The Guidelines Registry (GWTG) for our Stroke Program, Cardiac Arrest Registry to Enhance Survival (CARES) for our Sudden Cardiac Arrest Program, Trauma Registry for our Trauma System, and Get With The Guidelines-Coronary Artery Disease (GWTG-CAD) for our STEMI data. Countywide EMS providers use the Image Trend electronic patient care record system (e-PCR), and dispatch data is collected through the County Fire Department TriTech Computer Aided Dispatch system and Medical Priority Dispatch System (MPDS). Data is collected from our pre-hospital agencies and hospitals in order to follow a patient from a 911 call to activities done in the hospital.

We developed and distributed to our stakeholders a complete annual EMS Systems Performance Report along with posting it on our EMS website for the public to review.

The American Heart Association awarded six first responder agencies, the 2022 Mission Lifeline Gold Plus Level Award for outstanding performance in STEMI data measures. In reviewing our Sudden Cardiac Arrest data, we saw an increase in our survival rate percentages from 33% to 43%, along with an increase in our bystander CPR from 79% to 81%, due to recovering from COVID-19 and resuming in-person “hands only” CPR classes.

We follow the American Heart Association (AHA) recommendations for the care of our Stroke patients. We exceed the benchmarks for many of the measures put forth by the AHA.

We participate in Ventura County’s Fall Prevention program by gathering data on patients that have fallen or have a potential to fall and are *not* transported by EMS to the hospital. We answer a set of questions that are sent to the fall prevention coordinator along with leaving educational material about fall prevention at the home. We meet quarterly to discuss the data and areas of improvement. A Fall Prevention Symposium was held virtually the week of September 12, 2022. The event included prevention presentations by local physicians, nurses, physical therapists, social workers, and other experts in elderly trauma prevention. We found by doing this symposium virtually, we were able to reach many more people and will likely have a hybrid option in 2023.

Due to COVID-19, Ventura County EMS moved from in-person paramedic skills lab training to an on-line educational platform. In addition, various critical procedures, such as advanced airway, transcutaneous pacing, and intraosseous infusion are monitored regularly through the First-Watch data surveillance software. We purchased and applied a new platform for our First Responders to distribute training, education, and EMS update through a system called Prodigy Learning Management System. We instituted an on-line tool to report any unusual occurrence or medication error electronically by following a link or using a QR Code.

Ventura County’s two Trauma Centers also actively participate in data collection, which helps to identify severity index scores on EMS trauma patients. We can analyze this data and use it for injury prevention education in the community.

Data measures are patient focused and implementation for improvement is timely and sustainable through the collaboration of our key stakeholders.

Ventura County Emergency Medical Services Agency

Prehospital Services Committee

The purpose of this committee shall be to provide input to the VC Emergency Medical Services (EMS) Medical Director and VC EMS administration on matters pertaining to emergency medical services, including, but not limited to, dispatch, first responders, ambulance services, communications, medical equipment, training, personnel, facilities, and disaster medical response. Membership is composed of two representatives, as appointed by the organization administrator from each of the following organizations:

Type of Organization	Member	Member
Base Hospitals	PCC	PLP
Receiving Hospitals	ED Manager	ED Physician
First Responders	Administrative	Field (provider of “hands-on” care)
Ambulance Companies	Administrative	Field (provider of “hands-on” care)
Emergency Medical Dispatch Agency	Emergency Medical Dispatch Coordinator (1 representative selected by EMD Agency coordinators)	
Air Units	Administrative	Field (provider of “hands-on” care)
Paramedic Training Programs	Director (1 representative from each program.)	

EMS Advisory Committee

The EMS Advisory Committee is a panel comprised of five members designated by the Board of Supervisors and two members designated by VCEMS. The EMS Advisory Committee reviews the ambulance contractor performance at least every two years and provides other EMS system evaluation and oversight as needed.

William Gallaher	–	Representing District 1 Supervisor Matt LaVere
Heather Padilla	–	Representing District 2 Supervisor Jeff Gorell
Craig Stevens	–	Representing District 3 Supervisor Kelly Long
Bob Brooks	–	Representing District 4 Supervisor Janice Parvin
Michael O’Malia	–	Representing District 5 Supervisor Vianey Lopez
Audra Strickland	–	EMS Agency Appointed Representative
Daniel Shepherd, MD	–	EMS Agency Appointed Representative



Ventura County Emergency Medical Services Agency

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VENTURA COUNTY
PUBLIC HEALTH



VENTURA COUNTY
HEALTH CARE AGENCY

VENTURA COUNTY EMERGENCY MEDICAL SERVICES AGENCY

A Division of Ventura County Public Health Department

A Department of Ventura County Health Care Agency