



**PREHOSPITAL MEDICAL ADVISORY COMMITTEE MEETING AGENDA (PMAC)**

PMAC MEMBERS PER POLICY 8202:

Base Hospital Physician

Andrew Pachon, MD - RUHS

Non-Base Hospital Physician

Karan Singh, MD – San Geronio

Non-Base Hospital RN

Kim McGranahan, RN - Kaiser

Pediatric Critical Care Physician

Melanie Randall, MD - RUHS

Stroke Hospital Coordinator - RN

Kathy Cash, RN - Eisenhower Health

STEMI Hospital Coordinator - RN

Katherine Baca, RN - Temecula Valley

Prehospital Liaison Nurse (PLN)

Robin Boardman, RN – JFK Memorial

Trauma Program Medical Director

Stephen Kernop - RUHS

Public Transport Medical Director

Zeke Foster, MD – Multiple FD

Private Transport Medical Director

Seth Dukes, MD - AMR

Fire Department Medical Director

Steve Patterson, MD – Corona FD

EMS Officers

Jennifer Antonucci – Murrieta FD

Public Transport Medical Rep (Paramedic/RN)

Scott Philippbar – County Fire

Private Transport Medical Rep (Paramedic/RN)

Dawn Downs – Symbiosis Care

Non-Transport Agency Rep (Paramedic/RN)

Noelle Toering - Palm Springs FD

Riverside County Policy Association

Donald Sharp – RSO Undersheriff

Tribal Partner Representative

Ken Cardin - Morongo Fire

Private Air Transport Medical Director

Brian Harrison – Air Methods

EMS Training Program Representative

Robert Fontaine - Moreno Valley College

**This Meeting of PMAC on:**

**Monday, August 26, 2024**

**09:00 – 11:00 am**

**Riverside University Health System: 26516 Cactus Ave, Moreno Valley, CA 92555**

**1. CALL TO ORDER & HOUSEKEEPING (5 Minutes)**

Andrew Pachon, MD (Chair)

**2. ATTENDANCE (taken based on participant sign in sheet)**

Evelyn Pham (REMSA)

**3. APPROVAL OF MINUTES (5 Minutes)**

May 13, 2024 Minutes— Andrew Pachon, MD (Attachment A)

**4. STANDING REPORTS (10 Minutes)**

**4.1.** Trauma System—Shanna Kissel (Attachment B)

**4.2.** STEMI System— Shanna Kissel (Attachment C)

**4.3.** Stroke System— Shanna Kissel (Attachment D)

**5. Other Reports (15 Minutes)**

**5.1.** EMD Update – James Lee

**5.2.** CATT/ Buprenorphine/ Leave Behind Naloxone – Sean Hakam

**5.3.** California Resuscitation Outcomes Consortium Trial Update – Dr. Vaezazizi

**6. DISCUSSION ITEMS, UNFINISHED & NEW BUSINESS**

**6.1.** EMS Buprenorphine – Philine Endres-Shafer, MD (20 Minutes)

**6.2.** CQI – Holly Anderson (10 Minutes)

**6.3.** Policy/Education – Kristie Hinz (10 Minutes)

**6.5.** Mobile Integrated Health Program – Dan Bates (5 Minutes)

**6.6.** CARES Annual Report – Catherine Farrokhi, PHD (15 Minutes)

**7. REQUEST FOR DISCUSSIONS (5 MINUTES)**

Members can request that items be placed on the agenda for discussion at the following PMAC meeting. References to studies, presentations and supporting literature must be submitted to REMSA three weeks prior to the next PMAC meeting to allow ample time for preparation, distribution and review among committee members and other interested parties.

**8. ANNOUNCEMENTS (15 Minutes)**

This is the time/place in which committee members and non-committee members can speak on items not on the agenda but within the purview of PMAC. Each announcement should be limited to two minutes unless extended by the PMAC Chair.

**9. NEXT MEETING / ADJOURNMENT (1 Minute)**

December 2, 2024 – Riverside University Health System

PMAC Draft Minutes  
May 13, 2024

TOPIC	DISCUSSION	ACTION
1. CALL TO ORDER	Dr. Andrew Pachon called the meeting to order at 9:08 a.m.	
2. Virtual Attendance	Attendance taken based on sign-in list	
3. Approval of Minutes	Dr. Foster, Multiple Fire Departments, motioned to approve the minutes. Patrick Anderson, Riverside City Fire seconded the motion.	The February 5, 2024 PMAC meeting minutes were approved with no changes.
4. STANDING REPORTS		
4.1. Trauma System Updates	<ol style="list-style-type: none"> <li>1. IVMC went through ACS Level II verification in April, pending final report.</li> <li>2. REMSA policies affecting trauma treatment go into effect July 1, 2024. 6-month QI of these cases will be reported out at Trauma Audit Committee in February 2025.</li> <li>3. REMSA/ICEMA working on a stand-alone traumatic arrest policy, anticipated date July 2025.</li> </ol>	Information only.
4.2. STEMI System Updates	<ol style="list-style-type: none"> <li>1. STEMI 2022 System Plan update submitted to EMSA, still pending EMS approval.</li> <li>2. The STEMI Dashboard posted on rivcoready.org was updated to reflect quarter 4, 2023 data.</li> <li>3. STEMI E2B project is ongoing. Continued data feedback of pre-activated vs. activated after arrival of incoming STEMI patients disseminated to each facility program manager for their review to increase pre-activation percentage.</li> <li>4. Cardiac data State reporting in process for 2020-203.</li> </ol>	Information only.
4.3. Stroke System Updates	<ol style="list-style-type: none"> <li>1. Stroke System Plan update 2022 submitted to EMSA, still pending approval.</li> <li>2. The Stroke Dashboard posted on rivcoready.org was updated to reflect quarter 4, 2023 data.</li> <li>3. Project Stroke Hospital Interfacility Transport (HIFT) is ongoing. Education continues to be completed by all 12 storke designated hospitals. Riverside County paramedics have access to the same education through our Brainier learning management system or upon request of the video and pre/post quiz can be sent to individual agencies.</li> <li>4. LAMS stroke education is available on the Brainier LMS or upon request of the video pre/post quiz can be sent to individual agencies.</li> <li>5. Stroke data State reporting completed for quarter 4, 2023.</li> </ol>	Information only.
5. OTHER REPORTS		
5.1. CATT/ Buprenorphine / Leave Behind Naloxone	<ul style="list-style-type: none"> <li>• Buprenorphine has been postponed to next year with suboxone to reduce it down. Anticipated date, July 2025</li> <li>• Working with bridge facilities for education</li> <li>• CATT Team, current pilot program is set to expire June this year <ul style="list-style-type: none"> <li>○ AMR is still planning to continue the program</li> <li>○ Preliminary discussion on expanding that towards the Desert</li> </ul> </li> </ul>	Information only.

PMAC Draft Minutes  
May 13, 2024

	<ul style="list-style-type: none"> <li>○ Looking at sustainable funding first</li> </ul>	
<b>5.2. EMD Update</b>	<ul style="list-style-type: none"> <li>• Quarter 1 report for 2024 hasn't changed much and has been very consistent</li> <li>• Cathedral City is temporarily pausing their EMD due to staffing issues</li> <li>• Anticipating resource plans or EMD from City of Riverside</li> <li>• Accreditation update, coming close for Cal Fire, the ability to use nurse navigation and to be able to bring low acuity patients to alternate care locations</li> <li>• Looking forward to seeing more centers get accredited</li> </ul>	Information only.
<b>6. DISCUSSION ITEMS, UNFINISHED &amp; NEW BUSINESS</b>		
<b>Unfinished Business</b>	None	
<b>6.1. CQI</b>	<p>All CQI categories associated with the July 1<sup>st</sup> implementation are being developed.</p> <p>Dr. V discussed CQI challenges to work on, highlighting on cases that appear more often:</p> <ul style="list-style-type: none"> <li>• Medication errors, giving the wrong meds</li> <li>• Dosing for medication</li> <li>• Procedures, stand outs are intubations</li> <li>• Documentation</li> <li>• Policy 3308, downgrade</li> </ul> <p>PMAC discussed whether the downgrade policy is valuable or should it be removed. Since the implementation of the policy, there have been multiple instances of improper downgrades. The biggest documentation error seen with this policy is for pain and pain management. Upon discussion, REMSA suggested to implement a 100% QI of all downgrades for agencies to review in the next 6 months before making a final decision on how to proceed with Policy 3308. A check-in at the July CQILT meeting will discuss agency findings and data to report back.</p>	Discussion.
<b>6.2. Policy Update / Change Requests</b>	Completed PUC TtT in the Spring, with a few corrections made that were updated and notified to the trainers. Most agencies have started their PUC trainings already.	Information only.
<b>6.3. California EMS System Core Quality Measures</b>	<p>CORE Measures focuses on 6 state driven measures for key performance indicators of quality. Data is collected every year and Riverside County has been submitting data since 2009. Come 2024, there will be 3 new measures added on.</p> <p>Data was reviewed from 2020 – 2023 CY, showing a consistent improvement and reliability in reported value percentages. The measure that is still working on improving is hypoglycemia. Until we can get the state to modify it to a more current</p>	Information only.

PMAC Draft Minutes  
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	standard, we know our system is treating it correctly, we just don't know how to document it to fit their criteria perfectly.	
<b>6.4. California Resuscitation Outcomes Consortium Trail Update</b>	The California Resuscitation Outcomes Consortium Trail is in its funding phase and looking for additional sponsors. The earliest possibility for Riverside County to start this trail will be in July 2025. REMSA will add this as a standing item for future agendas, and more updates on this trail will be provided as it gets closer.	
<b>6.5. EMCC PMAC Representative</b>	As defined in Policy 8202, a new representative will serve as the PMAC representative for EMCC. Dr. Patterson is the current representative for EMCC. As his term comes to an end, the next representative will be the PMAC Chair, Dr. Pachon.	
<b>6.6. Mobile Integrated Health Program</b>	The Mobile Integrated Health Program is looking at alternative options for patient care follow-up with individuals that are high users of the 9-1-1 system. To reduce re-entry to the 9-1-1 system and hospital re-entry rates, this program's goal is to partner with public health workers, with linkage to insurance eligibility and community resources to divert patients to other means of patient care. Target go live date for this trial is in about 2 weeks. Once the system goes live, a system advisory and notice to the providers will be sent out. Once launched, the program will be added to our standing reports for quarterly updates and discussions.	
<b>7. Request for Discussions</b>		Discussion.
<b>8. Announcements</b>	<ul style="list-style-type: none"> <li>REMSA announced new hire Kristie Hinz, Nurse for the clinical team. She will be overseeing EMS education, base hospitals, and the policy manual.</li> <li>Provider asked regarding liability issues linked with the leave behind Narcan kits/programs. The program is sponsored throughout the state, so there should be no uncertainties to the providers giving them out, as the state statute will protect the providers.</li> </ul>	Information only.
<b>9. NEXT MEETING/ADJOURNMENT</b>	Monday, August 26, 2024 (9:00 – 11:00 a.m.) RUHS.	Information only.

PMAC Draft Minutes  
May 13, 2024

PMAC Attendance:

<b>Voting Members:</b>		<b>Attendees:</b>
Andrew Pachon, MD, RUHS, Chair	X	Andrew McCague, MD, Vice Chair
Karan Singh, MD, San Gorgonio		Wayne Ennis, AMR Desert
Kim McGranahan, RN, Kaiser	X	Suzee Brein, AMR Riverside
Melanie Randall, MD, RUHS	X	Christopher Linke, AMR
Kathy Cash, RN, Eisenhower	X	Tim Buckley, Soboba Fire
Katherine Baca, RN, TVH		Ricky Harvey, Cal Fire
Robin Boardman, RN, JFK	X	Aaron Hartney, AMR/REACH
Vacant		Lori Maddox, RUHS
Zeke Foster, MD, Multiple FD	X	Wayne Seacrist, Palm Springs Fire
Seth Dukes, MD, AMR	X	Joel Stillings, DO, DRMC
Steve Patterson, MD, Corona FD	X	Paige Castaneda, DRMC
Jennifer Antonucci, Murrieta FD	X	Brittany Rodriguez, Kaiser Riverside
Scott Philippbar, Cal Fire		Patrick Anderson, Riverside City Fire
Vacant		Kelley Long, Corona Fire
Noelle Toering, Palm Springs FD		Chris Douglas, Corona Fire
Donald Sharp, RSO		Matt V Payne, Calimesa Fire
Ken Cardin, Morongo FD	X	Thomas Wofford, Eisenhower
Brian Harrison, Air Methods		Lacey Paige, Riverside Community Hospital
Bob Fontaine, MVC	X	Julius Ibanez, MD, Eisenhower
		Lisa Madrid, AMR
		Veronica Arellano, IVMC
<b>REMSA:</b>		
Reza Vaezazizi, MD	X	
Dan Bates	X	
Shanna Kissel	X	
Leslie Duke	X	
Holly Anderson	X	
Kristie Hinz	X	
Evelyn Pham	X	
Dustin Rascon	X	
Catherine Farrokhi, PHD	X	
Nick Ritchey		
Mike Moore	X	
James Lee	X	
Karleen Wade	X	
Henry Olson	X	
Sean Hakam		

**FOR CONSIDERATION BY PMAC**

DATE: August 13, 2024

TO: PMAC

FROM: Shanna Kissel, RN, Assistant Nurse Manager

SUBJECT: Trauma System

1. REMSA policies affecting trauma treatment went into effect July 1, 2024. QI of Versed and Push-Dose Epi will be reported out at November and February TAC.
2. Tentative trauma policies will be updated for July 2025-
  - 4302- Traumatic Injuries- to include traumatic arrest
  - 5301- Critical Trauma Patient
  - 5302- Trauma continuation of care
3. DRMC will be going through ACS Level I survey in November.
4. REMSA 2022 Trauma Plan update was approved by EMSA. 2023 update to be submitted by September.

ACTION: PMAC should be prepared to receive the information and provide feedback to REMSA.

## FOR CONSIDERATION BY PMAC

Attachment C

Page 1 of 1

DATE: August 13, 2024  
TO: PMAC  
FROM: Shanna Kissel, RN, Assistant Nurse Manager  
SUBJECT: STEMI System

1. STEMI 2022 System Plan update approved by EMSA, 2023 plan update to be submitted by September.
2. The STEMI dashboard posted on Rivcoready website was updated to reflect Q1 2024 data related to the Image Trend STEMI patient registry.  
<https://rivcoready.org/remsa/programs#2741959481-1182105694>
3. Q1. 2024 STEMI data uploaded to EMSA.

Next STEMI Committee meeting is on October 8th, 2024, via TEAMS conference.

ACTION: PMAC should be prepared to receive the information and provide feedback to REMSA.

**FOR CONSIDERATION BY PMAC**

DATE: August 13, 2024

TO: PMAC

FROM: Shanna Kissel, RN, Assistant Nurse Manager

SUBJECT: Stroke System

1. Stroke System Plan update 2022 approved by EMSA, 2023 plan update to be submitted by September.
2. The Stroke dashboard posted on Rivcoready website was updated to reflect Q1 2024 data related to the Image Trend Stroke patient registry.  
<https://rivcoready.org/remsa/programs#2741959481-1532242908>
3. Stroke data State reporting completed for Q1 2024.


Next Stroke Committee meeting is on November 7th, 2024, via TEAMS conference.

ACTION: PMAC should be prepared to receive the information and provide feedback to REMSA.



2023  
**CARES REGISTRY SUMMARY**  
Riverside County EMS System





# CARES

## Cardiac Arrest Registry to Enhance Survival

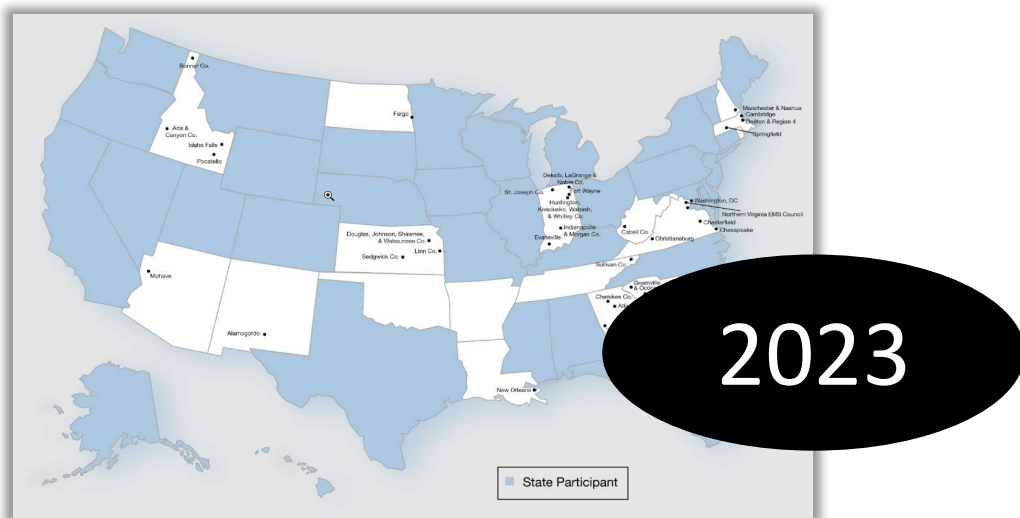
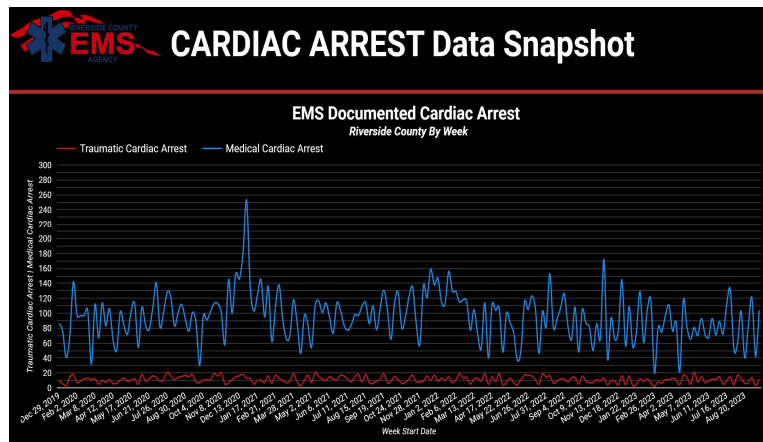


### CARES Summary Report

Demographic and Survival Characteristics of OHCA  
Non-Traumatic Etiology | Arrest Witness Status: All | Date of Arrest: 01/01/2018-12/31/2023

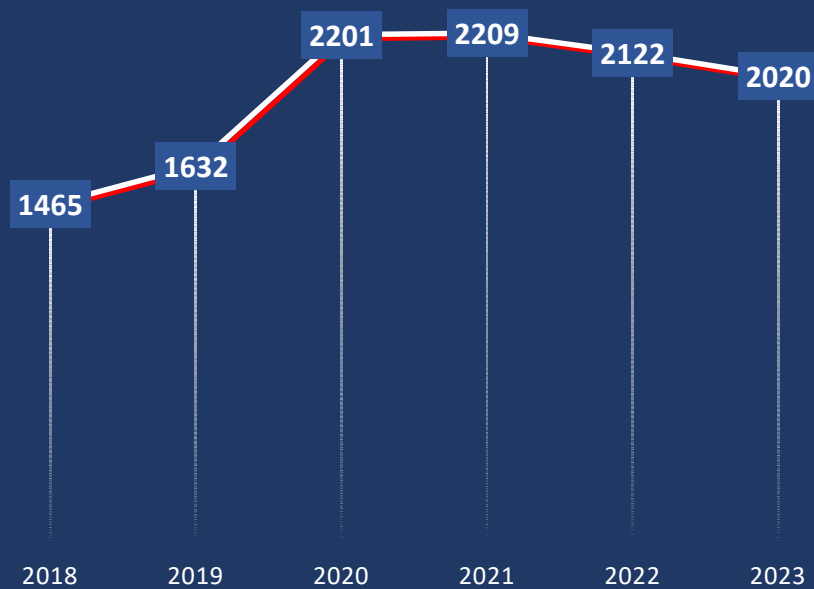
	Riverside County N=2020	California N=25324	National N=138822
<b>Age</b>			
Mean	61.9	61.9	61.9
Median	61.0	60.9	60.9
<b>Gender (%)</b>			
Female	748 (37.1)	9021 (35.6)	51100 (37.0)
Male	1271 (62.9)	16303 (64.4)	87722 (63.0)
<b>Race (%)</b>			
Asian-Indian/Native	18 (0.9)	18 (0.1)	18 (0.1)
Asian	75 (3.7)	1012 (7.2)	5882 (2.5)
Black/African American	294 (14.6)	3466 (13.7)	20286 (14.7)
Hispanic/Latino	563 (27.9)	4709 (18.6)	12177 (8.7)
Native Hawaiian/Pacific Islander	16 (0.8)	16 (0.1)	16 (0.1)
White	1847 (91.8)	8737 (34.5)	70462 (50.4)
Multi-racial	15 (0.7)	149 (0.6)	119 (0.1)
Unknown	55 (2.7)	6056 (23.9)	21200 (15.2)
<b>Location of Arrest (%)</b>			
Home/Residence	1616 (79.9)	17018 (67.2)	90881 (65.4)
Nursing Home	21 (1.0)	349 (1.4)	1405 (1.0)
Public Setting	244 (12.1)	4890 (19.2)	26381 (19.0)
<b>Arrest witnessed (%)</b>			
Witnessed by EMS	1209 (60.0)	2145 (8.5)	20320 (14.6)
Witnessed by 911 Responder	201 (10.0)	2005 (7.9)	10462 (7.6)
Unwitnessed	780 (38.6)	13874 (54.3)	71940 (51.8)
<b>Who initiated CPR? (%)</b>			
Not Applicable	0 (0.0)	2 (0.0)	0 (0.0)
By EMS	855 (42.3)	10758 (42.5)	58016 (41.9)
By Responder	780 (38.6)	7251 (28.6)	43775 (31.3)
Emergency Medical Services (EMS)	780 (38.6)	6924 (27.4)	38173 (27.5)
<b>Was an AED applied prior to EMS arrival? (%)</b>			
Yes	156 (8.1)	3602 (14.2)	40094 (29.0)
No	1864 (91.9)	21722 (85.8)	97727 (71.0)
<b>Who first applied automated external defibrillator? (%)</b>			
By EMS	8 (0.4)	802 (3.2)	8774 (6.3)
First Responder	55 (44.4)	3073 (12.1)	31355 (22.6)
By Responder	780 (38.6)	29216 (11.5)	151969 (11.0)
Emergency Medical Services (EMS)	780 (38.6)	18743 (74.0)	99064 (71.1)
Not Applicable	1850 (91.7)	20811 (82.3)	22311 (16.1)
By Responder	25 (1.3)	258 (1.0)	829 (0.6)
First Responder	328 (16.2)	1528 (6.0)	8239 (6.0)
Responding EMS Personnel	1207 (59.9)	4781 (18.8)	20274 (14.7)
<b>First Arrest Rhythm (%)</b>			
Ventricular Fibrillation/Unshockable Rhythm	2020 (100.0)	3760 (14.8)	24051 (17.3)
Asystole	1239 (61.3)	15199 (60.5)	7225 (5.2)
Idiosyncratic/PEA	416 (20.6)	6036 (23.8)	3084 (2.2)
Unknown Unshockable Rhythm	110 (5.4)	72 (0.3)	1215 (0.9)
<b>Sustained ROSC (%)</b>			
Yes	484 (24.0)	5388 (21.3)	37902 (27.3)
No	1536 (76.0)	19936 (78.7)	101920 (72.7)
<b>Was hypothermia care provided in the field? (%)</b>			
Yes	0 (0.0)	2 (0.0)	0 (0.0)
No	2020 (100.0)	25091 (99.9)	138822 (100.0)
<b>Pre-hospital Outcome (%)</b>			
Discharged to Home	1226 (60.7)	13469 (53.2)	56972 (40.9)
Discharged to ED	75 (3.7)	1500 (5.9)	15318 (11.0)
Discharge to Other	719 (35.6)	10355 (40.9)	66532 (48.1)
<b>Overall Survival (%)</b>			
Overall Survival to Hospital Admission	372 (18.4)	2130 (8.4)	20462 (14.7)
Overall Survival to Hospital Discharge	181 (9.0)	2125 (8.4)	14103 (10.2)
With Good or Moderate Care Performance	125 (6.2)	1544 (6.1)	11378 (8.2)
Missing Hospital Outcome	6	34	322
<b>Utstein Survival (%)</b>			
Utstein Survival	1169 (57.9)	12221 (48.3)	61458 (44.3)
Survival	30.2%	32.1%	32.8%
Not Survived	1851 (92.1)	13103 (51.7)	77364 (55.7)
Not Survived	36.8%	30.6%	36.3%

Inclusion criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include bystander prior to the arrival of 911 responders.  
 This is a new question that was introduced on the 2018 form.  
 Witnessed by bystander and found in a shockable rhythm  
 Witnessed by bystander, found in a shockable rhythm, and received some bystander resuscitation (CPR) by bystander and/or AED applied by bystander.  
 April 23, 2024



# Riverside County EMS System CARES 2023 Non-Traumatic Cardiac Arrests

## TOTAL PATIENTS REPORTED

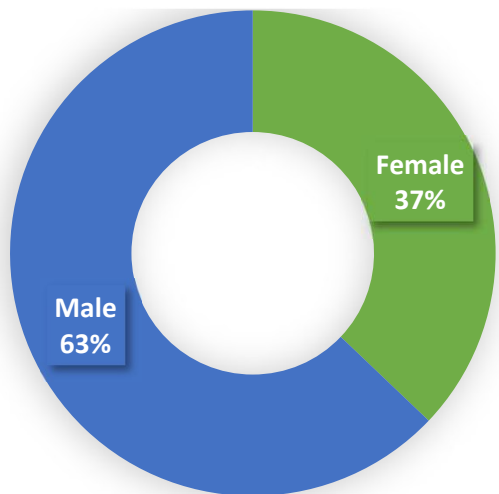


2020/1 = +35%

2022 = -4%

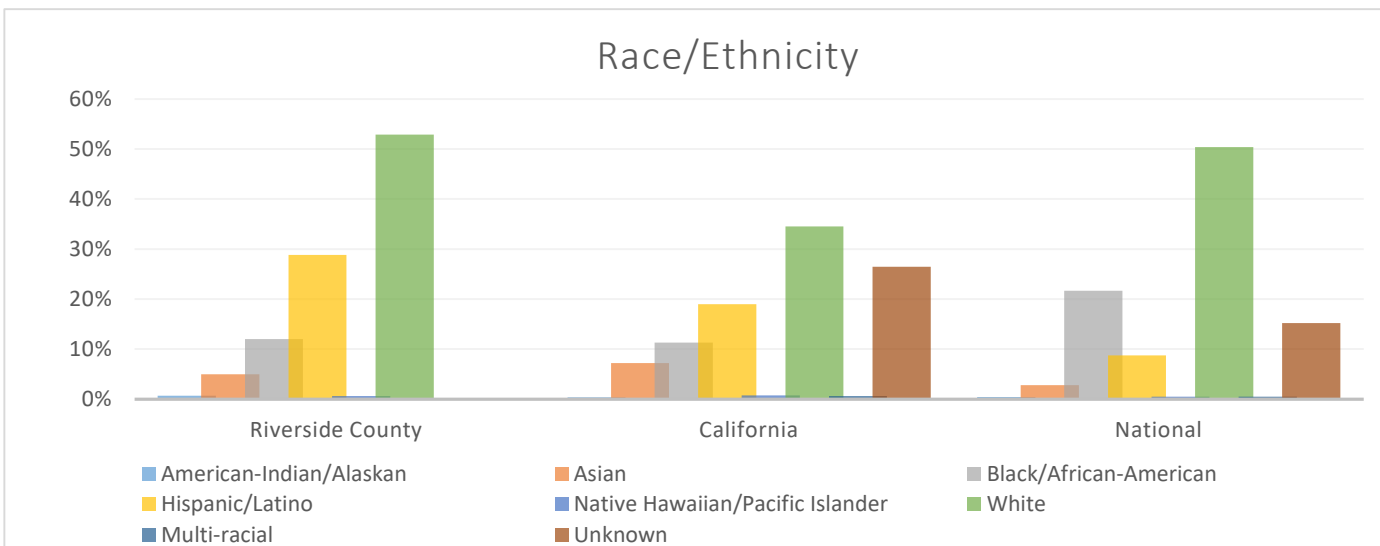
2023 = -5%

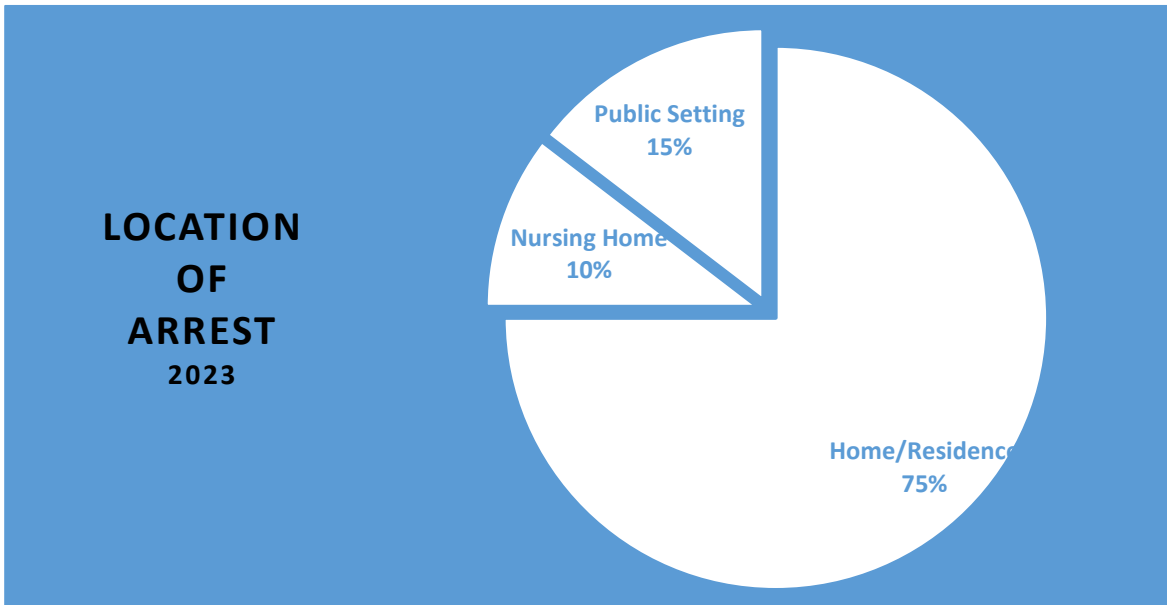
Demographics



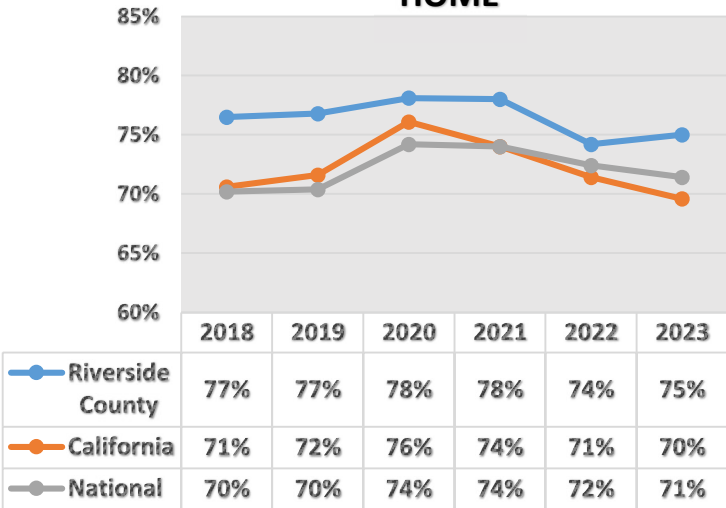
Median  
**AGE**  
**67**

Race/Ethnicity

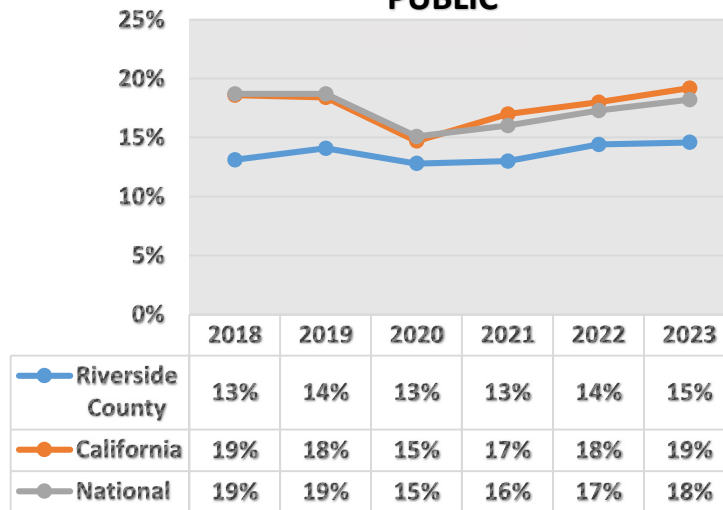


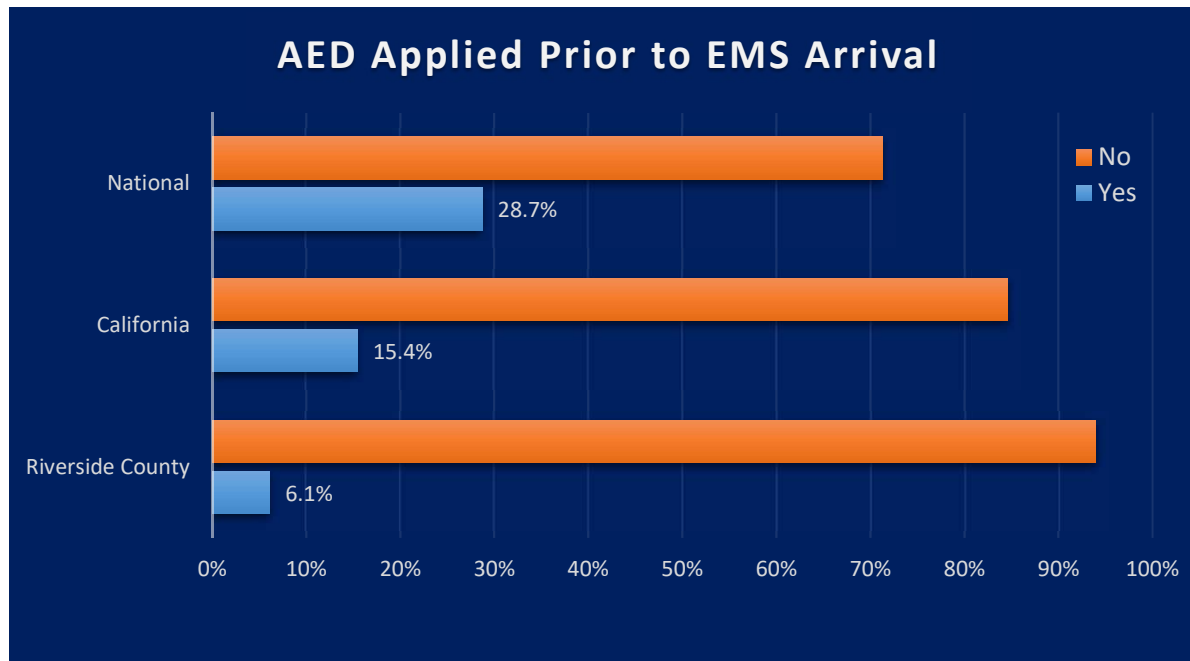
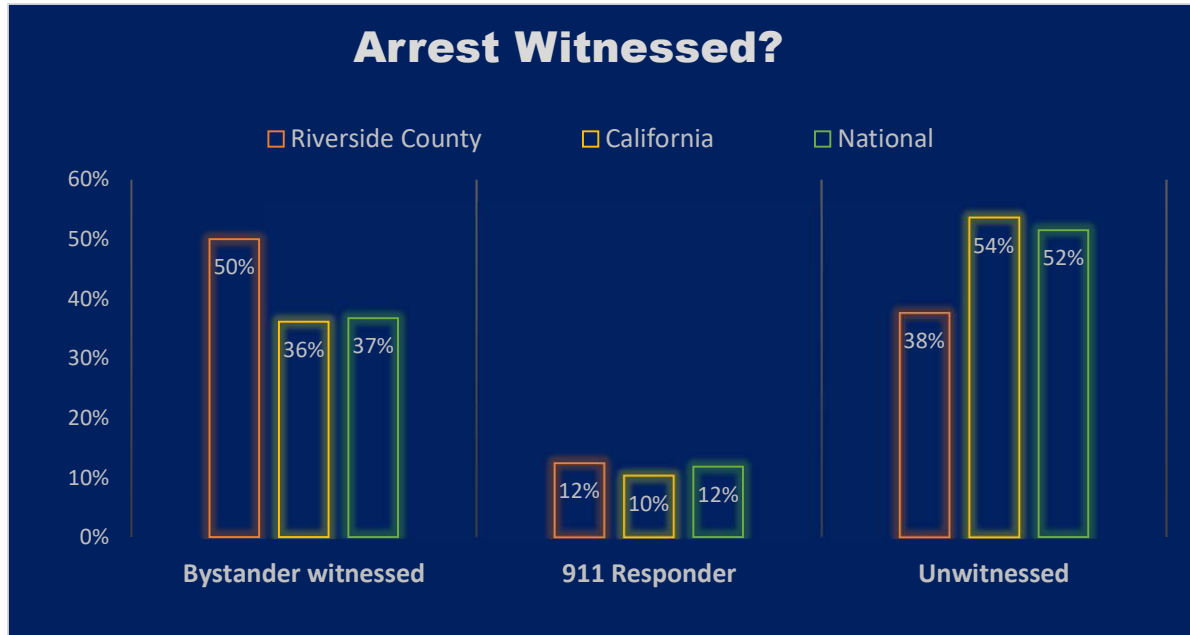


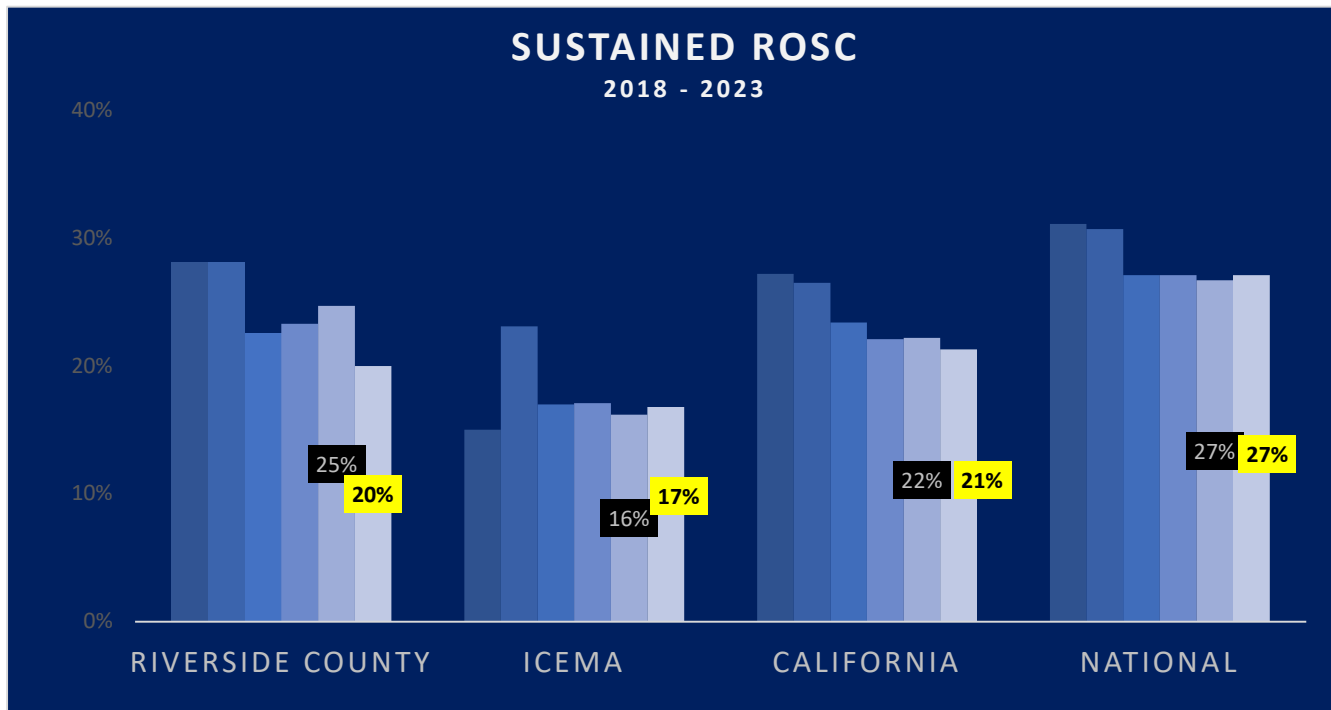
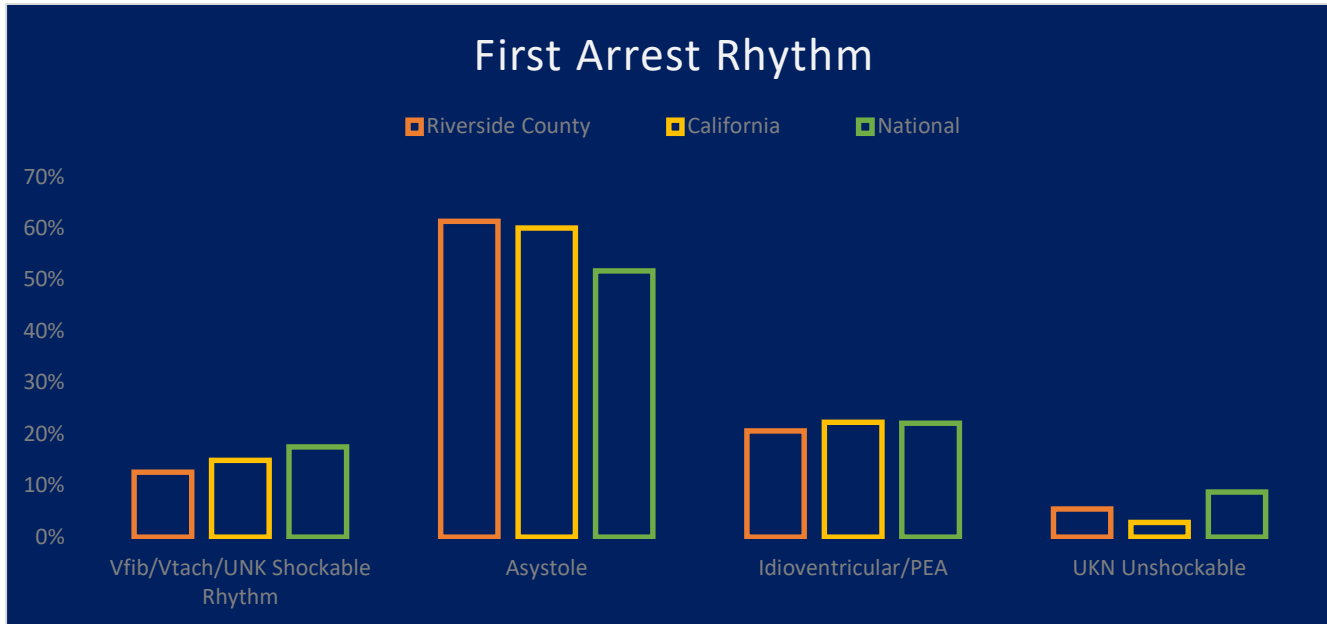
**HOME**

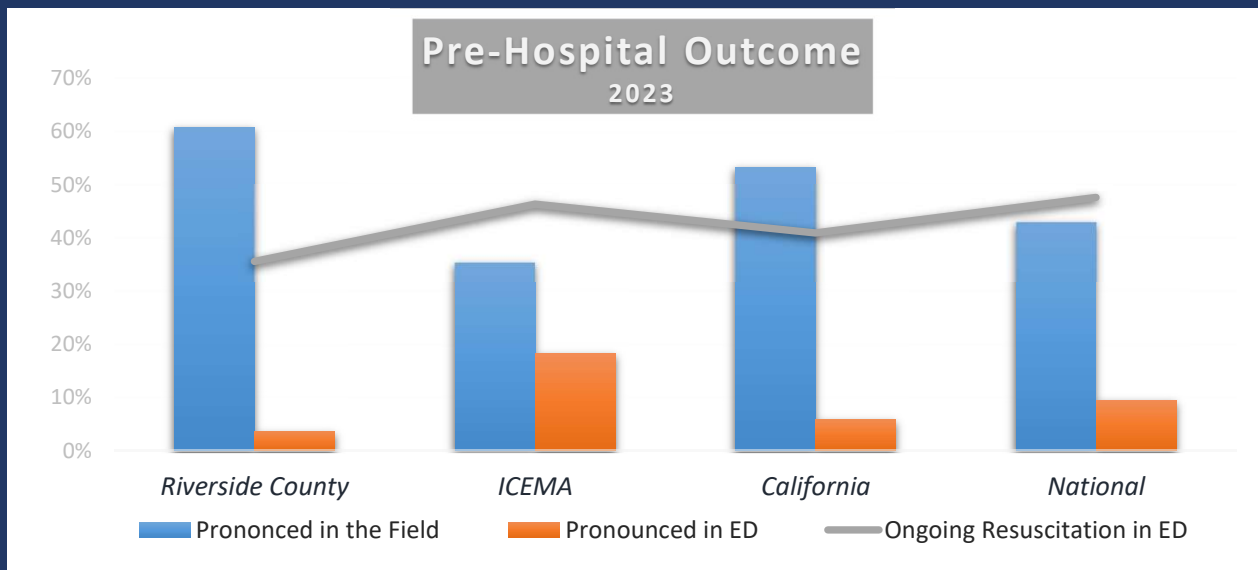


**PUBLIC**

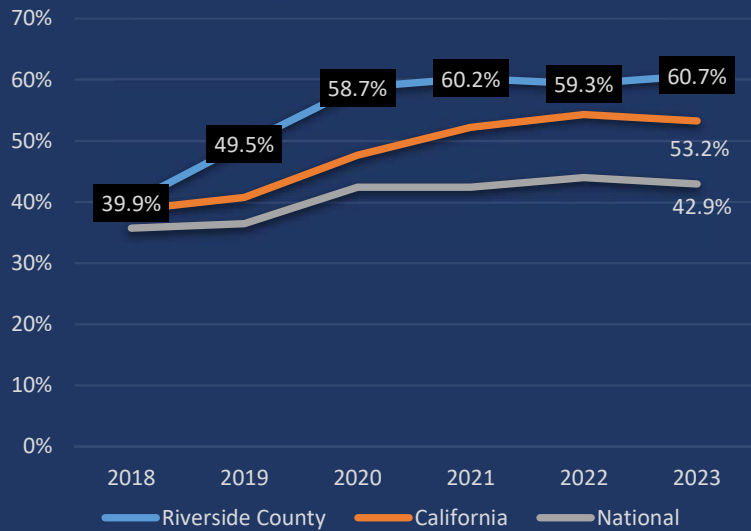




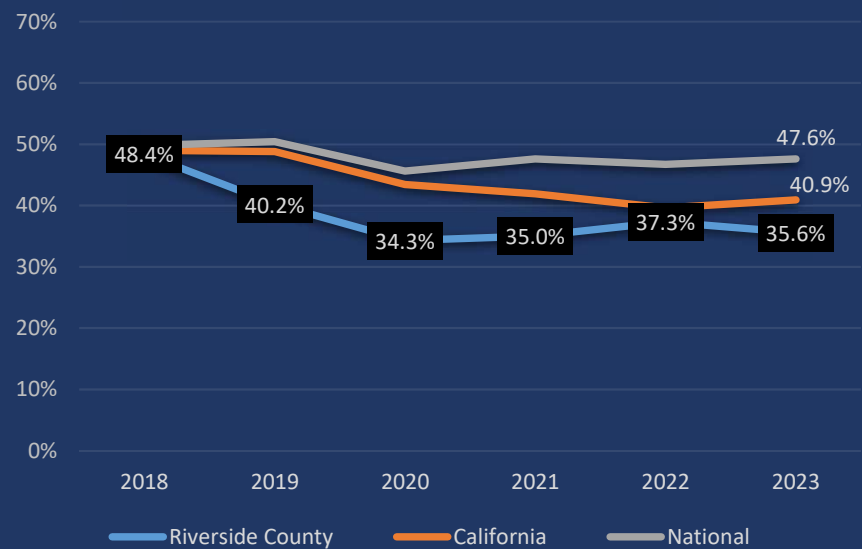




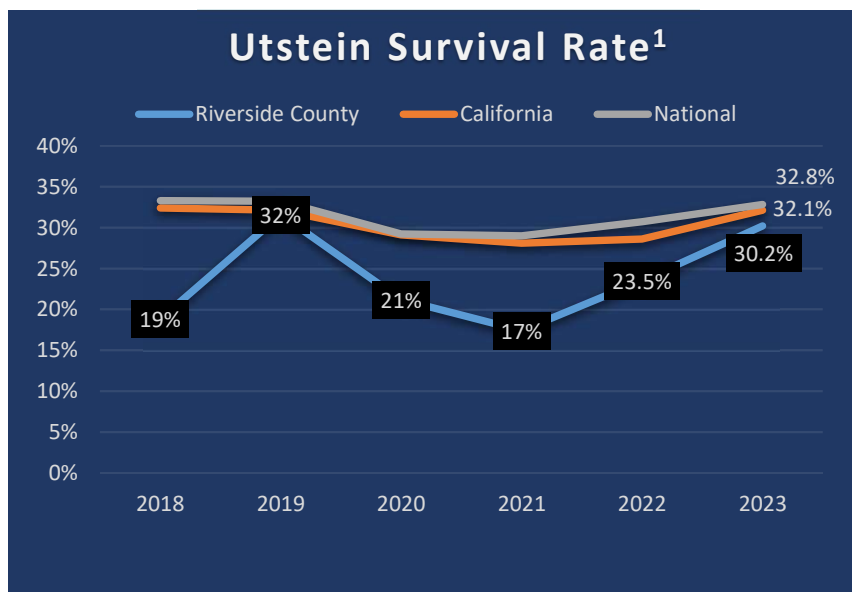
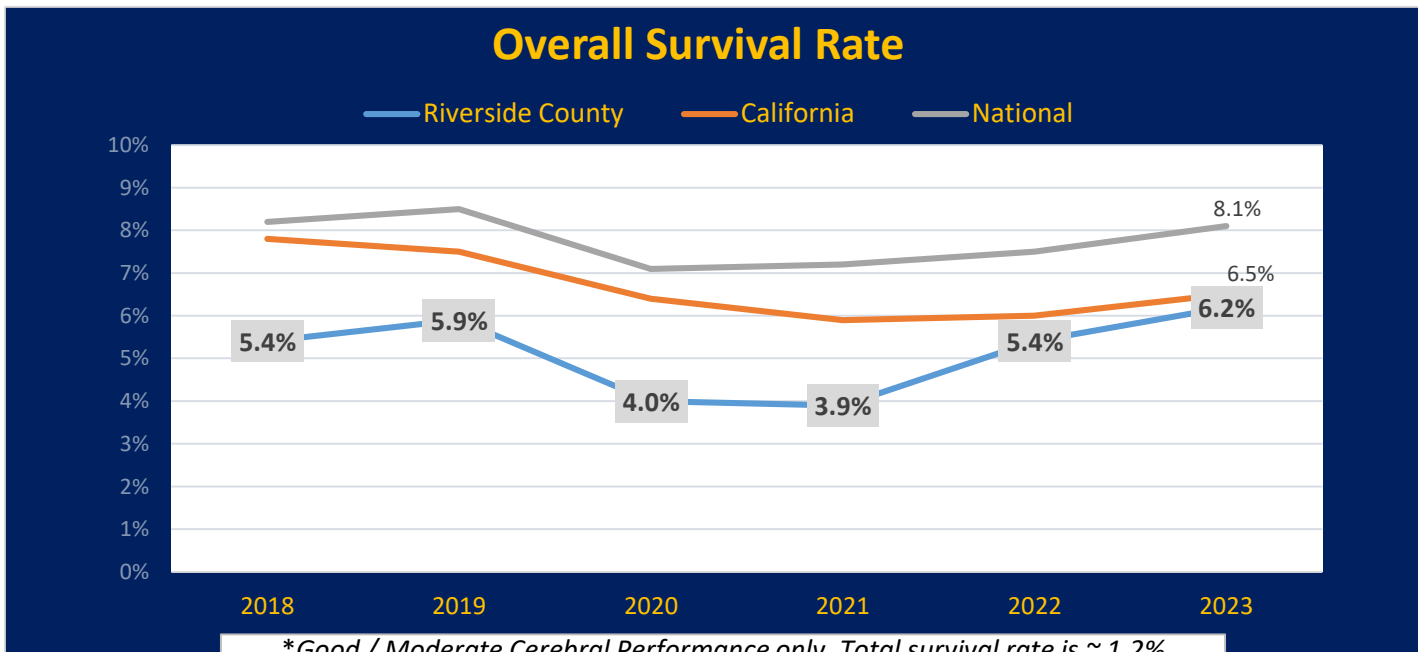
### Pronounced in the Field



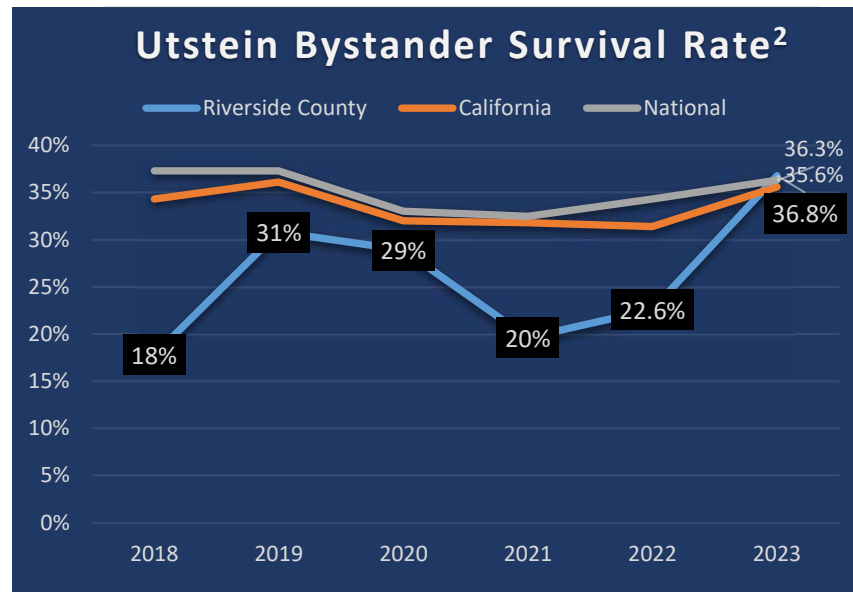
### Ongoing Resuscitation in ED







<sup>1</sup>Witnessed by bystander and found in a shockable rhythm



<sup>2</sup>Witnessed by bystander, found in shockable rhythm, and received some bystander intervention (CPR by bystander and/or AED applied by bystander)

- **SUMMARY OF FINDINGS: CARES Riverside County 2023**

- 5% reduction of medical cardiac arrests in the region compared to 2022. This is a likely result of continuing restabilization following the pandemic driven increases in medical cardiac arrests during 2020-2021. Further decrease not expected.
- Median age of medical cardiac arrest patients returned to 67, the pre-pandemic population age in Riverside County. Riverside County median age for cardiac arrests are slightly higher than ICEMA region, State, and National populations.
- Location of Arrest-Home % further decreased and Public % increased compared to 2022.
- Reported Bystander Witness Arrest % continues to be significantly higher than State and National levels.
- Continues to report a lower rate of AED utilization prior to EMS arrival. State reports >2x higher, National reports >4x higher.
- Continues to report a higher rate of "Pronounced-on-Scene" compared to State and National levels.
- Utstein and Utstein Bystander Survival rates in Riverside County have improved since 2021 and in 2023 comparable to State and National survival rates. These are based on small survival populations. Continuing trend required to clinically validate.
- *Riverside County EMS System Dashboards: <https://rivcoready.org/remsa/data-and-reports/current-reports>*
- *Information about the CARES Registry: <https://mycares.net/>*

