Ambulance Patient Offload Time Special Seasonal Report

2024-25 Seasonal Report

RIVERSIDE COUNTY EMS AGENCY

Week 15 (04/06/25 – 04/12/25)

Riverside County EMS System Status **Week 15 Summary**		
9-1-1 Responses	↑	**5,942** 9-1-1 responses — 5.7**% INCREASE** from the previous week - Pg 3
9-1-1 Transports within Riverside County	↑	**3,716** 9-1-1 transports — 6.1**% INCREASE** from the previous week - Pg 3
Ambulance Patient Offload Delay (APOD)	↑	**645** Ambulance Patient Offload Delays — 2.4**% INCREASE** from the previous week - Pg 3
APOD Hours	↑	287.4 Ambulance Patient Offload delay hours –7.1**% INCREASE** from the previous week - Pg 4
APOD Compliance	↔	**82.6%** APOD Compliance —0.7**% INCREASE** from the previous week - Pg 2
Ambulance Patient Offload Time (APOT) >90 min	↑	**68** transports with APOT >90 min — 1.5**% INCREASE** from the previous week - Pg 5
Emergency Treatment Services	↑	**73** ETS transports —22**% INCREASE** from the previous week – **99% OFFLOAD < 30 min** - Pg 6
ILI Responses	↑	**Influenza related illness (ILI) ABOVE 3 Standard Deviations from BASELINE** -Pg 8

This report and all published County EMS system reports can be found at:
http://www.rivcoready.org/remsa/data-and-reports/current-reports

Prepared by Riverside County EMS Agency – April 17, 2025

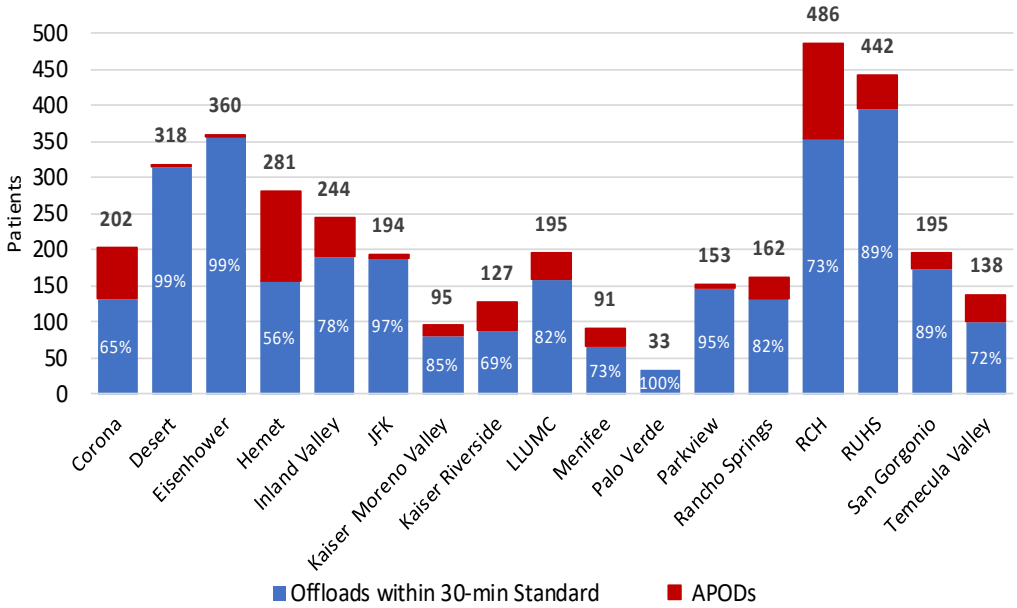
RIVERSIDE COUNTY EMS SYSTEM - SPECIAL SEASONAL REPORT

In an effort to monitor Ambulance Patient Offload Time (APOT) and influencing factors such as seasonal surge, Riverside County EMS Agency is publishing weekly reports. The following graphs and charts represent weekly aggregates of 9-1-1 Responses, Transports, and Ambulance Patient Offload Delays (APOD) across Riverside County. *(For more details on methods and definitions, reference the end of this report)*

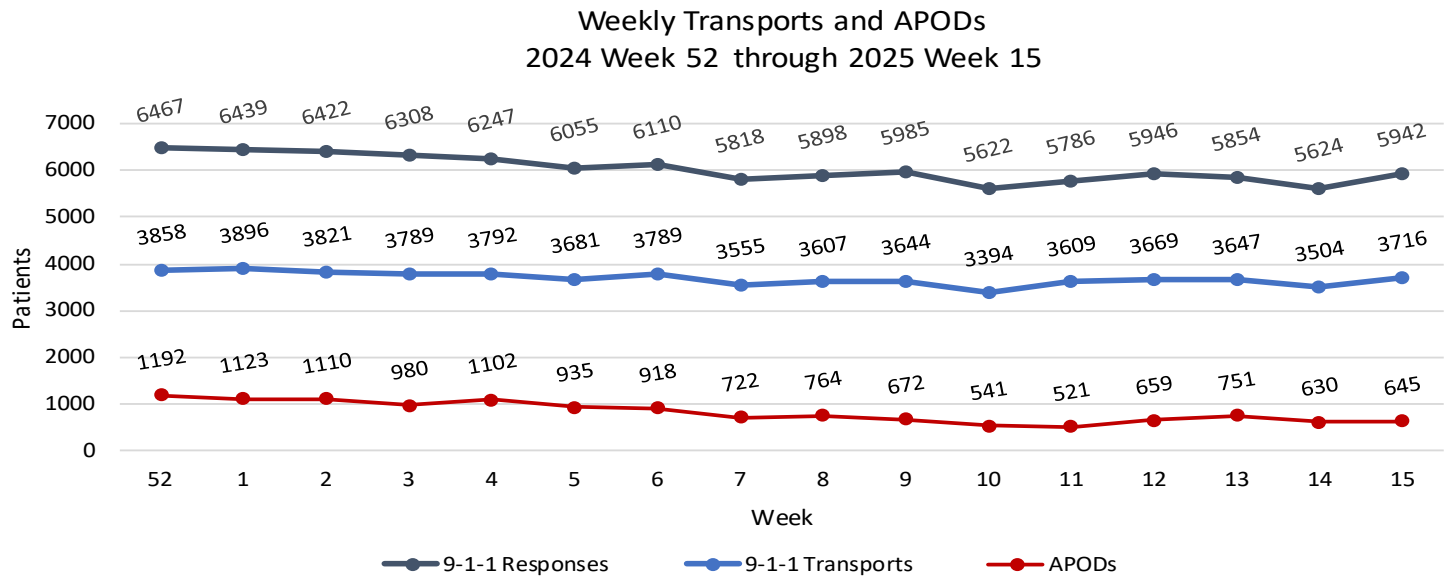
TRANSPORT & AMBULANCE PATIENT OFFLOAD TIME BY HOSPITAL

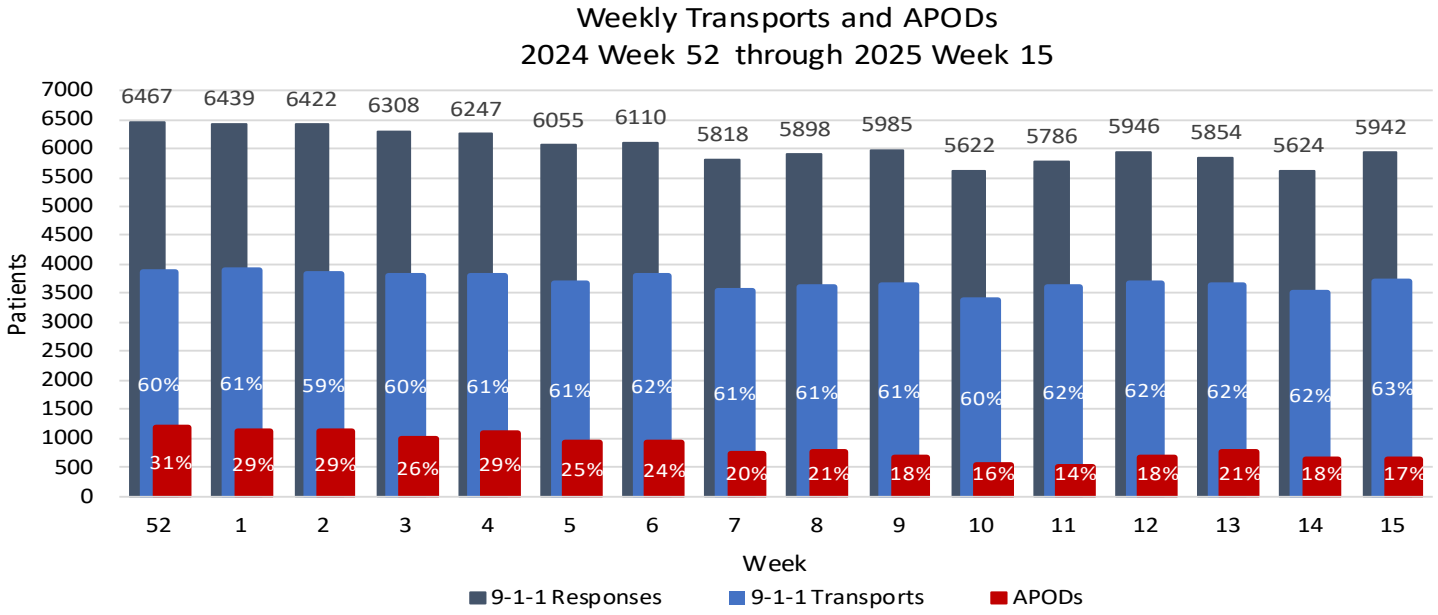
2025 WEEK 15	911 Transports	APOT	APOD Hours	APODs	APOD Compliance
Corona Regional Med Ctr	202	114:30:12	41:42:22	70	**65.3%**
Desert Regional Med Ctr	318	61:14:46	0:10:50	3	99.1%
Eisenhower Health	360	66:29:25	0:01:42	2	99.4%
Hemet Valley Hospital	281	189:59:43	73:15:08	124	**55.9%**
Inland Valley Med Ctr	244	114:01:12	35:46:42	53	78.3%
JFK Hospital	194	30:15:39	0:28:36	5	97.4%
Kaiser Hospital Moreno Valley	95	32:53:27	3:27:34	14	85.3%
Kaiser Hospital Riverside	127	60:12:24	18:31:42	39	**69.3%**
Loma Linda Univ Med Ctr Mur	195	80:34:43	13:34:45	36	81.5%
Menifee Med Ctr	91	49:29:08	14:39:10	25	72.5%
Palo Verde Hospital	33	3:44:55	0:00:00	0	100.0%
Parkview Community Hospital	153	43:28:09	1:30:37	7	95.4%
Rancho Springs Med Ctr	162	56:44:22	9:37:07	29	82.1%
Riverside Community Hospital	486	229:08:59	57:37:34	131	73.0%
Riverside University Health System	442	146:30:38	5:57:31	47	89.4%
San Gorgonio Mem Hospital	195	67:55:29	3:34:16	22	88.7%
Temecula Valley Hospital	138	57:30:40	7:31:15	38	72.5%
Totals	**3,716**	**1404:43:51**	**287:26:51**	**645**	**82.6%**

Transports and APOD Compliance by Hospital



RESPONSES, TRANSPORTS, AND APOD OVER TIME

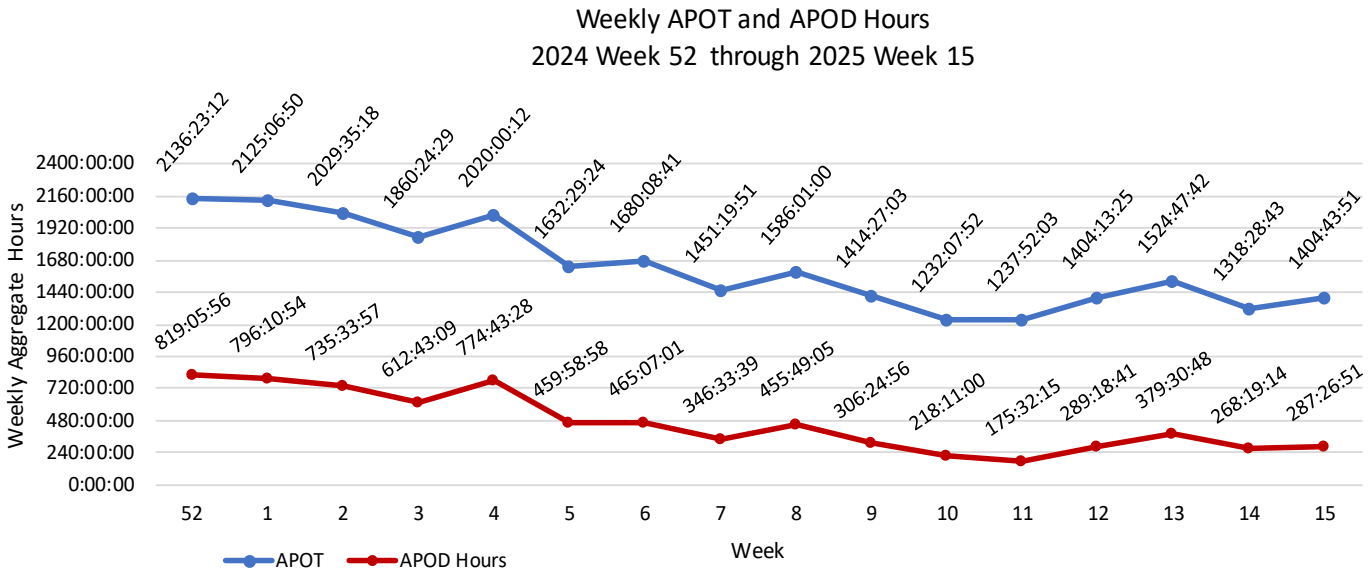




**Transports include only 9-1-1 transports to Riverside County hospitals*

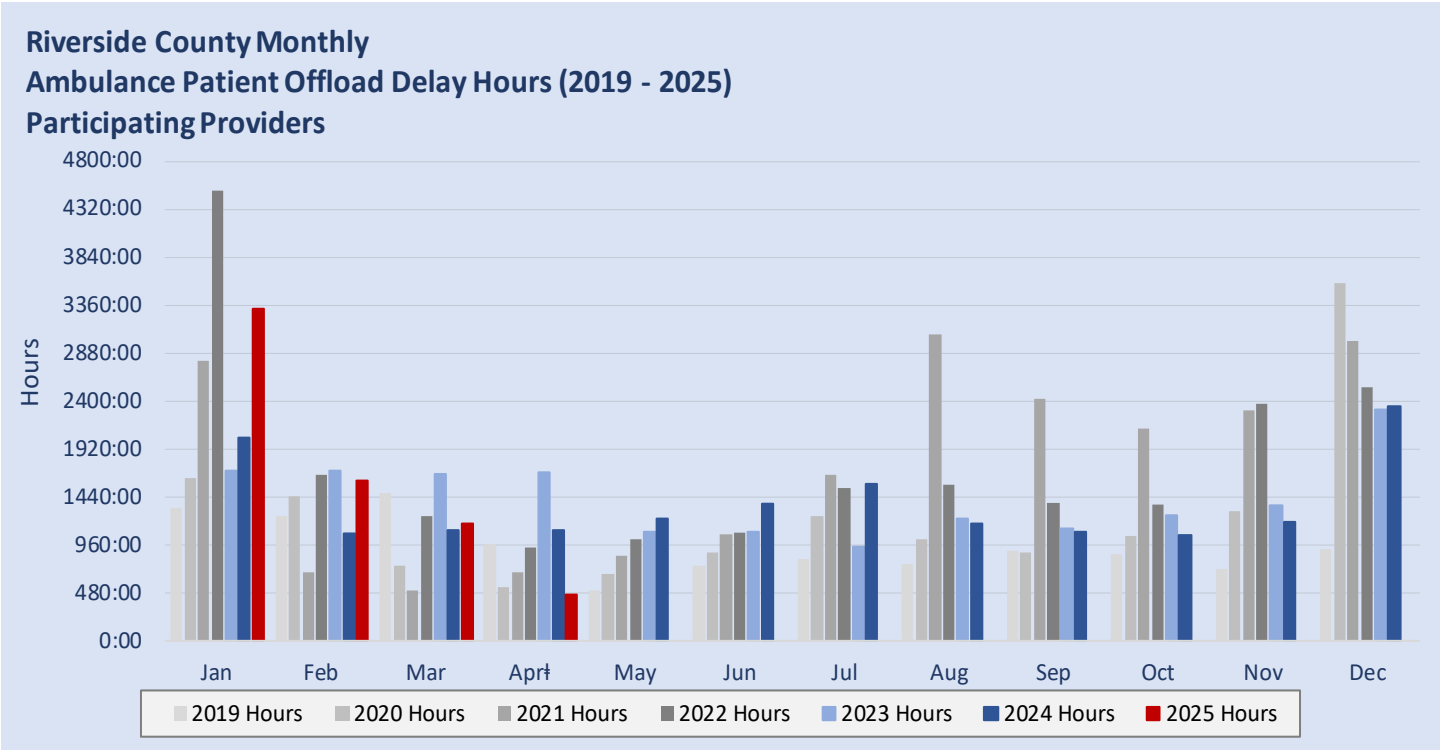
- During Week 15, there were a total of **5,942 medical emergency responses** in Riverside County—5.7% INCREASE from the previous week's total of 5,624 responses.
- During Week 15, there were a total of **3,716 transports** in Riverside County— 6.1% INCREASE from the previous week's 3,504 transports.
- During Week 15, there were a total of **645 APODs** in Riverside County— 2.4% INCREASE from the previous week's total of 630 APODs.

The following chart represents weekly aggregate APOT and APOD hours (hh:mm:ss) for the past 16 weeks. APOT begins at patient arrival at hospital (eTimes.11) and ends when patient care is transferred to the hospital (eTimes.12). APOD calculation begins when APOT exceeds the 30-minute transfer of care standard defined in REMSA Policy 4109.



- During Week 15, **APOT county-wide totaled 1404.7 hours** — 6.5% INCREASE from the previous week's total of 1318.5 hours.
- County-wide **APOD hours for Week 15 totaled 287.4 hours**, a 7.1% INCREASE from the previous week's total of 268.3 hours.

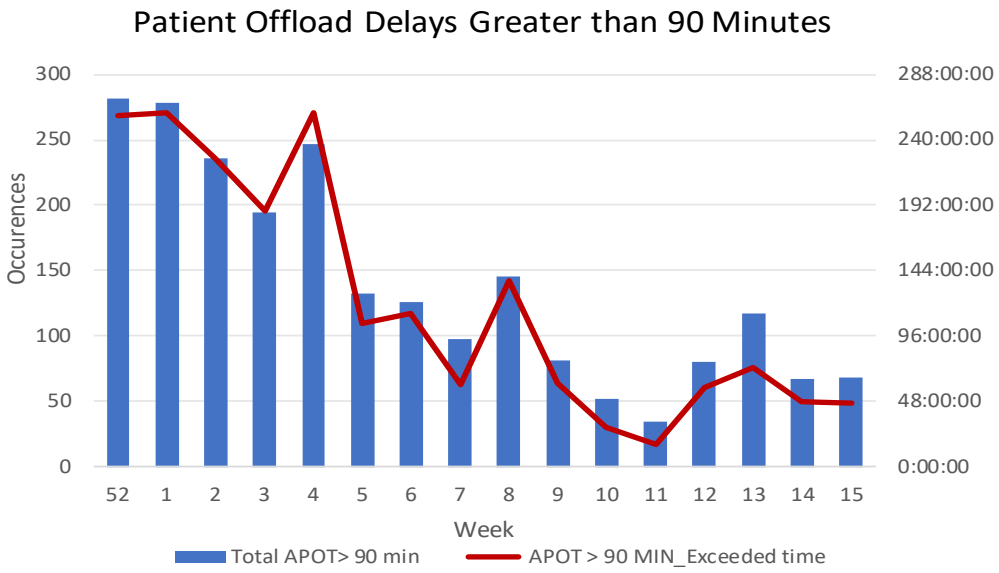
The data provided below illustrates the total APOD time (hh:mm) by month over the last five years. This chart is a summation of offload time delays only and excludes the initial 30-minute period defined as the standard transfer of care time.



**Apr ǂ is a partial month*

AMBULANCE REDIRECTION

REMSA Policy 6104 allows redirection of ambulances away from hospitals experiencing significant Ambulance Patient Offload Delays (APOD) to the next most appropriate facility. *Significant* APOD is defined as a patient remaining on an ambulance gurney for **90 minutes or greater after arrival at the hospital** (APOT > 90 min). Standard transfer of care is 30 minutes or less (APOT<30 min). Until the transfer of care is complete (patient is removed from the gurney and hospital staff assume care of the patient), ambulance crews must remain at the hospital and continue care. While patients held on excessive APODs are generally those classified as lower acuity, approximately one-third of the County's ~600 daily 9-1-1 medical responses are determined by dispatch as critical, requiring immediate medical attention (e.g., cardiac arrest, stroke, traumatic injury). As a result, excessive, or multiple APODs within the same service area impact ambulance timeliness and availability in the field posing direct risk to 9-1-1 patient safety. Ambulance redirection is one strategy to reduce the consequential backlog of EMS services which occurs when there are excessive ambulance delays at hospital emergency departments. Below is the Week 15countywide breakdown of APOD occurrences where ambulances were documented as held for greater than 90 minutes before transfer of care.



- During Week 15, **68 ambulances were delayed greater than 90 minutes** — 1.5% INCREASE from the previous week's total of 67.

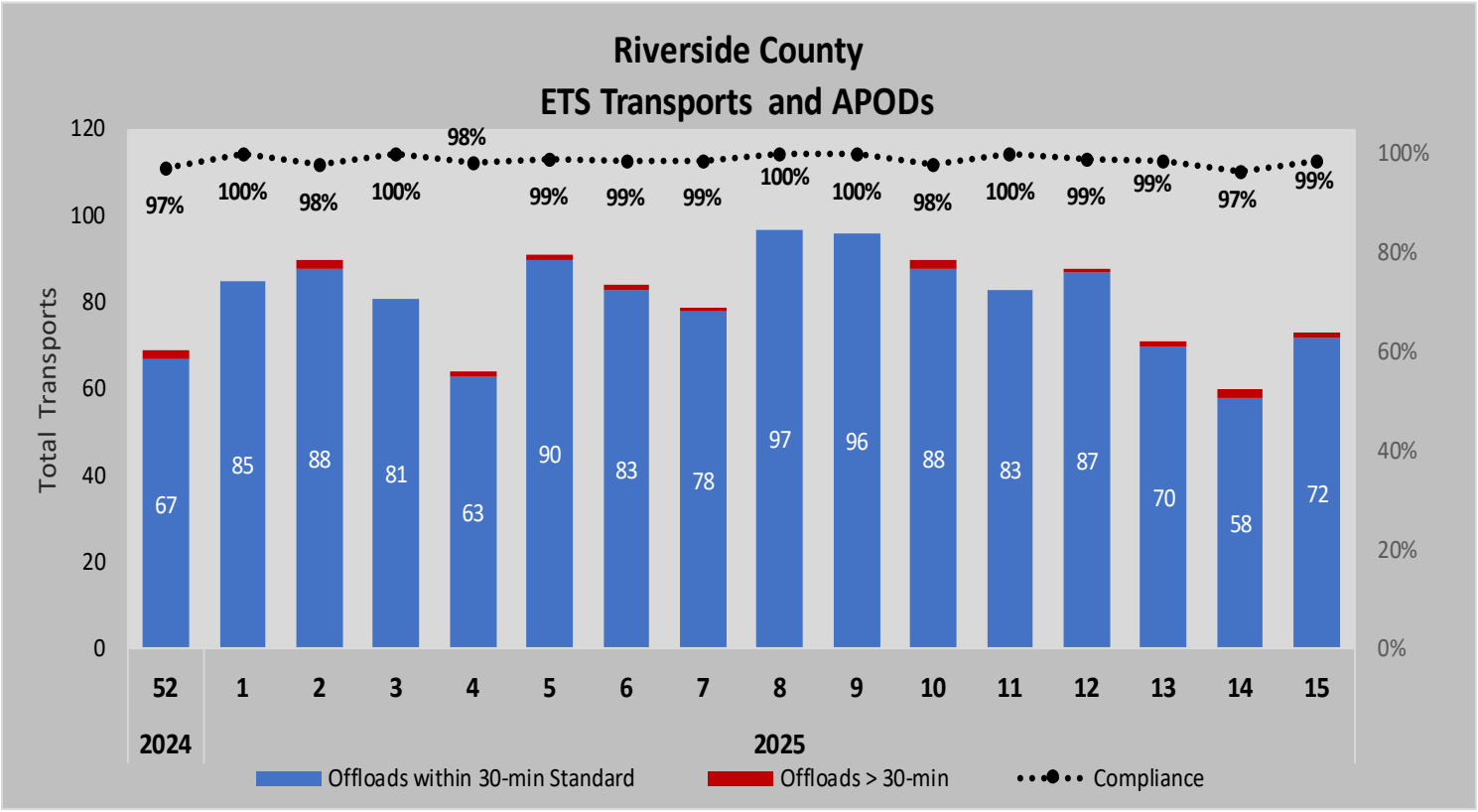
Facility	Total Time APOT>90 min (HR: MM: S)	Total Incidents APOT>90 min
Corona Regional Med Ctr	6:04:11	11
Desert Regional Med Ctr	0:00:00	0
Eisenhower Health	0:00:00	0
Hemet Valley Hospital	18:42:55	20
Inland Valley Med Ctr	6:23:43	10
JFK Hospital	0:00:00	0
Kaiser Hospital Moreno Valley	0:00:00	0
Kaiser Hospital Riverside	2:56:42	5
Loma Linda Univ Med Ctr Mur	2:57:47	3
Menifee Med Ctr	1:56:09	6
Palo Verde Hospital	0:00:00	0
Parkview Community Hospital	0:00:00	0
Rancho Springs Med Ctr	0:07:22	1
Riverside Community Hospital	7:10:57	12
Riverside University Health System	0:00:00	0
San Gorgonio Mem Hospital	0:00:00	0
Temecula Valley Hospital	0:00:00	0
Grand Total	**46:19:46**	**68**

EMERGENCY TREATMENT SERVICES

Transports to Emergency Treatment Services (ETS) comprise over 3% of overall transports. This is significant enough to impact the EMS system and, therefore, warrants reporting. However, transports to ETS do not meet the EMSA definitions for APOT (see page 10); therefore, they are not included with the previous APOT aggregates.

ETS Snapshot- 2025 Week 15					
	Transports to ETS	Total Offload Time	APOD Hours HH:MM:SS	Offload >30min	Compliance
Emergency Treatment Services	73	16:58:29	0:01:54	1	98.6%

The chart below represents Riverside County's total number of *ETS ambulance transports, patient offload delay (APOD), and percent compliance* for the current week and a rolling 15 weeks prior.

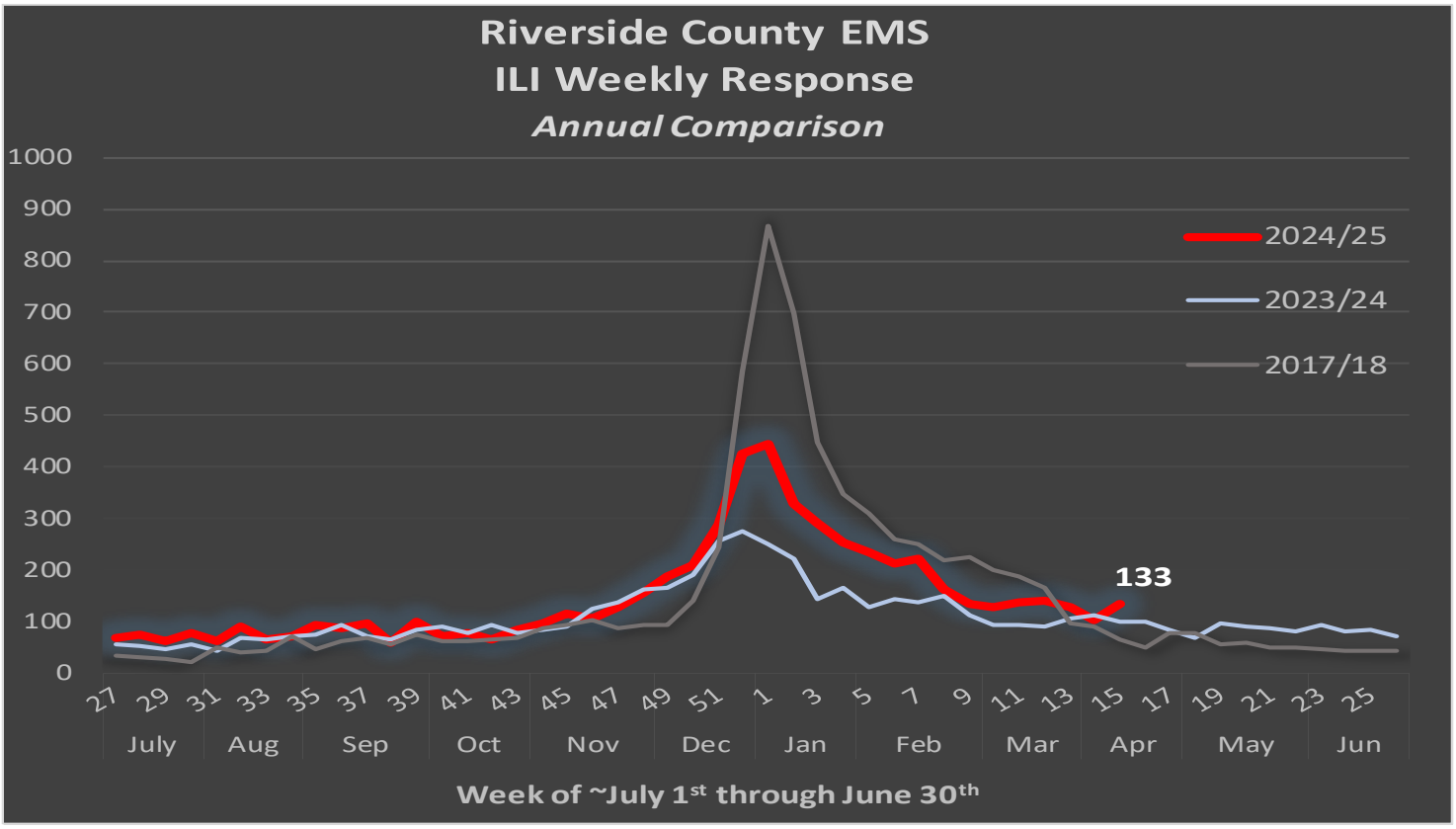


- During Week 15, there was a total of **73 transports to ETS** – **22%** INCREASE from the previous week.
- During Week 15, **99% resulted in offload < 30 minutes.**

ILI - INFLUENZA-LIKE ILLNESS RESPONSE

While influenza is detected year-round, it occurs most commonly during fall and winter seasons. Increases in influenza-like-illness (ILI) generally begin in October and peak between December and February. *(For more information see https://www.cdc.gov/flu/about/season.html).*

Hospital Emergency Departments (EDs) generally experience an increase in volume during flu season which, in turn, can impact Ambulance Patient Offload Time and Delays (APOT/APOD). During the 2017/18 flu season, Riverside County experienced a significant surge related to Influenza-like Illness responses which temporarily but significantly impacted availability of 911 medical services throughout the County. The purpose of the Riverside County EMS system ILI reporting is to improve tracking of influenza-related activity and facilitate EMS preparedness in the event of a significant surge event, similar or greater than that observed during the 2017-18 flu season.



Week 40 (~October 1st) is defined by the Center for Disease Control (CDC) as the expected start of increasing influenza activity, or "flu season". Riverside County EMS Agency monitors influenza-like illness (ILI) year-round for better detection of seasonal or abnormal surges which can impact EMS utilization.

The ILI trigger evaluates electronic patient report (ePCR) data using the following methodology*:

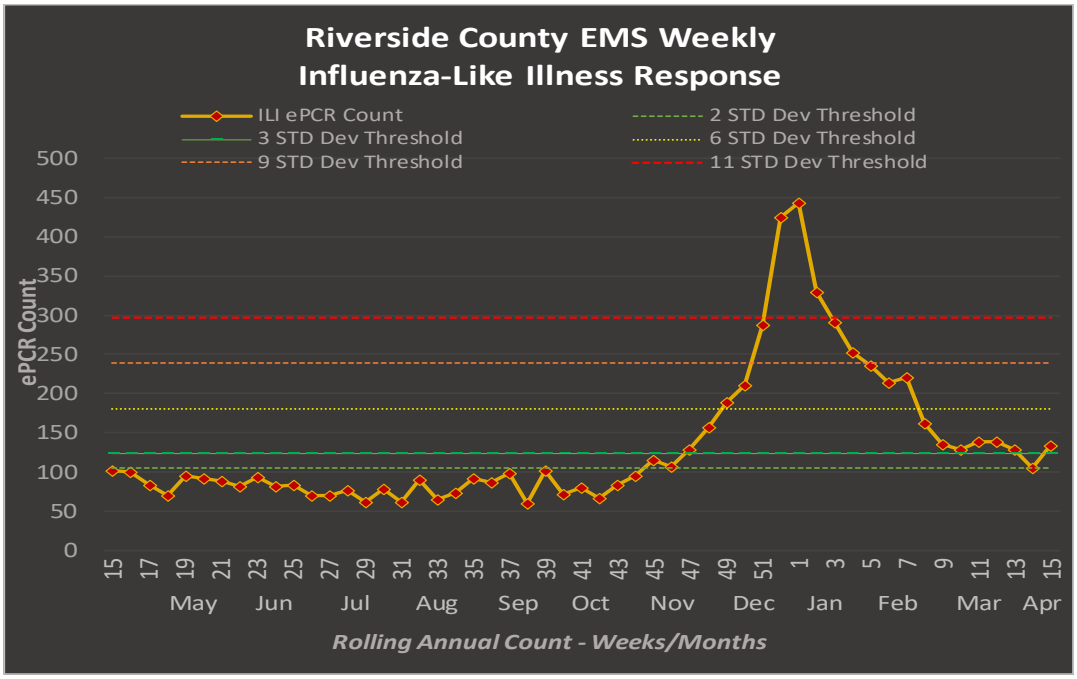
1. Filters primary or secondary impression of "Cold/Flu Symptom" (current NEMSIS/ICD-10 value = J00) **AND**
2. Responses involved only with Transporting units (current NEMSIS value = eResponse.14) **AND**
3. Response type of service requested (current NEMSIS value =eReponse.05) as **9-1-1 Response**

**ILI methodology modified in 2024/25 season to optimize ILI detection using EMS provider impression and documentation only, further reducing false positive rates.*

ILI - INFLUENZA-LIKE ILLNESS RESPONSE *(CONT.)*

The threshold values listed in the graph below are based on averages across previous years' non-peak flu seasons (averages across weeks 13-38 for the following years: 2019, 2022-2024; 2020 and 2021 are removed due to unusual ILI patterns observed during the Covid-19 pandemic).

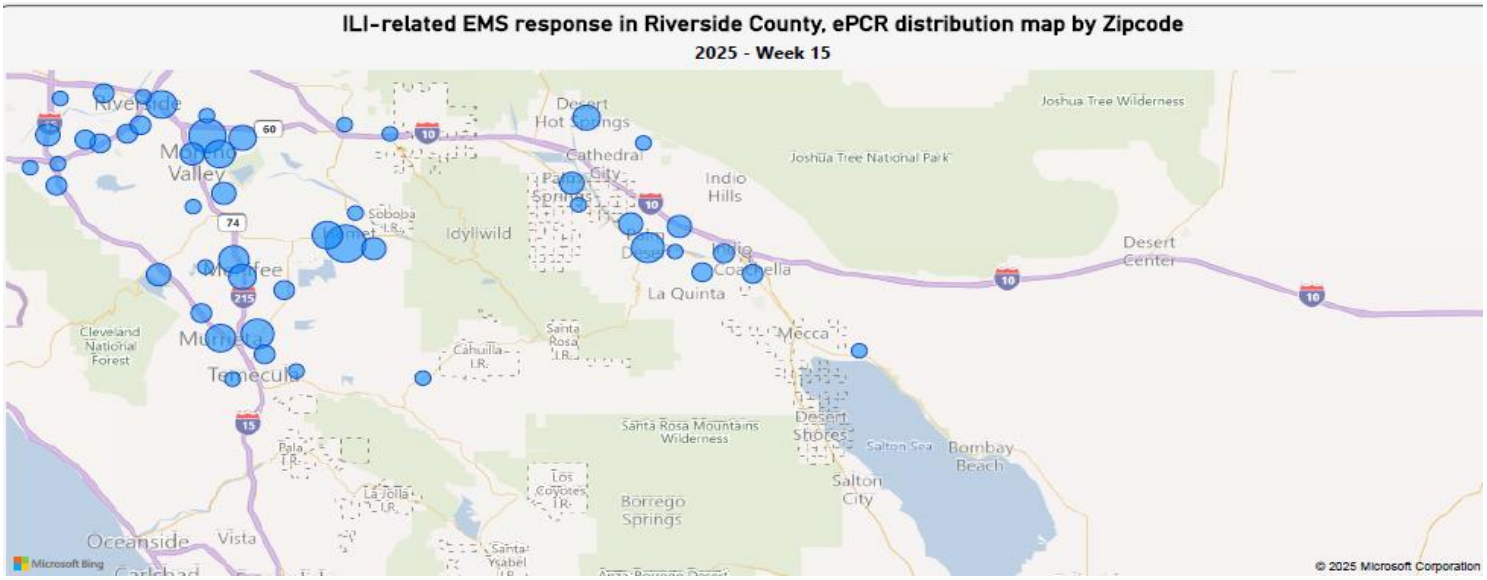
EMS ILI response three standard deviations above the calculated baseline average during non-peak flu seasons is recognized as the first level of increase in flu activity. Surges are identified when actual volume surpasses those thresholds and are defined as color levels adapted from the *CDPH Standards and Guidelines for Healthcare Surge During Emergencies* (actual response status for the EMS system may differ):



PUBLIC HEALTH AND MEDICAL SYSTEM STATUS	
Green	The Public Health and Medical System is in a usual day-to-day status. Situation resolved; no assistance required.
Yellow	The Public Health and Medical System is managing the incident using local resources. No assistance required.
Orange	The Public Health and Medical System may require assistance from within the local jurisdiction/operational area.
Red	The Public Health and Medical System may require assistance from outside of the local jurisdiction/operational area.
Black	The Public Health and Medical System may require significant assistance from outside of the local jurisdiction/operational area.
Gray	Status Unknown

https://www.cdph.ca.gov/Programs/EPO/CDPH%20Document%20Library/FinalEOM712011.pdf

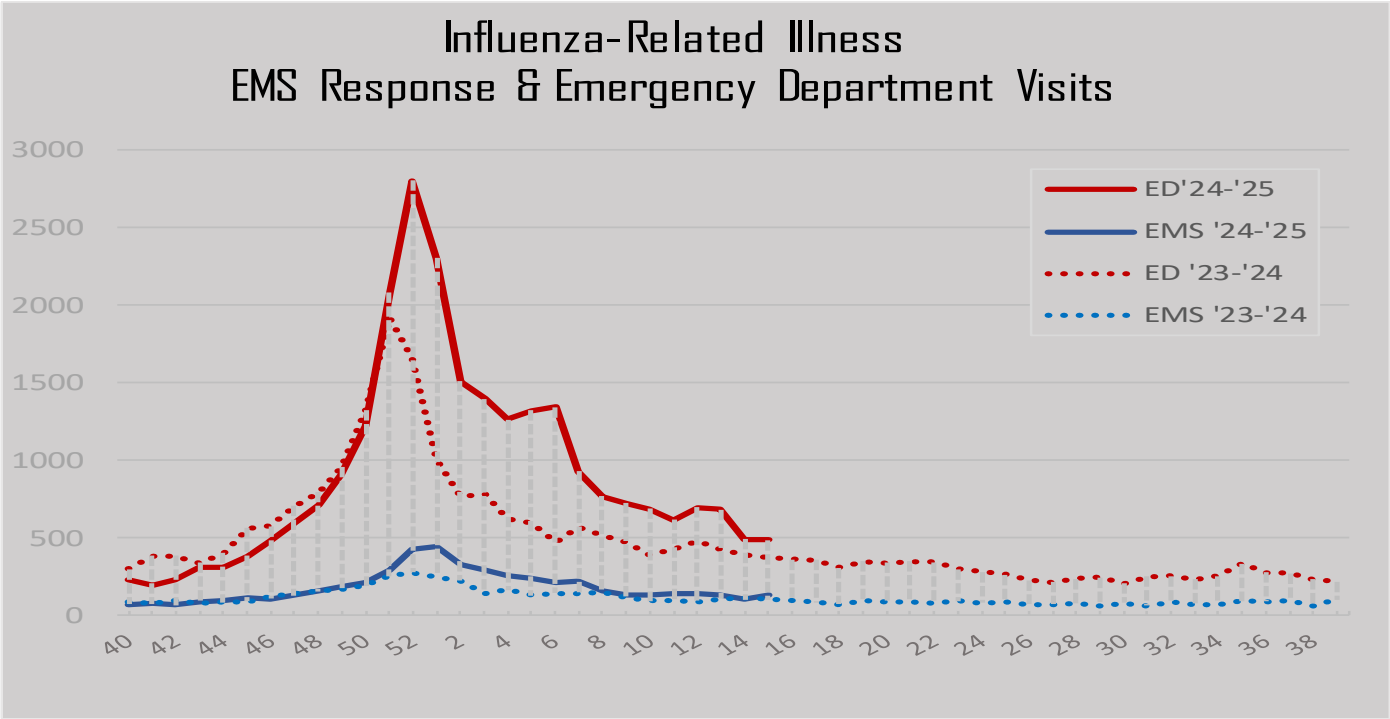
During Week 15, EMS ILI response is ABOVE the THREE (3) standard deviation threshold compared to ILI activity during non-peak flu season levels (weeks 13-38).



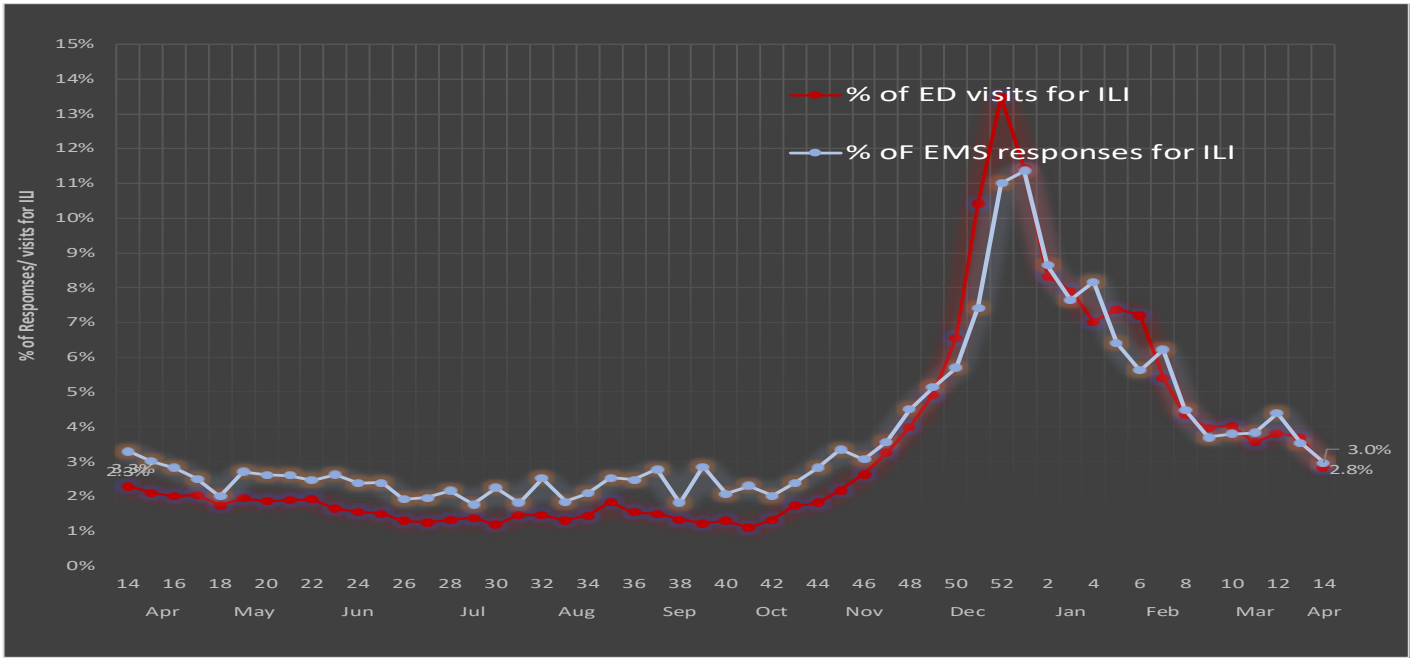
ILI-related EMS response in Riverside County, ePCR distribution map: Week 15

RIVERSIDE COUNTY PUBLIC HEALTH INFLUENZA-LIKE ILLNESS DATA

Riverside County Public Health Department – DOPH collects Emergency Department ILI activity data from the Center for Disease Control's (CDC) *Early Notification of Community-based Epidemics (ESSENCE)* system as part of the National Syndromic Surveillance Program (NSSP). Sixteen of 17 Riverside County hospitals participate in ESSENCE. The graph below provides a comparison between Riverside County's EMS ILI responses and Emergency Department (ED) ILI visits for the current year compared to the previous year.



Starting Week-44 2023, Loma Linda Medical Center's data is added to ED volume.



EMS ILI responses and ED ILI visits as a percentage of their respective total volume *– adapted from CDC methodology. Note: EMS percent calculation modified for 2024/25 season. EMS % is now based on transport (ambulance) provider calls only to better represent patient count. In Riverside Co., generally ambulance and fire units arrive on 911 scene and create separate patient records.*

For Riverside County Public Health Department Influenza Reporting, see https://www.rivco-diseasecontrol.org/

APOT AND APOD DEFINITIONS

9-1-1 Ambulance Response

For the purpose of reporting valid, unduplicated response counts, only ground transport units responding to 9-1-1 incidents are included in this report. This excludes records from First Responder Fire Agencies arriving on scene with transport agencies as part of Riverside County's 9-1-1 dual medical response system. It also excludes non-emergency interfacility or other transport types (i.e., air ambulance) where a 30-minute time standard would not apply.

Ambulance Patient Offload Time (APOT)

The time interval between the arrival of a 9-1-1 patient at an Emergency Department (ED) and the time that patient is transferred from the ambulance gurney to a bed, chair, or other acceptable location, and the ED assumes responsibility of care.[1] The Clock Start (eTimes.11) is the time of patient arrival at the destination (hospital), and the Clock Stop (eTimes.12) is the time patient care is transferred.[2] REMSA obtains both times from the Electronic Patient Care Report (ePCR).

Ambulance Patient Offload Delay (APOD)

Any delay in ambulance patient offload time (APOT) that exceeds the local ambulance patient offload time standard (Riverside County EMS Agency applies a 30-minute standard). This shall also be synonymous with "non-standard patient offload time" as referenced in the Health and Safety Code.[3] If the transfer of care and patient offload from the ambulance gurney exceeds the 30-minute standard, it will be documented and tracked as "APOD".[4] *The Riverside County ePCR system requires medics to enter an " APOD Reason" when APOT exceeds the 30-minute standard. While the number of APODs documented as non-ED-related is nominal, beginning in Week-1 of 2022, only delays identified as having an ED origin are counted against APOD compliance for a more precise metric.*

APOD Compliance

Frequency comparison expressed in percentage between the total number of transports and those resulting in APODs having a documented ED-related origin.

Emergency Treatment Services (ETS) Ambulance Patient Offload Delay (APOD)

Transport to ETS maintains the 30-minute offload standard, however, ETS APOD includes 9-1-1 and interfacility transports (IFTs) as approximately three-quarters of ETS transports are IFTs from other medical facilitates.

Additional Data Definitions

Data in this report has been collected from ePCRs (electronic patient care reports) from FirstWatch® and are available after they have been completed by the provider. There is, therefore, an inherent latency to the availability of these records. Due to this latency, subsequent reports may feature slightly different aggregate numbers than earlier reports for the same reporting period. The difference is insignificant (averaging less than .1%) and does not impact overall compliance.

Data in this report includes all transports to the 17 hospitals monitored by REMSA in the respective week relative to the date and time the incident originates (eTimes.03--Dispatch Notified Date/Time). For example, if an incident originates on day-7 of the current reporting week, and the patient is subsequently transferred to the care of an emergency department after midnight which falls on day-1 of the subsequent week, that incident will be included in the current reporting week.

-For inquiries, please contact Riverside County Emergency Management Department (EMD), EMS Agency (951) 358-5029
-Current report prepared by Sudha Mahesh & Catherine Borna Farrokhi, EMD, EMS Agency

[1] Health and Safety Code Division 2.5, Chapter 3, Article 1, Section 1797.120(b)
[2] Ambulance Patient Offload Time (APOT) Standardized Methods for Data Collection and Reporting, approved by EMS Commission 12/14/2016. https://emsa.ca.gov/wp-content/uploads/sites/71/2017/09/APOT-Methodology_Guidance-2016.pdf
[3] Ibid., APOT-1 Specifications
[4] REMSA Policy 4109, Transfer of Patient Care
[7] Calkins MM, Isaksen TB, Stubbs BA, Yost MG, Fenske RA (2016). Impacts of extreme heat on emergency medical service calls in King County, Washington, 2007-2012:relative risk and time series analyses of basic and advanced life support. Environ Health. doi: 10.1186/s12940-016-0109-0
[8] Sheridan SC, Kalkstein AM, Kalkstein LS (2009). Trends in heat-related mortality in the United States, 1975–2004. Natural Hazards 50:1, 145-160
[9] Guo Y, Gasparrini A, Armstrong BG (2017). Heat Wave and Mortality: A Multicountry, Multicommunity Study. Environ Health Perspect. 2017;125(8):087006. doi:10.1289/EHP1026
[10] CDC, Climate and Health Program. 2010. https://www.cdc.gov/climateandhealth/effects/default.htm