RIVERSIDE COUNTY EMS AGENCY

Ambulance Patient Offload Time

Week 1 (12/29/19 – 01/04/20)

2019-20 Seasonal Report

This report and all current and recent APOT reports can be found online at:
http://www.rivcoems.org/Documents/Reports-Current

Prepared by Sudha Mahesh, Riverside County EMS Agency – January 20, 2020

SPECIAL SEASONAL REPORT

In an effort to monitor seasonal surge in Ambulance Patient Offload Time (APOT) during the 2019-20 Influenza season, Riverside County EMS Agency is publishing weekly reports. The following charts represent weekly aggregate APOT/APOD data for the past 10 weeks, updated weekly.

Weekly Transports and APODs
2019 Week 44 through 2020 Week 1
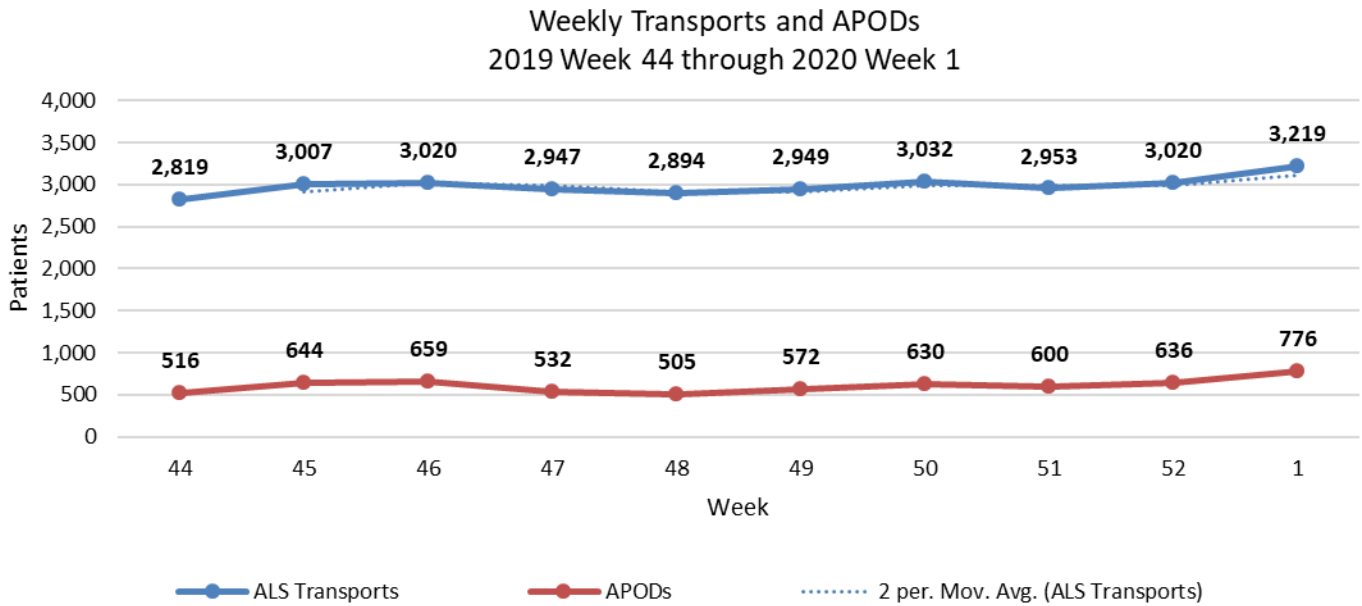
- During 2020 Week 1, there was a total of **3219 transports in Riverside County**— a **6.6%** INCREASE from the previous week's 3020 transports.
- The number of **APODs in Week 1 was 776,** which is **22.0%** ABOVE the previous week's total of 636 APODs.

Weekly APOT and APOD Hours
### 2019 Week 44 through 2020 Week 1
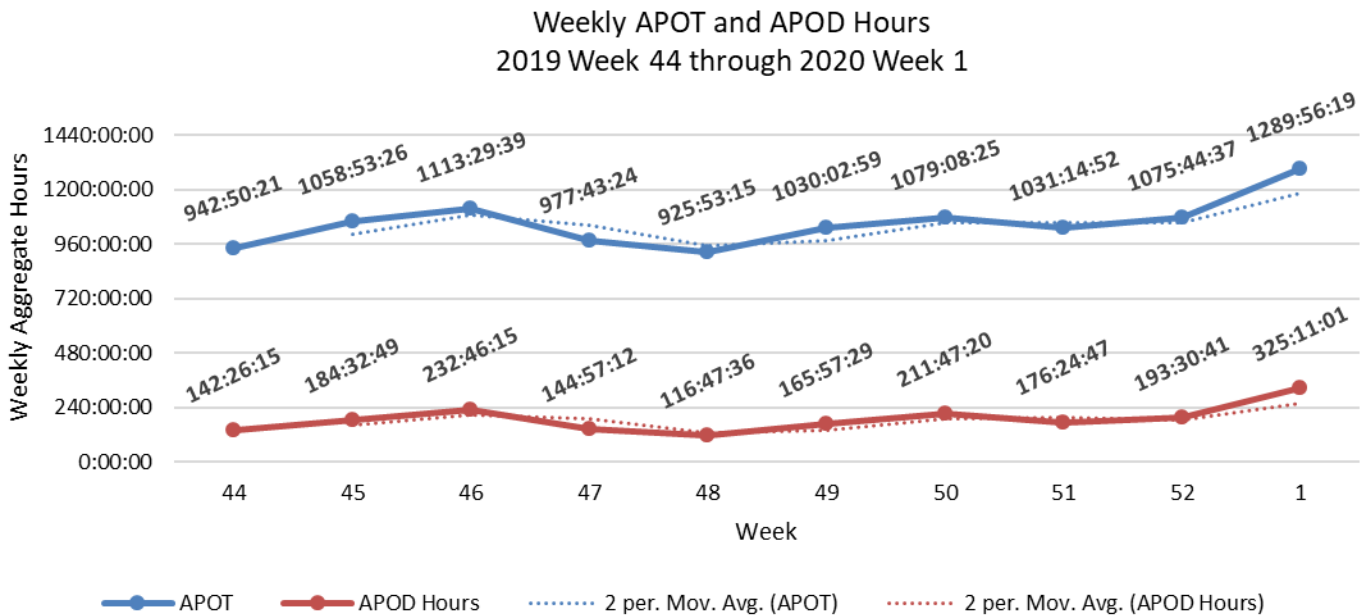
- During 2020 Week 1, **APOT county-wide totaled 1289.9 hours** —**19.9 %** ABOVE the previous week's total of 1075.7 hours.
- County-wide **APOD hours for Week 1 totaled 325.2 hours**, a **68.0 %** INCREASE from the previous week's total of 193.5 hours.

RIVERSIDE COUNTY AMBULANCE PATIENT OFFLOAD TIME

The data provided illustrates total ambulance patient offload delay time (hh:mm:ss) by month for 2016 through the current Week 1 from hospitals within Riverside County. To qualify for this chart, the duration of offload delay must be greater than 30 minutes, and only the time period after the first 30 minutes is summed.

Beginning January 2017, offload times represented are measured using time of patient arrival at hospital (eTimes.11) until the time of patient transfer (eTimes.12) as represented on the ePCR (electronic patient care report). This represents a different methodology in offload time measurement. *Prior to January 2017, offload times were calculated using CAD times, beginning with the time that dispatch placed the ambulance on bed delay status until the time the ambulance left the hospital.*

Riverside County Monthly Ambulance Patient Offload Delay Hours (2016 - 2020) Participating Providers
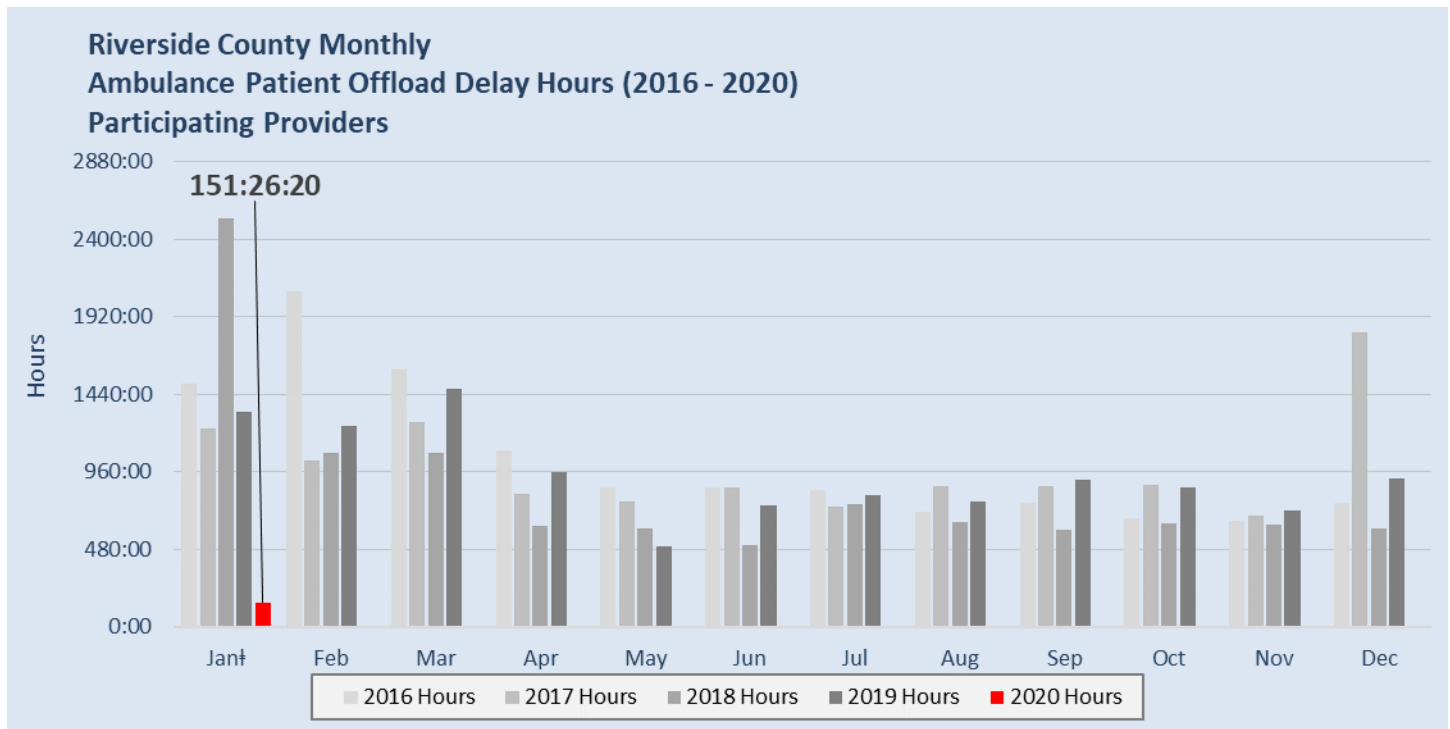
For May of 2016, actual totals may have been slightly higher than are reported due to a 3-day CAD outage.
**Beginning August 2017, times represented include all participating providers. Prior to August, data included AMR responses only.*
ǂJanuary 2020 *is a partial month*

APOD AMBULANCE REDIRECTION

On October 1, 2019, Riverside County EMS Agency activated Policy 6104 (http://www.remsa.us/policy/6104.pdf) to allow redirection of ambulances from hospitals that have extended Ambulance Patient Offload Delay (APOD)--to the closest most appropriate hospital that does not have extended APOD. Extended APOD is a patient remaining on an ambulance gurney for 90 minutes or greater after arrival at a hospital. The table below shows the ambulance diversions that occurred during Week 1.

|	Occurrences of APOD Redirection
Corona Regional Medical Center	5
Hemet Valley Medical Center	1
Kaiser Permanente Moreno Valley Medical Center	1
Kaiser Permanente Riverside Medical Center	2
Loma Linda University Medical Center--Murrieta	1
Parkview Community Hospital	1
Riverside Community Hospital	13
Grand Total	**24**

AMBULANCE PATIENT OFFLOAD TIME BY HOSPITAL

For 2020 Week 1

Key:	High	Low/Best

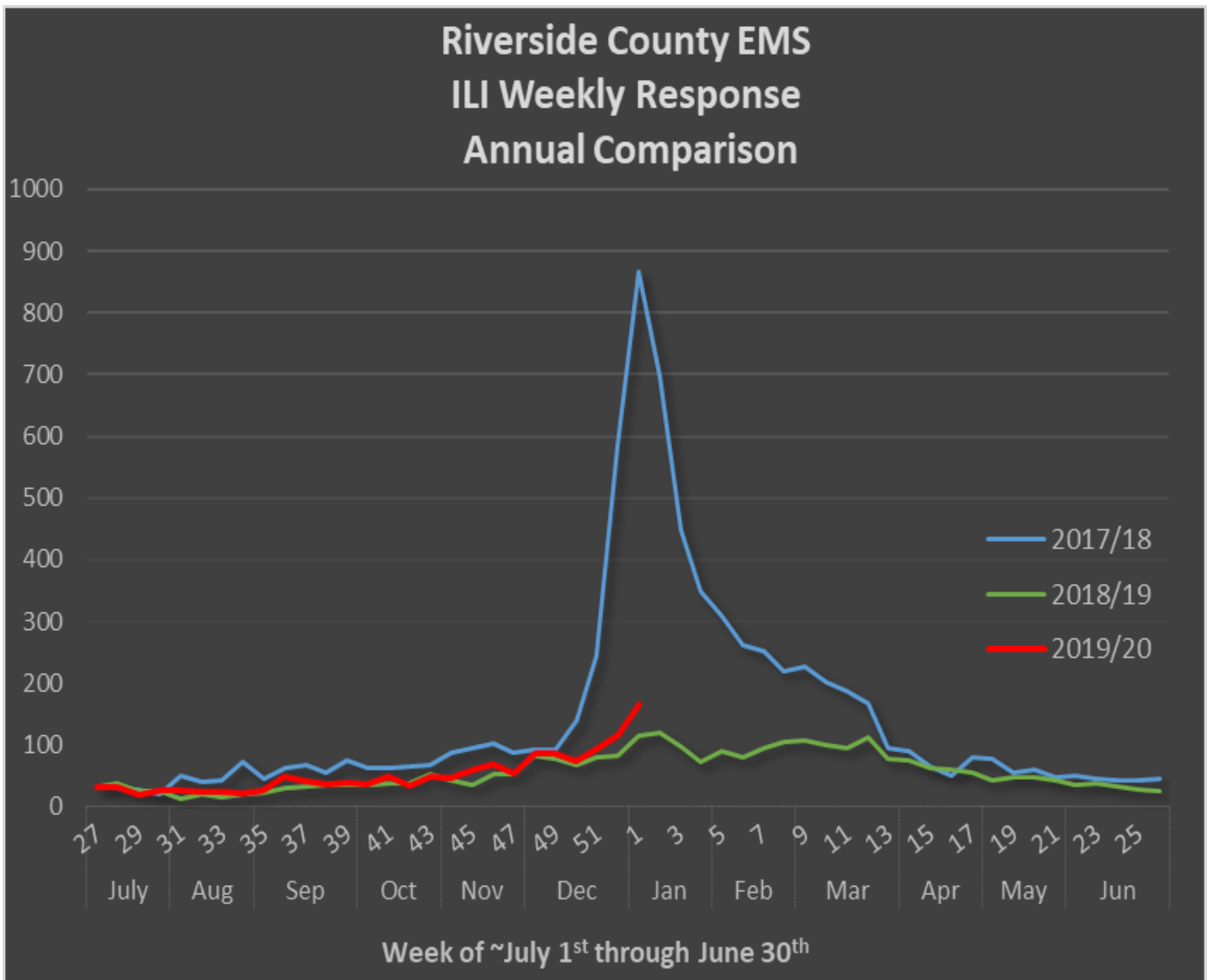| APOT Snapshot					
	ALS Transports	APOT	APOD Hours	APODs	APOD Compliance
Corona Regional Med Ctr	169	89:01:09	31:24:54	59	65.1%
Desert Regional Med Ctr	300	89:57:05	12:10:14	47	84.3%
Eisenhower Health	**352**	58:09:29	1:25:48	8	97.7%
Hemet Valley Hospital	337	170:05:28	40:33:01	142	57.9%
Inland Valley Med Ctr	214	71:43:30	9:54:43	40	81.3%
JFK Hospital	146	18:29:47	0:06:36	1	99.3%
Kaiser Hospital Moreno Valley	79	38:56:17	14:29:17	26	67.1%
Kaiser Hospital Riverside	141	65:06:12	23:07:29	25	82.3%
Loma Linda Univ Med Ctr Mur	121	65:21:39	19:33:03	40	66.9%
Menifee Med Ctr	62	27:15:22	5:59:51	15	75.8%
Palo Verde Hospital	**40**	**3:22:07**	**0:00:00**	**0**	**100.0%**
Parkview Community Hospital	176	86:59:12	24:30:30	66	62.5%
Rancho Springs Med Ctr	136	38:09:04	2:37:15	13	90.4%
Riverside Community Hospital	290	**223:48:37**	**107:36:54**	**164**	**43.4%**
Riverside University Health System	340	123:49:30	14:48:27	64	81.2%
San Gorgonio Mem Hospital	168	51:49:23	3:18:26	18	89.3%
Temecula Valley Hospital	148	67:52:28	13:34:33	48	67.6%
Totals	**3,219**	**1289:56:19**	**325:11:01**	**776**	**75.9%**

Transports and APODs by Hospital
2020 Week 1
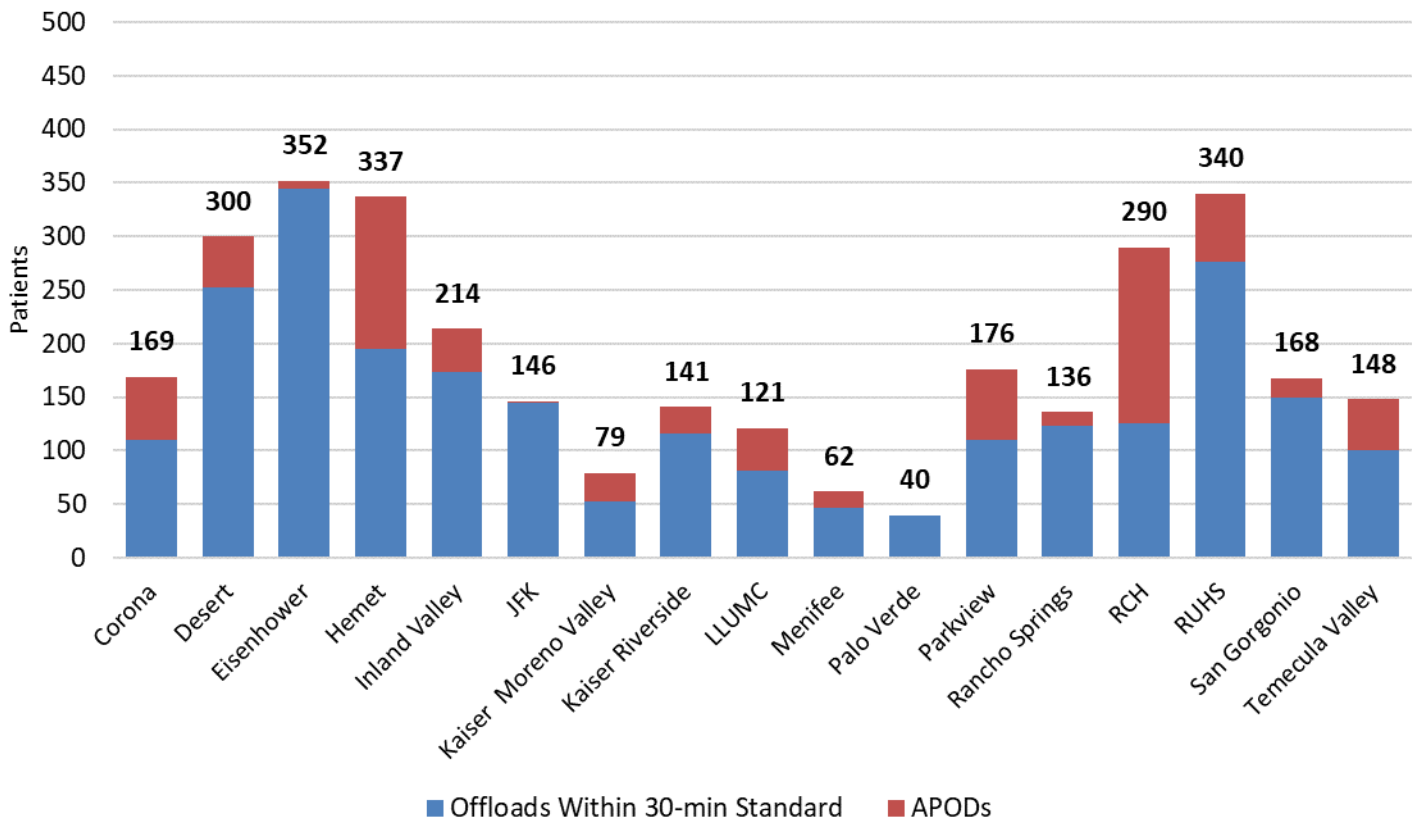
ILI - INFLUENZA-LIKE ILLNESS RESPONSE

The purpose of the REMSA ILI (Influenza-like Illness) trigger and report is to improve tracking of influenza-related activity and facilitate EMS preparedness in the event of a significant influenza surge event, similar or greater than that observed during the 2017-18 flu season.

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

1. Filters primary or secondary impression of code J11 (Influenza due to unidentified influenza virus) OR
2. A primary / secondary impression code J80, J98.09 (Acute respiratory distress syndrome, Respiratory disorder unspecified) with a match in the narrative for ILI, influenza like illness, Flu, Flu-, Flu\., or influenza OR
3. Any incident with a match in the narrative for ILI, influenza like illness, Flu, Flu-, Flu\., or influenza.

Riverside County EMS
ILI Weekly Response
Annual Comparison

Week of ~July 1st through June 30th

Week 41 (~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.

EMS ILI response two standard deviations above the calculated baseline average during non-peak flu seasons is considered a surge in flu activity. Surges are identified as color levels adapted from the *CDPH Standards and Guidelines for Healthcare Surge During Emergencies*:

https://www.cdph.ca.gov/Programs/EPO/CDPH%20Document%20Library/FinalEOM712011.pdf
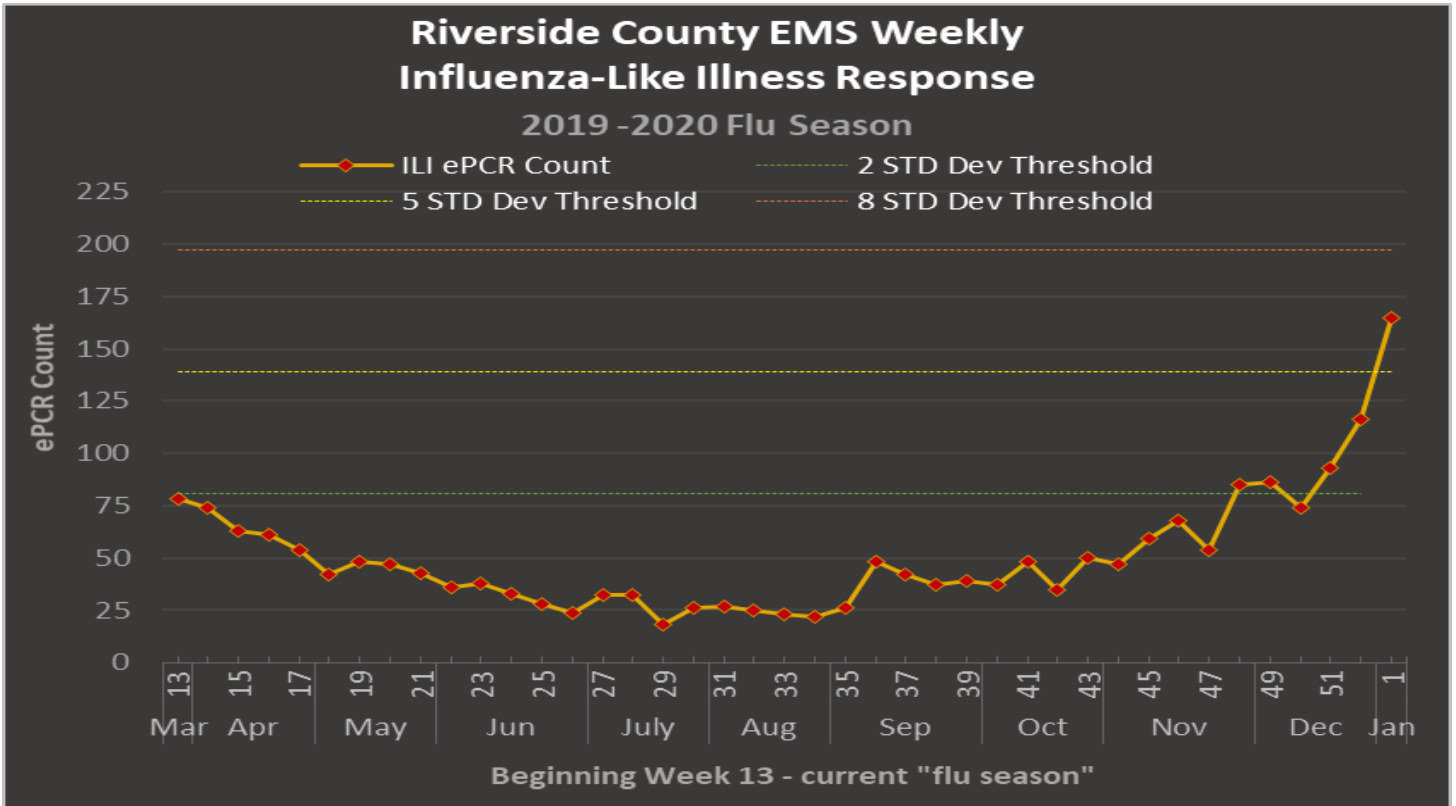
In Week 1, EMS ILI response was 292.9% HIGHER than the baseline average of non-peak flu season activity levels (weeks 13-38) and was 42.2% HIGHER than the previous week.
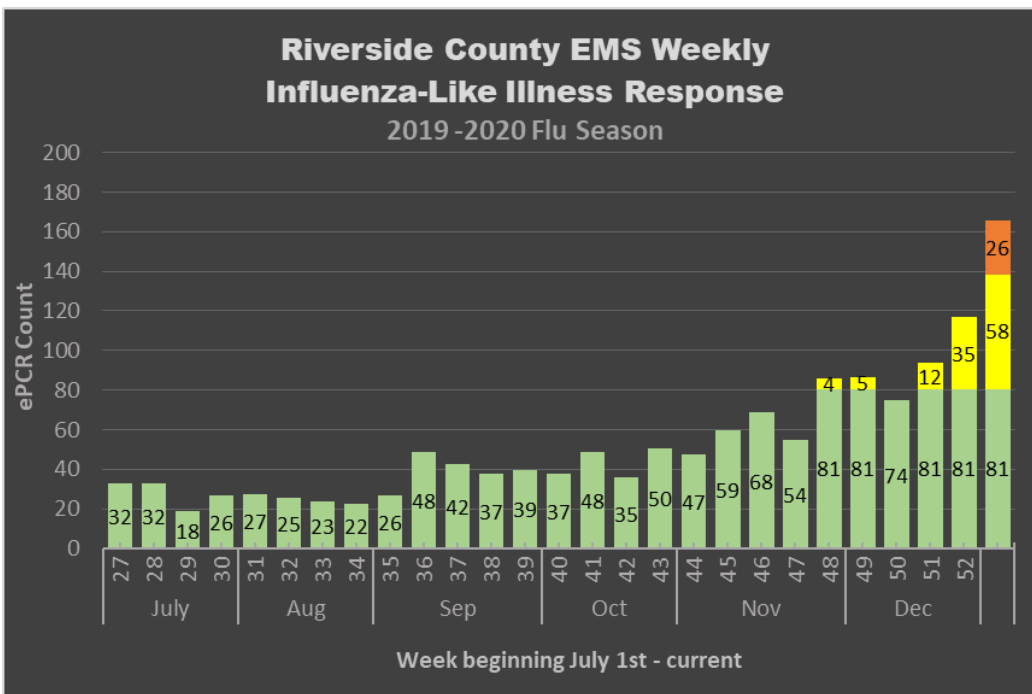

PUBLIC HEALTH AND MEDICAL SYSTEM STATUS	
Green	The Public Health and Medical System is in usual day-to-day status. Situation resolved; no assistance is required.
Yellow	The Public Health and Medical System is managing the incident using local resources or existing agreements. No assistance is required.
Orange	The Public Health and Medical System requires assistance from within the local jurisdiction/Operational Area.
Red	The Public Health and Medical System requires assistance from outside the local jurisdiction/Operational Area.
Black	The Public Health and Medical System requires significant assistance from outside the local jurisdiction/Operational Area.
Grey	Unknown.
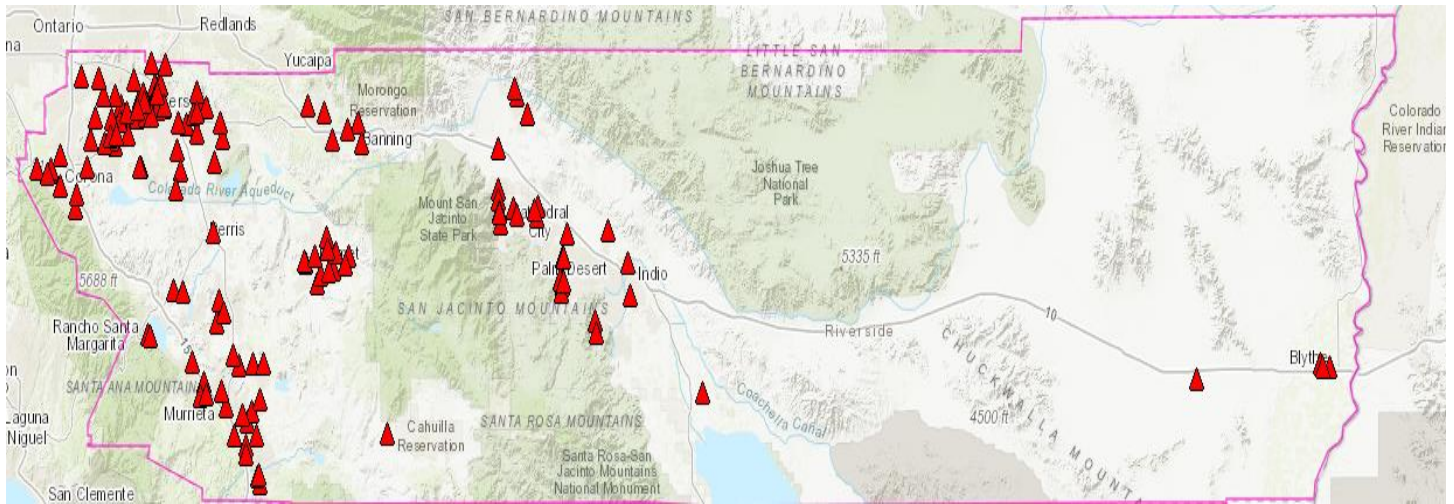
ILI-related EMS response in Riverside County, ePCR distribution map: Week 1 – Dec 29, 2019 through Jan 04, 2020

RIVERSIDE COUNTY PUBLIC HEALTH ILI DATA

Riverside County Public Health Department - DOPH – collects Emergency Department ILI activity data from the Center for Disease Control's *Early Notification of Community-based Epidemics (ESSENCE)* system. The graph below provides a comparison between Riverside County's ILI-related EMS responses and Emergency Department (ED) visits for the current year compared to the previous year. As of November 2018, 14 of 17 Riverside County's EDs are participating in ESSENCE, noting that a minor subset of ILIs are missing from the ED data presented.
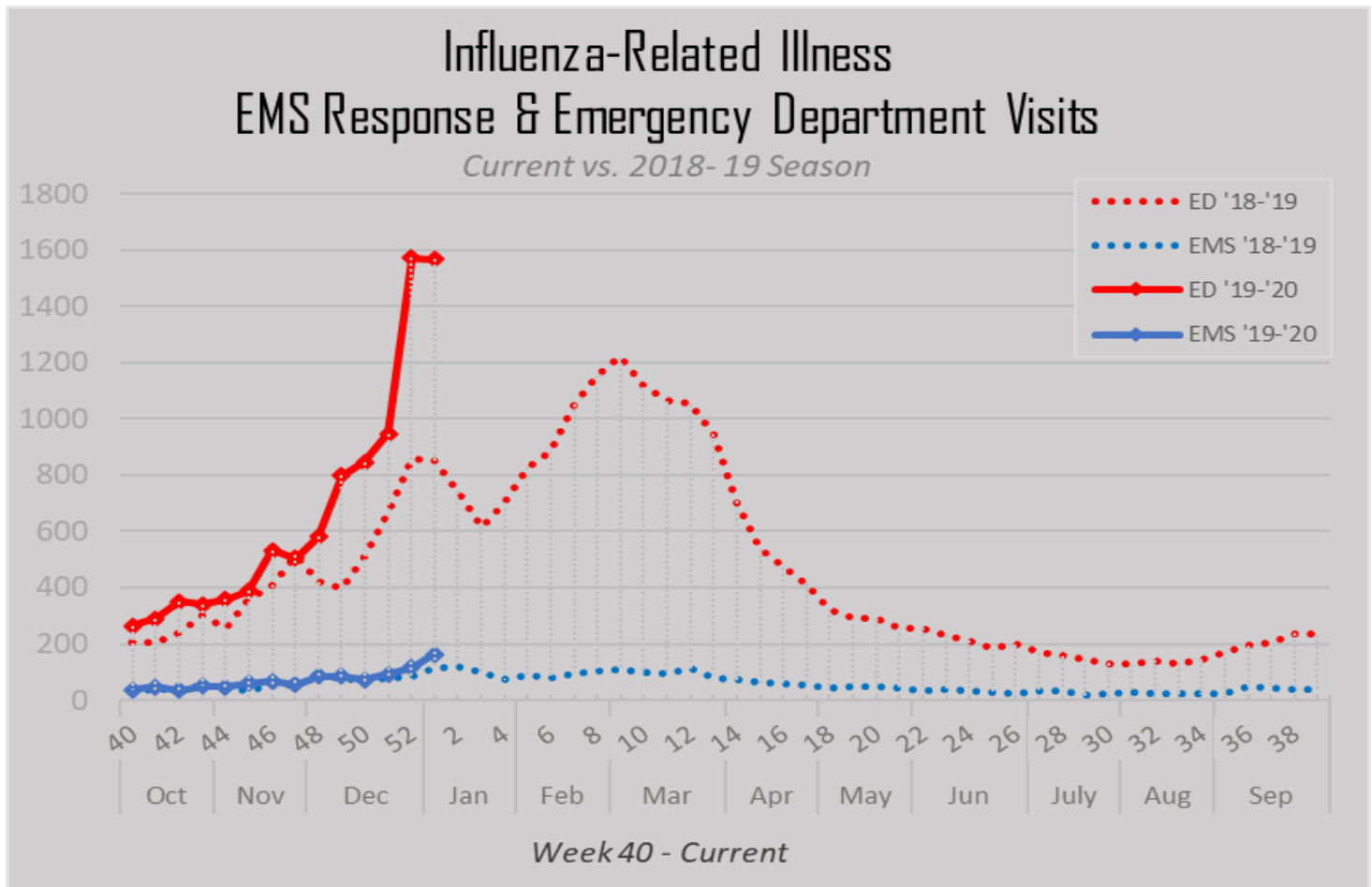
APOT AND APOD DEFINITIONS

Ambulance Patient Offload Time (APOT)
The Time interval between the arrival of an ambulance patient at an ED and the time the patient is transferred to the ED gurney, bed, chair, or other acceptable location and the emergency department assumes the responsibility for care of the patient.[1] The Clock Start (eTimes.11) is the time of patient arrival at the destination (hospital), and the Clock Stop (eTimes.12) is time the care of the patient is transferred.[2] REMSA obtains both times from the ePCR.

APOT -1 Specifications
Criteria: All 911 transports to a hospital emergency department for which the patient arrival and transfer dates and times are "logical and present."[3]
Method: Aggregate of all transfer times and reported at the 90th percentile (the value for which 90% of the times are shorter).

APOD Compliance
Frequency comparison between the total number of transports and those resulting in APOD.

Ambulance Patient Offload Delay (APOD)
Any delay in ambulance patient offload time (APOT) that exceeds the local ambulance patient offload time standard of 25/30 minutes (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.[4] If the transfer of care and patient offloading from the ambulance gurney exceeds the 30-minute standard, it will be documented and tracked as APOD.[5]

Data Definitions
Data in this report includes all transports to the 17 hospitals monitored by REMSA in the respective month relative to the date and time the incident originates (eTimes.03--Dispatch Notified Date/Time). *For example, if an incident originates on June 30, and the patient is subsequently transferred to the care of an emergency department on July 1, that incident will be included in the month of June.*

Canceled calls, calls for which both arrival and transfer times are not present, and calls with erroneous/negative offload times are excluded. Certain incidents with offload times exceeding six hours and 12 hours are verified for accuracy, and incidents are excluded if the timeline cannot be validated.

> Data for 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 higher aggregate numbers than earlier reports for the same reporting period. The difference is insignificant (averaging less than .07%) and does not impact overall compliance.

EMS Data compiled by Sudha Mahesh and Catherine Farrokhi, Riverside County EMS Agency.
ED Data compiled by Rick Lopez, Riverside County Department of Public Health.

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[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.
[3] Ibid., APOT-1 Specifications.
[4] REMSA Policy 9101.6. http://www.remsa.us/policy/9101.pdf
[5] REMSA Policy 4204, Transfer of Patient Care. http://www.remsa.us/policy/4204.pdf