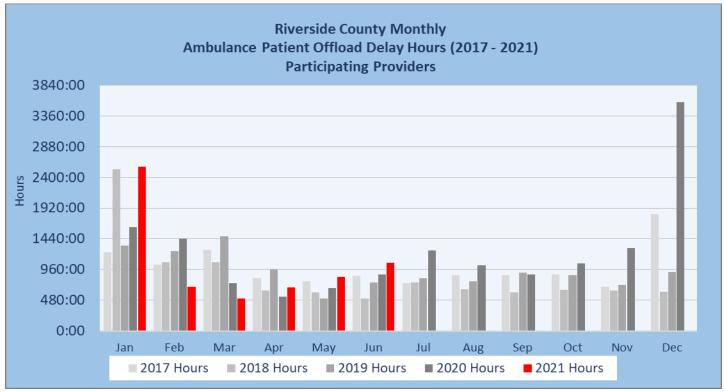


# Ambulance Patient Offload Time June 2021



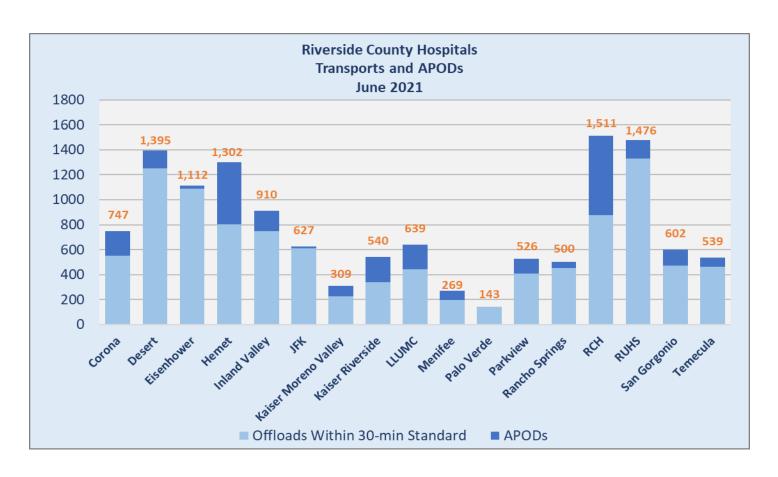
## RIVERSIDE COUNTY AMBULANCE PATIENT OFFLOAD TIME

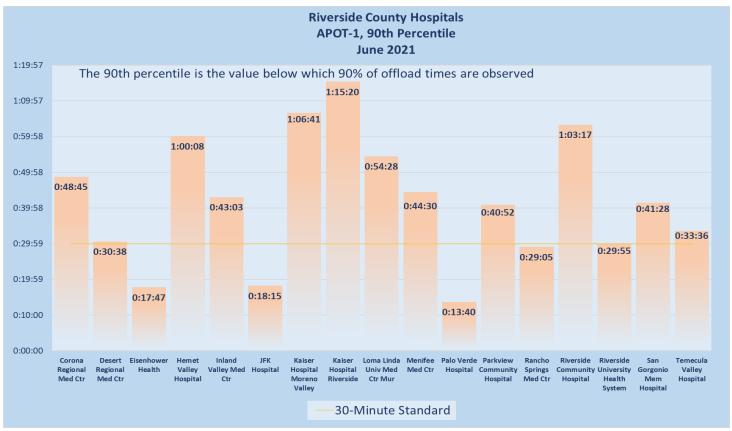
These charts represent total ambulance patient offload times (APOT) and delays (APOD) from hospitals within Riverside County. APOD includes delays greater than 30 minutes, and only the time after the first 30 minutes has passed.



<sup>\*\*</sup>Beginning August 2017, times represented include all participating providers. Prior to August, data included AMR responses only.

		June 202	1			
	ALS Transports	АРОТ	APOD Hours	APODs	APOD Compliance	APOT - 1
Corona Regional Med Ctr	747	319:15:21	66:36:35	195	73.9%	0:48:45
Desert Regional Med Ctr	1,395	387:53:42	75:22:55	146	89.5%	0:30:38
Eisenhower Health	1,112	183:48:13	3:07:47	22	98.0%	0:17:47
Hemet Valley Hospital	1,302	698:21:08	203:46:45	500	61.6%	1:00:08
Inland Valley Med Ctr	910	322:05:34	63:15:24	163	82.1%	0:43:03
JFK Hospital	627	90:22:06	2:27:48	17	97.3%	0:18:15
Kaiser Hospital Moreno Valley	309	152:22:28	55:40:03	83	73.1%	1:06:41
Kaiser Hospital Riverside	540	298:21:32	109:50:11	201	62.8%	1:15:20
Loma Linda Univ Med Ctr Mur	639	303:34:27	81:52:03	197	69.2%	0:54:28
Menifee Med Ctr	269	118:01:53	25:53:06	74	72.5%	0:44:30
Palo Verde Hospital	143	15:00:29	0:00:00	0	100.0%	0:13:40
Parkview Community Hospital	526	195:38:16	29:41:15	117	77.8%	0:40:52
Rancho Springs Med Ctr	500	146:01:26	11:49:41	49	90.2%	0:29:05
Riverside Community Hospital	1,511	837:19:43	262:45:34	634	58.0%	1:03:17
Riverside University Health System	1,476	449:16:38	22:46:35	146	90.1%	0:29:55
San Gorgonio Mem Hospital	602	236:55:59	32:54:22	127	78.9%	0:41:28
Temecula Valley Hospital	539	170:05:21	14:31:20	75	86.1%	0:33:36
Grand Total	13,147	4924:24:16	1062:21:24	2,746	79.1%	0:43:42

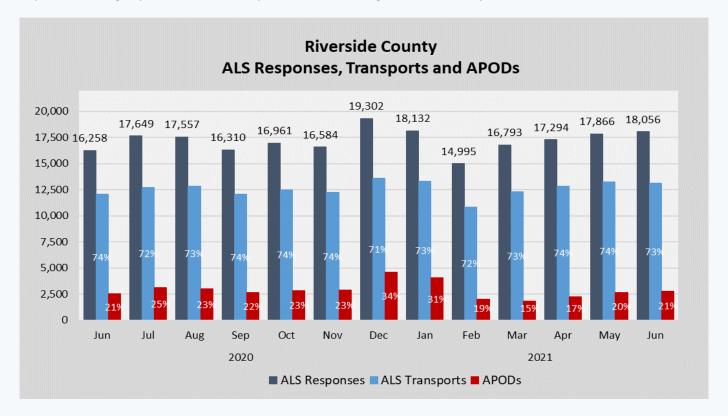




Data for this report has been collected from ePCRs (electronic patient care records) via FirstWatch® and are available after they have been completed by the provider. There is, therefore, an inherent latency to the availability of these records. Due to this latency, subsequent reports may feature higher aggregate numbers than earlier reports for the same reporting period. The difference is insignificant (averaging less than .07%) and does not impact overall compliance.

# APOT AND APOD TRENDS: ROLLING ANNUAL REVIEW

The first chart represents a summary of Riverside County's total 9-1-1 ambulance (ALS) responses, transports, and total transports resulting in patient offload delay (APOD) for a rolling 12-months compared to the current month.



TRANSPORT VOLUME. Transport volume for each hospital over a 12 month period compared to the current month is described below. Each hospital can be categorized as a low to high volume facility relative to all facilities in the county. Hospitals are color coded ranging from low to high based on an average transports of the last 12 months.

								Trans	port Vo	lume	Lo	w		High
Hospital	2020										2021			Monthly
riospitai	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg
Corona Regional Med Ctr	627	719	729	642	720	638	700	683	606	680	625	757	747	683
Desert Regional Med Ctr	1162	1193	1122	1070	1122	1090	1126	1174	969	1242	1406	1417	1395	1,191
Eisenhower Health	1125	1151	1134	1098	1142	1148	1284	1302	1051	1272	1273	1220	1112	1,178
Hemet Valley Hospital	1279	1377	1406	1230	1322	1318	1130	1085	1006	1229	1286	1339	1302	1,255
Inland Valley Med Ctr	800	895	869	870	824	808	914	806	733	829	847	943	910	850
JFK Hospital	659	641	620	573	603	579	705	618	520	574	577	639	627	610
Kaiser Hospital Moreno Valley	248	301	317	286	309	300	390	400	266	308	310	263	309	308
Kaiser Hospital Riverside	490	530	531	521	561	582	674	642	459	507	505	523	540	543
Loma Linda Univ Med Ctr Mur	582	607	634	591	642	642	709	714	546	630	589	652	639	629
Menifee Med Ctr	316	317	292	239	270	273	324	274	204	237	249	241	269	270
Palo Verde Hospital	153	163	148	137	139	159	154	169	128	110	147	148	143	146
Parkview Community Hospital	518	556	523	517	543	538	713	565	384	442	487	537	526	527
Rancho Springs Med Ctr	392	424	461	416	414	412	552	586	449	454	462	503	500	463
Riverside Comm Hospital	1325	1392	1494	1422	1376	1311	1217	1405	1242	1406	1552	1456	1511	1,393
Riverside Univ Health System	1375	1454	1445	1395	1420	1409	1732	1643	1240	1388	1421	1514	1476	1,455
San Gorgonio Mem Hospital	550	523	569	557	563	530	737	669	541	507	577	566	602	576
Temecula Valley Hospital	495	482	530	490	535	484	563	586	504	505	537	525	539	521
Riverside County Total	12096	12725	12824	12054	12505	12221	13624	13321	10848	12320	12850	13243	13147	12598

COMPLIANCE. Compliance is a frequency comparison between the total number of transports and those resulting in APOD. The table below shows compliance by hospital for the last 12 months compared to the current month.

												High		Low
	APOT	% Con	nplian	ce by	Hospi	tal for	the la	ast 12	month	15				
				2020						20	021			Monthly
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Average
Corona Regional Med Ctr	65%	61%	68%	69%	65%	60%	41%	55%	72%	75%	76%	73%	74%	66%
Desert Regional Med Ctr	87%	89%	92%	93%	91%	91%	84%	85%	91%	88%	89%	85%	90%	89%
Eisenhower Health	97%	97%	98%	99%	99%	99%	98%	98%	99%	99%	98%	97%	98%	98%
Hemet Valley Hospital	69%	56%	52%	61%	59%	52%	43%	42%	53%	69%	70%	64%	62%	58%
Inland Valley Med Ctr	85%	80%	79%	80%	78%	85%	61%	60%	80%	88%	85%	85%	82%	79%
JFK Hospital	97%	97%	100%	99%	99%	100%	96%	97%	99%	99%	99%	98%	97%	98%
Kaiser Hospital Moreno Valley	75%	77%	74%	78%	73%	76%	65%	78%	83%	85%	72%	72%	73%	75%
Kaiser Hospital Riverside	74%	73%	78%	74%	75%	70%	58%	69%	80%	76%	71%	74%	63%	72%
Loma Linda Univ Med Ctr Mur	82%	78%	76%	81%	81%	76%	68%	70%	76%	76%	74%	66%	69%	75%
Menifee Med Ctr	80%	68%	70%	77%	70%	67%	45%	45%	67%	80%	75%	83%	72%	69%
Palo Verde Hospital	99%	99%	99%	99%	98%	96%	94%	97%	99%	99%	100%	99%	100%	98%
Parkview Community Hospital	65%	69%	64%	69%	77%	76%	51%	61%	80%	85%	77%	86%	78%	72%
Rancho Springs Med Ctr	90%	86%	91%	91%	89%	90%	72%	64%	91%	93%	92%	94%	90%	87%
Riverside Community Hospital	55%	54%	50%	49%	49%	50%	35%	44%	66%	80%	68%	56%	58%	55%
Riverside University Health System	78%	74%	84%	88%	83%	84%	75%	82%	91%	92%	91%	89%	90%	85%
San Gorgonio Mem Hospital	91%	90%	92%	82%	87%	87%	69%	64%	86%	86%	87%	85%	79%	83%
Temecula Valley Hospital	83%	75%	82%	73%	78%	76%	71%	71%	87%	83%	84%	86%	86%	80%
Riverside County Compliance	79%	75%	77%	78%	77%	77%	66%	69%	81%	85%	83%	80%	79%	77%

APOT-1. APOT-1 is an Ambulance Patient Offload Time interval measure of the 90<sup>th</sup> percentile. This metric is a continuous variable measured in hours and minutes then aggregated and reported at the 90th percentile. The table below illustrates APOT-1 by hospital for the last 12 months compared to the current month

		AF	POT-1 (9	90th Pe	rcentil	e) for tl	he last:	12 Mon	ths					
	2020											2021		Avg
Hospital	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	APOT-1
Corona Regional Med Ctr	0:56	1:13	0:52	0:51	0:55	1:38	2:38	2:01	0:48	0:45	0:44	0:44	0:49	1:08
Desert Regional Med Ctr	0:33	0:33	0:27	0:25	0:29	0:30	0:41	0:37	0:30	0:34	0:32	0:40	0:31	0:32
Eisenhower Health	0:18	0:19	0:19	0:15	0:16	0:16	0:17	0:17	0:14	0:16	0:18	0:19	0:18	0:17
Hemet Valley Hospital	0:45	1:02	1:04	0:51	0:54	1:08	1:56	1:58	1:12	0:45	0:45	0:45	1:00	1:05
Inland Valley Med Ctr	0:35	0:47	0:43	0:43	0:48	0:38	1:21	1:17	0:43	0:33	0:35	0:37	0:43	0:46
JFK Hospital	0:20	0:22	0:15	0:15	0:16	0:15	0:20	0:19	0:16	0:18	0:16	0:17	0:18	0:17
Kaiser Hospital Moreno Valley	0:56	0:50	0:56	0:52	0:54	1:04	1:53	0:58	0:37	0:41	1:00	1:02	1:07	0:59
Kaiser Hospital Riverside	0:54	0:56	0:41	0:49	0:46	1:04	1:43	1:05	0:42	0:46	1:04	0:50	1:15	0:58
Loma Linda Univ Med Ctr Mur	0:38	0:41	0:44	0:38	0:39	0:44	1:10	1:09	0:50	0:48	0:49	0:57	0:54	0:49
Menifee Med Ctr	0:41	1:13	1:07	0:48	1:05	1:26	2:56	2:39	1:02	0:40	0:44	0:36	0:45	1:12
Palo Verde Hospital	0:13	0:13	0:10	0:12	0:15	0:17	0:21	0:20	0:14	0:11	0:14	0:13	0:14	0:14
Parkview Community Hospital	1:06	1:01	0:58	0:54	0:42	0:42	2:13	1:21	0:41	0:35	0:41	0:34	0:41	0:56
Rancho Springs Med Ctr	0:30	0:34	0:30	0:30	0:32	0:30	1:03	1:17	0:29	0:26	0:27	0:26	0:29	0:35
Riverside Comm Hospital	1:05	1:09	1:00	1:07	1:14	1:13	2:19	1:15	0:48	0:37	0:49	1:01	1:03	1:07
Riverside Univ Health System	0:39	0:42	0:35	0:32	0:36	0:36	0:42	0:35	0:29	0:29	0:29	0:31	0:30	0:34
San Gorgonio Mem Hospital	0:30	0:30	0:28	0:36	0:33	0:34	0:59	1:13	0:36	0:34	0:33	0:34	0:41	0:38
Temecula Valley Hospital	0:35	0:42	0:36	0:43	0:39	0:40	0:46	0:45	0:34	0:37	0:37	0:33	0:34	0:38
Riverside County Compliance	0:42	0:48	0:45	0:44	0:45	0:49	1:20	1:03	0:40	0:35	0:38	0:41	0:44	0:47

# AMBULANCE DIVERSIONS

REMSA Policy 6103 (<a href="https://www.remsa.us/policy/6103.pdf">https://www.remsa.us/policy/6103.pdf</a>) describes ground and air ambulance diversions to facilitate safe transport of patients to the closest alternate facility. Ambulance Diversions described here are those activated as a result of unusual circumstances at a facility limiting access to emergency care (Internal Disaster - INT) or a temporary outage in Specialty Care services (STEMI, Stroke, Trauma). The following tables provide diversion history by count of occurrences and total hours/minutes by facility for a rolling 12 months compared to the current month. Hospitals not listed had no diversions during this evaluation period.

Diversions by Count	2020								2021					Total
Diversion Category/Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
INT		1		5	8			2		1	1	1	2	21
Corona Regional Medical Center				1										1
Menifee Valley Medical Center		1			1									2
Riverside Community Hospital				1								1		2
Temecula Valley Hospital				1										1
Inland Valley Medical Center				2				1		1				4
Loma Linda University Medical CenterMurrieta					3			1						4
Rancho Springs Medical Center					4									4
Eisenhower Health											1			1
Palo Verde Hospital													2	2
STEMI			1	2	1			1						5
Riverside Community Hospital				1				1						2
Temecula Valley Hospital				1										1
Loma Linda University Medical CenterMurrieta			1		1									2
Stroke	1			4	3		2	1						11
Corona Regional Medical Center				1	1									2
Riverside Community Hospital				1				1						2
Temecula Valley Hospital				1										1
Inland Valley Medical Center				1										1
Rancho Springs Medical Center	1				2									3
Riverside University Health System							1							1
Parkview Community Hospital							1							1
Trauma	4	8	6	5	1	8	4	1	5	2	1	2	5	52
Riverside Community Hospital			1	1		3						1	1	7
Inland Valley Medical Center		1	2	2	1			1		1			2	10
Riverside University Health System	4	7	3	2		5	4		5	1	1	1	2	35
Total	5	9	7	16	13	8	6	5	5	3	2	3	7	89

Diversions by HH:MM	2020	_	_	_	_	_	_	_	2021	_	_	_	
Diversion Category/Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Mav	Jun
INT		0:37	<del>-</del>	96:38	15:02			1:53		0:09	0:14	3:32	18:05
Corona Regional Medical Center				59:44								•••••	<b></b>
Menifee Valley Medical Center	•	0:37			0:25								
Riverside Community Hospital				2:08								3:32	
Temecula Valley Hospital				29:51					•••••				
Inland Valley Medical Center				4:55				1:26		0:09			
Loma Linda University Medical CenterMurrieta					1:59			0:27					
Rancho Springs Medical Center					12:38								
Eisenhower Health											0:14		
Palo Verde Hospital													18:05
STEMI			1:30	192:30	1:26			2:01					
Riverside Community Hospital				2:02				2:01					
Temecula Valley Hospital				190:28									
Loma Linda University Medical CenterMurrieta			1:30		1:26								
Stroke	9:44			83:00	27:53		5:27	2:02					
Corona Regional Medical Center				71:58	10:57								
Riverside Community Hospital				2:02				2:02					
Temecula Valley Hospital				1:47									
Inland Valley Medical Center				7:13									
Rancho Springs Medical Center	9:44				16:56								
Riverside University Health System							0:08						
Parkview Community Hospital							5:19						
Trauma	6:00	21:17	7:53	7:22	2:01	9:20	1:31	2:03	8:15	2:42	0:51	1:48	7:58
Riverside Community Hospital			2:53	2:00		2:40						0:51	3:42
Inland Valley Medical Center		1:54	2:09	3:44	2:01			2:03		0:13			1:51
Riverside University Health System	6:00	19:23	2:51	1:38		6:40	1:31		8:15	2:29	0:51	0:57	2:25
Total	15:44	21:54	9:23	379:30	46:22	9:20	6:58	7:59	8:15	2:51	1:05	5:20	26:03

## APOD AMBULANCE REDIRECTION

REMSA Policy 6104 (<a href="http://www.remsa.us/policy/6104.pdf">http://www.remsa.us/policy/6104.pdf</a>) allows redirection of ambulances from hospitals experiencing extended Ambulance Patient Offload Delay (APOD) to the closest most appropriate hospital. Extended APOD is defined as a patient remaining on an ambulance gurney for **90 minutes or greater** after arrival at a hospital. The table below shows the total number of ambulance redirections by hospital for the current month and a rolling 12 months prior.

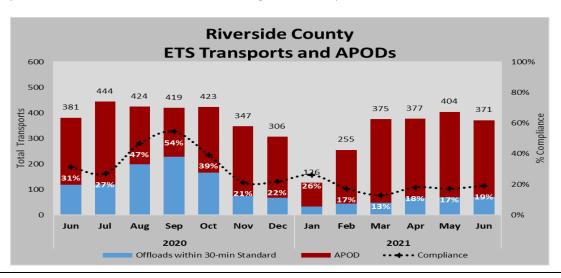
Facilities	2020					2020								Total
racinaes	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Redirection
Corona Regional Medical Center	5	15	5	7	8	31	91	61	5	1	3	3	7	242
Desert Regional Medical Center	8	2	2	1	5	3	8	14	3	6	5	13	8	78
Eisenhower Health								1				1	Ī	2
Hemet Valley Medical Center	1	17	16	4	4	20	87	86	31	1	9	1	14	291
Inland Valley Medical Center	Ī	7	2	2	7	3	32	45	5		2	1	5	111
John F. Kennedy Memorial Hospital	2	1										1	Ī	4
Kaiser Hospital Moreno Valley	6	4	2	1	1	8	34	16	1	3	8	4	7	95
Kaiser Hospital Riverside	9	7		4	3	7	63	25	1	4	6	7	18	154
Loma Linda Univ Med Ctr Murrieta	2	1	2	2	2	3	32	38	6	3	7	11	12	121
Menifee Valley Medical Center	3	11	5	2	8	16	68	43	6	1		1	2	166
Palo Verde Hospital		1					1	1					Ī	3
Parkview Community Hospital	17	12	14	4	2	1	77	41	1		1	1	2	173
Rancho Springs Medical Center		2			1		15	24					Ī	42
Riverside Community Hospital	24	25	13	21	35	37	131	46	3		2	26	21	384
Riverside University Health System	1				1		6						Ī	8
San Gorgonio Memorial Hospital	Ī					1	11	19	2					33
Temecula Valley Hospital				2			7	6		1		1		17
Total Redirection	78	105	61	50	77	130	663	466	64	20	43	71	96	1924

## **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 6); therefore, they are not included with the previous APOT aggregates.

June	2021 - Emerg	ency Treatme	ent Services		
	Transports to FTS	Total Offload Time	APOD Hours	APODs	APOD Compliance
Emergency Treatment Services	371	309:37:13	138:21:11	300	19.1%

The chart below represents Riverside County's total number of *ETS ambulance transports, patient offload delay (APOD),* and percent compliance for the current month and a rolling 12 months prior.



## 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. 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. 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."<sup>3</sup>

Method: Aggregate of all transfer times and reported at the 90<sup>th</sup> percentile (the value for which 90% of the times are shorter).

#### 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. 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.

#### **APOD Compliance**

A frequency comparison between the total number of transports and those resulting in APOD.

#### 9-1-1 Ambulance Response

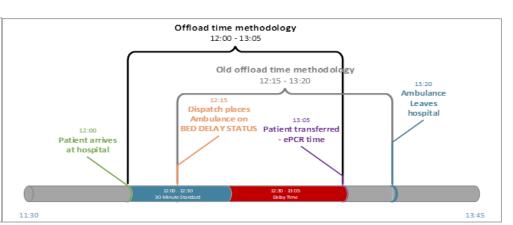
For the purpose of reporting patient offload time and delays, only ground transport units responding to 9-1-1 incidents are included in this report. It excludes all records from First Responder Fire agencies arriving on scene as part of the dual 9-1-1 medical response system in Riverside County. It also excludes interfacility transports and other types of 9-1-1 responses such as air ambulance responses.

#### 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.

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 record). Prior to January 2017, offload times were calculated using CAD times, beginning with the time that dispatch placed the ambulance on bed delay until the time the ambulance left the hospital.



<sup>-</sup>For inquiries, please contact Riverside County EMS Agency EMS Administrator, TDouville@rivco.org

<sup>-</sup>Report prepared by Sudha Mahesh & Catherine Farrokhi, Riverside County EMS Agency

<sup>&</sup>lt;sup>1</sup> Health and Safety Code Division 2.5, Chapter 3, Article 1, Section 1797.120(b)

<sup>&</sup>lt;sup>2</sup> Ambulance Patient Offload Time (APOT) Standardized Methods for Data Collection and Reporting, approved by EMS Commission 12/14/2016.

<sup>&</sup>lt;sup>3</sup> Ibid., APOT-1 Specifications.

<sup>&</sup>lt;sup>4</sup> REMSA Policy 9101.6. http://www.remsa.us/policy/9101.pdf

<sup>&</sup>lt;sup>5</sup> REMSA Policy 4204, Transfer of Patient Care. <a href="http://www.remsa.us/policy/4204.pdf">http://www.remsa.us/policy/4204.pdf</a>