

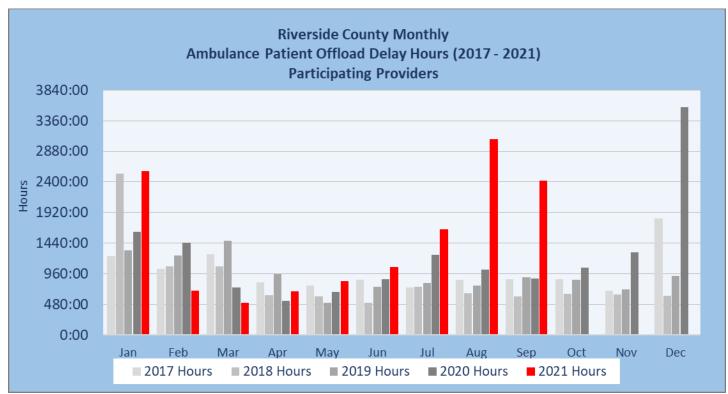
Ambulance Patient Offload Time September 2021

Monthly Report

Prepared by Riverside County EMS Agency – October 5, 2021

RIVERSIDE COUNTY AMBULANCE PATIENT OFFLOAD TIME

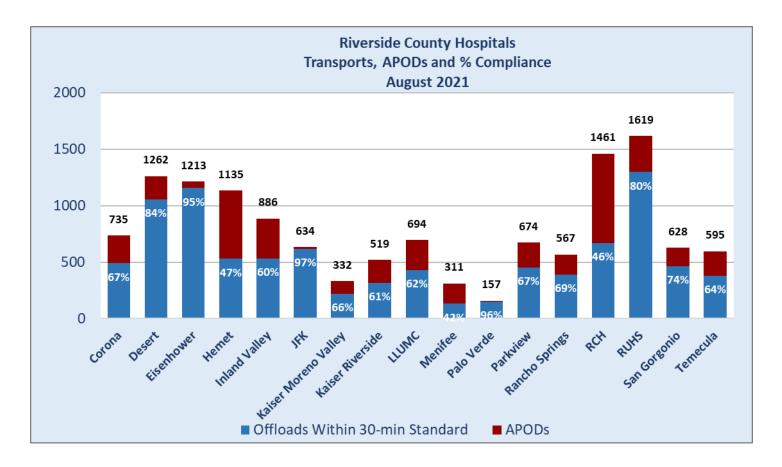
These charts represent total ambulance patient offload times (APOT) and delays (APOD) from hospitals within Riverside County. APOD includes delays greater than 30 minutes, and only the time after the first 30 minutes has passed.

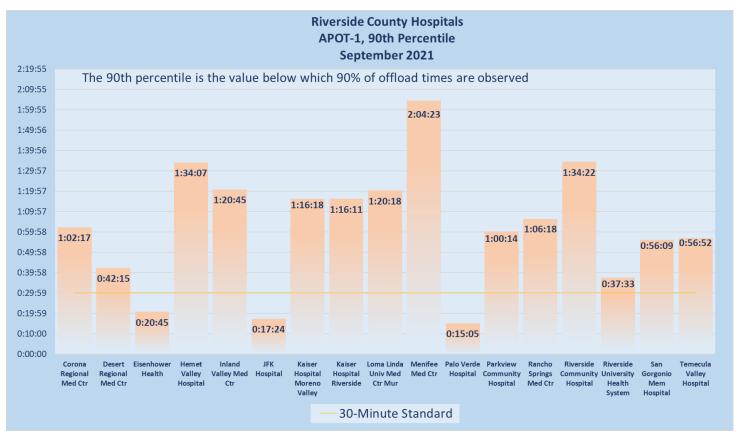


**Beginning August 2017, times represented include all participating providers. Prior to August, data included AMR responses only.

		September 2	2021			
	ALS Transports	ΑΡΟΤ	APOD Hours	APODs	APOD Compliance	APOT - 1
Corona Regional Med Ctr	735	383:56:01	124:42:30	245	66.7%	1:02:17
Desert Regional Med Ctr	1,262	445:02:33	123:47:02	207	83.6%	0:42:15
Eisenhower Health	1,213	239:51:27	17:52:40	57	95.3%	0:20:45
Hemet Valley Hospital	1,135	870:10:41	405:57:27	606	46.6%	1:34:07
Inland Valley Med Ctr	886	537:22:18	225:26:02	352	60.3%	1:20:45
JFK Hospital	634	92:02:18	4:16:13	16	97.5%	0:17:24
Kaiser Hospital Moreno Valley	332	183:09:58	67:08:12	114	65.7%	1:16:18
Kaiser Hospital Riverside	519	307:58:33	118:13:12	204	60.7%	1:16:11
Loma Linda Univ Med Ctr Mur	694	438:41:50	189:20:24	265	61.8%	1:20:18
Menifee Med Ctr	311	286:10:33	155:57:53	180	42.1%	2:04:23
Palo Verde Hospital	157	18:05:40	1:45:19	6	96.2%	0:15:05
Parkview Community Hospital	674	369:46:47	130:41:54	220	67.4%	1:00:14
Rancho Springs Med Ctr	567	307:03:58	120:02:30	178	68.6%	1:06:18
Riverside Community Hospital	1,461	1089:55:12	502:14:01	791	45.9%	1:34:22
Riverside University Health System	1,619	594:58:21	63:07:05	320	80.2%	0:37:33
San Gorgonio Mem Hospital	628	294:08:27	85:09:03	164	73.9%	0:56:09
Temecula Valley Hospital	595	291:56:50	82:52:18	215	63.9%	0:56:52
Grand Total	13,422	6750:21:27	2418:33:45	4,140	69.2 %	1:03:06

Кеу	High	Low
		Page 2 of 8

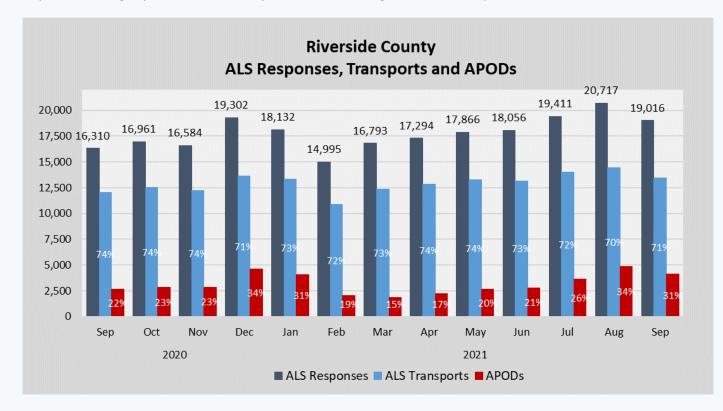




Data for this report has been collected from ePCRs (electronic patient care records) via FirstWatch[®] and are available after they have been completed by the provider. There is, therefore, an inherent latency to the availability of these records. Due to this latency, subsequent reports may feature higher 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.

								Transport Volume			Lo	w		High
Hospital	2020				2021									Monthly
riospitai	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
Corona Regional Med Ctr	642	720	638	700	683	606	680	625	757	747	832	800	735	705
Desert Regional Med Ctr	1070	1122	1090	1126	1174	969	1242	1406	1417	1395	1424	1346	1262	1,234
Eisenhower Health	1098	1142	1148	1284	1302	1051	1272	1273	1220	1112	1187	1286	1213	1,199
Hemet Valley Hospital	1230	1322	1318	1130	1085	1006	1229	1286	1339	1302	1256	1214	1135	1,219
Inland Valley Med Ctr	870	824	808	914	806	733	829	847	943	910	946	<mark>9</mark> 53	886	867
JFK Hospital	573	603	579	705	618	520	574	577	639	627	639	670	634	612
Kaiser Hospital Moreno Valley	286	309	300	390	400	266	308	310	263	309	342	363	332	321
Kaiser Hospital Riverside	521	561	582	674	642	459	507	505	523	540	517	579	519	548
Loma Linda Univ Med Ctr Mur	591	642	642	709	714	546	630	589	652	639	730	666	694	650
Menifee Med Ctr	239	270	273	324	274	204	237	249	241	269	341	359	311	276
Palo Verde Hospital	137	139	159	154	169	128	110	147	148	143	169	162	157	148
Parkview Community Hospital	517	543	538	713	565	384	442	487	537	526	630	668	674	556
Rancho Springs Med Ctr	416	414	412	552	586	449	454	462	503	500	536	611	567	497
Riverside Comm Hospital	1422	1376	1311	1217	1405	1242	1406	1552	1456	1511	1546	1560	1461	1,420
Riverside Univ Health System	1395	1420	1409	1732	1643	1240	1388	1421	1514	1476	1607	1804	1619	1,513
San Gorgonio Mem Hospital	557	563	530	737	669	541	507	577	566	602	640	<mark>697</mark>	628	601
Temecula Valley Hospital	490	535	484	563	586	504	505	537	525	539	631	664	595	551
Riverside County Total	12054	12505	12221	13624	13321	10848	12320	12850	13243	13147	13973	14402	13422	12918

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
	ΑΡΟΤ	% Co i	mplian	ce by	Hospit	tal for	the la	st 12 n	nonth	s				
	2020				2021									Average
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Corona Regional Med Ctr	69%	65%	60%	41%	55%	72%	75%	76%	73%	74%	76%	54%	67%	66%
Desert Regional Med Ctr	93%	91%	91%	84%	85%	91%	88%	89%	85%	90%	92%	82%	84%	88%
Eisenhower Health	99%	99%	99%	98%	98%	99%	99%	98%	97%	98%	98%	96%	95%	98%
Hemet Valley Hospital	61%	59%	52%	43%	42%	53%	69%	70%	64%	62%	51%	49%	47%	56%
Inland Valley Med Ctr	80%	78%	85%	61%	60%	80%	88%	85%	85%	82%	66%	52%	60%	74%
JFK Hospital	99%	99%	100%	96%	97%	99%	99%	99%	98%	97%	98%	99%	97%	98%
Kaiser Hospital Moreno Valley	78%	73%	76%	65%	78%	83%	85%	72%	72%	73%	56%	57%	66%	72%
Kaiser Hospital Riverside	74%	75%	70%	58%	69%	80%	76%	71%	74%	63%	50%	53%	61%	67%
Loma Linda Univ Med Ctr Mur	81%	81%	76%	68%	70%	76%	76%	74%	66%	69%	58%	52%	62%	70%
Menifee Med Ctr	77%	70%	67%	45%	45%	67%	80%	75%	83%	72%	59%	51%	42%	64%
Palo Verde Hospital	99%	98%	96%	94%	97%	99%	99%	100%	99%	100%	98%	99%	96%	98%
Parkview Community Hospital	69%	77%	76%	51%	61%	80%	85%	77%	86%	78%	82%	68%	67%	74%
Rancho Springs Med Ctr	91%	89%	90%	72%	64%	91%	93%	92%	94%	90%	84%	64%	69%	83%
Riverside Community Hospital	49%	49%	50%	35%	44%	66%	80%	68%	56%	58%	54%	45%	46%	54%
Riverside University Health System	88%	83%	84%	75%	82%	91%	92%	91%	89%	90%	82%	79%	80%	85%
San Gorgonio Mem Hospital	82%	87%	87%	69%	64%	86%	86%	87%	85%	79%	80%	60%	74%	79%
Temecula Valley Hospital	73%	78%	76%	71%	71%	87%	83%	84%	86%	86%	78%	63%	64%	77%
Riverside County Compliance	78%	77%	77%	66%	69%	81%	85%	83%	80%	79 %	74%	66%	69%	76%

APOT-1. APOT-1 is an Ambulance Patient Offload Time interval measure of the 90th 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

APOT-1 (90th Percentile) for the last 12 Months														
	2020										2021		Avg	
Hospital	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	APOT-1
Corona Regional Med Ctr	0:51	0:55	1:38	2:38	2:01	0:48	0:45	0:44	0:44	0:49	0:44	1:29	1:02	1:09
Desert Regional Med Ctr	0:25	0:29	0:30	0:41	0:37	0:30	0:34	0:32	0:40	0:31	0:29	0:48	0:42	0:34
Eisenhower Health	0:15	0:16	0:16	0:17	0:17	0:14	0:16	0:18	0:19	0:18	0:18	0:21	0:21	0:17
Hemet Valley Hospital	0:51	0:54	1:08	1:56	1:58	1:12	0:45	0:45	0:45	1:00	1:23	1:34	1:34	1:12
Inland Valley Med Ctr	0:43	0:48	0:38	1:21	1:17	0:43	0:33	0:35	0:37	0:43	1:04	1:31	1:21	0:54
JFK Hospital	0:15	0:16	0:15	0:20	0:19	0:16	0:18	0:16	0:17	0:18	0:17	0:17	0:17	0:17
Kaiser Hospital Moreno Valley	0:52	0:54	1:04	1:53	0:58	0:37	0:41	1:00	1:02	1:07	1:34	1:42	1:16	1:07
Kaiser Hospital Riverside	0:49	0:46	1:04	1:43	1:05	0:42	0:46	1:04	0:50	1:15	1:42	1:41	1:16	1:07
Loma Linda Univ Med Ctr Mur	0:38	0:39	0:44	1:10	1:09	0:50	0:48	0:49	0:57	0:54	1:17	2:04	1:20	1:01
Menifee Med Ctr	0:48	1:05	1:26	2:56	2:39	1:02	0:40	0:44	0:36	0:45	1:25	1:48	2:04	1:22
Palo Verde Hospital	0:12	0:15	0:17	0:21	0:20	0:14	0:11	0:14	0:13	0:14	0:14	0:14	0:15	0:14
Parkview Community Hospital	0:54	0:42	0:42	2:13	1:21	0:41	0:35	0:41	0:34	0:41	0:36	1:02	1:00	0:54
Rancho Springs Med Ctr	0:30	0:32	0:30	1:03	1:17	0:29	0:26	0:27	0:26	0:29	0:37	1:18	1:06	0:42
Riverside Comm Hospital	1:07	1:14	1:13	2:19	1:15	0:48	0:37	0:49	1:01	1:03	1:04	1:28	1:34	1:11
Riverside Univ Health System	0:32	0:36	0:36	0:42	0:35	0:29	0:29	0:29	0:31	0:30	0:35	0:39	0:38	0:33
San Gorgonio Mem Hospital	0:36	0:33	0:34	0:59	1:13	0:36	0:34	0:33	0:34	0:41	0:40	1:28	0:56	0:45
Temecula Valley Hospital	0:43	0:39	0:40	0:46	0:45	0:34	0:37	0:37	0:33	0:34	0:42	1:01	0:57	0:42
Riverside County Compliance	0:44	0:45	0:49	1:20	1:03	0:40	0:35	0:38	0:41	0:44	0:50	1:11	1:03	0:51

AMBULANCE DIVERSIONS

REMSA Policy 6103 (https://www.remsa.us/policy/6103.pdf) 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	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	TUCAI
INT	5	8			2		1	1	1	2		1	1	22
Corona Regional Medical Center	1													1
Desert 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	2	1			1						1		2	7
Desert Regional Medical Center													2	2
Riverside Community Hospital	1				1									2
Temecula Valley Hospital	1													1
Loma Linda University Medical CenterMurrieta		1									1			2
Stroke	4	3		2	1						1	1		12
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		2									1			3
Riverside University Health System				1								1		2
Parkview Community Hospital				1										1
Trauma	5	1	8	4	1	5	2	1	2	5	3	1	1	39
Riverside Community Hospital	1		3						1	1	1			7
Inland Valley Medical Center	2	1			1		1			2	1		1	9
Riverside University Health System	2		5	4		5	1	1	1	2	1	1		23
Total	16	13	8	6	5	5	3	2	3	7	5	3	4	80

Diversions by HH:MM	2020								2021				
Diversion Category/Facility	Sep	Oct	Νον	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
INT	96:38	15:02			1:53		0:09	0:14	3:32	18:05		1:56	3:16
Corona Regional Medical Center	59:44												
Desert Regional Medical Center													3:16
Menifee Valley Medical Center		0:25										1:56	
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	192:30	1:26			2:01						4:11		13:42
Desert Regional Medical Center													13:42
Riverside Community Hospital	2:02				2:01								
Temecula Valley Hospital	190:28												
Loma Linda University Medical CenterMurrieta		1:26									4:11		
Stroke	83:00	27:53		5:27	2:02						0:17	0:01	
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		16:56									0:17		1
Riverside University Health System				0:08								0:01	
Parkview Community Hospital				5:19									
Trauma	7:22	2:01	9:20	1:31	2:03	8:15	2:42	0:51	1:48	7:58	9:52	0:11	0:53
Riverside Community Hospital	2:00		2:40						0:51	3:42	5:01		
Inland Valley Medical Center	3:44	2:01			2:03		0:13			1:51	0:50		0:53
Riverside University Health System	1:38		6:40	1:31		8:15	2:29	0:51	0:57	2:25	4:01	0:11	
Total	379:30	46:22	9:20	6:58	7:59	8:15	2:51	1:05	5:20	26:03	14:20	2:08	17:51

APOD AMBULANCE REDIRECTION

REMSA Policy 6104 (<u>http://www.remsa.us/policy/6104.pdf</u>) 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.

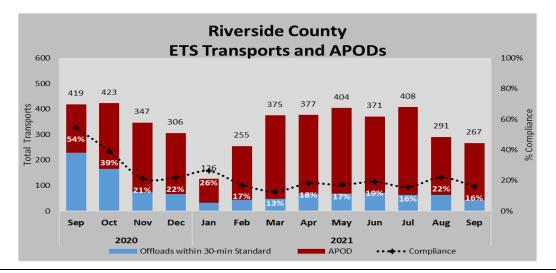
Facilities	2020					2021								Total
i delittica	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Redirection
Corona Regional Medical Center	7	8	31	91	61	5	1	3	3	7	7	44	19	287
Desert Regional Medical Center	1	5	3	8	14	3	6	5	13	8	7	32	19	124
Eisenhower Health					1				1			4		6
Hemet Valley Medical Center	4	4	20	87	86	31	1	9	1	14	56	86	74	473
Inland Valley Medical Center	2	7	3	32	45	5		2	1	5	23	63	50	238
John F. Kennedy Memorial Hospital									1			1	1	3
Kaiser Hospital Moreno Valley	1	1	8	34	16	1	3	8	4	7	19	30	15	147
Kaiser Hospital Riverside	4	3	7	63	25	1	4	6	7	18	40	57	29	264
Loma Linda Univ Med Ctr Murrieta	2	2	3	32	38	6	3	7	11	12	26	65	34	241
Menifee Valley Medical Center	2	8	16	68	43	6	1		1	2	14	41	34	236
Palo Verde Hospital				1	1								1	3
Parkview Community Hospital	4	2	1	77	41	1		1	1	2	1	20	19	170
Rancho Springs Medical Center		1		15	24						5	37	20	102
Riverside Community Hospital	21	35	37	131	46	3		2	26	21	24	74	76	496
Riverside University Health System		1		6							1	1	3	12
San Gorgonio Memorial Hospital			1	11	19	2					3	38	19	93
Temecula Valley Hospital	2			7	6		1		1		1	11	13	42
Total Redirection	50	77	130	663	466	64	20	43	71	96	227	604	426	2937

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.

September 2021 - Emergency Treatment Services											
		Total Offload			APOD						
	Transports to ETS	Time	APOD Hours	APODs	Compliance						
Emergency Treatment Services	267	239:09:55	115:04:13	224	16.1%						

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.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).

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

APOD Compliance

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

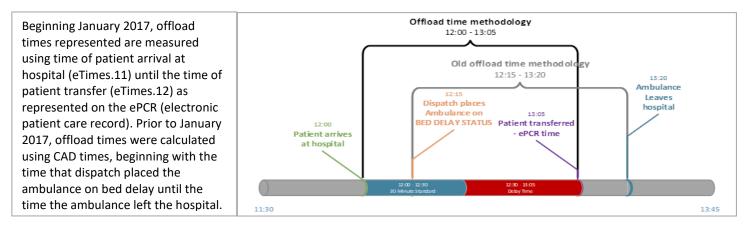
9-1-1 Ambulance Response

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.



-For inquiries, please contact Riverside County EMS Agency EMS Administrator, <u>TDouville@rivco.org</u> -Report prepared by Sudha Mahesh & Catherine Farrokhi, Riverside County 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.

³ Ibid., APOT-1 Specifications.

⁴ REMSA Policy 9101.6. <u>http://www.remsa.us/policy/9101.pdf</u>

⁵ REMSA Policy 4204, Transfer of Patient Care. <u>http://www.remsa.us/policy/4204.pdf</u>