



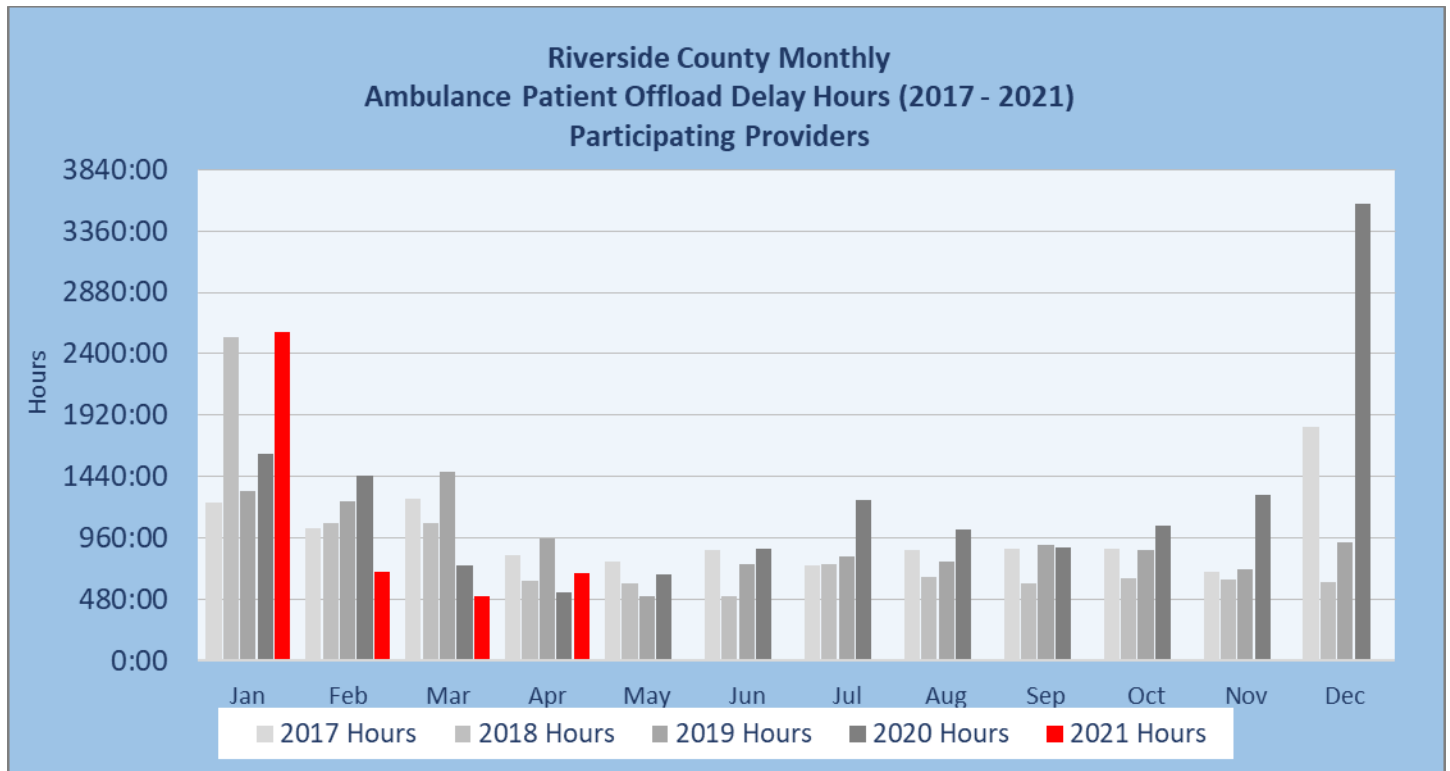
Ambulance Patient Offload Time

April 2021

*Monthly
Report*

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.

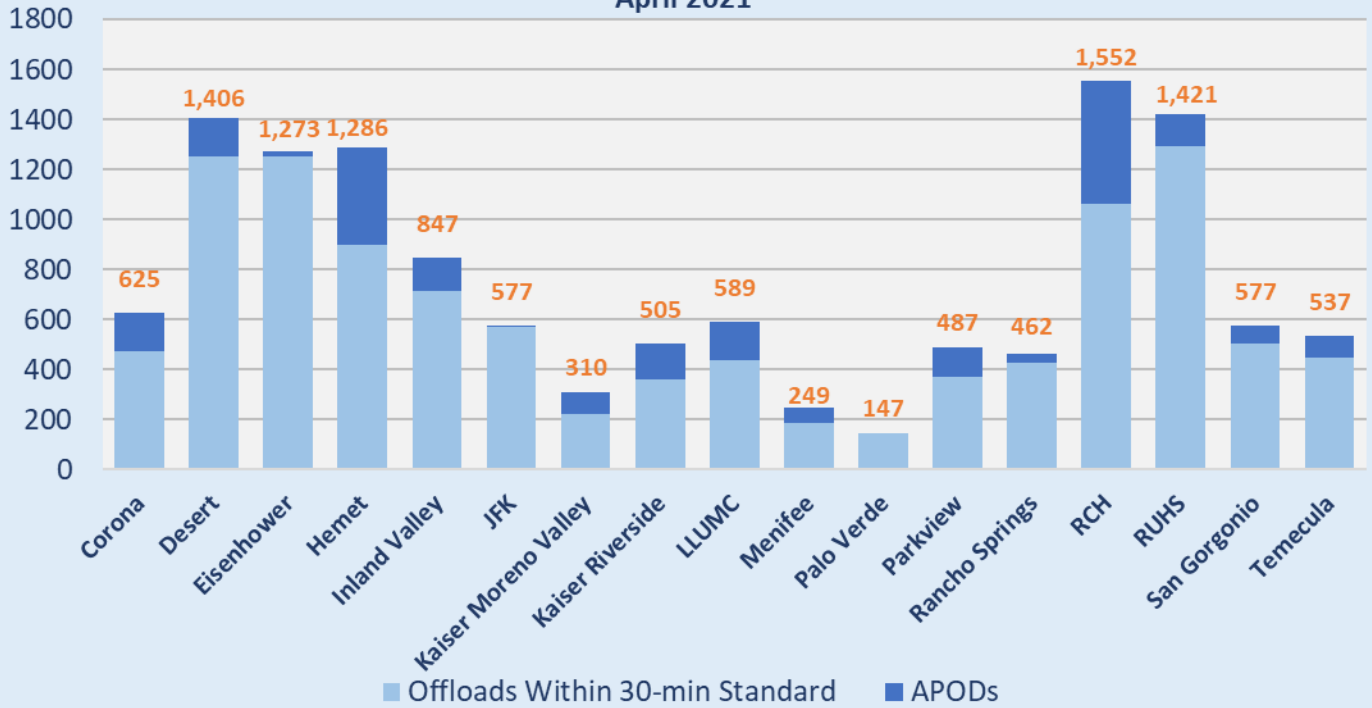
April 2021						
	ALS Transports	APOT	APOD Hours	APODs	APOD Compliance	APOT - 1
Corona Regional Med Ctr	625	245:45:06	44:58:46	153	75.5%	0:44:12
Desert Regional Med Ctr	1,406	372:30:20	56:09:04	154	89.0%	0:31:35
Eisenhower Health	1,273	211:02:03	3:41:24	22	98.3%	0:18:07
Hemet Valley Hospital	1,286	590:33:52	119:22:37	386	70.0%	0:45:00
Inland Valley Med Ctr	847	267:13:43	35:54:07	131	84.5%	0:35:04
JFK Hospital	577	72:41:18	0:38:30	8	98.6%	0:16:20
Kaiser Hospital Moreno Valley	310	148:41:44	48:36:57	88	71.6%	1:00:15
Kaiser Hospital Riverside	505	247:56:11	80:01:15	146	71.1%	1:04:02
Loma Linda Univ Med Ctr Mur	589	247:27:31	59:37:44	154	73.9%	0:49:02
Menifee Med Ctr	249	97:31:30	15:17:20	62	75.1%	0:44:23
Palo Verde Hospital	147	13:30:29	0:00:00	0	100.0%	0:14:21
Parkview Community Hospital	487	181:23:54	26:04:56	114	76.6%	0:41:01
Rancho Springs Med Ctr	462	123:23:46	7:09:45	35	92.4%	0:26:39
Riverside Community Hospital	1,552	690:08:18	130:31:12	489	68.5%	0:48:48
Riverside University Health System	1,421	420:55:17	13:58:56	126	91.1%	0:29:23
San Geronio Mem Hospital	577	187:22:00	14:45:28	75	87.0%	0:32:46
Temecula Valley Hospital	537	183:03:14	22:45:30	87	83.8%	0:37:24
Grand Total	12,850	4301:10:16	679:33:31	2,230	82.6%	0:38:08

Key

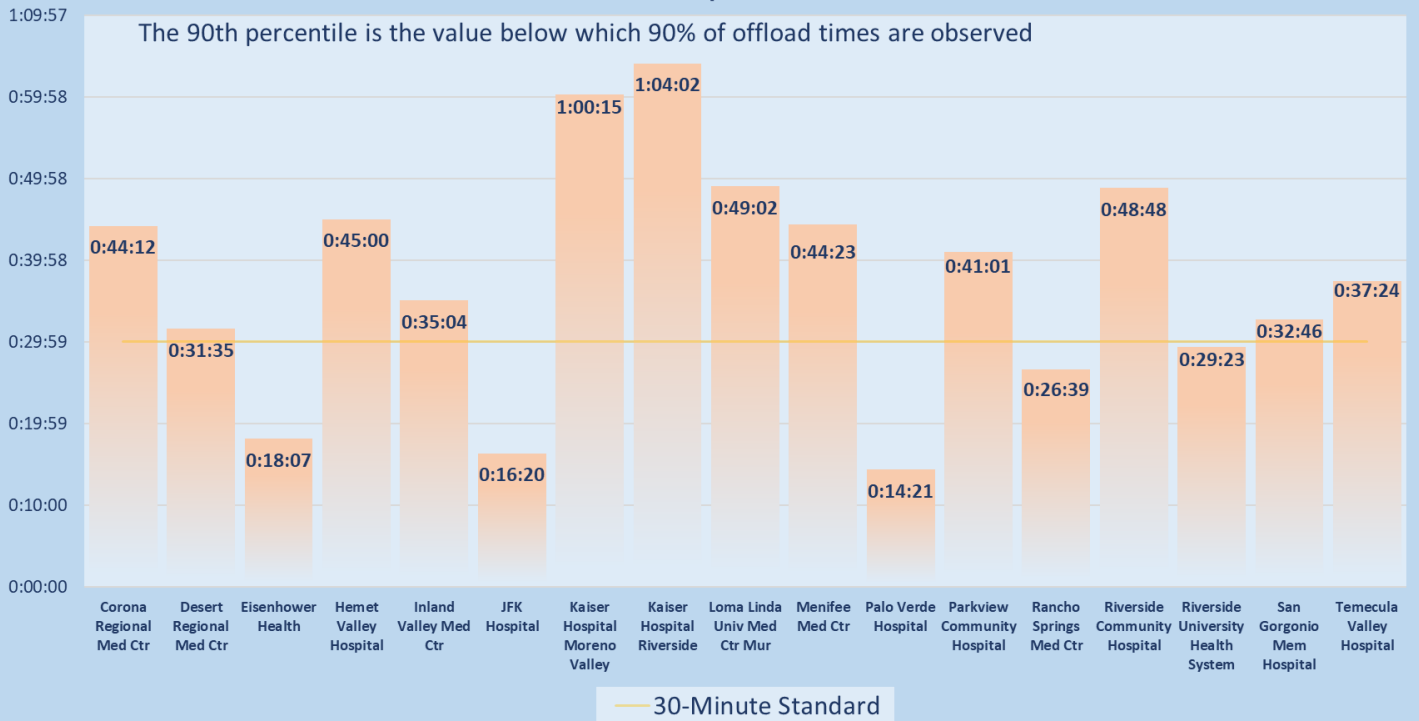
High

Low

Riverside County Hospitals Transports and APODs April 2021



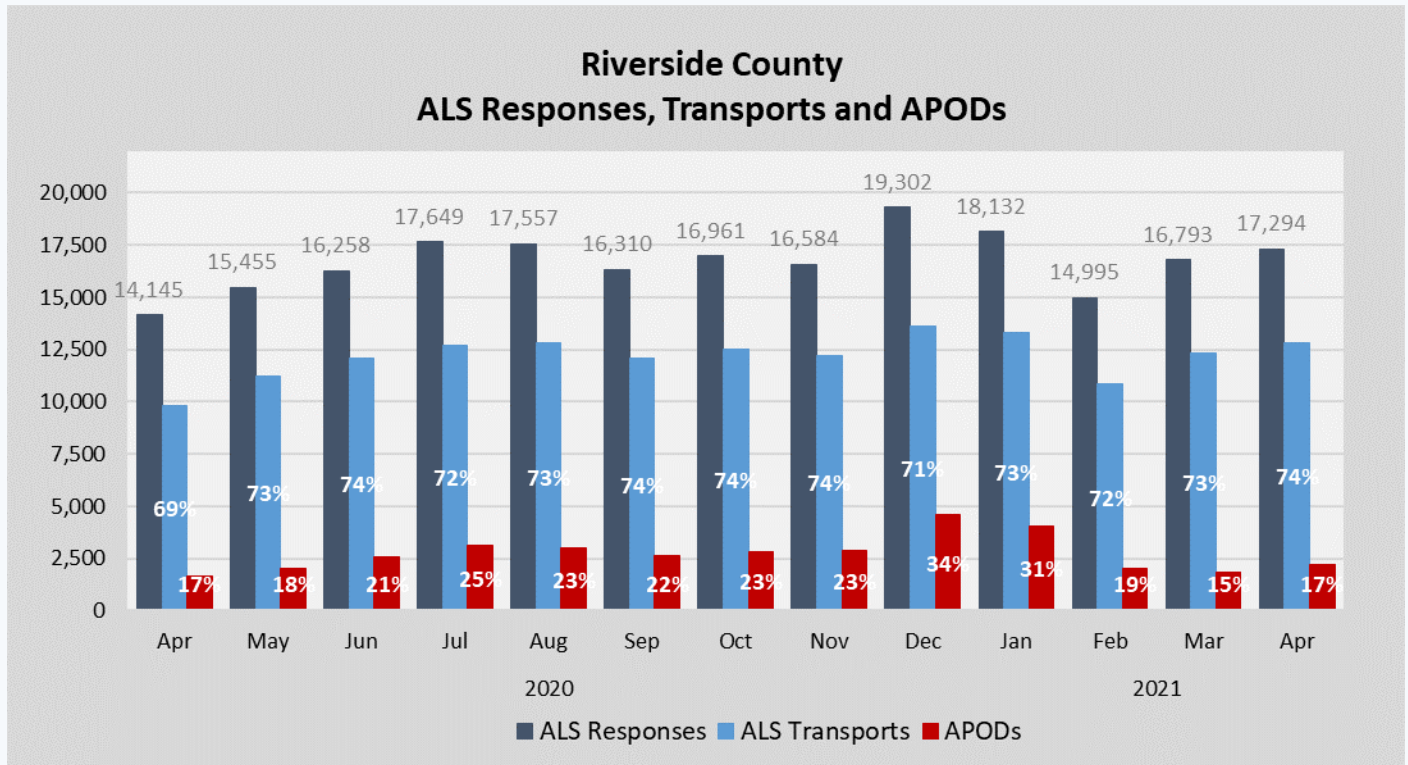
Riverside County Hospitals APOT-1, 90th Percentile April 2021



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.

Hospital	Transport Volume										Low		High	
	2020										2021		Monthly	Avg
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Corona Regional Med Ctr	566	664	627	719	729	642	720	638	700	683	606	680	625	661
Desert Regional Med Ctr	865	1082	1162	1193	1122	1070	1122	1090	1126	1174	969	1242	1406	1,125
Eisenhower Health	877	1119	1125	1151	1134	1098	1142	1148	1284	1302	1051	1272	1273	1,152
Hemet Valley Hospital	1167	1197	1279	1377	1406	1230	1322	1318	1130	1085	1006	1229	1286	1,233
Inland Valley Med Ctr	664	796	800	895	869	870	824	808	914	806	733	829	847	820
JFK Hospital	485	595	659	641	620	573	603	579	705	618	520	574	577	596
Kaiser Hospital Moreno Valley	232	239	248	301	317	286	309	300	390	400	266	308	310	300
Kaiser Hospital Riverside	369	435	490	530	531	521	561	582	674	642	459	507	505	524
Loma Linda Univ Med Ctr Mur	455	512	582	607	634	591	642	642	709	714	546	630	589	604
Menifee Med Ctr	221	259	316	317	292	239	270	273	324	274	204	237	249	267
Palo Verde Hospital	130	163	153	163	148	137	139	159	154	169	128	110	147	146
Parkview Community Hospital	450	464	518	556	523	517	543	538	713	565	384	442	487	515
Rancho Springs Med Ctr	351	363	392	424	461	416	414	412	552	586	449	454	462	441
Riverside Comm Hospital	1084	1218	1325	1392	1494	1422	1376	1311	1217	1405	1242	1406	1552	1,342
Riverside Univ Health System	1087	1261	1375	1454	1445	1395	1420	1409	1732	1643	1240	1388	1421	1,405
San Geronio Mem Hospital	486	488	550	523	569	557	563	530	737	669	541	507	577	561
Temecula Valley Hospital	335	399	495	482	530	490	535	484	563	586	504	505	537	496
Riverside County Total	9824	11254	12096	12725	12824	12054	12505	12221	13624	13321	10848	12320	12850	12190

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.

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

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															
Hospital	2020												2021		Avg APOT-1
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Corona Regional Med Ctr	0:48	0:48	0:56	1:13	0:52	0:51	0:55	1:38	2:38	2:01	0:48	0:45	0:44	1:09	
Desert Regional Med Ctr	0:23	0:28	0:33	0:33	0:27	0:25	0:29	0:30	0:41	0:37	0:30	0:34	0:32	0:30	
Eisenhower Health	0:16	0:16	0:18	0:19	0:19	0:15	0:16	0:16	0:17	0:17	0:14	0:16	0:18	0:16	
Hemet Valley Hospital	0:43	0:44	0:45	1:02	1:04	0:51	0:54	1:08	1:56	1:58	1:12	0:45	0:45	1:03	
Inland Valley Med Ctr	0:32	0:31	0:35	0:47	0:43	0:43	0:48	0:38	1:21	1:17	0:43	0:33	0:35	0:45	
JFK Hospital	0:20	0:19	0:20	0:22	0:15	0:15	0:16	0:15	0:20	0:19	0:16	0:18	0:16	0:17	
Kaiser Hospital Moreno Valley	0:31	0:32	0:56	0:50	0:56	0:52	0:54	1:04	1:53	0:58	0:37	0:41	1:00	0:54	
Kaiser Hospital Riverside	0:32	0:40	0:54	0:56	0:41	0:49	0:46	1:04	1:43	1:05	0:42	0:46	1:04	0:54	
Loma Linda Univ Med Ctr Mur	0:33	0:36	0:38	0:41	0:44	0:38	0:39	0:44	1:10	1:09	0:50	0:48	0:49	0:46	
Menifee Med Ctr	0:31	0:35	0:41	1:13	1:07	0:48	1:05	1:26	2:56	2:39	1:02	0:40	0:44	1:11	
Palo Verde Hospital	0:13	0:16	0:13	0:13	0:10	0:12	0:15	0:17	0:21	0:20	0:14	0:11	0:14	0:14	
Parkview Community Hospital	0:39	0:50	1:06	1:01	0:58	0:54	0:42	0:42	2:13	1:21	0:41	0:35	0:41	0:57	
Rancho Springs Med Ctr	0:28	0:24	0:30	0:34	0:30	0:30	0:32	0:30	1:03	1:17	0:29	0:26	0:27	0:35	
Riverside Comm Hospital	1:24	1:12	1:05	1:09	1:00	1:07	1:14	1:13	2:19	1:15	0:48	0:37	0:49	1:10	
Riverside Univ Health System	0:29	0:34	0:39	0:42	0:35	0:32	0:36	0:36	0:42	0:35	0:29	0:29	0:29	0:34	
San Gorgonio Mem Hospital	0:28	0:28	0:30	0:30	0:28	0:36	0:33	0:34	0:59	1:13	0:36	0:34	0:33	0:37	
Temecula Valley Hospital	0:26	0:29	0:35	0:42	0:36	0:43	0:39	0:40	0:46	0:45	0:34	0:37	0:37	0:37	
Riverside County Compliance	0:41	0:38	0:39	0:42	0:48	0:45	0:44	0:45	0:49	1:03	0:40	0:35	0:38	0:43	

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
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr												
INT	1			1		5	8			2		1	1	19											
Corona Regional Medical Center						1								1											
Menifee Valley Medical Center	1			1			1							3											
Riverside Community Hospital						1								1											
Temecula Valley Hospital						1								1											
Inland Valley Medical Center						2				1		1		4											
Loma Linda University Medical Center--Murrieta								3		1				4											
Rancho Springs Medical Center								4						4											
Eisenhower Health													1	1											
STEMI					1	2	1			1				5											
Riverside Community Hospital						1				1				2											
Temecula Valley Hospital						1								1											
Loma Linda University Medical Center--Murrieta					1		1							2											
Stroke	1	1	1			4	3		2	1				13											
Corona Regional Medical Center						1	1							2											
Riverside Community Hospital						1				1				2											
Temecula Valley Hospital						1								1											
Inland Valley Medical Center						1								1											
Kaiser Permanente Riverside Medical Center	1													1											
Rancho Springs Medical Center		1	1				2							4											
Riverside University Health System									1					1											
Parkview Community Hospital									1					1											
Trauma		4	4	8	6	5	1	8	4	1	5	2	1	49											
Riverside Community Hospital					1	1		3						5											
Inland Valley Medical Center				1	2	2	1			1		1		8											
Riverside University Health System		4	4	7	3	2		5	4		5	1	1	36											
Total	2	5	5	9	7	16	13	8	6	5	5	3	2	86											

Diversions by HH:MM	2020												2021	Total
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
INT	0:31			0:37		96:38	15:02			1:53		0:09	0:14	
Corona Regional Medical Center						59:44								
Menifee Valley Medical Center	0:31			0:37			0:25							
Riverside Community Hospital						2:08								
Temecula Valley Hospital						29:51								
Inland Valley Medical Center						4:55				1:26		0:09		
Loma Linda University Medical Center--Murrieta							1:59			0:27				
Rancho Springs Medical Center							12:38							
Eisenhower Health													0:14	
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 Center--Murrieta					1:30		1:26							
Stroke	0:58	5:03	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								
Kaiser Permanente Riverside Medical Center	0:58													
Rancho Springs Medical Center		5:03	9:44				16:56							
Riverside University Health System									0:08					
Parkview Community Hospital									5:19					
Trauma		5:38	6:00	21:17	7:53	7:22	2:01	9:20	1:31	2:03	8:15	2:42	0:51	
Riverside Community Hospital					2:53	2:00		2:40						
Inland Valley Medical Center				1:54	2:09	3:44	2:01			2:03		0:13		
Riverside University Health System		5:38	6:00	19:23	2:51	1:38		6:40	1:31		8:15	2:29	0:51	
Total	1:29	10:41	15:44	21:54	9:23	379:30	46:22	9:20	6:58	7:59	8:15	2:51	1:05	

APOD AMBULANCE REDIRECTION

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

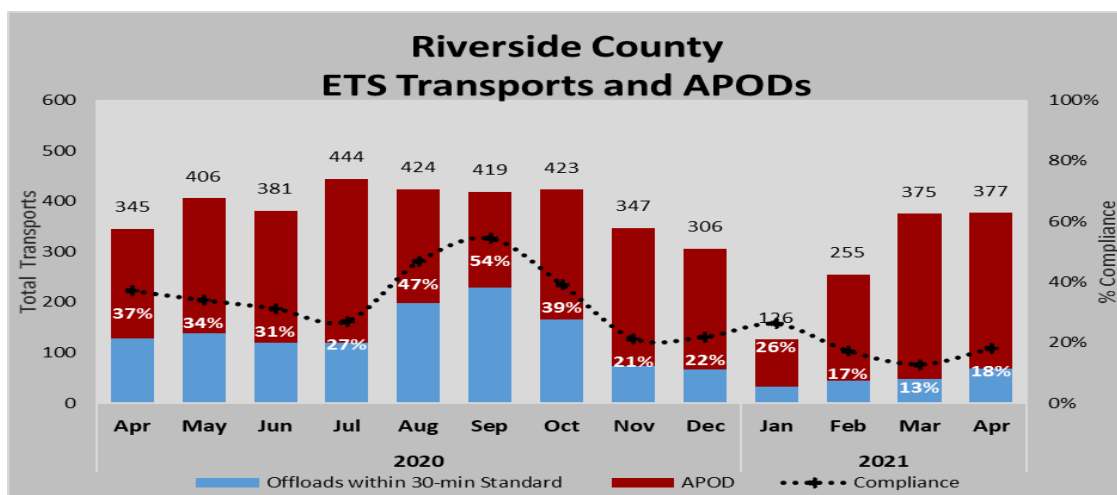
Facilities	2020												Total Redirection	
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		Apr
Corona Regional Medical Center	1	3	5	15	5	7	8	31	91	61	5	1	3	236
Desert Regional Medical Center		7	8	2	2	1	5	3	8	14	3	6	5	64
Eisenhower Health		1								1				2
Hemet Valley Medical Center			1	17	16	4	4	20	87	86	31	1	9	276
Inland Valley Medical Center				7	2	2	7	3	32	45	5		2	105
John F. Kennedy Memorial Hospital			2	1										3
Kaiser Hospital Moreno Valley	1	2	6	4	2	1	1	8	34	16	1	3	8	87
Kaiser Hospital Riverside			9	7		4	3	7	63	25	1	4	6	129
Loma Linda Univ Med Ctr Murrieta			2	1	2	2	2	3	32	38	6	3	7	98
Menifee Valley Medical Center			3	11	5	2	8	16	68	43	6	1		163
Palo Verde Hospital		1		1					1	1				4
Parkview Community Hospital		4	17	12	14	4	2	1	77	41	1		1	174
Rancho Springs Medical Center				2			1		15	24				42
Riverside Community Hospital	20	23	24	25	13	21	35	37	131	46	3		2	380
Riverside University Health System			1				1		6					8
San Geronio Memorial Hospital								1	11	19	2			33
Temecula Valley Hospital						2			7	6		1		16
Total Redirection	22	41	78	105	61	50	77	130	663	466	64	20	43	1820

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.

April 2021 - Emergency Treatment Services					
	Transports to ETS	Total Offload Time	APOD Hours	APODs	APOD Compliance
Emergency Treatment Services	377	350:56:14	176:58:31	309	18.0%

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.

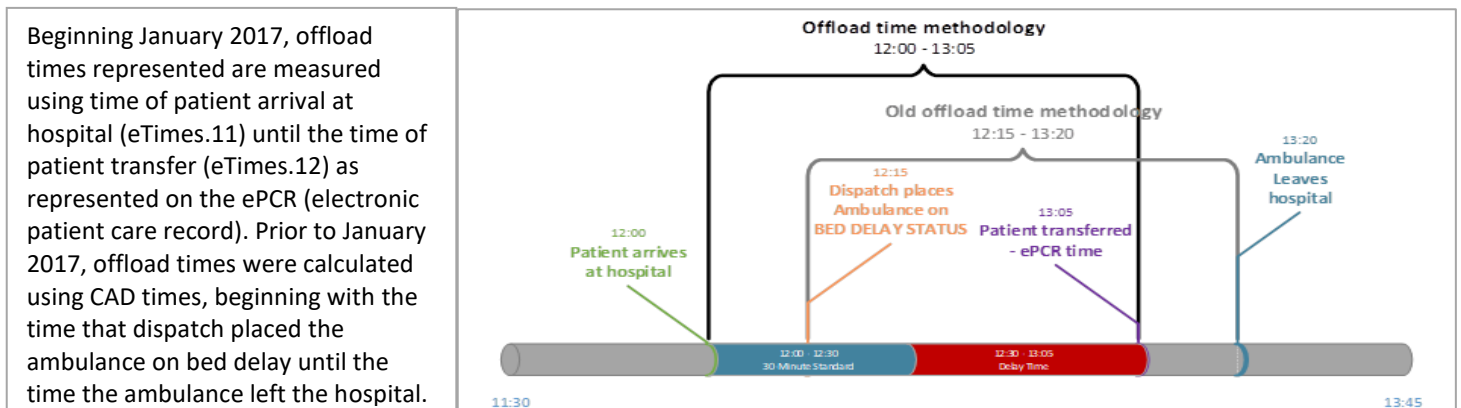
9-1-1 Ambulance Response

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, TDouville@rivco.org

-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. <http://www.remsa.us/policy/9101.pdf>

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