



**RIVERSIDE COUNTY EMS AGENCY
EMERGENCY MEDICAL DISPATCH
SUMMARY REPORT *2018***

NOVEMBER 27TH, 2019

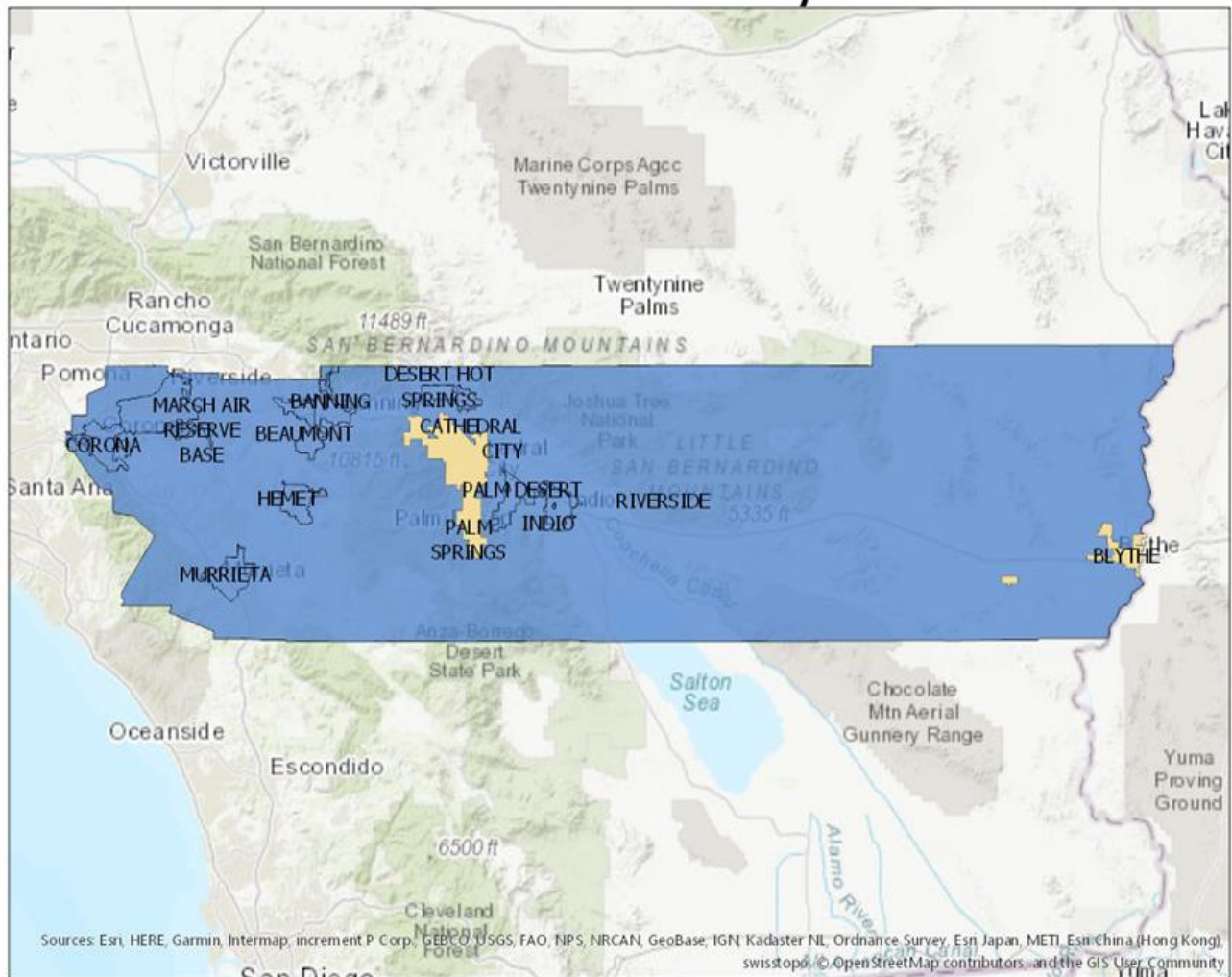
PREPARED BY RIVERSIDE COUNTY EMS AGENCY, EMERGENCY MANAGEMENT DEPARTMENT

EMERGENCY MEDICAL DISPATCH SUMMARY

Emergency Medical Dispatch (EMD) is utilized by Public Safety Answering Points to assist call-takers in rapidly narrowing down a caller's medical or trauma condition, dispatching emergency services, and providing standardized medical instructions to callers before help arrives. The following is the Riverside County Emergency Medical Dispatch (EMD) and Response Data Summary for 2018 by calendar year and quarter. This data was collected by responding agencies between January 1, 2018 through December 31, 2018.

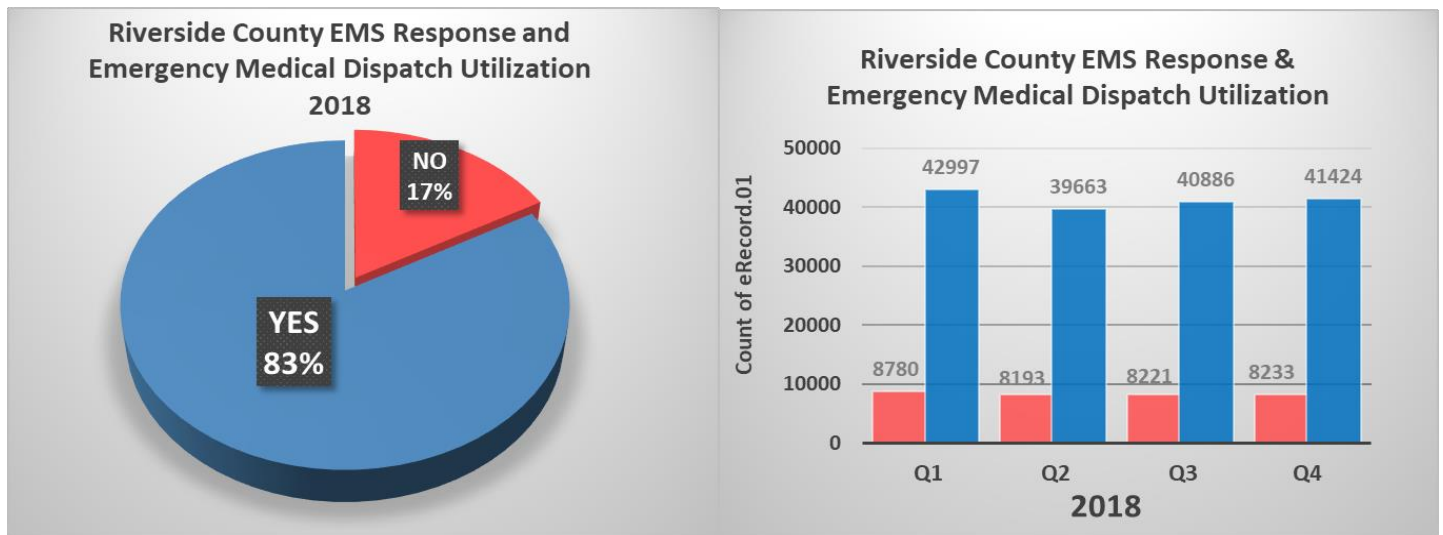
The majority of Riverside County is covered by EMD through the Medical Priority Dispatch System (MPDS) program.

Riverside County



- Legend**
- Yellow box: Riverside County PSAP's Without MPDS
 - Blue box: Riverside County PSAP's With or Currently Implementing MPDS

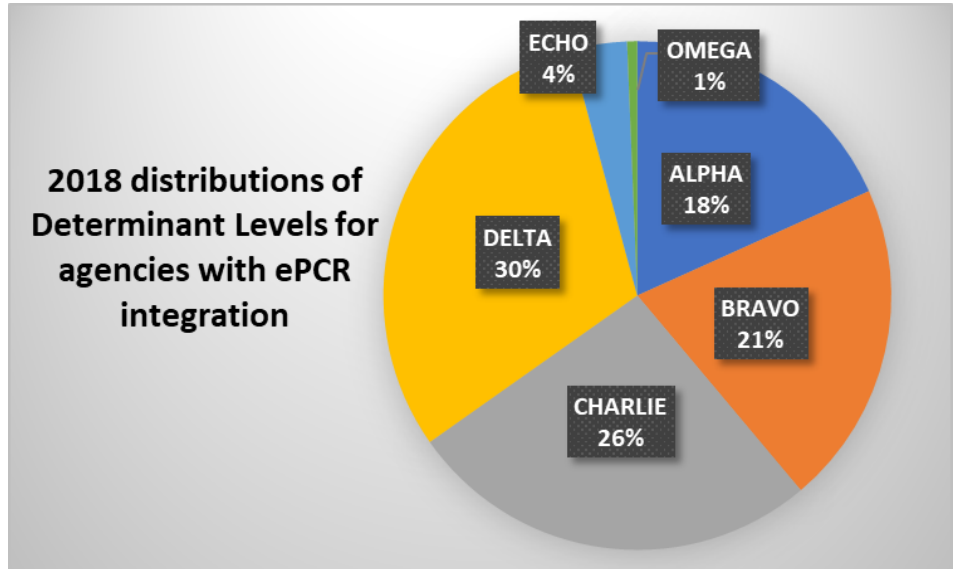
The following data is shown to reflect EMD utilization for Riverside County in 2018. Electronic patient records (eRecord.01) were collected and grouped according to EMD participating and non-participating agencies, respectively. In an effort to reduce duplication, transport agencies were excluded from this analysis.



The table below shows the rate of EMD integration with EMS Electronic Patient Care Records (ePCR) for all 911 provider agencies in Riverside County for the 2018 calendar year. A count of *eRecord.01*, a number generated with each ePCR created, was used to determine the theoretical integration of EMD by responding agency. *EMD Integration with ePCR* is a total count of *eDispatch.03*, the EMD card and dispatch determinant level, which is used to determine raw integration numbers of EMD by the responding agency. *EMD Card Missing* is defined here as an ePCR having a blank *eDispatch.03*, or no recorded EMD card and dispatch determinant level. *Percentage of EMD Integration* was calculated by dividing the total ePCR count (*eRecord.01*) by the EMD Integration count (*eDispatch.03*).

All 911 Agencies	2018 ePCR Count (<i>eRecord.01</i>)	EMD Integration w/ ePCR (<i>eDispatch.03</i>)	EMD Cards Missing from ePCR	Percentage of EMD Integration to ePCR (<i>Actual/ePCR Total</i>)	911 Agency With EMD Call Center
Transport					
AMR - Desert Cities	29,102	1,629	27,473	5.60%	No
AMR - Hemet	34,938	8,443	26,495	24.17%	No
AMR - Riverside	110,865	26,634	84,231	24.02%	No
Total EMD Integration	174,905	36,706	138,199	20.99%	0
911 Responders (Non-EMD)					
Cathedral City Fire Department	4,415	4	4,411	0.09%	No
Hemet Fire Department	13,999	0	13,999	0.00%	No
Murrieta Fire Department	6,959	0	6,959	0.00%	No
Palm Springs Fire Department	8,054	0	8,054	0.00%	No
Total EMD Integration	33,427	4	33,423	0.01%	0
EMD 911 Responders					
Calimesa Fire Department	1,135	794	341	69.96%	Yes
Corona Fire Department	7,086	3	7,083	0.04%	Yes
Idyllwild Fire Protection District	596	0	596	0.00%	Yes
March Air Reserve Base Fire Department	62	0	62	0.00%	Yes
Morongo Fire Department	776	656	120	84.54%	Yes
Pechanga Fire Department	1,066	935	131	87.71%	Yes
Riverside City Fire Department	28,335	0	28,335	0.00%	Yes
Riverside County Fire Department	125,824	110,057	15,767	87.47%	Yes
Soboba Fire Department	117	101	16	86.32%	Yes
Total EMD Integration	164,997	112,546	52,451	68.21%	9
Total EMD Integration for Riverside County	373,329	149,256	224,073	39.98%	9/16

The Medical Priority Dispatch system allows rapid assignment of call type using determinant levels (Alpha, Bravo, Charlie, Delta, Echo, Omega) which can identify response time and type of emergency services required (i.e. ALS vs. BLS). While Riverside County does not rely on EMD to guide response type and time, assigned determinant codes do define modes of response for emergency vehicles. The 2018 distribution of determinant levels was analyzed using ePCR data. This data reflects determinant levels for 911 responding agencies with ePCR integration of dispatch data. While most Riverside County 911 responding agencies utilize EMD, less than half currently have ePCR integration.



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Total Response Time by Dispatch Determinant Level

In Riverside County, Determinant Codes do not govern response times; however, some providers may intrinsically respond more rapidly to higher acuity calls. An aggregate analysis of response time as outlined in REMSA Policy 2203 defining “Total Response Time” as the measure between dispatch (*PSAP Call Date/Time-eTimes.01*) to patient contact (*Arrived at Patient Date/Time- eTimes.07*) revealed a trend in more rapid response to higher acuity calls. **Note these response times are not representative of individual agencies as high variability exists based on location and proximity to call origin.** Additionally, less than half of the county’s EMD-based calls have been integrated with the ePCRs analyzed. EMD calls which had ePCRs with missing timestamps have been excluded from the response time analysis. So, total response time data does not include all EMD calls but provides a reliable view of relative response behaviors based on call acuity.

	Dispatch Determinant Level and Response Time (eTimes.01 to eTimes.07 in minutes)						
	Not Recorded	Alpha	Bravo	Charlie	Delta	Echo	Omega
ePCR Count	160746	19792	13341	28906	34172	4209	665
(Exclusions Count)	(63327)	(7476)	(17410)	(10434)	(11405)	(1148)	(298)
Mean	10.25	13.98	11.63	11.10	10.97	10.25	13.72
Median	8.67	12.45	10.70	10.33	10.15	9.47	12.58
Std. Deviation	6.46	6.40	4.84	4.15	4.32	4.18	5.88
90 th Percentiles	16.65	20.70	16.68	15.62	15.57	14..80	19.72

References

Culley, Linda L. et al. (1994). **Increasing the efficiency of emergency medical services by using criteria based dispatch.** **Annals of Emergency Medicine.** Volume 24, Issue 5, 867 – 872.

<https://www.emergencydispatch.org/articles/princdocpull03.pdf>

<https://www.emergencydispatch.org/articles/ArticleMPDS%28Cady%29.html>

<http://remsa.us/policy/2203.pdf>