

# WASHOE COUNTY HEALTH DISTRICT

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ENHANCING QUALITY OF LIFE

## EMS Oversight Program FY20 Mid-Year Data Report

June 2020



**Public Health**  
Prevent. Promote. Protect.

## Washoe County Health District EMS Oversight Program Mid-Year Data Report

The EMS Oversight Program monitor the response and performance of agency providing Emergency Medical Services in Washoe County. One of the duties of the EMS Oversight Program is to measure performance, analysis of system characteristics, data and outcomes of the Emergency Medical Services to Reno, Sparks, Washoe County, Fire, and REMSA as outlined in the [Interlocal Agreement \(ILA\)](#). The Fiscal Year 2020 (FY20) mid-year data report depicts regional and jurisdictional performance measures of 911 EMS data for Reno Fire Department, Sparks Fire Department, Truckee Meadows Fire Protection District, and REMSA. Fire jurisdictional performance measures and analyses reported are relative to the standards and measures adhered to by fire departments. Jurisdictional performance analyses are not comparable across the various jurisdictions due to different performance measures being utilized across Washoe County. The regional performance measures and analyses reported was approved by the [EMS Advisory Board meeting](#) in April 2017. Regional analyses in this report do not include regional performance standards and benchmarks. The EMS regional team will identify performance measures standards to be used for future data reports and continuous quality improvement as outlined in the [Washoe County EMS Strategic Plan](#). This report provides a summary of EMS agencies performance measures in the following section(s):

- Regional Tables; Table 1- Table 5
- Reno Fire Department; Table 6
- Sparks Fire Department Jurisdictional Performance; Table 7 & Figure 1
- Truckee Meadows Fire Protection District Jurisdictional Performance; Table 8 - Table 9, Figure 2 – Figure 3.

**REMSA Call Priority** – A call priority number is assigned in accordance to the Medical Priority Dispatch System protocols (MPDS).

- Priority 0: “Unknown Priority” occurs when the emergency medical dispatching (EMD) questioning process has begun however either A) REMSA was cancelled prior to arriving on scene before the EMD process was completed; or B) REMSA arrived on scene prior to the EMD process being completed.
- Priority 1: High acuity calls, deemed life-threatening.
- Priority 2: Medium acuity calls, no imminent danger.
- Priority 3: Low acuity calls, no clear threat to life.
- Priority 9: Also referred to as Omega calls, are the lowest acuity call.

**Table 1:** Total number of fire calls that matched to REMSA calls, by REMSA call priority.

Matched Fire Calls to REMSA Calls by REMSA Priority				
July 2019 - December 2019				
REMSA Priority	Fire Department			
	Reno Fire Department	Sparks Fire Department	Truckee Meadows Fire and Protection Department	Total
0	91	29	7	127
1	8,468	2,522	1,612	12,602
2	6,322	1,719	1,415	9,456
3	1,199	818	655	2,672
9	272	233	203	708
<b>Total</b>	16,352	5,321	3,892	25,565

**Table 2:** Travel time for fire is the time responding fire unit goes en route to fire unit arrival on scene median, mean (average), and 90th percentile. Only REMSA priority 1 and 2 calls were used for this analysis.

Fire Travel Time: En route to Arrival		
Median	Mean	90th Percentile
0:04:43	0:05:30	0:08:42
Total number of calls: 19,339		

**Table 3:** Travel time for REMSA is the time responding REMSA unit goes en route to REMSA unit arrival on scene median, mean (average), and 90th percentile. Only REMSA priority 1 and 2 calls were used for this analysis.

REMSA Travel Time: En route to Arrival		
Median	Mean	90th Percentile
0:05:46	0:06:44	0:10:51
Total number of calls: 20,905		

**Table 4:** Patient Wait Time measures the median time from the initial 911 call to the first arriving unit on scene for all REMSA Priority calls.

REMSA Priority	Patient Wait Time
0	0:07:49
1	0:06:31
2	0:06:58
3	0:07:39
9	0:07:58
All	0:06:48
Total number of calls: 25,037	

**Table 5:** Jurisdiction arrival on scene by REMSA priority.

Jurisdictional Arrival On Scene by REMSA Priority July 2019 - December 2019						
Jurisdiction(s)	REMSA Priority					Total
	0	1	2	3	9	
REMSA First	0	5,764	3,456	756	200	10,176
REMSA Only-Fire cancelled	1	1,193	1,145	243	103	2,685
Fire First	0	5,275	4,025	1,359	325	10,984
Fire Only-REMSA cancelled	57	242	510	291	41	1,141
Same Time	0	27	19	6	0	52
All Cancelled	69	101	301	17	39	527
<b>Total</b>	127	12,602	9,456	2,672	708	25,565
Total number of calls: 25,565						

**Reno Fire Department**

The City of Reno’s Master Plan, approved December 13, 2017, provides definitions that can be utilized to assess performance relative to the identified measures, although the document states these are not performance standards.

The first definition is identified as a performance measure to gauge and measure progress toward the guiding principles and goals of the Master Plan<sup>1</sup>. The identified definition is to maintain or decrease the fire service average response time of 6 minutes 0 seconds. Travel time is the time the responding unit leaves the station, or is en route to the incident, to the time of arrival on scene (Table 6).

**Table 6.** Reno Fire Department Travel Time: En Route

<b>Reno Fire Department Travel Time: En route to Arrival July 2019 - December 2019</b>		
<b>Median</b>	<b>Mean</b>	<b>90th Percentile</b>
0:04:41	0:05:24	0:08:34
Total number of calls: 12,845		

Additionally, the concurrency management system ensures new development does not decrease existing levels of service targets. Specific to the Reno Fire Department it states that fire stations should be distributed throughout the city and its sphere of influence (SOI) to provide adequate fire protection for the entire city and to provide any one area of the city with an adequate response time. While these are not performance measurement standards, the City of Reno strives for response times outlined below<sup>2</sup>:

Urban: First fire department response unit will arrive at a fire emergency or medical emergency within four minutes 30 seconds from time of dispatch 85 percent of the time.

Suburban: First fire department response unit will arrive at a fire emergency or medical emergency within six minutes 30 seconds from time of dispatch 85 percent of the time.

Unable to provide performance measurements due to lack of the designation “urban” or “suburban”.

<sup>1</sup> REIMAGINE RENO. (2017). The City of Reno Master Plan, page 13. Reno, NV.

<sup>2</sup> REIMAGINE RENO. (2017). The City of Reno Master Plan, page 183. Reno, NV.

**Sparks Fire Department**

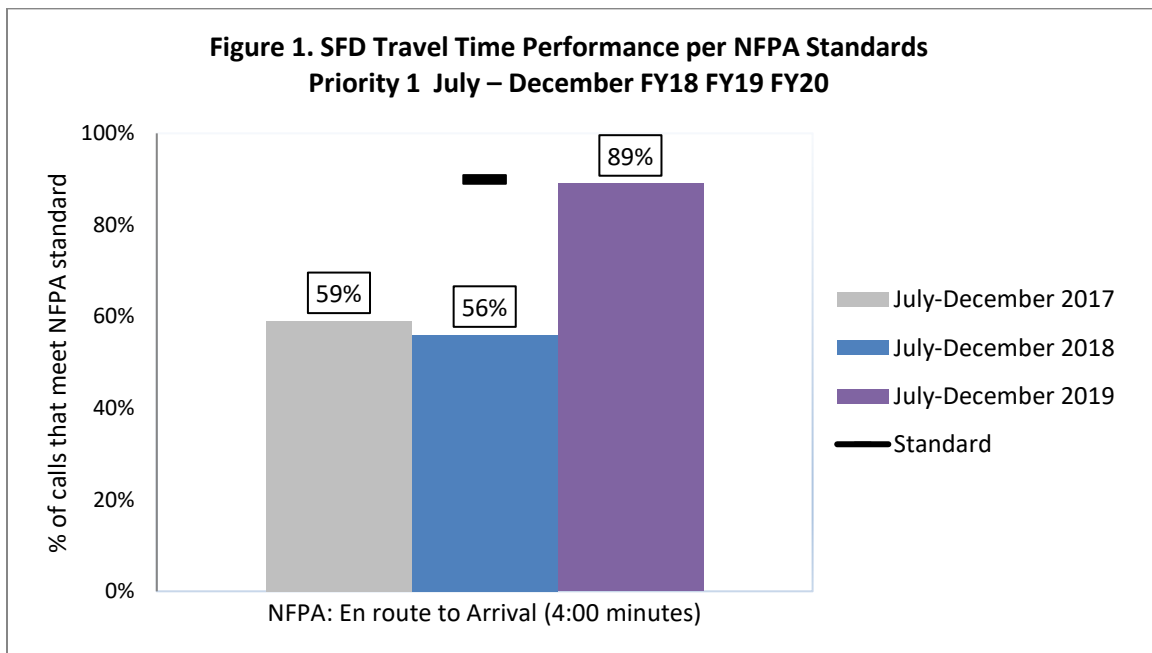
In the City of Sparks, the responding fire captain designates 911 calls as a Priority 1, high acuity, or a Priority 3, low acuity. The following Sparks Fire Department (SFD) analyses only include those Sparks Fire Department calls designated as a Priority 1 per the responding captain.

City of Sparks uses the National Fire Protection Association (NFPA) standards for response time. The NFPA creates and maintains private copyrighted standards and codes for usage and adoption by local governments. Per NFPA 1710 4.1.2.1 (2016 Edition), a fire department shall establish the following “240 second or less travel time for the arrival of a unit with automatic external defibrillator (AED) or higher level capacity at an emergency medical incident.” for 90 percent of incidents.

**Table 7:** SFD Travel Time Performance per NFPA Standards, July 2019 — December 2019.

<b>Sparks Fire Department Travel Time Performance by Priority – High Acuity</b>					
<b>NFPA: Fire En route to Arrival</b>	<b>Expected</b>	<b>Calls Used</b>	<b>Met Standard</b>	<b>Median Time</b>	<b>Average Time</b>
	90%	2,748	89%	0:04:14	0:04:35

Table 7 summarizes SFD travel time performance per NFPA standards. Travel time is the time the responding unit leaves the station, or is en route to the incident, to the time of arrival on scene. Figure 1 summarizes the percentage of SFD calls that met travel time performance per NFPA standards over the course of three mid-year comparisons for Fiscal Year 2017, Fiscal Year 2018 and Fiscal Year 2019. Only SFD designated Priority 1 calls were used for jurisdictional analyses.



### **Truckee Meadows Fire Protection District**

A Regional Standards of Cover (SOC) study was conducted by Emergency Services Consulting International (ESCI) for the Washoe County area. Study recommendations were presented in April 2011 during a joint meeting of Reno City Council, Washoe County Board of County Commissioners, Sierra Fire Protection District, and the Truckee Meadows Fire Protection District (TMFPD) Board of Fire Commissioners. The language outlining the response standards adopted by TMFPD is provided below.

### **Regional Standards of Cover Response Time Recommendations<sup>3</sup>**

**Turnout Time:** Fire Dispatch → Fire En route

For 85 percent of all priority responses, the Region fire agencies will be en route to the incident in 90 seconds or less, regardless of incident risk type.

**Travel Time:** PSAP Created → Fire Arrival on Scene

#### **First-Due Service Tier One**

Urban: The first unit response capable of initiating effective incident mitigation should arrive within 8 minutes, 85 percent of the time from receipt of the call.

Suburban: The first unit response capable of initiating effective incident mitigation should arrive within 10 minutes, 85 percent of the time from receipt of the call.

Rural: The first unit response capable of initiating effective incident mitigation should arrive within 20 minutes, 85 percent of the time from receipt of the call.

Frontier: The first unit response capable of initiating effective incident mitigation should arrive as soon as practical based on the best effort of response forces.

Additionally, Truckee Meadows Fire Protection District evaluates response times in close alignment with NFPA standards for response time from time of dispatch to the time of arrival measures. This allows for independent measuring of the call processing time, which is handled by fire dispatchers.

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<sup>3</sup> Emergency Services Consulting International. (2011). Regional Standards of Cover, page 2. Reno, NV.



<b>Table 8: Truckee Meadows Fire Protection District Performance Relative to Standards of Cover</b> <b>REMSA Priority 1 and Priority 2 July 2019 – December 2019</b>					
Standards of Cover Measurement (s)	Expected	Calls Used	Met Standard	Median Time	Average Time
Fire Dispatch to En Route	85%	2,878	81%	0:01:13	0:01:28
URBAN: Call Received to Arrival	85%	449	57%	0:08:41	0:12:04
SUBURBAN: Call Received to Arrival	85%	1,942	69%	0:09:15	0:14:05
RURAL: Call Received to Arrival	85%	336	86%	0:08:09	0:10:56
*ALL: Call Received to Arrival	85%	2,694	69%	0:08:27	0:11:52
*ALL calls include calls occurring in the frontier but excluded in all other region(s).					

Table 8 summarizes TMFPD performance per Regional SOC Tier One is displayed. All TMFPD EMS-related calls that matched to REMSA, categorized as a Priority 0, Priority 1, or Priority 2 through REMSA’s Emergency Medical Dispatch were analyzed. Unmatched TMFPD calls, or matched REMSA Priority 3 and Priority 9 calls were excluded from the jurisdictional analyses.

**Figure 2: TMFPD Performance Relative to Standards of Cover Standards Call Received to Arrival, REMSA Priority 1 and Priority 2 calls only July - December FY18 FY19 FY20**

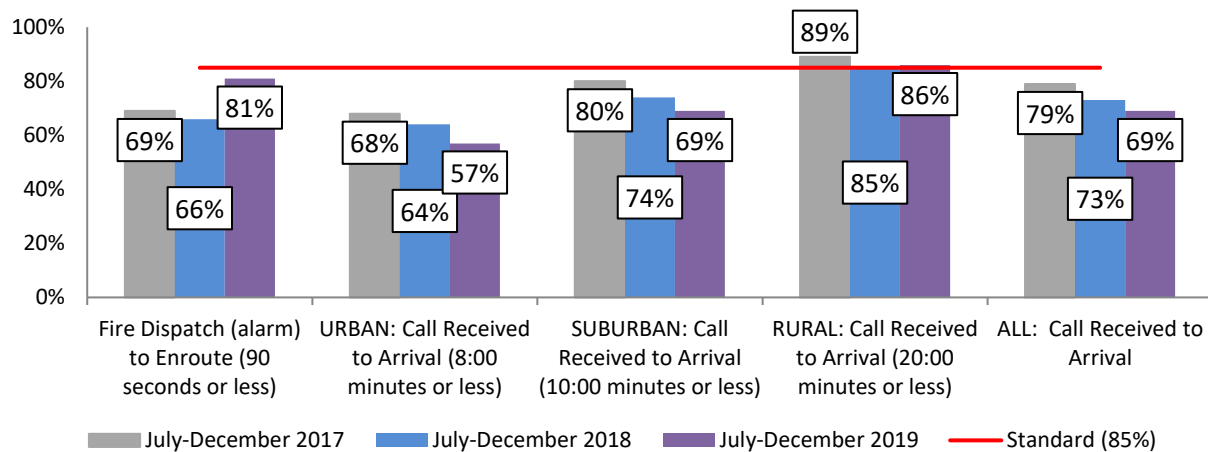


Figure 2 summarizes the percentage of TMFPD calls that met SOC standards over the course of three mid-year periods from Fiscal Year 2018, Fiscal Year 2019, and Fiscal Year 2020. Based on the FY20 mid-year analyses, TMFPD meet the SOC standards for Call Received to Arrival (20:00 minutes or less) for Rural Areas.

<b>Table 9: Truckee Meadows Fire Protection District Performance REMSA Priority 1 and Priority 2</b> <b>July 2019 – December 2019</b>					
Standards of Cover Measurement (s)	Expected	Calls Used	Met Standard	Median Time	Average Time
URBAN: Dispatch to Arrival	85%	449	74%	0:07:20	0:08:21
SUBURBAN: Dispatch to Arrival	85%	2,022	80%	0:07:38	0:09:10
RURAL: Dispatch to Arrival	85%	379	89%	0:06:51	0:07:34
*ALL: Call Received to Arrival	85%	2,918	81%	0:07:09	0:08:07
*ALL calls include calls occurring in the frontier but excluded in all other region (s).					

Table 9 summarizes the number and percentage of TMFPD EMS calls for service during July to December 2019 that meet performance measures as measured from time of dispatch to time of arrival are displayed. Based on the FY20 mid-year analyses, TMFPD meet the SOC standards for Dispatch to Arrival time (20:00 minutes or less) for Rural Areas.

**Figure 3: TMFPD Performance Relative to Standards of Cover Dispatch to Arrival, REMSA Priority 1 and Priority 2 calls only July – December FY19 FY20**

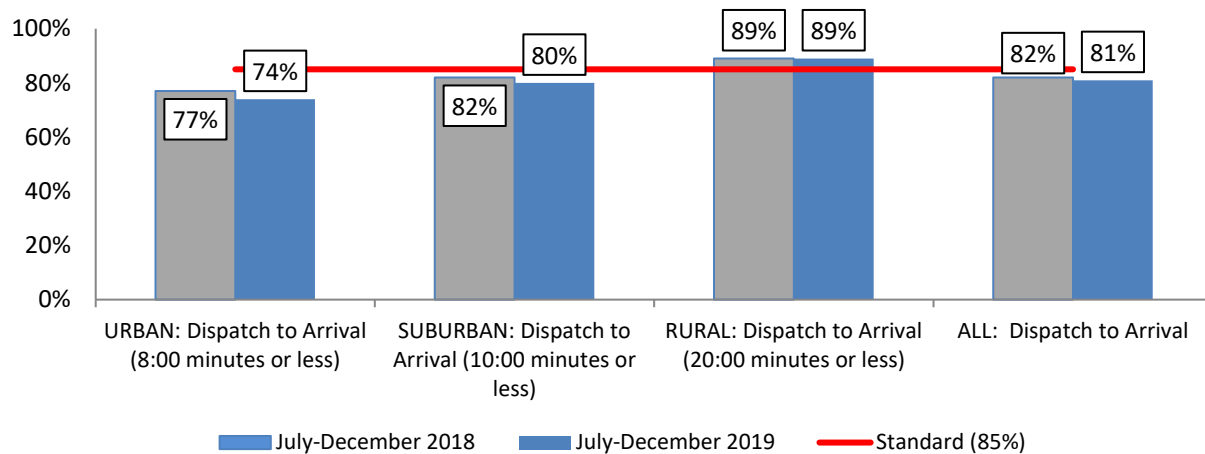


Figure 3 summarizes the percentage of TMFPD calls that met SOC standards for fire unit dispatch to fire unit arrival over the course of three mid-year period from Fiscal Year 2018, Fiscal Year 2019, and Fiscal Year 2020. All TMFPD EMS related calls that matched to REMSA and categorized as Priority 0, Priority 1, or Priority 2 through REMSA’s EMD process were analyzed. Unmatched TMFPD calls, or matched REMSA Priority 3 and Priority 9 calls were excluded from the TMFPD jurisdictional analyses.