

Cleveland EMS 2018 Response Statistics



Report produced by Timothy Sommerfelt for CARE 1975

All statistics derived from public records obtained by CARE 1975

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Service Overview:

Cleveland EMS (CEMS) is the primary provider of 911 medical treatment and transport for the City of Cleveland, Ohio. During 2018, Cleveland EMS staffed 25 ambulances during daytime hours and 21 at night. Occasionally, when extra personnel were available, 1-2 additional ambulances were staffed.

CEMS was assisted by the Cleveland Fire Department (CFD), which staffed 31 Basic Life Support (BLS) units and 5 ALS units. CFD units provided patient care prior to the arrival of CEMS and accompanied CEMS to the hospital if the patient was in critical condition. CEMS was also assisted by the Cleveland Clinic Foundation (CCF) Mobile Stroke Unit, which is a private ambulance designed to provide specialized treatment to stroke patients.

CEMS ALS Ambulances 2018	25 day / 21 night
CFD ALS Engine	5
CFD BLS Engine	18
CFD BLS Ladder	11
CFD BLS Rescue	2
Total CFD	36
CCF Mobile Stroke	1

General Statistics:

Total Emergency calls for 2018	107,823
No onscene time	4,742
Calls with a recorded on-scene time	103,081

Goals: Historically, Cleveland EMS attempts to meet the National Fire Protection Association (NFPA) standard 1710, which calls for a BLS resource to arrive within 6 minutes from receipt of call and an ALS resource to arrive within 10 minutes from receipt of call.

Call Prioritization: Cleveland EMS utilizes a priority dispatch system. Dispatchers assign each call a letter prefix from Alpha-Echo to grade the severity of each call.

Alpha	BLS minor injury/illness
Bravo	BLS patient cannot walk
Charlie	ALS resources needed
Delta	ALS life-threatening emergency
Echo	ALS Inadequate breathing
STBY/BOX	Assist CFD at a fire or CPD at a standoff
Other	Non-common dispatch designation

In-service Disposition: Upon completion of the call, CEMS medics assign an in-service disposition to each call. This uses the same grading scale rating calls from Alpha-Echo, but also incorporates when a patient refuses to go to the hospital and situations where the unit cannot locate a patient.

TRA	Transported Alpha- BLS minor injury/illness
TRB	Transported Bravo- BLS patient cannot walk
TRC	Transported Charlie- ALS resources needed
TRDM	Transported Delta Medical- ALS life-threatening medical
NOTS1	Transported Critical adult trauma
NOTS2	Transported Serious adult trauma
NOTS3	Transported Minor adult trauma
TRDT	Transported Pediatric trauma
TRET	Transported Traumatic Cardiac Arrest
TEM/TALS	Transported Echo Medical- Medical Cardiac Arrest
DOA/TREA	Dead On Arrival
REFUSAL	Patient refused transport
CCFMS	Patient transported by CCF mobile stroke unit
GOA/UTL	Patient is Gone on Arrival or Unable to be Located.
Other	CFD, CPD, or another agency handled.

Response Times and In-service Disposition by Dispatch Priority

Overall 2018 statistics				TRA	19,501	18.9%
Calls with recorded onscene time	103,081			TRB	21,606	21.0%
Average response time	10:13			TRC	28,562	27.7%
Median response time	9:05			TRDM	4,894	4.7%
under 20 minutes	99,359	96.4%		NOTS1	559	0.5%
under 15 minutes	92,018	89.3%		NOTS2	1,638	1.6%
under 10 minutes	61,881	60.0%		NOTS3	385	0.4%
under 8 minutes	37,499	36.4%		TRDT	168	0.2%
under 6 minutes	13,256	12.9%		TRET	61	0.1%
				TEM/TALS	518	0.5%
				Total Transports	77,892	75.6%
				DOA/TREA	909	0.9%
				REFUSAL	10,578	10.3%
				CCFMS	174	0.2%
				GOA/UTL	3,533	3.4%
				Other	9,995	9.7%

Calls coded as ECHO				TRA	626	9.7%
Calls with recorded onscene time	6,466			TRB	642	9.9%
Average response time	8:46			TRC	2,609	40.3%
Median response time	8:03			TRDM	728	11.3%
under 20 minutes	6,396	98.9%		NOTS1	4	0.1%
under 15 minutes	6,097	94.3%		NOTS2	14	0.2%
under 10 minutes	4,669	72.2%		NOTS3	2	0.0%
under 8 minutes	3,166	49.0%		TRDT	3	0.0%
under 6 minutes	1,245	19.3%		TRET	5	0.1%
				TEM/TALS	317	4.9%
				Total Transports	4,950	76.6%
				DOA/TREA	711	11.0%
				REFUSAL	415	6.4%
				GOA/UTL	85	1.3%
				Other	305	4.7%

Calls coded as Delta				TRA	3,521	11.6%
Calls with recorded onscene time	30,468			TRB	5,091	16.7%
Average response time	9:24			TRC	11,077	36.4%
Median response time	8:38			TRDM	2,353	7.7%
under 20 minutes	29,945	98.3%		NOTS1	460	1.5%
under 15 minutes	28,228	92.6%		NOTS2	862	2.8%
under 10 minutes	20,017	65.7%		NOTS3	176	0.6%
under 8 minutes	12,594	41.3%		TRDT	106	0.3%
under 6 minutes	4,592	15.1%		TRET	51	0.2%
				TEM/TALS	162	0.5%
				Total Transports	23,859	78.3%
				DOA/TREA	142	0.5%
				REFUSAL	2,848	9.3%
				GOA/UTL	1,184	3.9%
				Other	2,435	8.0%



Delta + Echo combined				TRA	4,147	11.2%
Calls with recorded onscene time	36,934			TRB	5,733	15.5%
Average response time	9:18			TRC	13,686	37.1%
Median response time	8:32			TRDM	3,081	8.3%
under 20 minutes	36,340	98.4%		NOTS1	464	1.3%
under 15 minutes	34,325	92.9%		NOTS2	876	2.4%
under 10 minutes	24,686	66.8%		NOTS3	178	0.5%
under 8 minutes	15,760	42.7%		TRDT	109	0.3%
under 6 minutes	5,837	15.8%		TRET	56	0.2%
				TEM/TALS	479	1.3%
				Total Transports	28,809	78.0%
				DOA/TREA	853	2.3%
				REFUSAL	3,263	8.8%
				GOA/UTL	1,269	3.4%
				Other	2,740	7.4%

Calls coded as Charlie				TRA	4,205	19.1%
Calls with recorded onscene time	22,021			TRB	4,645	21.1%
Average response time	10:11			TRC	8,690	39.5%
Median response time	9:15			TRDM	1,175	5.3%
under 20 minutes	21,363	97.0%		NOTS1	5	0.0%
under 15 minutes	19,727	89.6%		NOTS2	34	0.2%
under 10 minutes	12,860	58.4%		NOTS3	6	0.0%
under 8 minutes	7,366	33.4%		TRDT	5	0.0%
under 6 minutes	2,258	10.3%		TRET	0	0.0%
				TEM/TALS	26	0.1%
				Total Transports	18,791	85.3%
				DOA/TREA	5	0.0%
				REFUSAL	1,516	6.9%
				GOA/UTL	395	1.8%
				Other	1,314	6.0%



Calls coded as Bravo				TRA	4,677	21.8%
Calls with recorded onscene time	21,497			TRB	4,833	22.5%
Average response time	10:36			TRC	2,081	9.7%
Median response time	9:29			TRDM	276	1.3%
under 20 minutes	20,602	95.8%		NOTS1	69	0.3%
under 15 minutes	18,754	87.2%		NOTS2	594	2.8%
under 10 minutes	11,909	55.4%		NOTS3	162	0.8%
under 8 minutes	6,889	32.0%		TRDT	43	0.2%
under 6 minutes	2,256	10.5%		TRET	4	0.0%
				TEM/TALS	8	0.0%
				Total Transports	12,747	59.3%
				DOA/TREA	36	0.2%
				REFUSAL	3,645	17.0%
				GOA/UTL	1,541	7.2%
				Other	3,528	16.4%

Calls coded as Alpha				TRA	6,222	31.6%
Calls with recorded onscene time	19,712			TRB	6,176	31.3%
Average response time	12:05			TRC	3,828	19.4%
Median response time	9:54			TRDM	328	1.7%
under 20 minutes	18,178	92.2%		NOTS1	6	0.0%
under 15 minutes	16,418	83.3%		NOTS2	87	0.4%
under 10 minutes	10,058	51.0%		NOTS3	31	0.2%
under 8 minutes	5,543	28.1%		TRDT	8	0.0%
under 6 minutes	1,624	8.2%		TRET	0	0.0%
				TEM/TALS	1	0.0%
				Total Transports	16,687	84.7%
				DOA/TREA	4	0.0%
				REFUSAL	1,834	9.3%
				GOA/UTL	276	1.4%
				Other	911	4.6%



Coded as StandbyF, Box, or Still				TRA	20	1.3%
Calls with recorded onscene time	1,588			TRB	24	1.5%
Average response time	7:14			TRC	50	3.1%
Median response time	6:40			TRDM	0	0.0%
under 20 minutes	1,576	99.2%		NOTS1	8	0.5%
under 15 minutes	1,537	96.8%		NOTS2	10	0.6%
under 10 minutes	1,334	84.0%		NOTS3	2	0.1%
under 8 minutes	1,070	67.4%		TRDT	0	0.0%
under 6 minutes	616	38.8%		TRET	1	0.1%
				TEM/TALS	0	0.0%
				Total Transports	115	7.2%
				DOA/TREA	1	0.1%
				REFUSAL	65	4.1%
				GOA/UTL	2	0.1%
				Other	1,405	88.5%

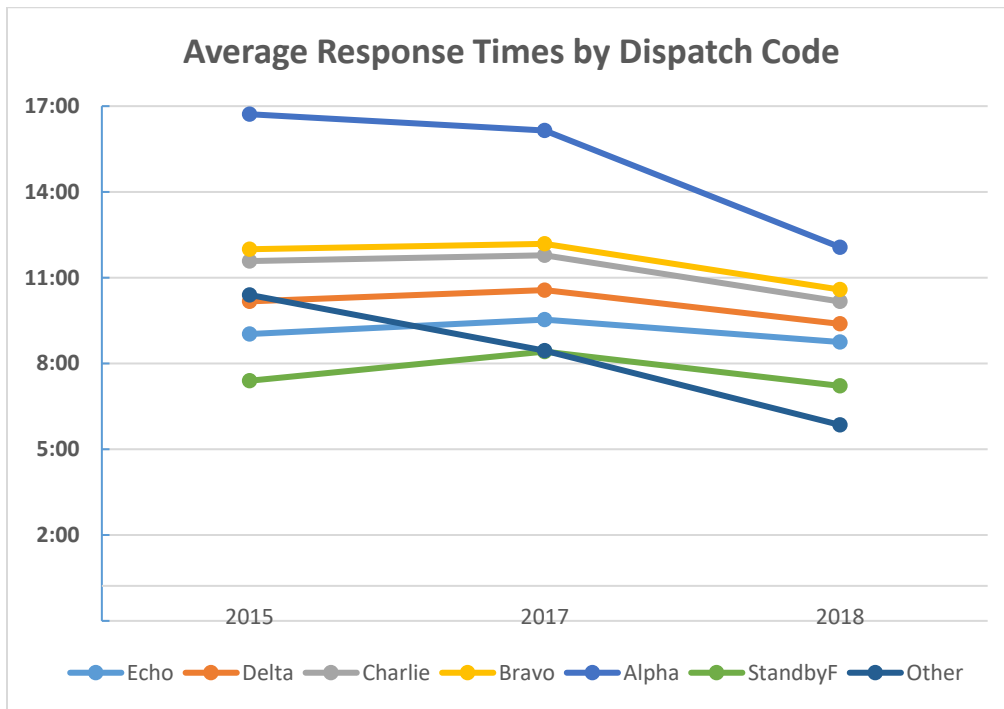
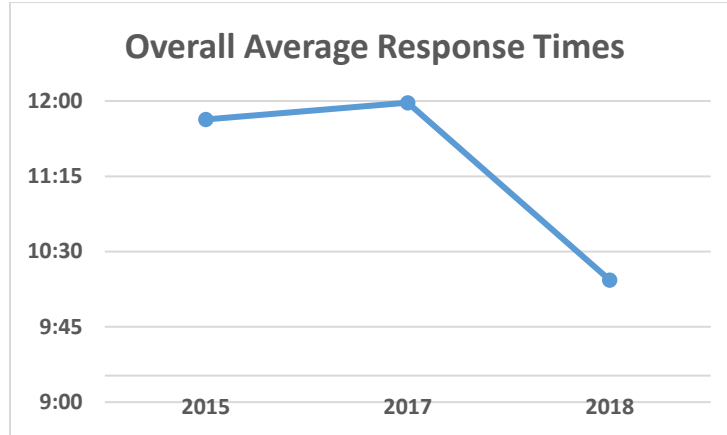
Other/non-common dispatch prefix				TRA	230	17.3%
Calls with recorded onscene time	1,329			TRB	195	14.7%
Average response time	5:52			TRC	227	17.1%
Median response time	5:48			TRDM	34	2.6%
under 20 minutes	1,311	98.6%		NOTS1	7	0.5%
under 15 minutes	1,267	95.3%		NOTS2	37	2.8%
under 10 minutes	1,045	78.6%		NOTS3	5	0.4%
under 8 minutes	881	66.3%		TRDT	3	0.2%
under 6 minutes	672	50.6%		TRET	0	0.0%
				TEM/TALS	4	0.3%
				Total Transports	742	55.8%
				DOA/TREA	10	0.8%
				REFUSAL	255	19.2%
				GOA/UTL	50	3.8%
				Other	272	20.5%

Day Shift (25 ambulances) vs Night Shift (21 ambulances)

Calls received 07:00-18:59 (25)	57,636	55.9%	Calls received 19:00-06:59	45,445	44.1%
Average response time	9:54			10:36	
Median response	8:50			9:24	
under 20 minutes	55,860	96.9%		43,500	95.7%
under 15 minutes	52,193	90.6%		39,825	87.6%
under 10 minutes	36,124	62.7%		25,758	56.7%
under 8 minutes	22,589	39.2%		14,912	32.8%
under 6 minutes	8,191	14.2%		5,067	11.1%

Year-to-Year Comparison

Note that 2016 is not listed. In 2016 Cleveland hosted the Republican National Convention, the CAVS championship parade and the World Series. These events necessitated several weeks of atypical EMS responses that made for unreliable statistics.



Average Response Times

	Overall	Echo	Delta	Charlie	Bravo	Alpha	StandbyF	Other
2015	11:49	9:03	10:11	11:36	12:01	16:44	7:25	10:25
2017	11:59	9:33	10:35	11:48	12:12	16:10	8:26	8:28
2018	10:13	8:46	9:24	10:11	10:36	12:05	7:14	5:52

Unit by Unit Comparison

Unit	2018 calls	average response time
M1	5,198	9:20
M2**	663	9:31
M3**	255	9:24
M4	5,061	9:41
M6	3,646	10:54
M7	5,303	10:04
M10	5,308	10:36
M11	4,525	10:55
M13*	2,316	10:09
M17	4,711	9:53
M20	4,114	10:29
M21*	2,288	8:58
M22	5,058	10:37
M23	4,928	9:28
M24	4,486	10:36
M26	4,641	11:02
M28*	2,028	9:36
M30	4,781	10:19
M31	4,060	10:24
M33	4,227	10:17
M36	4,905	10:31
M38*	2,195	9:30
M39	3,131	9:57
M40	3,544	10:45
M41	5,113	10:24
M42	3,659	10:20
M43	2,865	9:38
ALS/MOB units**	73	9:23

*Daytime only Unit **Units were not staffed for the entire year.

Methods and Limitations:

These statistics were compiled from a public records request filed by CARE 1975 for the actual call times for every single EMS run for the calendar year 2018. A Microsoft Excel spreadsheet was created, and the data was reviewed to remove events without a documented onscene time and calls that duplicated the same information. This is probably the reason that the run totals in this paper are different than those released in the City of Cleveland budget books and on the Cleveland EMS Twitter feed. Lastly, it appears that through a computer glitch when multiple ambulances respond to the same scene, as in the case of a traffic accident with multiple patients, only the response time of the first-arriving ambulance is recorded. As multi-unit calls represent a small amount of CEMS responses, however, this is unlikely to alter trends.