

Cleveland EMS 2017 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. 2017 was a growth year for CEMS. In response to a 30% increase in call volume since 2011, and due to funding made available by the issue 32 tax increase, Cleveland EMS expanded from 18 Advanced Life Support (ALS) ambulances 24/7 to 23 ALS ambulances during the day, and 19 at night.

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 start 2017	18
CEMS ALS Ambulances end 2017	23 day/19 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 2017	107199
No onscene time	5129
Calls with a recorded on-scene time	102070

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 2017 statistics				TRA	18,287	17.9%
Calls with recorded onscene time	102,070			TRB	21,734	21.3%
Average response time	11:59			TRC	27,709	27.1%
Median response time	9:59			TRDM	5,396	5.3%
under 20 minutes	93,960	92.1%		NOTS1	634	0.6%
under 15 minutes	83,006	81.3%		NOTS2	1,641	1.6%
under 10 minutes	41,141	40.3%		NOTS3	334	0.3%
under 8 minutes	30,631	30.0%		TRDT	202	0.2%
under 6 minutes	11681	11.4%		TRET	61	0.1%
				TEM/TALS	538	0.5%
				Total Transports	76,536	75.0%
				DOA/TREA	997	1.0%
				REFUSAL	9905	9.7%
				CCFMS	143	0.1%
				GOA/UTL	4,019	3.9%
				Other	10,470	10.3%

Calls coded as ECHO				TRA	487	8.7%
Calls with recorded onscene time	5,619			TRB	521	9.3%
Average response time	9:33			TRC	2,113	37.6%
Median response time	8:43			TRDM	677	12.0%
under 20 minutes	5,493	97.8%		NOTS1	2	0.0%
under 15 minutes	5,063	90.1%		NOTS2	12	0.2%
under 10 minutes	3,576	63.6%		NOTS3	1	0.0%
under 8 minutes	2,322	41.3%		TRDT	4	0.1%
under 6 minutes	950	16.9%		TRET	5	0.1%
				TEM/TALS	311	5.5%
				Total Transports	4,133	73.6%
				DOA/TREA	749	13.3%
				REFUSAL	342	6.1%
				GOA/UTL	76	1.4%
				Other	319	5.7%

Calls coded as Delta				TRA	3,726	11.4%
Calls with recorded onscene time	32,788			TRB	5,753	17.5%
Average response time	10:35			TRC	11,573	35.3%
Median response time	9:27			TRDM	2,936	9.0%
under 20 minutes	31,257	95.3%		NOTS1	514	1.6%
under 15 minutes	28,153	85.9%		NOTS2	837	2.6%
under 10 minutes	18,155	55.4%		NOTS3	138	0.4%
under 8 minutes	11,280	34.4%		TRDT	129	0.4%
under 6 minutes	4,322	13.2%		TRET	48	0.1%
				TEM/TALS	177	0.5%
				Total Transports	25,831	78.8%
				DOA/TREA	185	0.6%
				REFUSAL	2781	8.5%
				GOA/UTL	1,313	4.0%
				Other	2,678	8.2%



Delta + Echo combined				TRA	4,213	11.0%
Calls with recorded onscene time	38,407			TRB	6,274	16.3%
Average response time	10:26			TRC	13,686	35.6%
Median response time	11:16			TRDM	3,613	9.4%
under 20 minutes	36,750	95.7%		NOTS1	516	1.3%
under 15 minutes	33,216	86.5%		NOTS2	849	2.2%
under 10 minutes	21,731	56.6%		NOTS3	139	0.4%
under 8 minutes	13,602	35.4%		TRDT	133	0.3%
under 6 minutes	5,272	13.7%		TRET	53	0.1%
				TEM/TALS	488	1.3%
				Total Transports	29,964	78.0%
				DOA/TREA	934	2.4%
				REFUSAL	3,123	8.1%
				GOA/UTL	1,389	3.6%
				Other	2,997	7.8%

Calls coded as Charlie				TRA	3,993	18.2%
Calls with recorded onscene time	21,881			TRB	4,594	21.0%
Average response time	11:48			TRC	8,490	38.8%
Median response time	10:10			TRDM	1,178	5.4%
under 20 minutes	20,281	92.7%		NOTS1	1	0.0%
under 15 minutes	17,868	81.7%		NOTS2	28	0.1%
under 10 minutes	10,640	48.6%		NOTS3	3	0.0%
under 8 minutes	6,016	27.5%		TRDT	9	0.0%
under 6 minutes	2,021	9.2%		TRET	2	0.0%
				TEM/TALS	25	0.1%
				Total Transports	18,323	83.7%
				DOA/TREA	4	0.0%
				REFUSAL	1564	7.1%
				GOA/UTL	493	2.3%
				Other	1,497	6.8%



Calls coded as Bravo				TRA	4,486	21.1%
Calls with recorded onscene time	21,230			TRB	5,004	23.6%
Average response time	12:12			TRC	1,932	9.1%
Median response time	10:26			TRDM	247	1.2%
under 20 minutes	19,324	91.0%		NOTS1	85	0.4%
under 15 minutes	16,741	78.9%		NOTS2	613	2.9%
under 10 minutes	9,701	45.7%		NOTS3	167	0.8%
under 8 minutes	5,620	26.5%		TRDT	44	0.2%
under 6 minutes	2,038	9.6%		TRET	4	0.0%
				TEM/TALS	11	0.1%
				Total Transports	12,593	59.3%
				DOA/TREA	36	0.2%
				REFUSAL	3303	15.6%
				GOA/UTL	1,744	8.2%
				Other	3,554	16.7%

Calls coded as Alpha				TRA	5,246	30.9%
Calls with recorded onscene time	16,957			TRB	5,465	32.2%
Average response time	16:10			TRC	3,138	18.5%
Median response time	10:12			TRDM	293	1.7%
under 20 minutes	14,122	83.3%		NOTS1	6	0.0%
under 15 minutes	11,961	70.5%		NOTS2	54	0.3%
under 10 minutes	6,527	38.5%		NOTS3	14	0.1%
under 8 minutes	3,461	20.4%		TRDT	10	0.1%
under 6 minutes	1,101	6.5%		TRET	0	0.0%
				TEM/TALS	4	0.0%
				Total Transports	14,230	83.9%
				DOA/TREA	2	0.0%
				REFUSAL	1476	8.7%
				GOA/UTL	299	1.8%
				Other	950	5.6%



Coded as StandbyF, Box, or Still				TRA	24	1.8%
Calls with recorded onscene time	1,338			TRB	27	2.0%
Average response time	8:26			TRC	44	3.3%
Median response time	7:12			TRDM	1	0.1%
under 20 minutes	1,318	98.5%		NOTS1	3	0.2%
under 15 minutes	1,266	94.6%		NOTS2	15	1.1%
under 10 minutes	1,007	75.3%		NOTS3	1	0.1%
under 8 minutes	792	59.2%		TRDT	1	0.1%
under 6 minutes	634	47.4%		TRET	1	0.1%
				TEM/TALS	2	0.1%
				Total Transports	119	8.9%
				DOA/TREA	4	0.3%
				REFUSAL	52	3.9%
				GOA/UTL	2	0.1%
				Other	1,161	86.8%

Other/non-common dispatch prefix				TRA	325	14.4%
Calls with recorded onscene time	2,257			TRB	370	16.4%
Average response time	8:28			TRC	419	18.6%
Median response time	7:52			TRDM	64	2.8%
under 20 minutes	2,165	95.9%		NOTS1	23	1.0%
under 15 minutes	1,954	86.6%		NOTS2	82	3.6%
under 10 minutes	1,487	65.9%		NOTS3	10	0.4%
under 8 minutes	1,140	50.5%		TRDT	5	0.2%
under 6 minutes	809	35.8%		TRET	1	0.0%
				TEM/TALS	8	0.4%
				Total Transports	1,307	57.9%
				DOA/TREA	17	0.8%
				REFUSAL	387	17.1%
				GOA/UTL	92	4.1%
				Other	454	20.1%

Day Shift vs Night Shift

Calls received 07:00-18:59	57,052	56%	Calls received 19:00-06:59	45,018	44%
Average response time	12:35			11:12	
Median response	10:15			9:41	
under 20 minutes	51,763	91%		42,197	94%
under 15 minutes	45,225	79%		37,781	84%
under 10 minutes	27,179	48%		23,914	53%
under 8 minutes	11,110	19%		14,263	32%
under 6 minutes	6,501	11%		5,180	12%

Unit by Unit Comparison

Unit	2017 calls	average response time
M1	6248	11:24
M4	6304	11:25
M6	4377	12:36
M7	6164	11:50
M10	6123	12:28
M11	5630	12:39
M13*	362	11:37
M17*	871	11:45
M20	5346	12:25
M22	6065	12:11
M23	5812	11:25
M24*	2049	11:14
M26	1038	11:07
M30	5491	12:02
M31	4882	12:03
M33	5297	11:36
M36	5695	12:19
M38*	815	11:35
M39	4211	11:55
M40	4244	12:12
m41	6335	11:53
m42	4836	12:19
m43	3845	11:43
M21 and MOB units*	30	7:53

*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 2015. 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.