

## CLEVELAND EMS RESPONSE TIMES FOR 2012

Cleveland EMS is the primary provider of 911 emergency medical services and transport for the City of Cleveland. They are assisted by the Cleveland Fire Department. This is a look at the response times for Cleveland EMS paramedic ambulances for the year of 2012. Fire Department times and units are not included. The intention of this document is to compare the response times of Cleveland EMS to national standards and determine if 15 ambulances allows us to meet these goals. One standard, NFPA 1710, states that a BLS resource should arrive on scene within 5 minutes from receipt of call and an ALS resource should arrive on scene within 9 minutes from receipt of call. Another guideline, employed by many national private ambulance services, requires a less than 9 minute response 90% of the time. As Cleveland Fire Department times are not included, this document will focus on the 9 minute response goal.

### Methodology

The statistics were derived from information from a public records request filed by C.A.R.E. local 1975. The city provided a PDF record of every call for 2012. The PDF was converted to a Microsoft Excel spreadsheet. The calls were then reviewed and duplicates were removed. For example, if there were two listings for the same run number with the same ambulance and an identical on scene time, one listing was removed. All listings that did not have a documented on scene time were omitted. Reasons that a call may lack an on scene time could include: the ambulance was cancelled before it arrived on scene, the crew failed to document an on scene time, or computer error. During this process it was noted that calls requiring multiple ambulances to respond listed the same times for all responding ambulances. Based on the author's experience working within the system, it appears that only the times for the first arriving ambulance are documented by the computer. This could affect the accuracy of this document's conclusions because it appears that the true response times of the later arriving ambulances have not been documented.

### Breakdown

**Overall:** This category includes all calls (excluding duplicates), and is organized by EMS in service disposition. Dispositions include: backup (BU); other EMS unit to handle (CEMS); CFD to handle (CFD); CMHA Police to handle (CMHA); Cleveland Police to handle (CPD); cancelled per caller (CXC); cancelled per EMS (CXE); cancelled per Fire (CXF); cancelled per Hopkins Airport Fire (CXH); cancelled by Police (CXP); cancelled per RED Center (CXR); cancelled by supervisor (CXS); dead on arrival (DOA); false call (FC); gone on arrival (GOA); no medical emergency (NME); private ambulance transport (PAT); refusal against medical advice (RFAMA); refusal minor medical (RFMM); refusal special circumstance (RFSC); refusal public assist (RPA); fire rescue squad transport (RST); standby with no transport (STBY); suburb to handle (SUB); terminate ALS field pronouncement (TALS); transported alpha (TRA); transported bravo (TRB); transported Charlie (TRC); transported delta medical (TRDM); transported delta trauma or delta trauma NOTS (TRDT or TRDTN); transported echo medical (TREM); transported echo alpha (TREA); transported echo trauma (TRET); transported NOTS trauma 1, 2, or 3 (TRNT1, TRNT2 or TRNT3); or unable to locate (UTL).

disposition	number of calls	average start to onscene		
BU	153	0:09:38		
CEMS	49	0:12:33		
CFD	511	0:03:17		
CMHA	33	0:09:08		
CPD	184	0:03:26		
CXC	1272	0:14:48		
CXE	131	0:12:58		
CXF	822	0:11:12		
CXH	2	na		
CXP	264	0:10:47		
CXR	822	0:17:12		
CXS	2	0:06:42		
DOA	708	0:09:00		
FC	1004	0:11:00		
GOA	1361	0:16:02		
NME	104	0:11:57		
PAT	21	0:09:49		
RFAMA	4807	0:11:22		
RFMM	2005	0:11:47		
RFSC	2623	0:11:28		
RPA	67	0:11:08		
RST	649	0:14:04		
STBY	97	0:07:25		
SUB	97	0:10:43		
TALS	24	0:09:54		
TRA	13703	0:14:00		
TRB	15895	0:13:55		
TPC	26816	0:11:27		
TRDM	4154	0:10:36		
TRDT OR TRDTN	1991	0:09:36		
TREM	376	0:09:43		
TREA	1	0:08:42		
TRET	35	0:06:47		
TRNT1	119	0:08:59		
TRNT2	100	0:07:29		
TRNT3	254	0:11:57		
UTL	1519	0:12:27		
total calls assigned to a unit				82775
total calls with documented response time				79665
total calls transported				63444
total average 2012 response time				0:12:20

number of calls with a response time < 9 min			34589	43%
number of calls with a response time > or = 9 min			45076	57%
number of calls with a response time > or = 15 min			14480	18%
number of calls with a response time > or = 30 min			3092	4%
number of calls with a response time > or = 1 hour			827	1%

### Unit Breakdown\*

Medic number	calls with onscene time	average start to onscene	< 9 min	> or = 9 min	> or = 15 min	> or = 30 min	> or = 1 hr
m1	4653	0:12:10	2015	2638	785	180	48
	6%		43%	57%	17%	4%	1%
m2	4883	0:12:30	1915	2968	846	184	47
	6%		39%	61%	17%	4%	1%
m3	5334	0:12:11	2333	3001	918	195	57
	7%		44%	56%	17%	4%	1%
m4	46	0:15:54	14	32	18	3	1
	0.06%		30%	70%	39%	7%	2%
m5	5830	0:12:06	2476	3354	961	202	58
	7%		42%	58%	16%	3%	1%
m7	5152	0:13:00	1754	3398	1049	193	59
	6%		34%	66%	20%	4%	1%
m8	4811	0:12:46	1860	2951	1001	189	52
	6%		39%	61%	21%	4%	1%
m9	6005	0:11:43	2896	3109	956	201	58
	8%		48%	52%	16%	3%	1%
m10	6022	0:12:13	2760	3262	1042	244	73
	8%		46%	54%	17%	4%	1%
m11	439	0:11:51	168	271	80	12	3
	0.6%		38%	62%	18%	3%	1%
m12	77	0:13:00	32	45	22	1	1
	0.1%		42%	58%	29%	1%	1%
m13	5479	0:12:28	2329	3150	1063	202	55
	7%		43%	57%	19%	4%	1%
m14	5944	0:11:53	2727	3217	1027	226	55
	7%		46%	54%	17%	4%	1%
m16	5228	0:12:36	2133	3095	1025	223	55
	7%		41%	59%	20%	4%	1%
m17	6165	0:12:06	2834	3331	1033	265	69
	8%		46%	54%	17%	4%	1%
m18	4023	0:12:59	1446	2577	857	178	39
	5%		36%	64%	21%	4%	1%
m19	5022	0:12:29	2085	2937	966	197	49
	6%		42%	58%	19%	4%	1%
m21	4550	0:12:18	2157	2393	831	197	49
	6%		47%	53%	18%	4%	1%
m22 and m23	2	0:04:51	1	1	0	0	0

\*note that calls may be listed in more than one column. For example, a call with a time >15 min will also be listed in the > 9 min column.

**Monthly breakdown\***

month	calls with onscene time	average start to onscene	< 9 min	> or = 9 min	> or = 15 min	> or = 30 min	> or = 1 hr
JAN	6405	0:11:49	2808	3597	1027	218	52
	8%		44%	56%	16%	3%	1%
FEB	6001	0:11:54	2713	3288	1061	223	49
	8%		45%	55%	18%	4%	1%
MAR	6749	0:12:13	2922	3827	1244	275	57
	8%		43%	57%	18%	4%	1%
APR	6227	0:10:57	3011	3216	857	147	40
	8%		48%	52%	14%	2%	1%
MAY	6932	0:12:10	3125	3807	1145	274	80
	9%		45%	55%	17%	4%	1%
JUN	6788	0:12:12	2926	3862	1202	244	65
	9%		43%	57%	18%	4%	1%
JUL	7289	0:12:22	3091	4198	1336	292	117
	9%		42%	58%	18%	4%	2%
AUG	6959	0:12:36	2962	3997	1346	278	83
	9%		43%	57%	19%	4%	1%
SEP	6594	0:12:44	2717	3877	1316	289	79
	8%		41%	59%	20%	4%	1%
OCT	6626	0:12:35	2729	3897	1275	284	72
	8%		41%	59%	19%	4%	1%
NOV	6358	0:12:34	2562	3796	1127	229	76
	8%		40%	60%	18%	4%	1%
DEC	6737	0:13:46	2390	4347	1544	339	94
	8%		35%	65%	23%	5%	1%

\*note that calls may be listed in more than one column. For example, a call with a time >15 min will also be listed in the > 9 min column.

**Cardiac Arrest\*** Cardiac arrest codes are classified with the dispatch prefix number 9; however, units may come in service with a variety of dispositions. Patients in cardiac arrest are not breathing and have no pulse. Studies by the American Heart Association show that rapid intervention is critical for the patient to survive neurologically intact. Brain death can occur in 4 to 6 minutes without CPR, and with each increasing minute the chances of a successful resuscitation decrease dramatically.

disposition	number of calls	calls with on scene time	average start to onscene	< 9 min	> or = 9 min	> or = 15 min	> or = 30 min
DOA	708	707	0:09:00	413	294	54	3
percentage				58%	42%	8%	0.4%
TREM/TREA	377	377	0:09:43	179	198	39	0
percentage				47%	53%	10%	0
TALS	24	24	0:09:54	14	10	2	1
percentage				58%	42%	8%	4%
TRET	35	35	0:06:47	30	5	0	0
percentage				86%	14%	0	0
total	1144	1143	0:09:11	636	507	95	4
percentage				56%	44%	8%	0.3%
cardiac arrest with prefix 9		766	cardiac arrest without prefix 9	380		total	1144
percentage		67%		33%			
	number of calls	calls with on scene time	average start to onscene	< 9 min	> or = 9 min	> or = 15 min	> or = 30 min
non arrest coded as 9	289	289	0:08:07	189	100	12	0
percentage				65%	35%	4%	0
total coded as 9	1055	1055	0:07:48	658	397	59	2
percentage				62%	38%	6%	0.2%

**Delta calls\*:** Calls coded as Delta have the second highest priority after cardiac arrest calls. They include patients with immediate life threats from both medical and traumatic causes. These include respiratory emergencies, myocardial infarctions (heart attacks), shootings, stabbings, and serious car accidents. Time is also critical for these patients.

Total coded as Delta	Delta calls < 9min	Delta calls > or = 9 min	Delta calls > or = 15 min	Delta > or = 30 min	Delta > or = 1 hr
27689	13654	14035	3306	239	27
percentage	49%	51%	12%	1%	0.1%

\*note that calls may be listed in more than one column. For example, a call with a time >15 min will also be listed in the > 9 min column.

## **Conclusions**

Because Cleveland EMS is not able to meet the national standards or guidelines including an average 9 min response, or a response less than 9 min 90% of the time, this report finds that 15 ambulances is not sufficient for the City of Cleveland.

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