



2023 2nd Quarter Report to the  
Lowell, Massachusetts  
Board of Health

Reporting Period: April 1, 2023- June 30, 2023

- **INTRODUCTION:**

This is the 2nd Quarter Report for the Lowell Board of Health.

Any questions or concerns surrounding the contents of this report should be directed to:

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Thank you,

Management Team

PrideStar EMS and TrinityEMS

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<b>TIMES:</b>	Trinity BLS Q3 2022	Trinity ALS	LGH ALS	Trinity BLS Q4 2022	Trinity ALS	LGH ALS
Fractile %	<b>89.35%</b>	<b>75.00%</b>	<b>87.00%</b>	<b>85.10%</b>	<b>71.01%</b>	<b>84.80%</b>
Avg out of chute	1 min 6 sec	1 min 30 sec	1 min 14 sec	1 min 7 sec	1 min 20 seco	43 sec
Avg resp time	5 min 50 sec	7 min 51 sec	6 min 44	5 min 58 sec	5 min 57 sec	7 min 1 sec
Avg on scene time	13 min 11 sec	15 min 49 sec	13 min 56 sec	12 min 41 sec	13 min 31 sec	13 min 44 sec
Avg transport time	5 min 27	6 min 7 sec	9 min 21 se	5 min 42 sec	5 min 49 sec	6 min 47 sec
# of events >7:59 response time	601	126	206	821	160	264
# of events using Non Trinity BLS	1- 7th concurrent 911 call			0		
	Trinity BLS Q1 2023	Trinity ALS	LGH ALS	Trinity BLS Q2 2023	Trinity ALS	LGH ALS
	<b>84.11%</b>	<b>79.54%</b>	<b>87.59%</b>	<b>87.89%</b>	<b>73.68%</b>	<b>83.95%</b>
Avg out of chute	1 min 5 sec	1 min 22 sec	45 sec	1 min 4 sec	1 min 27 sec	49 sec
Avg resp time	6 min 17 sec	6 min 52 sec	6 min 25 sec	6 min 8 sec	8 min 22 sec	7 min 25 sec
Avg on scene time	12 min	10 min 57 sec	10 min 52 sec	9 min 54 sec	9 min 54 sec	8 min 7 sec
Avg transport time	5 min 54 sec	6 min 15 sec	9 min 26 sec	4 min 28 sec	6 min 41 sec	6 min 56 sec
# of events >7:59 response time	773	100	195	626	80	256
# of events using Non PEMS/BLS units	0			0		

	Q1 2021	Q2 2021	Q3 2021	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
TEMS BLS	88.60%	90.44%	92.24%	90.81%	89.35%	85.10%	84.11%	87.89%

<b>BLS OUTLIERS:</b>	2020		2021		Last 4 Qs Total		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
1st Emergency	423	23%	390	18%	429	15%	89	15%	97	12%	148	19%	95	15%
2nd Emergency	452	25%	440	21%	562	20%	117	19%	157	19%	154	20%	134	21%
3rd Emergency	371	21%	407	19%	599	21%	132	22%	172	21%	163	21%	132	21%
4th Emergency	273	15%	342	16%	536	19%	108	18%	170	21%	143	18%	115	18%
5th Emergency	164	9%	262	12%	432	15%	96	16%	141	17%	106	14%	89	14%
6th Plus Emergency	123	7%	291	14%	263	9%	59	10%	84	10%	59	8%	61	10%
	1806		2132		2821		601		821		773		626	
<b>BLS REASONS OVER 7:59:</b>	2020		2021		Last 4 Qs Total		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
<b>Total</b>	<b>1806</b>		<b>2132</b>		<b>2821</b>		<b>601</b>		<b>821</b>		<b>773</b>		<b>626</b>	
Couldn't locate house/lost	61	3%	38	2%	47	2%	19	3%	18	2%	5	1%	5	1%
Crew took long route	89	5%	144	7%	72	3%	24	4%	21	3%	17	2%	10	2%
Distance	421	23%	611	29%	1065	38%	205	34%	324	39%	280	36%	256	41%
Dispatch delay	193	11%	222	10%	309	11%	52	9%	87	11%	77	10%	93	15%
Highway	12	1%	18	1%	18	1%	5	1%	5	1%	6	1%	2	0%
Out of chute	174	10%	249	12%	431	15%	100	17%	130	16%	117	15%	84	13%
TEMS Dispatch error	27	1%	38	2%	57	2%	14	2%	11	1%	17	2%	15	2%
Weather	13	1%	6	0%	38	1%	16	3%	0	0%	22	3%	0	0%
911 Call volume	262	15%	495	23%	665	24%	145	24%	220	27%	156	20%	144	23%
others/blank	554	31%	27	1%	119	4%	21	3%	5	1%	76	10%	17	3%
Note: Large increase in other/blank for Q1 2023 is GPS failure. We had to change systems because 3G was ended 1/1/23														

<b>BLS OUTLIERS:</b>	2020		2021		Last 4 Qs Total		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
Within the standard (7:59 >)	18975	91.31%	19463	90.14%	18982	86.86%	5044	91.39%	4697	85.11%	4697	85.11%	4544	87.89%
0800-0859	859	4.13%	975	4.46%	893	4.09%	201	3.64%	248	4.49%	248	4.49%	196	3.79%
0900-0959	465	2.24%	556	2.54%	728	3.33%	149	2.70%	206	3.73%	206	3.73%	167	3.23%
1000-1059	216	1.04%	256	1.17%	507	2.32%	113	2.05%	149	2.70%	149	2.70%	96	1.86%
1100-1159	121	0.58%	146	0.67%	295	1.35%	50	0.91%	87	1.58%	87	1.58%	71	1.37%
1200 plus	145	0.70%	196	0.90%	448	2.05%	88	1.59%	132	2.39%	132	2.39%	96	1.86%
							see below		see below		see below		see below	
<b>12 PLUS BREAKOUT</b>	2020		2021		Last 4 Qs Total		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
911 Call volume (5th +)	30	20.69%	71	36.22%	171	38.17%	37	28.03%	52	39.39%	52	39.39%	30	31.25%
Distance	6	4.14%	21	10.71%	75	16.74%	15	11.36%	23	17.42%	23	17.42%	14	14.58%
Crew got lost/couldn't find house	16	11.03%	10	5.10%	12	2.68%	3	2.27%	3	2.27%	3	2.27%	3	3.13%
Highway call	3	2.07%	10	5.10%	4	0.89%	2	1.52%	1	0.76%	1	0.76%	0	0.00%
TEMS Dispatch error/delay	17	11.72%	41	20.92%	46	10.27%	6	4.55%	5	3.79%	5	3.79%	30	31.25%
Others	48	33.10%	23	11.73%	85	18.97%	25	18.94%	28	21.21%	28	21.21%	4	4.17%
Chute									20	15.15%	20	15.15%	15	15.63%

# Over 12-minute response calls

1	Dizzy, BLS to H	33	Psy, P3 trans	65	Psy, cnx by PD
2	Wanted to go to H	34	MVA no transport	66	Swollen Leg, pt ref
3	Abd pain, P3 trans	35	Psy, P3 trans	67	Life call, no pat
4	30 M abd pain	36	Psy, P2 trans	68	Psy, patient refusal
5	fall, P2 transport	37	Sz, BLS transport P2	69	Arm pain, P3 trans
6	fall, P2 transport	38	Body pain, H3 trans	70	20s M vomiting
7	54 Fall, P3 trans	39	Psy, staged for PD	71	Baseball to eye,
8	Lift assist, no trans	40	psy, P3 trans	72	Back pain, P3 trans
9	Psy, P3 trans	41	Psy at SNF, P3 trans	73	Hip pain/FX P2 trans
10	Psy, staged for PD	42	Arm pain, P3 trans	74	Psy P3 trans
11	4 Ffall, P2 transport	43	AMS, BLS trans P3	75	35 F back pain
12	Headache	44	Detox, no trans	76	psy
13	84 M fall, P2 trans	45	minor psy, P3 trans	77	Psy no transp
14	all, FD canceled BL	46	7F diff walking, P3 tran	78	Abd pain, P3 trans
15	Fall, P3 transport	47	minor with a cough	79	20s M vomiting
16	High BS, P3 trans	48	Psy, P3 trans	80	Fever, P3 trans
17	Leg cramp, P3 trans	49	Nosebleed, no trans	81	30sF ankle pain
18	Sec 12, P3 trans	50	Psy, no trans	82	70s F back pain
19	Psy, P3 trans	51	Dizziness, P2 trans	83	Lift assist, no trans
20	Lift assist, no trans	52	fall, no trans	84	Rib pai, P3 trans
21	VA neck pain, P2 tra	53	Psy, P3 trans	85	Asthma Attack, BLS
22	Weakness, P2 trans	54	Fall, canceled by FD	86	37 M CP, ALS pt w/ RNs
23	central line issue	55	ETOH, P3 trans	87	Fall 4 hours ago
24	refusal	56	peppersprayed no tran	88	Back pain, pt refusal
25	ETOH, P3 trans	57	Psy, patient ref	89	detox, P3 trans
26	ost assault, P3 tran	58	Foot pain, P3 trans	90	Cough, P3 trans
27	Psy, no trans	59	MVA, canceled by FD	91	Flu, P3 trans
28	ain all over, P3 tra	60	Leg pain, P3 trans	92	Psy, P2 trans
29	all 12 hours before	61	MVA, patient refusal	93	Fall at SNF
30	Pt unheard 8 days	62	Hand lac, P3 trans	94	Psy, patient refusal
31	Psy, canceled by pd	63	Kidney failure, P3	95	ETOH P3 trans
32	Psy, P3 trans	64	Lift assist, no trans	96	Psy, P2 trans

<b>VOLUME:</b>	2020		2021		Last 4 Qs		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
Total responses (ALS & BLS)	28573		29668		29850		8075		7774		6931		7070	
Total ALS Responses	7790	27%	8076	28%	8415	28%	2195	27%	2256	29%	2065	30%	1899	27%
TEMS ALS Responses	700	9%	972	12%	1864	22%	552	25%	517	23%	491	24%	304	16%
LGH ALS Responses	7090	91%	7104	88%	6551	78%	1643	75%	1739	77%	1574	76%	1595	84%
<b>INCIDENTS:</b>	20783		21592		21435		5880		5518		4866		5171	
BLS Incident	13173		13658		13020		3685		3262		2801		3272	
ALS and BLS Incident	7610		7934		8415		2195		2256		2065		1899	
Needle pick ups	142		133		33		7		12		6		8	
Non Emergent Lift assists	64		93		72		14		31		6		21	
<b>TRANSPORTS:</b>	2020		2021		Last 4 Qs		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
Total Transports (ALS & BLS)	14780		15679		14939		4378		3672		3366		3523	
Total BLS Transports	12073	82%	12931	82%	12051	81%	3727	85%	2888	79%	2525	75%	2853	81%
Total ALS Transports	2797	19%	2748	18%	2888	19%	651	15%	784	21%	783	23%	670	19%
TEMS ALS Transports	178	6%	428	16%	960	33%	197	30%	304	39%	308	39%	151	23%
LGH ALS Transports	2619	94%	2320	84%	1928	67%	454	70%	480	61%	475	61%	519	77%
<b>TRIAGE:</b>	2020		2021		Last 4 Qs		Q3 2022		Q4 2022		Q1 2023		Q2 2023	
Total Triage	1028	13%	850	11%	803	10%	213	10%	228	10%	183	9%	179	9%
TEMS Triage	40	6%	46	5%	32	2%	14	3%	6	1%	7	1%	5	2%
LGH ALS Triage	988	14%	804	11%	770	12%	199	12%	221	13%	176	11%	174	11%

<b>INTUBATIONS:</b>	2020			2021			Last 4 Qs Total			Q3 2022			Q4 2022			Q1 2023			Q2 2023									
Trinity company total	58	of	66	88%	43	of	46	93%	43	of	45	96%	16	of	17	94%	10	of	11	91%	10	of	10	100%	7	of	7	100%
Trinity Lowell only	6	of	8	75%	7	of	8	88%	2	of	2	100%	2	of	2	100%	0	of	0	###	0	of	0	###	0	of	0	###
LGH ALS Lowell only	170	of	171	99%	202	of	203	100%	150	of	153	98%	45	of	45	100%	35	of	37	95%	28	of	29	97%	42	of	42	100%
LGH Greater Lowell region													74	of	75	99%	64	of	66	97%	60	of	61	98%	66	of	66	100%
LGH ALS MAI* in Lowell only									Last 4 Qs Total			17 of 17 in Lowell			10 of 10			21 of 21										
<b>IO SUCCESS RATE:</b>	2020			2021			Last 4 Qs Total			Q3 2022			Q4 2022			Q1 2023			Q2 2023									
Trinity company total	84	of	85	99%	66	of	66	100%	61	of	61	100%	22	of	22	100%	16	of	16	100%	11	of	11	100%	12	of	12	100%
Trinity Lowell only	12	of	12	100%	12	of	12	100%	3	of	3	100%	2	of	2	100%	1	of	1	100%	0	of	0	###	0	of	0	###
LGH ALS Lowell only	120	of	120	100%	96	of	96	100%	71	of	71	100%	21	of	21	100%	21	of	21	100%	11	of	11	100%	18	of	18	100%
<b>Airways:</b>	Last 4 Qs Total			Last 4 Qs Total			Last 4 Qs Total			Q3 2022			Q4 2022			Q1 2023			Q2 2023									
Trinity company wide- King tube success rate-post ETT failure													1	of	1	100%	1	of	1	100%	1	of	1	100%	0	of	0	0%
Trinity Lowell- King tube success rate-post ETT failure													0	of	0	0%	0	of	0	0%	0	of	0	0%	0	of	0	0%
* Intubation total- Total patients intubated/ Total Patients intubated attempted.																												
** Medication Assisted Intubation, in MA, this requires the use of a Paralytic which is controlled & monitored by a special project																												

Employee ID	Employee Name	Cert	Hire Date
2207	Abreu, Jaslyn	BLS	6/12/2023
2209	Bellemore, Ryan	BLS	6/12/2023
2208	Challa, Shruti	BLS	6/12/2023
2211	Douphinette, Jeffrey (NH)	ALS	6/12/2023
2212	Ferris, Brendan	BLS	6/12/2023
2210	Lundeen, Katrina	BLS	6/12/2023
2213	Ny, Rachjana	BLS	6/12/2023
2206	Su, Benjamin	BLS	6/12/2023
2205	Jain, Khushi	BLS	5/24/2023
2204	Florence, Lily	BLS	5/22/2023
2202	Hogan, Patrick	BLS	5/22/2023
2199	LaRochelle, Jenna	BLS	5/22/2023
2203	Magnant, Emily	BLS	5/22/2023
2197	Moheban, Nicholas	BLS	5/22/2023
2201	Soucy, Mayson	BLS	5/22/2023
2198	Dawson, Molly	BLS	5/20/2023
2195	Woolcock, Nathan	BLS	5/15/2023
2196	Grace, Anthony	BLS	5/1/2023
2184	Jenckes, Brian (NH)	ALS	4/19/2023

# EMD- Direct to Trinity

	2020	2021	Last 4 Qs Total	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Alpha (BLS-P3)	1271	1224	1097	280	278	283	256
Bravo (BLS-P2)	340	366	389	90	98	94	107
Charlie (ALS-P1)	647	773	479	125	113	123	118
Delta (ALS-P1)	664	714	528	109	140	156	123
Echo (ALS-P1)	8	9	7	1	4	0	2
Total EMD by Trinity in Lowell	2930	3086	2500	605	633	656	606

The above data are direct calls to Trinity for patients in Lowell.

Alpha- results in BLS going no lights or sirens to the patient

Bravo- results in BLS going lights and sirens to the patient

Charlie, Delta, Echo- results in ALS and BLS going lights and sirens to the patient

As part of Trinity EMS's EMD accreditation a portion of the above calls are randomly selected for quality assurance review. TEMS reviews 25 EMD'ed calls per week. These 25 calls could come from any city or state. Potentially none or all 25 calls could be for patients in Lowell.



				2020	2021	Last 4 Qrts	Q3 2022	Q4 2022	Q1 2023	Q2 2023							
Total ORI in Lowell				489	525	563	167	127	126	143							
Priority 1 ORI in Lowell				274	347	386	112	85	91	98							
Trinity wide ORI				801	906	806	235	186	187	198							
Trinity wide Priority 1				482	566	568	163	126	143	136							
<b>ORI in Lowell by setting:</b>																	
Inside Private home				176	36%	180	34%	198	35%	59	35%	42	33%	51	40%	46	32%
Public location inside				29	6%	58	11%	58	10%	13	8%	11	9%	17	13%	17	12%
Public location outside				273	56%	274	52%	299	53%	92	55%	72	57%	55	44%	80	56%
Other				11	2%	13	2%	8	1%	3	2%	2	2%	3	2%	0	0%
<b>Gender:</b>																	
Female				127	19%	98	19%	147	26%	35	21%	35	28%	37	29%	40	28%
Male				362	81%	427	81%	416	74%	132	79%	92	72%	89	71%	103	72%
Females U20				0	0%	0	0%	1	1%	0	0%	0	0%	1	3%	0	0%
Female 20-29				34	12%	12	12%	27	18%	7	20%	7	20%	10	26%	3	8%
Female 30-39				52	34%	33	34%	63	43%	18	51%	14	40%	14	37%	17	43%
Female 40 - 49				23	18%	17	18%	25	17%	4	11%	7	20%	6	16%	8	20%
Female 50- +				18	36%	35	36%	32	22%	6	17%	7	20%	7	18%	12	30%
Male U20				2	0%	2	0%	1	0%	0	0%	0	0%	1	0%	0	1%
Male 20-29				61	16%	67	16%	52	13%	17	13%	13	13%	9	14%	13	10%
Male 30- 39				135	34%	145	34%	131	31%	40	31%	26	30%	31	28%	34	35%
Male 40 - +				66	22%	94	22%	103	25%	37	25%	19	28%	22	21%	25	25%
Male 50 - +				98	28%	119	28%	129	31%	38	31%	34	29%	26	37%	31	29%

	2020		2021		Last 4 Qs Total		Q3 2022		Q4 2022		Q1 2023		Q2 2023		
Acre	62	13%	70	13%	71	13%	21	13%	14	11%	17	13%	19	13%	
Back Central	115	23%	123	23%	102	18%	37	22%	14	11%	20	16%	31	22%	
Belvidere	16	4%	23	4%	20	4%	5	3%	6	5%	5	4%	4	3%	
Centralville	44	9%	45	9%	39	7%	7	4%	11	9%	10	8%	11	8%	
Downtown	125	28%	148	28%	203	36%	58	35%	48	38%	47	37%	50	35%	
Highlands	26	3%	16	3%	29	5%	6	4%	5	4%	10	8%	8	6%	
Lower Belvidere	8	1%	6	1%	12	2%	1	1%	6	5%	1	1%	4	3%	
Lower Highlands	49	7%	35	7%	48	9%	17	10%	11	9%	10	8%	10	7%	
Pawtucketville	17	6%	34	6%	18	3%	8	5%	4	3%	2	2%	4	3%	
Sacred Heart	20	4%	21	4%	21	4%	7	4%	8	6%	4	3%	2	1%	
South Lowell	7	1%	4	1%	0	0%	0	0%	0	0%	0	0%	0	0%	
<b>Home towns of patients:</b>															
Lowell	311	65%	343	65%	309	55%	112	67%	85	67%	79	63%	33	24%	
Dracut	14	5%	25	5%	7	1%	2	1%	3	2%	2	2%	0	0%	
Billerica	19	2%	8	2%	5	1%	2	1%	2	2%	1	1%	0	0%	
Chelmsford	11	1%	3	1%	17	3%	3	2%	4	3%	7	6%	3	2%	
Tewksbury	17	15%	20	15%	6	1%	0	0%	1	1%	4	3%	1	1%	
Other/unknow	117	13%	68	13%	214	38%	48	29%	32	25%	33	26%	101	73%	

ALS: Life Support- may refer to vehicles staffed with a least one paramedic or refer to a paramedic level of patient care. Trinity Emergency ALS vehicles are staffed with two paramedics.

A Response: Is defined as dispatching or sending an ambulance to a request for service. In this report , a response is further sorted to include only emergency responses. These numbers do not include routine transfers such as dialysis patients or radiation treatment patients.

A Transport: Is defined as taking a patient in an ambulance to a destination.

BLS: Basic Life Support- may refer to a vehicle staffed with two emergency medical technicians (EMT) or an EMT level of patient care. Trinity BLS ambulances are staffed with two EMT's

EMD: Emergency Medical Dispatch- a nationally recognized system whereby dispatchers are trained and follow a specific protocol to ascertain the nature of illness/injury and provide patient care instructions to the caller until the First Responders or ambulance arrives.

Intubation Attempt: Is defined as insertion of the laryngoscope blade into the oral cavity for the purpose of inserting an endotracheal tube.

MAI: Medication Assisted Intubation is generally regarded as facilitating an intubation with the use of sedatives. In Massachusetts how ever, this term includes the use of Paralytics. The Massachusetts MAI program is not part of the standard scope of practice for Paramedics. It is controlled through the Department of Public Health's Office of Emergency Medical Services Medical Services Committee.

On scene time: The amount of time that has elapsed from the moment the ambulance is on scene to the moment the ambulance begins transport or is released back into service

Out of chute time: The amount of time that elapses from the moment when the ambulance is dispatched to the moment the ambulance begins moving towards the call.

On time performance score: Is the percentage of calls that meet or exceed the response time criteria.

Request for service: When a dispatcher receives request for an ambulance usually via telephone or radio

Response time: The amount of time that has elapsed from the moment the call is completely entered into the dispatch system to the moment the ambulance arrives on scene.

RSI: Rapid Sequence Intubation is the facilitation of intubation using both sedatives and paralytics

Service Zone Plan: M.G.L. Part 1 Title XVI Chpt. 11C Section 1 defines as "a geographic area defined by and comprised of one or more local jurisdictions, in which a local jurisdiction may select and the department shall designate an EMS first response service and an ambulance service to provide EMD first response and primary ambulance response to the public within the defined area, pursuant to section 10." Massachusetts Regulations 105 CMR 170.249.

Transport time: The amount of time that has elapsed from the moment the ambulances leaves the scene with a patient to the moment the ambulance arrives at the receiving facility

Triage down: When a paramedic units arrives at the patients side and based on the patient condition determines that the patient may be treated and transported at the BS level. Note- There is no protocol for this practice, however, OEMS does address it though an administrative advisory: A/R5=620.

- The following document is a detailed outline of the reporting process used by Trinity EMS.
- **Responding lights and sirens**
  - From Lowell 911
    - All calls require a lights and sirens response regardless of the patients condition except
      - Needle pick ups
      - Pt carry down/up without a medical issue
      - Unless requested to response without lights and sirens by the 911 center.
  - Direct to Trinity calls that Trinity EMD's
    - Bravo, Charlie, Delta, and Echo go with lights and sirens
    - Alpha or Omega level calls go without lights and sirens
  - Direct to Trinity that Trinity doesn't EMD
    - Response lights and sirens for any patients. Unless the calling agency EMD'ed the call to a non-urgent level.
    - This set of calls would include call from UMASS PD, or other ambulance services.
- Incident
  - A request for or by someone within the city limits of Lowell that requires an EMS response.
  - Each request is counted as 1 incident
    - A patient that gets a BLS unit for back pain is counted as 1 incident
    - A 10 car MVC with 20 patients requiring 6 BLS, 2 ALS, and 2 helicopters is counted as 1 incident
- Responses
  - Counts the number of occurrences when EMS vehicles response lights and sirens to a call.
    - An ALS and BLS unit response to a patient with chest pain, that counts as 2 responses. (2 vehicles put their lights on)
- Times:
  - All below are from incidents
  - BLS
    - Priority 1, 2 and 3 incident responses
    - Includes 911 and calls direct to Trinity
      - Any call directly to Trinity from another call center that would require an emergent response
        - (IE- Umass Lowell calls Trinity for a chest pain)
        - Any Charlie, Delta, Echo response called and EMD'ed by Trinity
    - Includes call when ALS and BLS responded as well as call when just BLS responded.
    - **Q# year# Performance score**
      - Is the created by
- Dividing the number of incidents BLS units responded to.

- Into the number of those calls that shows a response time over 08:00 or greater
  - Calls excluded
    - Delta level calls EMD'ed by Trinity that had a total response time of greater than 07:59
- **Avg out of chute**
  - Time from Trinity designated and selected ambulance was assigned call to selected crew to the time selected vehicles starts movement towards this call
  - Excluded-
    - Any time showing more than 10 minutes is excluded as likely time stamp missing
- **Avg response time**
  - From Call saved by Trinity dispatch to time ambulance arrived at geocoded location of the call.
    - Within Trinity CAD- The call saved time is called "call taken". This time is created after Trinity dispatch get an address, apartment, complaint, and any other info 911 passed along.
  - Excluded-
    - Charlie, delta, Echo, and Omega calls direct and EMD'ed by Trinity that result in a response time over 07:59
    - Any time showing more than 20 minutes is excluded as likely time stamp missing
- **Avg on scene time**
  - Includes only calls included above
  - Time from crew arrival on site to time vehicle:
    - Clears
    - Occupies to the hospital
  - Excluded
    - Any time showing more than 30 minutes is excluded as likely time stamp missing
- **Avg transport time**
  - Includes only calls included above
  - Time from crew: Clears or arrives to the hospital
  - Excluded
    - Any time showing more than 20 minutes is excluded as likely time stamp missing
- **# of events >7:59 or greater**
  - Includes any call that includes calls included from reasons earlier in the section
  - That's response time is greater than 07:59
  - Excluded
    - Any call where the unit is canceled prior to arrival
- Called that were EMD'ed by Trinity

- No other calls are excluded- weather, 911 call volume as examples are outliers counted and categories in the “BLS reasons over 07:59”
  - **# of events using Non Trinity BLS units**
    - Requests for ambulances to Trinity that Trinity was not able to send a BLS unit on within the State mandated 5 minute dispatch time for
      - Any 911 priority 1 or 2 call
      - Any call directly to Trinity from another call center that would require an emergent response
        - (IE- UMass Lowell calls Trinity for a chest pain)
      - Any Charlie, Delta, Echo response called and EMD’ed by Trinity
  - ALS
    - The only difference from the BLS is the ALS times start at dispatch, and not call created
- **BLS Outliers:**
  - For any BLS response over 07:59
    - Trinity will make note and report in this section the number of concurrent emergencies in Lowell at the time this call is created.
      - Includes 911 calls and calls direct to Trinity
      - Non-emergency and call in other cities will not be counted
- **BLS Reasons over 07:59**
  - For any BLS response over 07:59
    - Trinity will conduct a route cause analyses as to the reason for the response time
    - Trinity will take note and report in this section. These reasons will be grouping into 1 of the following
      - Couldn’t location house/lost
      - Crew passes the geo-coded location for the address more than once without getting on arrival
    - Crew took long route
      - Crew did not take the fastest route from their dispatch location to the pickup location
    - Distance
      - Usually this is used when a
        - Dispatcher gives the call out within 60 seconds
        - The crew is enroute within 120 seconds
        - Posting is happening
        - The ambulance crew went the most direct route
        - Circumstances include
          - If there is a second call in a sector of the city before reposting. 2<sup>nd</sup> call in downtown, this ambulance to the second call has two reports a much greater distance to the patient.

