

Tallying Total Task Time to Tacitly Tender the Team

*Does Anybody Really Know What Time It Is?
(That Makes a Clinical Difference in 2016
AND That Makes a People Difference in 2017!)*

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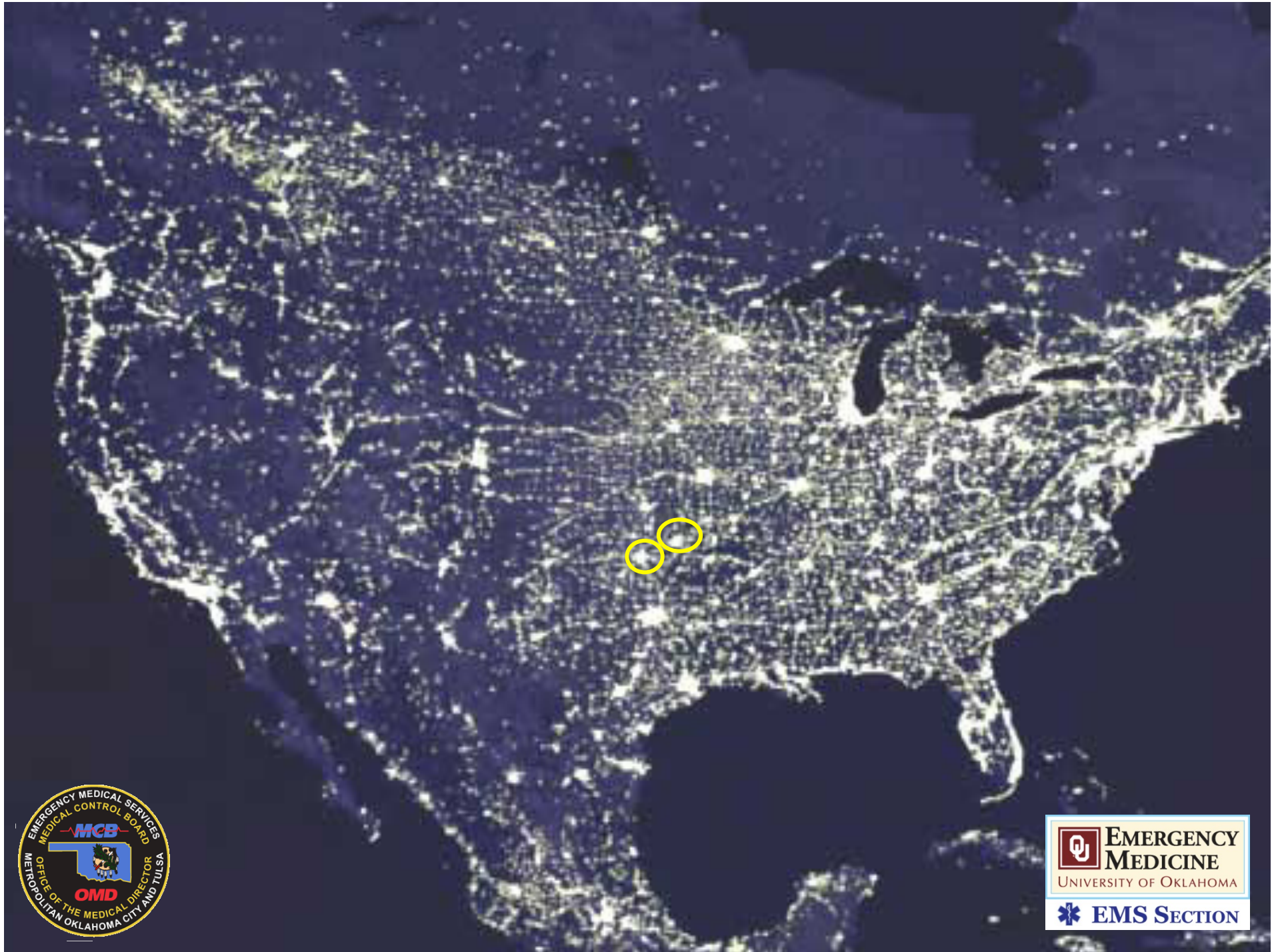
Medical Director, Medical Control Board

EMS System for Metropolitan Oklahoma City & Tulsa

Professor & EMS Section Chief, Department of Emergency Medicine

University of Oklahoma School of Community Medicine





EMS System for Metropolitan Oklahoma City & Tulsa



1,100 square miles
Population

- 1.6 million day
- 1.2 million night

208,746 calls (+9%)
149,029 transports (+2%)
71 % transports (-5%)



People Matter



7:59

me...

Importance of

- Several time-related variables related to out-of-hospital cardiac arrest were studied. Time to initiation of cardiopulmonary bypass and time to definitive care were significantly associated with survival. Time to definitive care was significantly associated with survival. Time to initiation of CPR and time to initiation of emergency medical service were significantly associated with survival. Time to initiation of CPR is widely studied and time to definitive care is widely studied. Time to initiation of CPR is widely studied. Time to initiation of CPR is widely studied.

(JAMA 241:1905-1907, 197



CGEMS # 9

the Community

for Program Planning

D, MPH; Alfred Hallstrom, PhD

definitive care, the time from collapse to initiation of defibrillation, intubation, or emergency medication (definitive care was provided either by paramedic units or hospital emergency room personnel in the areas for which paramedic services were available).

Incidents in which the collapse was not witnessed or heard were included: 61%) of the 927 cardiac arrests. Unwitnessed cardiac arrests were not included because of the imprecision of estimating time of collapse. Access time was determined at the scene by an EMT or paramedic questioning the bystander. Only this was determined on arrival before knowledge of the outcome. In



System Response Time Standards for Ambulances

Before Nov. 1, 2013

- **Priority 1** **8:59**
– 11:59 outside OKC/TUL
- **Priority 2** **12:59**

After Nov. 1, 2013

- **Priority 1** **10:59**
– 11:59 outside OKC/TUL
- **Priority 2** **24:59**



Actual Effect on Ambulance Response Times – Metro OKC

All Calls Pre 11/1/13

- Priority 1 11:56
- Priority 2 12:07

All Calls Post 11/1/13

- Priority 1 12:54
- Priority 2 17:44

Priority 1 change impact is 0:58 at 90% fractile

Priority 2 change impact is 5:37 at 90% fractile



Actual Effect on Ambulance Response Times – Metro Tulsa

All Calls Pre 11/1/13

- Priority 1 11:17
- Priority 2 12:47

All Calls Post 11/1/13

- Priority 1 12:28
- Priority 2 18:04

Priority 1 change impact is 1:11 at 90% fractile

Priority 2 change impact is 5:17 at 90% fractile



Operational & Clinical Results

- Year Prior to Response Time Changes
 - 179,753 RLS responses
- Year After Response Time Changes
 - 57,112 RLS responses (31%)
 - **124,459 Non-RLS responses** (69%)
- Now X 3 yrs (**350,000+ Non-RLS**) & counting!
- Still without evident clinical detriments!



Everything still wasn't perfect

- Medics were tired
- Medics were depressed
- Medics were angry (*& leaving*)
- Spouses/families were unhappy

- End of shift \neq end of work (2-3 hr holdovers)
- Sick & tired of being sick & tired

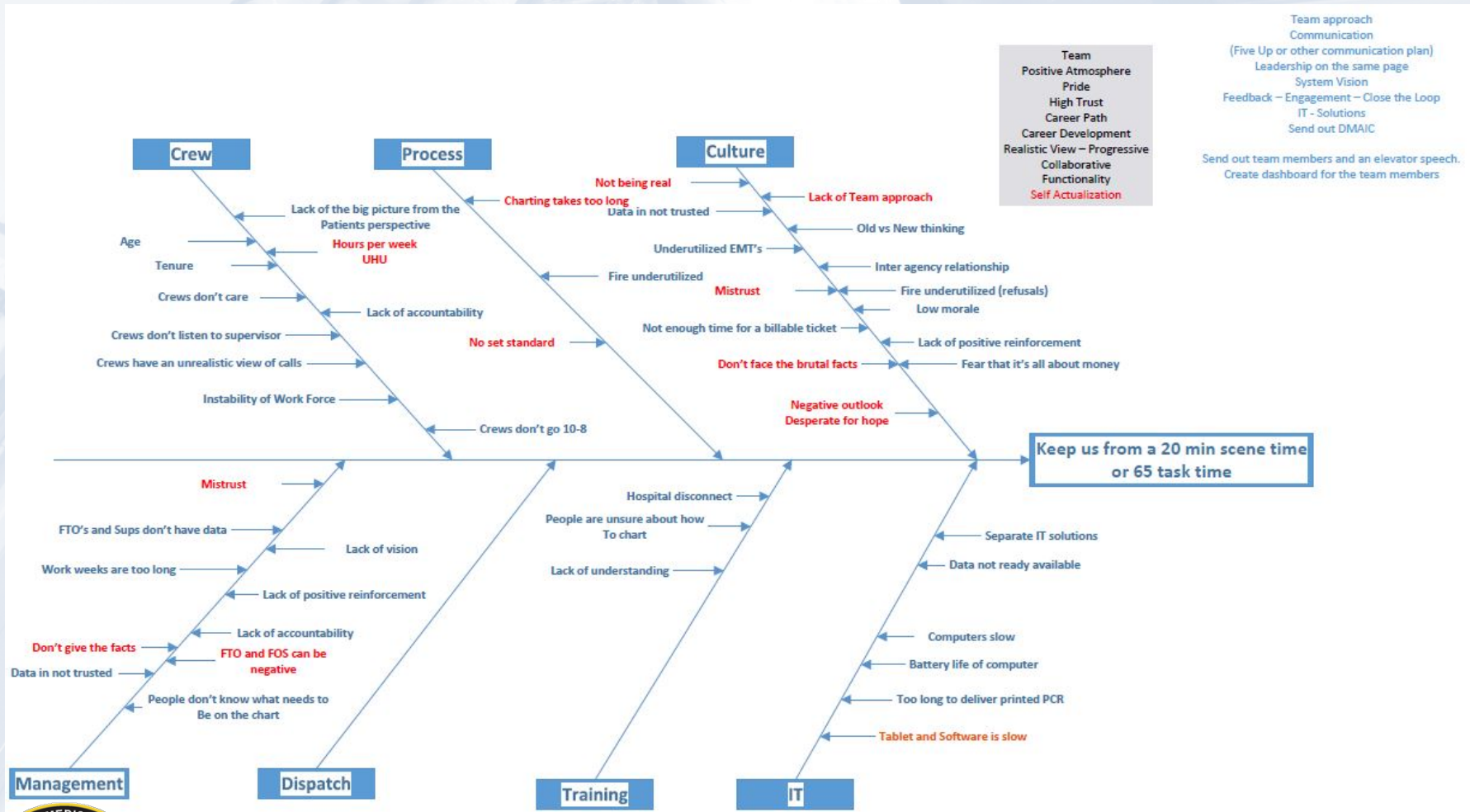


The “Wake Up!” Calls – May 2016

- “So, Doc, **SORRY TO BOTHER YOU**, but we need your help. We’re worried about this patient and we’ve been on scene two hours trying to get him/her to go to the hospital....”
- “So, Doc, sorry to bother you, but we need your help. We’re worried about this patient and we’ve been on scene **TWO HOURS** trying to get him/her to go to the hospital....”

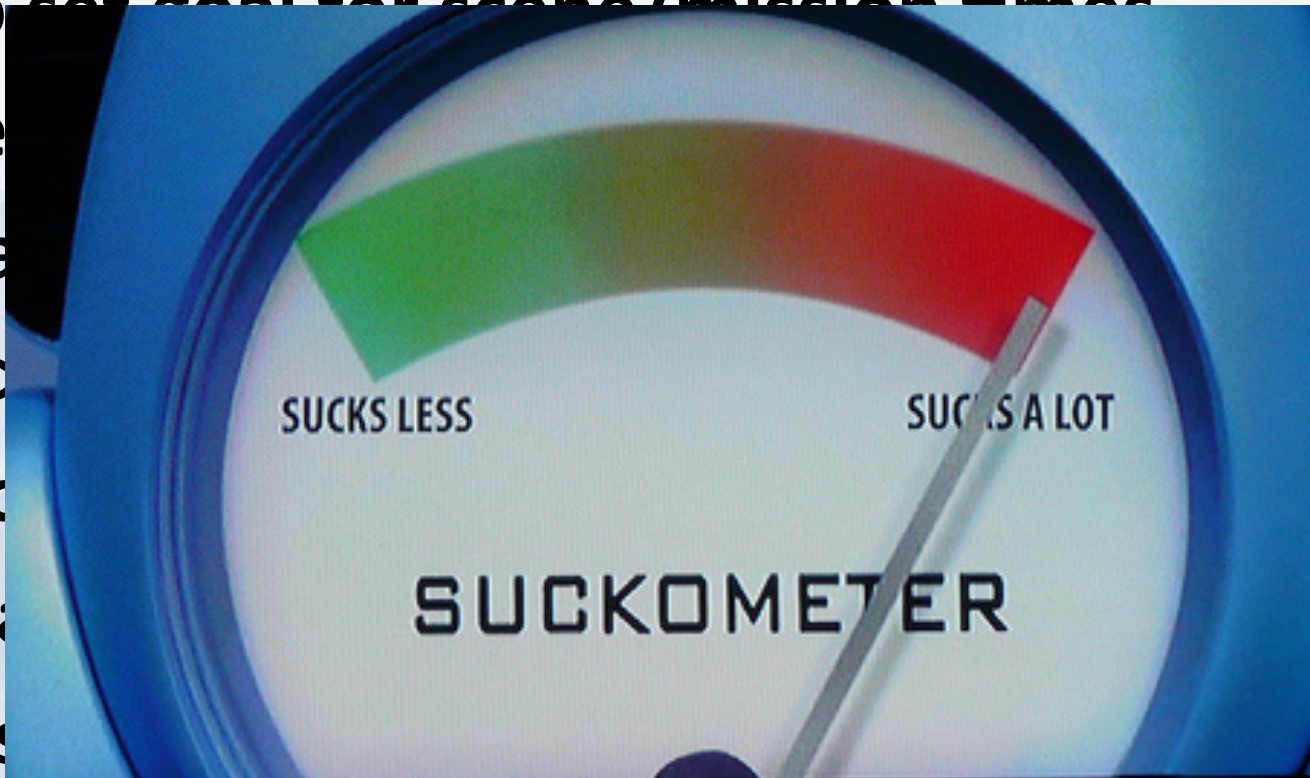


“LEAN-ing” into Learning



So what did we learn in “reasons why”?

- No set goal for scene/mission times
- Field
- Ma
- Inc
- Lac
- Cha
- Pes



There is hope

- **Medical oversight & operations commitment**
- **Frontline focus group**
 - Meetings every 2 weeks
 - Frontline, ops mgmt, medical oversight
 - Listening and “getting real...with real facts”
- **Empowering every level of provider**
- **Trusting the process**
 - Led by a Black Belt in Lean/Six Sigma



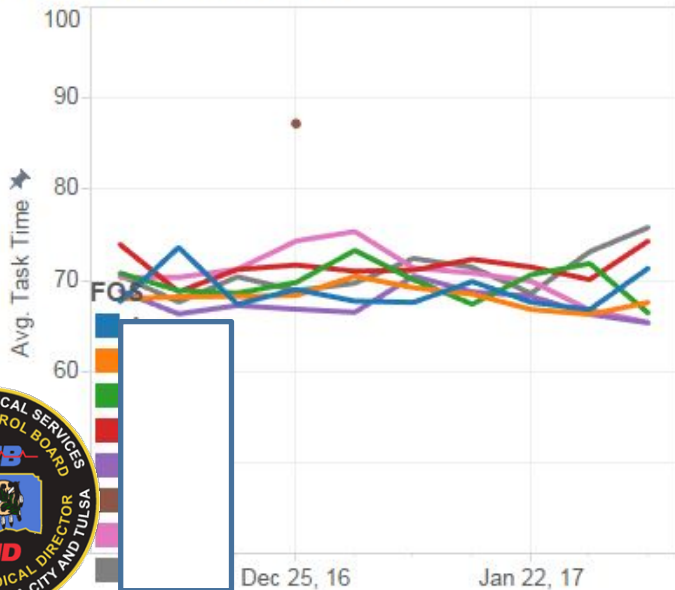
FOS Scorecard

FOS	Week of Time ArrivedAtScene				
	1/1/17	1/8/17	1/15/17	1/22/17	1/29/17
	67.71	67.58	69.86	67.59	66.78
	70.45	69.18	68.48	66.80	66.25
	73.29	70.07	67.37	70.60	71.85
	71.00	71.12	72.29	71.45	70.08
	66.48	70.45	68.72	68.26	66.26
	75.36	71.35	70.80	69.90	66.74
	69.68	72.40	71.43	68.56	73.14

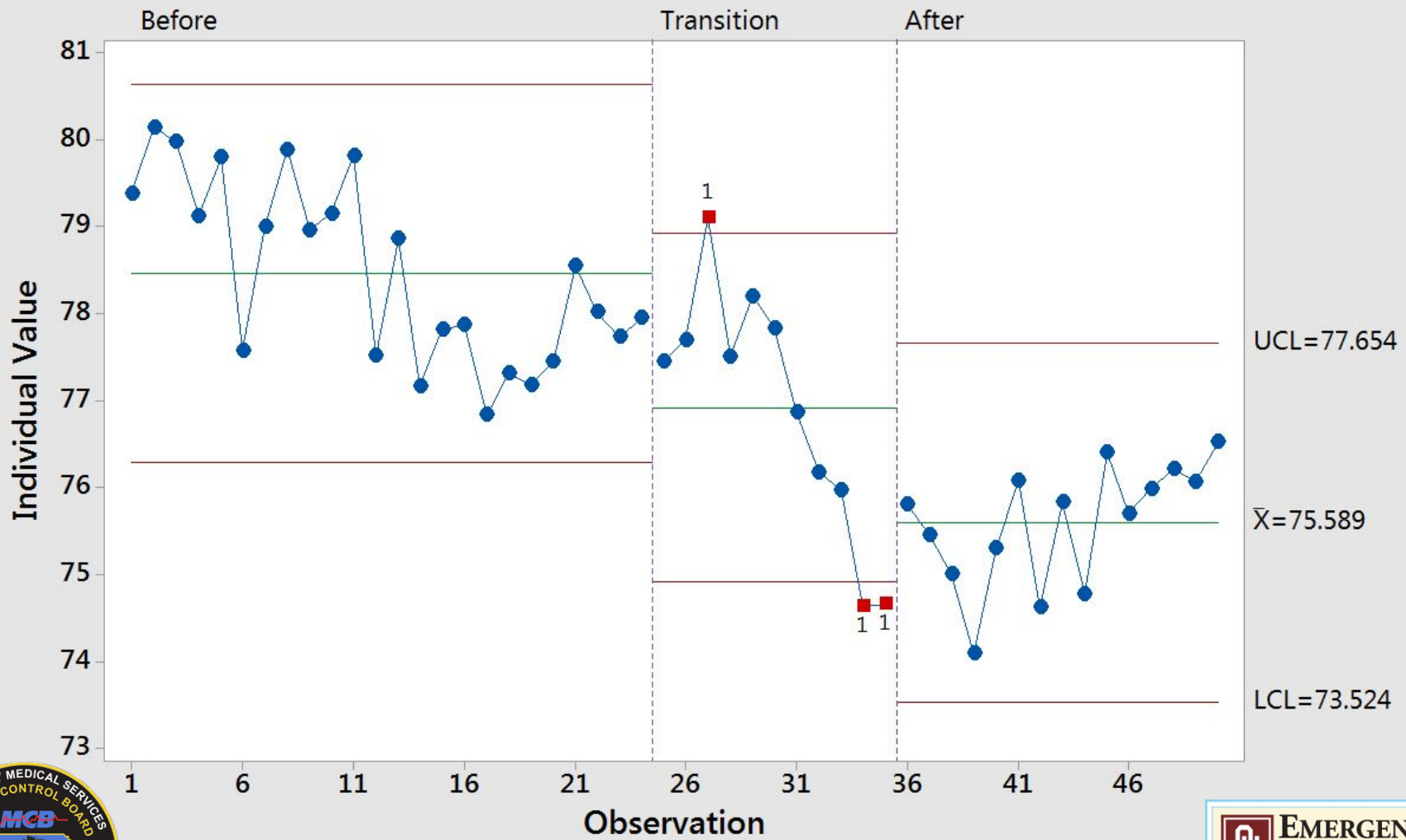
FOS Scorecard Details

FOS	Name	Week of Time ArrivedAtScene					
		1/1/17	1/8/17	1/15/17	1/22/17	1/29/17	2/5/17
		82.2	88.7	64.5	69.5	66.5	59.0
		78.8	63.8	68.9	61.3	63.6	67.0
		57.9	56.9	55.2	53.6	52.2	55.0
			68.1			56.9	79.0
		63.0	72.3	63.2	61.9	60.6	67.0
		63.1	72.2	63.2	54.0	75.3	69.0
		61.8	59.1	58.9	64.5	70.1	71.0
		74.5	80.8	80.1	79.3	72.3	79.0
		76.7	63.0	88.0			
		79.2	88.7	64.5	69.5	69.6	59.0
					39.0		
		63.2		66.0	87.8		82.0
		75.0					
				72.5			
		76.1	68.9	73.8	74.6	67.2	60.0
		74.8	73.1	70.4	53.4	74.6	69.0
						99.0	
		75.3	80.8	80.1	79.3	72.3	79.0
		56.3	50.9	58.7	80.4	67.3	61.0
		66.4	59.3	68.6	61.9	60.6	67.0
		79.6	78.2	69.1	77.5	81.3	62.0
		66.0	67.0	68.0	65.0	60.3	56.0
		71.7	81.6	80.1	75.3	75.4	74.0
		63.1	60.8	64.7	64.3	58.9	57.0
		74.1	79.5	75.1	72.8	66.8	61.0
		71.7		80.1	82.7	75.4	74.0
		81.8	71.1	68.9	61.2	63.6	67.0
		74.3	66.4	59.9	66.9	64.8	71.0
		78.2	87.7	76.6	79.6	67.2	63.0
		72.2	58.8	69.4	54.0	51.2	66.0
		63.3	114.0	78.0			
		63.0	59.1	59.9			
		76.3	120.1	84.3			
		72.7	80.7	73.1			
		62.8		79.0			

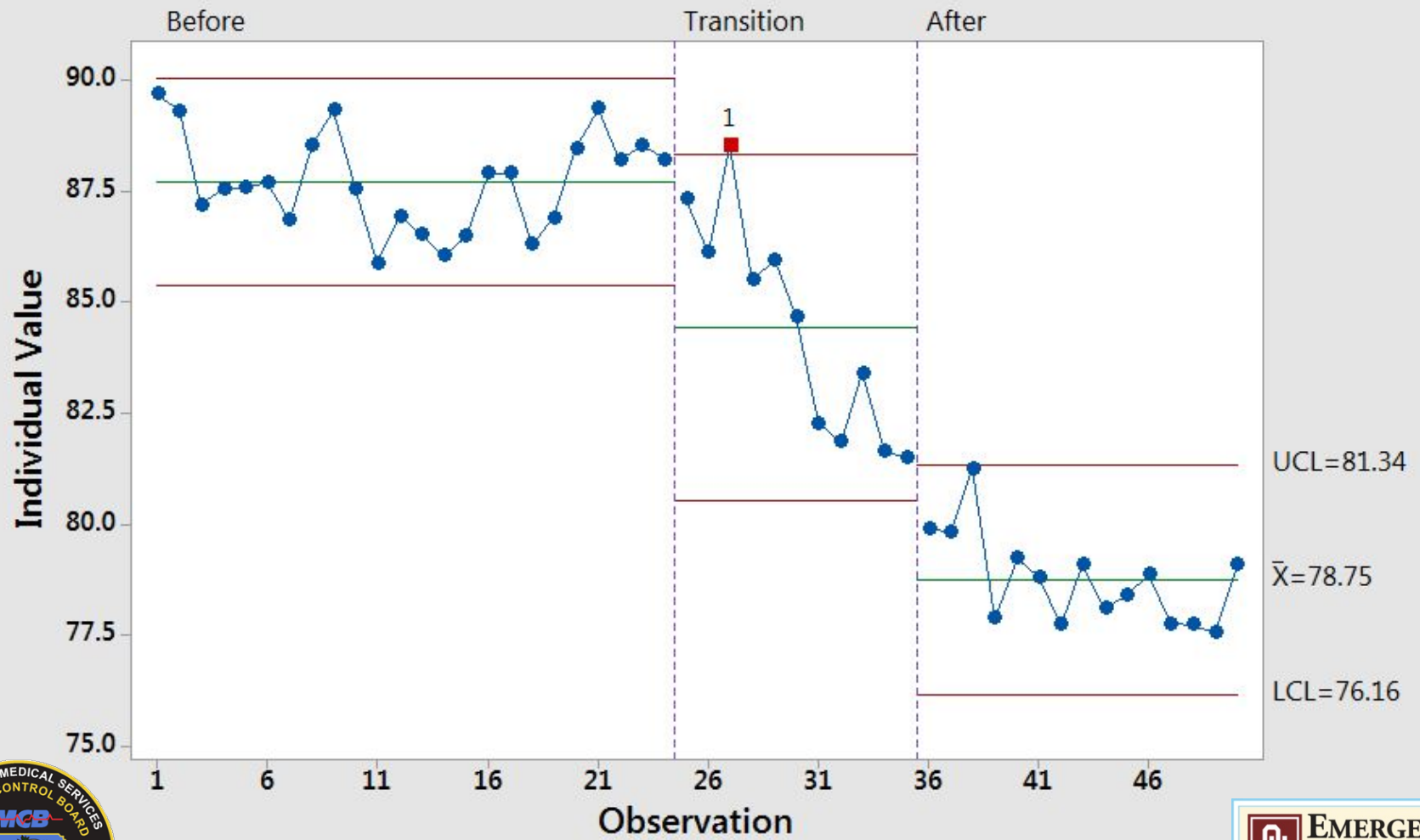
FOS Scorecard Trend



Task Time Western Division by Stage



Task Time Eastern Division by Stage



Row Labels	Average of Chute Time	Average of Crew Drive Time	Average of Scene Time	Average of Transport Time	Average of Drop Time
Eastern Division	0.35	8.51	23.84	15.95	35.67
After	0.28	8.20	23.07	15.58	31.95
Before	0.39	8.72	24.37	16.20	38.26
Western Division	0.46	8.86	24.21	16.52	27.63
After	0.39	8.91	23.36	16.35	26.93
Before	0.50	8.83	24.76	16.63	28.09



Does all this really achieve anything?



- EMS system added ambulance capability???
- 19,710 hours/year



Results

- Improving mental & physical health in EMS (“downtime” & leaving work on time)

AND

- Increased readiness (units on the street)

AND

- Increased clinical capabilities (morale)

- It doesn't have to be “OR”



Resources

- okctulomd.com
- Treatment Protocols
- Draft Protocol 14J: Scene Coordination
 - Validated beta version
 - Full implementation Spring 2017

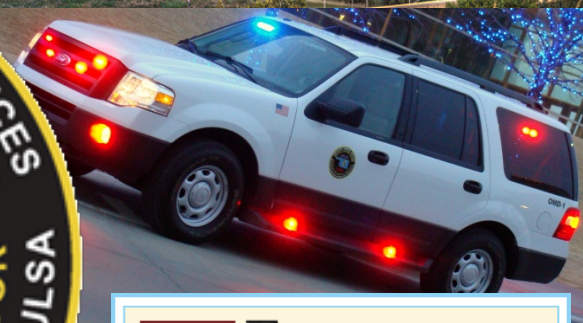




TULSA



OKLAHOMA CITY



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