Metropolitan Area EMS Authority (MAEMSA)

d.b.a. MedStar Mobile Healthcare

Board of Directors

March 28, 2018

AGENDA

METROPOLITAN AREA EMS AUTHORITY
D/B/A MEDSTAR MOBILE HEALTHCARE
BOARD OF DIRECTORS MEETING

Meeting Location: 2900 Alta Mere Dr., Fort Worth, TX 76116-4115
Meeting Date and Time: March 28, 2018 10:00 a.m.

I.	**CALL TO ORDER**		Dr. Brian Byrd
II.	**INTRODUCTION OF GUESTS**		Dr. Brian Byrd
III.	**CITIZEN PRESENTATIONS**	Opportunity for citizens to address the Board of Directors	
IV.	**CONSENT AGENDA**	Items on the consent agenda are of a routine nature. To expedite the flow of business, these items may be acted upon as a group. Any board member or citizen may request an item be removed from the consent agenda and considered separately. The consent agenda consists of the following:	
	BC – 1343	Approval of board minutes February 28, 2018 meeting.	Dr. Brian Byrd Pg. 4
	BC – 1344	Approval of check history's for February 2018.	Dr. Brian Byrd Pg. 8
V.	**NEW BUSINESS**	No new business	
VI.	**MONTHLY REPORTS**		
	A.	Chief Executive Officer Summary	Douglas Hooten
	B.	Chief Financial Officer Report	Joan Jordan
	C.	Chief Operations Report	Ken Simpson
	D.	Human Resources Report	Tina Smith
	E.	First Responders Advisory Board (FRAB)	Fire Chief Kirt Mays, Fire Chief Pat Vasquez

F.	Office of the Medical Director Report	Dwayne Howerton Dr. Neal Richmond
G.	Compliance / Legal Reports	Chad Carr Kristofer Schleicher
H.	Chief Strategic Integration Officer	Matt Zavadsky

VII. OTHER DISCUSSIONS

A.	Requests for future agenda items of discussion	Dr. Brian Byrd

VIII. CLOSED SESSION

A. The Board of Directors may conduct a closed meeting under Section 551.074 of the Texas Government Code in order to discuss and seek legal advice regarding the proposed contracts with the Medical Director and Associate Medical Directors.

B. The Board of Directors may also discuss other matters permitted by any of the following sections of Chapter 551 of the Texas Government Code:

1. Section 551.071: To seek the advice of its attorney(s) concerning pending or contemplated litigation or a settlement offer, or on any matter in which the duty of the attorney to the Board and the Authority to maintain confidentiality under the Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Open Meetings Act, including without limitation, consultation regarding legal issues related to matters on this Agenda;
2. Section 551.072: To deliberate the purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the Authority in negotiations with a third person;
3. Section 551.074: To (1) deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of an Authority officer or employee; or (2) to hear a complaint or charge against an officer or employee; or
4. Section 551.074: To deliberate the deployment, or specific occasions for implementation, of security personnel or devices or a security audit.

C. The Board may reconvene in open session and act on any item listed on the Executive Session Agenda in accordance with Chapter 551 of the Texas Government Code.

IX. RECONVENE FROM CLOSED SESSION

The Board may act on any item discussed during the Closed Session.

X. ADJOURNMENT

MAEMSA
BOARD COMMUNICATION

Date: 03/28/2018	**Reference #:** BC-1343	**Title:** Approval of February 28, 2018 board of director minutes.

RECOMMENDATION:

It is recommended that the Board of Directors approve the minutes for board meeting on February 28, 2018.

DISCUSSION:

N/A

FINANCING:

N/A

Submitted by: **Douglas Hooten** **Board Action:**

_____Approved
_____Denied
_____Continued until ______________

MINUTES

METROPOLITAN AREA EMS AUTHORITY
D/B/A MEDSTAR MOBILE HEALTHCARE
BOARD OF DIRECTORS MEETING

2900 ALTA MERE DR.
FORT WORTH, TEXAS 76116-4115
February 28, 2018

The Metropolitan Area EMS Authority, MedStar Mobile Healthcare Board of Directors met on February 28 2018 at the MedStar Mobile Healthcare offices.

I. CALL TO ORDER

Chairman Brian Byrd called the meeting to order at 10:00 a.m.

MedStar Board members present: Paul Harral, Dr. John Geesbreght, Stephen Tatum, Dr. Rajesh Gandhi, Dr. Janice Knebl, Douglas Hooten (Ex-officio), Dr. Neal Richmond (Ex-efficio), Interim Fire Chief Pat Vasquez (Ex-officio) and Kristofer Schleicher, General Counsel for MAEMSA d/b/a MedStar Mobile Healthcare. Not present: Fire Chief Kirt Mays and Fire Chief Rudy Jackson, who has retired.

II. INTRODUCTION OF GUESTS

Guests: Dr. Gary Floyd, EPAB. Others present were Joan Jordan, Ken Simpson, Matt Zavadsky, Dwayne Howerton, Chad Carr, Dale Rose, Chris Cunningham, Susan Swagerty, Tina Smith, Richard Brooks, Pete Rizzo, Shaun Curtis, Desi Partain, Mike Potts, Kier Brister, Austin Cox, Dr. Veer Vithalani and Marianne Schmidt, all with MedStar.

III. CITIZEN PRESENTATIONS

There were no citizen presentations.

IV. CONSENT AGENDA

BC – 1340 Approval of minutes for the January 24, 2018 meeting.
BC – 1341 Approval of approval of check history for January 2018.

The motions to approve was made by Stephen Tatum and seconded by Dr. Raj Gandhi. The motions were carried unanimously.

V. NEW BUSINESS

BC – 1342 Approval of contracting with Innovative Developers, Inc. for phase one (development) of North Deployment Center.

The motion for approval was made by Stephen Tatum and second by Paul Harral. The motion was carried unanimously.

VI. MONTHLY REPORTS

A. **CEO: Douglas Hooten**: The Medicare ambulance payment add-ons (extenders) expired on 1/31/18 – that was 2% for us. We lobbied with the American Ambulance Association in Washington DC and got them back for 5 years. As part of the agreement with CMS on the legislation, CMS will require ambulance providers to submit Cost Report data. We already do this, so it's not a big change for us. We working on the final contract with one the largest retail payers that will make payment on a capitated basis rather than for transports only; we can't say more about it until there is a joint press release. We had 5 people speak at EMS Today in Charlotte, NC. The Medicaid uncompensated care program is up for renewal – that will be $3.5m for us. Joan will review in her section.

B. **CFO: Joan Jordan**: Reviewed Tab B.

C. **COO: Ken Simpson**: Operations Report:

- Increase staffing by improving onboarding process efficiency
  - YTD Avg 88 Days – PUM Avg 75 days
  - 16.3% Failure Rate (7/43)
- Decrease Lost Time 15%
- Increase P1 Compliance by 4%
  - Will be accomplished by:
    - EMD task force assembled with FRO, OPS and OMD
      - Evaluate with criteria similar to NAEMD standards
      - First meeting mid-March
  - Priority 1 is 11 minutes
  - Priority 2 is 13 minutes
  - Priority 3 is 17 minutes
- Measuring Things That Matter
  - Hands on chest goal of 4 minutes or less 85% of the time on known cardiac arrest cases.
  - First medical contact in 11 minutes or less 85% of the time on cardiac arrest patients.

D. **Human Resources: Tina Smith**: Reviewed Tab D.

E. **FRAB:** Fire Chief Pat Vasquez will be the interim Fort Worth Fire Chief until a new permanent Fire Chief is hired.

F. **OMD: Dr. Richmond:** Reviewed the reports in Tab F.

- OMD quarterly CE will be starting soon with a focus on optimizing adult and pediatric resuscitation in our service area.
- Completing statistical analyses for our Annual Report, including impact of training and sentinel event restriction processes on operations and finance.

G. **Legal/Compliance: Chad Carr:** Reviewed Tab G.

H. **CSIO: Matt Zavadsky** reviewed Tab H.

VII. OTHER DISCUSSION

VIII. CLOSED SESSION

There was a closed session. Moved to Closed Session: 11:19 a.m. Returned 11:35 a.m.
Results of closed session: nothing to report.

IX. ADJOURNMENT

There being no further business, Chairman Byrd adjourned the meeting at 11:37 a.m.

Respectfully submitted,

Dr. Janice Knebl
Secretary

MAEMSA
BOARD COMMUNICATION

Date: 03/28/2018	Reference #: BC-1344	Title: Approval of check register for the month of February 2018.

RECOMMENDATION:

It is recommended that the Board of Directors approve the check register for payments over $5,000 for the month February 2018.

DISCUSSION:

N/A

FINANCING:

N/A

Submitted by: **Douglas Hooten** **Board Action:** _____Approved
_____Denied
_____Continued until ______________

MedStar - Area Metropolitan Ambulance Authority
Check History and Description Report for Checks Over $5,000
Activity From 02-01-2018 to 02-28-2018

CHECK NUMBER	CHECK DATE	DESCRIPTION		CHECK AMOUNT
91241	2/1/18	Arrow International, Inc.	Medical Supplies-Logistics	5,600.86
91245	2/1/18	Bound Tree Medical LLC	Medical Supplies-Logistics	32,819.34
91253	2/1/18	Dell Marketing LP	Annual service agreement	8,139.86
91254	2/1/18	Direct Energy Business	Utilities-Admin	11,414.82
91258	2/1/18	Fort Worth Heat & Air	Facilities Maint - Logistics	8,758.75
91263	2/1/18	Innovative Developers, Inc.	Alta Mere Retrofit project	116,883.91
91268	2/1/18	Maintenance of Ft Worth, Inc.	Janitorial maintenance	5,745.68
91273	2/1/18	NRS	Collection Services-Admin	19,336.27
91296	2/1/18	ZirMed Inc	Invoice & Forms Processing-Adm	11,709.47
91326	2/9/18	Bound Tree Medical LLC	Medical Supplies-Logistics	31,409.29
91337	2/9/18	Continental Benefits	Health Ins-Admin	53,635.81
91342	2/9/18	Delta Dental Insurance Comany	Dental Ins-Admin	19,582.01
91343	2/9/18	Dell Marketing LP	Annual service agreement	28,589.15
91345	2/9/18	Emergency Medical Products	Medical Supplies-Logistics	6,047.28
91348	2/9/18	Fulcrum Group	Consulting Services - IT	14,925.00
91371	2/9/18	ReCept Pharmacy	Medical Supplies-Logistics	115,719.60
91374	2/9/18	Solutions Group	Verification Services-Admin	14,194.29
91416	2/15/18	Atlas Labs	Router	21,710.31
91418	2/15/18	Bound Tree Medical LLC	Medical Supplies-Logistics	16,625.47
91444	2/15/18	Motorola Solutions, Inc.	Annual service agreement	107,941.48
91448	2/15/18	PRUDENTIAL GROUP INSURANCE	Life/AD&D Ins-Admin	19,063.25
91452	2/15/18	Texas Auto Painting & Collision Repair	Unit 48 damage repair	7,442.00
91455	2/15/18	TML Intergovernmental Risk Pool	FY 16/17 audit results	26,249.87
91465	2/26/18	AFLAC	Employee Aflac Payable	5,100.60
91476	2/26/18	AT&T Mobility	Cell Phones-Admin	11,170.40
91479	2/26/18	Bound Tree Medical LLC	Medical Supplies-Logistics	19,414.23
91487	2/26/18	Convergint Technologies	Enclosure replacement, edge controller	5,006.13
91489	2/26/18	Fort Worth Heat & Air	Facilities Maint - Logistics	14,583.64
91497	2/26/18	JP Morgan Chase Bank, N.A.	Constr Loan - Chase	74,733.10
ACH827910192	2/22/18	Dr. Veer D. Vithalani	Medical Director - EPAB	17,050.00
ACH827910193	2/22/18	Dr. Neal J. Richmond		23,873.00

MedStar - Area Metropolitan Ambulance Authority
Check History and Description Report for Checks Over $5,000
Activity From 02-01-2018 to 02-28-2018

CHECK NUMBER	CHECK DATE	DESCRIPTION		CHECK AMOUNT
			Medical Director - EPAB	
Wire #44883070	2/9/18	American Express		22,121.32
			MedStar Business Expenses	
Wire #44910174	2/12/18	WEX Bank		93,664.56
			Fuel	
Wire #45319969	2/23/18	Chase Ink		6,006.58
			OMD Business Expenses	
				996,267.33
		TOTAL ACCOUNTS PAYABLE		1,061,927.68
		TOTAL PAYROLL EXPENSE		2,109,586.66
				3,171,514.34

Tab A – Chief Executive Officer

Tab B – Chief Financial Officer

Metropolitan Area EMS Authority dba MedStar Mobile Healthcare
Finance Report – March 28, 2018

The following summarizes significant items in the February, 2018 Financial Reports:

Balance Sheet:

- Accounts Receivable – Current year exceeds prior year by approximately $6million due primarily to timing of write-offs as well as increased transports in current year.
- Other Receivable – includes amounts billed to TX DSHS for Hurricane Harvey response. The bulk of these monies were received in March, 2018.

Statement of Revenues and Expenses:

- Benefits and Taxes – February expense includes pharmacy payments under the medical plan for October, 2017 through January, 2018. Year to Date expense remains well below plan; this is likely a timing difference due to the deductibles charged at the beginning of the plan year.
- Office Equipment Maintenance – over budget due to additional software maintenance needs.
- Professional Fees – below budget primarily due to renegotiation of Tier One maintenance contract with Fulcrum Group at a lower cost.
- Overall, net retained earnings for the 5 months ended is $1,699,946 as compared to budgeted earnings of $497,102 for a positive variance of $1,202,844.

Key Financial Indicators:

- Current Ratio – MedStar has $23.77 in current assets (Cash, receivables) for every dollar in debt. (Goal: a score of $1.00 would mean sufficient current assets to pay debts.)
- Cash as % of Annual Expenditures – Our goal is 50% of annual estimated expenditures held in cash accounts. Currently, cash is 54.13% of expense. This is lower than January reported, because estimated annual expenditures increased for the pharmacy costs that were booked this month. Also, since we are holding invoices until deductibles are met, cash collections are lower than average. Both these items will combine to lower the cash as a percentage of expense. We believe this will self-correct as cash is collected in future months.
- Accounts Receivable Turnover – This statistic indicates MedStar's effectiveness in extending credit and collecting debts by indicating the average age of the receivables. MedStar's goal is a ratio greater than 3.0 times; current turnover is 2.59 times. This is due to Account Receivable balance being higher than normal in February because we are holding claims until deductibles are satisfied, and until Congress passed the Medicare 2% extender bill. The approval was made early in February and payments began to be received in March.
- Return on Net Assets – This ratio determines whether the agency is financially better off than in previous years by measuring total economic return. An improving trend indicates increasing net assets and the ability to set aside financial resources to strengthen future flexibility. Management has budgeted a return of 8.77% on assets. Through February, the return is an estimated 10.55%.

Billing Trends:

- 47,222 encounters have been billed at a cost of $738,836 for a cost per claim of $15.65. This is slightly lower than FY17 overall $16.95 cost per claim. Budgeted cost per claim for FY18 is $17.36.

Capital Tracking:

- Building Retrofit costs exceeded budget due to unforeseen electrical work being required in the sally port at the rear of the bay. This work is now complete.

MedStar - February 2018 - Summary and Trends

Net Income Trend	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18
Revenue	$ 9,016,607	$ 4,036,060	$ 3,893,346	$ 4,406,329	$ 4,295,598	$ 3,865,640
Expenses	$ 3,923,943	$ 4,062,066	$ 3,654,225	$ 3,690,390	$ 3,656,517	$ 3,715,702
Net Income	$ 5,092,664	$ (26,006)	$ 239,121	$ 715,939	$ 639,080	$ 149,938

Notes:
Sep-17 revenue includes $3.5million HHSC cost report payment FY16, and $600K EPAB cash entry per advice of General Counsel and Whitley Penn, LLC auditors.
Oct-17 expense includes incentive payments to staff.

Net Earnings Annual:	
YTD 2018	$ 1,699,946
9/30/2017	$ 8,841,414
9/30/2016	$ 9,469,805
9/30/2015	$ 6,718,929
9/30/2014	$ 5,755,653
9/30/2013	$ 5,821,481
9/30/2012	$ 2,788,129

Cash in Bank	
Current Month	$ 21,082,516
9/30/2017	$ 22,701,779
9/30/2016	$ 24,621,458
9/30/2015	$ 19,065,406
9/30/2014	$ 23,308,668
9/30/2013	$ 24,307,199
9/30/2012	$ 19,053,393

Billed Transports:	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18
Emergency	8,595	8,487	8,130	8,512	9,061	8,197
Non Emergency	937	985	856	999	1,028	967
Total	9,532	9,472	8,986	9,511	10,089	9,164

	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18
Cash Collections:	$ 3,866,446	$ 3,508,157	$ 3,493,196	$ 3,393,401	$ 3,201,204	$ 2,619,711

Area Metropolitan Ambulance Authority/MedStar
Balance Sheet as of February 28, 2018

ASSETS				
		Feb-18		**Feb-17**
Current Assets				
Cash and Equivalents	$	21,082,515.56	$	21,816,689.01
Patient Accounts Receivable		18,492,970.31		12,247,491.40
Other Receivable		218,400.34		416,216.72
Inventory		299,899.39		279,522.33
Prepaid Insurance and Expemse		1,052,081.89		860,246.55
Total Current Assets	$	41,145,867.49	$	35,620,166.01
Property and Equipment	$	30,237,498.37	$	27,429,472.63
Total Assets	$	71,383,365.86	$	63,049,638.64

LIABILITIES AND CAPITAL				
Current Liabilities				
Accounts Payable	$	386,795.17	$	406,523.57
Interest Payable		3,859.98		3,859.98
Payroll Taxes and Benefits Payable		1,340,405.95		1,305,871.97
Total Current Liabilities	$	1,731,061.10	$	1,716,255.52
Long-Term Liabilities				
Consulting Retainer		2,370.46		2,370.46
Deferred Subscription Income		117,494.20		89,681.93
Construction Loan Chase		4,811,866.24		5,607,811.72
Total Long-Term Liabilities	$	4,931,730.90	$	5,699,864.11
Total Liabilities	$	6,662,792.00	$	7,416,119.63
Net Assets <Deficit>				
Capital Contribution	$	316,920.50	$	316,920.50
Retained Earnings - Unrestricted	$	62,095,088.05		53,822,376.67
Retained Earnings - Restricted	$	608,619.69		-
Net Income	$	1,699,945.62		1,494,221.84
Total Net Assets <Deficit>	$	64,720,573.86	$	55,633,519.01
Total Liabilities & Net Assets <Deficit>	$	71,383,365.86	$	63,049,638.64

Metropolitan Area EMS Authority dba MedStar Mobile Healthcare
Statement of Revenue and Expenses
5 months ended February 28, 2018
[Actual compared to budget]

	Current Month Actual	Current Month Budget	Currrent Month Variance	Year to Date Actual	Year to Date Budget	Year to Date Variance
Revenues						
Patient Fees-Service	13,121,671.14	13,021,141.00	100,530.14	65,617,404.85	67,743,416.00	(2,126,011.15)
Less: Contractual Allowances	(4,849,846.71)	(3,656,629.00)	(1,193,217.71)	(22,804,334.95)	(19,031,393.00)	(3,772,941.95)
Less: Provsion for Uncollectibles	(4,502,834.91)	(5,720,205.00)	1,217,370.09	(22,892,479.86)	(29,750,922.00)	6,858,442.14
Patient Fees - NET	3,768,989.52	3,644,307.00	124,682.52	19,920,590.04	18,961,101.00	959,489.04
Special Events	28,116.00	44,508.00	(16,392.00)	216,356.00	222,540.00	(6,184.00)
Subsidy	1,820.54	1,821.00	(0.46)	12,089.26	12,091.00	(1.74)
Education	4,375.00	3,808.00	567.00	31,728.20	39,955.00	(8,226.80)
Other	37,530.72	26,780.00	10,750.72	175,090.36	137,897.00	37,193.36
Mobile Integrated Health Projects	24,807.82	40,515.00	(15,707.18)	138,983.25	202,575.00	(63,591.75)
Clinical Research	0.00	1,000.00	(1,000.00)	2,135.00	5,000.00	(2,865.00)
Total Revenues	$ 3,865,639.60	$ 3,762,739.00	102,900.60	$ 20,496,972.11	$ 19,581,159.00	915,813.11
Payroll	1,969,935.06	2,013,007.00	(43,071.94)	11,474,402.00	11,360,026.00	114,376.00
Benefits and Taxes	703,911.07	528,120.00	175,791.07	2,241,882.94	2,823,727.00	(581,844.06)
Fuel	102,820.32	72,000.00	30,820.32	448,403.06	360,000.00	88,403.06
Oxygen	6,187.64	5,161.00	1,026.64	30,199.46	25,805.00	4,394.46
Medical Supplies	168,107.35	176,761.00	(8,653.65)	892,138.32	883,805.00	8,333.32
Other Vehicle & Equipment	60,204.40	56,676.00	3,528.40	291,975.23	283,580.00	8,395.23
Rent & Utilities	40,210.05	45,669.00	(5,458.95)	227,370.12	217,845.00	9,525.12
Repairs & Maintenance Facility & Equipmnt	28,707.51	17,203.00	11,504.51	135,723.36	101,586.00	34,137.36
Postage & Shipping	15,424.60	29,453.00	(14,028.40)	80,220.58	147,265.00	(67,044.42)
Equipment Rental	8,404.17	6,649.00	1,755.17	20,901.69	33,245.00	(12,343.31)
Insurance	37,586.20	33,581.00	4,005.20	171,563.67	167,905.00	3,658.67
Advertising & Public Relations	4,790.81	12,329.00	(7,538.19)	18,907.68	23,145.00	(4,237.32)
Printing	3,831.99	3,224.00	607.99	25,598.32	16,120.00	9,478.32
Travel & Entertainment	11,246.25	12,711.00	(1,464.75)	37,568.94	70,292.00	(32,723.06)
Professional Fees	120,611.19	118,352.00	2,259.19	628,017.01	673,310.00	(45,292.99)
Non-Capital Equipment	16,132.65	14,292.00	1,840.65	59,505.24	94,556.00	(35,050.76)
Educational Expense/Training	20,465.25	15,863.00	4,602.25	128,680.89	144,441.00	(15,760.11)
Office Equip Maint	121,869.67	92,181.00	29,688.67	547,692.96	460,905.00	86,787.96
Bank Service Charges	6,435.08	11,181.00	(4,745.92)	34,428.72	55,905.00	(21,476.28)
Dues & Subscriptions	4,799.96	6,309.00	(1,509.04)	29,960.34	41,159.00	(11,198.66)
Computer Related Costs	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	386.78	145.00	241.78	1,888.30	725.00	1,163.30
Total Expenses	$ 3,452,068.00	$ 3,270,867.00	181,201.00	$ 17,527,028.83	$ 17,985,347.00	(458,318.17)
Earnings before Interest & Depreciation	413,571.60	491,872.00	(78,300.40)	2,969,943.28	1,595,812.00	1,374,131.28
Interest	8,404.31	9,855.00	(1,450.69)	46,182.64	49,275.00	(3,092.36)
Depreciation	255,229.46	209,887.08	45,342.38	1,223,815.02	1,049,435.40	174,379.62
Net Retained Earnings	$ 149,937.83	$ 272,129.92	(122,192.09)	$ 1,699,945.62	$ 497,101.60	1,202,844.02

Metropolitan Area EMS Authority dba MedStar Mobile Healthcare
Statement of Revenue and Expenses
5 months ended February 28, 2018
[Actual compared to Prior Year]

	Current Month Actual	Prior Month Actual	Currrent Month Variance	Year to Date Actual	Prior Year Actual	Year to Date Variance
Revenues						
Patient Fees-Service	13,108,447.87	12,321,338.62	787,109.25	65,522,511.77	64,701,084.61	821,427.16
Less: Contractual Allowances	(4,849,846.71)	(5,282,173.43)	432,326.72	(22,804,334.95)	(26,415,208.04)	3,610,873.09
Less: Provsion for Uncollectibles	(4,502,834.91)	(3,493,199.81)	(1,009,635.10)	(22,892,479.86)	(19,755,024.46)	(3,137,455.40)
Patient Fees - NET	3,755,766.25	3,545,965.38	209,800.87	19,825,696.96	18,530,852.11	1,294,844.85
Special Events	28,116.00	35,088.00	(6,972.00)	216,356.00	223,454.00	(7,098.00)
Subsidy	1,820.54	1,820.54	0.00	12,089.26	12,089.26	0.00
Education	4,375.00	9,375.00	(5,000.00)	31,728.20	47,856.60	(16,128.40)
Other	37,530.72	28,684.44	8,846.28	175,090.36	144,273.99	30,816.37
Mobile Integrated Health Projects	38,031.09	59,195.69	(21,164.60)	233,876.33	267,498.82	(33,622.49)
Clinical Research	0.00	2,229.00	(2,229.00)	2,135.00	506.00	1,629.00
Total Revenues	$ 3,865,639.60	$ 3,682,358.05	183,281.55	$ 20,496,972.11	$ 19,226,530.78	1,270,441.33
Payroll	1,969,935.06	1,936,950.71	32,984.35	11,474,402.00	10,678,481.64	795,920.36
Benefits and Taxes	703,911.07	368,205.95	335,705.12	2,241,882.94	2,666,235.78	(424,352.84)
Fuel	102,820.32	78,467.06	24,353.26	448,403.06	296,998.65	151,404.41
Oxygen	6,187.64	5,769.97	417.67	30,199.46	24,569.50	5,629.96
Medical Supplies	168,107.35	169,424.97	(1,317.62)	892,138.32	873,115.94	19,022.38
Other Vehicle & Equipment	61,576.65	49,607.16	11,969.49	295,840.52	280,790.06	15,050.46
Rent & Utilities	40,210.05	39,699.76	510.29	227,370.12	196,562.58	30,807.54
Repairs & Maintenance Facility & Equipmnt	28,707.51	16,084.27	12,623.24	135,723.36	76,012.66	59,710.70
Postage & Shipping	15,424.60	11,876.85	3,547.75	80,220.58	70,767.00	9,453.58
Equipment Rental	7,031.92	6,297.83	734.09	17,036.40	33,350.57	(16,314.17)
Insurance	37,586.20	28,508.74	9,077.46	171,563.67	161,189.51	10,374.16
Advertising & Public Relations	4,790.81	4,768.24	22.57	18,907.68	47,507.02	(28,599.34)
Printing	3,831.99	301.41	3,530.58	25,598.32	12,630.67	12,967.65
Tehnical Support	0.00	0.00	0.00	0.00	0.00	0.00
Travel & Entertainment	11,246.25	14,327.08	(3,080.83)	37,568.94	39,331.64	(1,762.70)
Professional Fees	120,611.19	101,520.82	19,090.37	628,017.01	545,685.12	82,331.89
Non-Capital Equipment	16,132.65	19,276.74	(3,144.09)	59,505.24	52,207.31	7,297.93
Educational Expense/Training	20,465.25	14,069.52	6,395.73	128,680.89	91,627.20	37,053.69
Office Equip Maint	121,869.67	80,050.45	41,819.22	547,692.96	430,126.92	117,566.04
Bank Service Charges	6,435.08	9,939.11	(3,504.03)	34,428.72	62,046.69	(27,617.97)
Dues & Subscriptions	4,799.96	6,929.94	(2,129.98)	29,960.34	39,190.34	(9,230.00)
Computer Related Costs	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	386.78	62.56	324.22	1,888.30	1,226.16	662.14
Total Other Expenses	$ 3,452,068.00	$ 2,962,139.14	489,928.86	$ 17,527,028.83	$ 16,679,652.96	847,375.87
Earnings before Interest & Depreciation	413,571.60	720,218.91	(306,647.31)	2,969,943.28	2,546,877.82	423,065.46
Interest	8,404.31	9,717.50	(1,313.19)	46,182.64	52,862.01	(6,679.37)
Depreciation	255,229.46	215,390.48	39,838.98	1,223,815.02	999,793.97	224,021.05
Net Retained Earnings	$ 149,937.83	$ 495,110.93	(345,173.10)	$ 1,699,945.62	$ 1,494,221.84	205,723.78

Metropolitan Area EMS Authority dba MedStar Mobile Healthcare
Statement of Revenue and Expenses
5 months ended February 28, 2018
[Office of the Medical Director]

	Current Month Actual	Current Month Budget	Currrent Month Variance	Year to Date Actual	Year to Date Budget	Year to Date Variance
Revenues						
Patient Fees-Service	0.00	0.00	0.00	0.00	0.00	0.00
Less: Contractual Allowances	0.00	0.00	0.00	0.00	0.00	0.00
Less: Provsion for Uncollectibles	0.00	0.00	0.00	0.00	0.00	0.00
Patient Fees - NET	0.00	0.00	0.00	0.00	0.00	0.00
Special Events	0.00	0.00	0.00	0.00	0.00	0.00
Subsidy	0.00	0.00	0.00	0.00	0.00	0.00
Education	0.00	0.00	0.00	0.00	0.00	0.00
Other	5,000.00	0.00	5,000.00	5,000.00	0.00	5,000.00
Mobile Integrated Health Projects	0.00	0.00	0.00	0.00	0.00	0.00
Clinical Research	0.00	1,000.00	(1,000.00)	2,135.00	5,000.00	(2,865.00)
Total Revenues	$ 5,000.00	$ 1,000.00	4,000.00	$ 7,135.00	$ 5,000.00	2,135.00
Payroll	59,187.42	59,098.00	89.42	357,046.88	343,378.00	13,668.88
Benefits and Taxes	7,269.30	7,696.00	(426.70)	39,618.61	45,235.00	(5,616.39)
Fuel	0.00	0.00	0.00	0.00	0.00	0.00
Oxygen	0.00	0.00	0.00	0.00	0.00	0.00
Medical Supplies	0.00	0.00	0.00	0.00	0.00	0.00
Other Vehicle & Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Rent & Utilities	298.44	3,775.00	(3,476.56)	6,442.20	8,375.00	(1,932.80)
Repairs & Maintenance Facility & Equipmnt	0.00	0.00	0.00	0.00	0.00	0.00
Postage & Shipping	0.00	0.00	0.00	0.00	0.00	0.00
Equipment Rental	1,372.25	792.00	580.25	3,865.29	3,960.00	(94.71)
Insurance	0.00	1,917.00	(1,917.00)	13,259.40	9,585.00	3,674.40
Advertising & Public Relations	0.00	0.00	0.00	0.00	0.00	0.00
Printing	155.88	125.00	30.88	665.09	625.00	40.09
Travel & Entertainment	4,432.17	2,775.00	1,657.17	9,267.31	22,100.00	(12,832.69)
Professional Fees	40,823.00	46,657.00	(5,834.00)	204,115.00	233,285.00	(29,170.00)
Non-Capital Equipment	0.00	0.00	0.00	124.69	5,000.00	(4,875.31)
Educational Expense/Training	245.00	835.00	(590.00)	4,625.55	7,860.00	(3,234.45)
Office Equip Maint	0.00	0.00	0.00	0.00	0.00	0.00
Bank Service Charges	0.00	0.00	0.00	0.00	0.00	0.00
Dues & Subscriptions	510.00	377.00	133.00	7,695.00	15,046.00	(7,351.00)
Computer Related Costs	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
Total Expenses	$ 114,293.46	$ 124,047.00	(9,753.54)	$ 646,725.02	$ 694,449.00	(47,723.98)
Earnings before Interest & Depreciation	(109,293.46)	(123,047.00)	13,753.54	(639,590.02)	(689,449.00)	49,858.98
Interest	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation	0.00	0.00	0.00	0.00	0.00	0.00
Net Retained Earnings	($ 109,293.46)	($ 123,047.00)	13,753.54	($ 639,590.02)	($ 689,449.00)	49,858.98

Metropolitan Area EMS Authority dba MedStar Mobile Healthcare
Key Financial Indicators
February 28, 2018

	Goal	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Current Ratio	**> 1**	**19.79**	**14.11**	**19.79**	**19.79**	**23.77**

Indicates the total short term resources available to service each dollar of debt. Ratio should be greater than 1, so that assets are available to retire debt when due.

	Goal	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Cash as % of Annual Expenditures	**> 50%**	**69.01%**	**49.02%**	**65.31%**	**55.06%**	**54.13%**

Indicates compliance with Ordinance which specifies 3 months cash on hand. Debt covenants specify 50% of annual cash expenditures.

	Goal	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Accounts Receivable Turnover	**>3**	**8.26**	**5.47**	**4.16**	**3.40**	**2.59**

A measure of how these resources are being managed. Indicates how long accounts receivable are being aged prior to collection. Our goal is a turnover rate of greater than 3 .

	Goal	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Return on Net Assets	**8.77%**	**15.11%**	**16.66%**	**21.13%**	**15.48%**	**10.55%**

Reveals management's effectiveness in generating profits from the assets available. Budgeted return on net assets for FY18 is 8.77%.

MAEMSA/Medstar - Capital Tracking FY2017-2018

Item Description	Dept		FY2018	Expended	Remaining
Carryover from FY16-17					
ERP Software	Admin		$ 450,000	$ -	$ 450,000
Billing Software	Admin		$ 250,000	$ -	$ 250,000
Cardiac Monitors (Approved Aug 17)	Logistics		$ 2,450,000	$ 1,897,518	$ 552,482
i-STAT	CHP		$ 10,000	$ -	$ 10,000
NICE recorder Aqua revolution upgrade	Comms		$ 105,000	$ -	$ 105,000
Remount 6 ambulances	Fleet		$ 420,000	$ 398,707	$ 21,293
Purchase 60 ambulances over 5 years	Fleet		$ 2,475,000	$ -	$ 2,475,000
Equipment needed for 3 addl ambulances	Fleet		$ 153,337	$ 124,207	$ 29,130
Cloverleaf hospital connections	IT		$ 50,000	$ -	$ 50,000
Blade Chassis carry forward (if not purchased in FY1	IT		$ 242,000	$ -	$ 242,000
End User Technology Refresh	IT		$ 41,800	$ -	$ 41,800
Server Technology Refresh	IT		$ 30,000	$ -	$ 30,000
Spot Cooler for Data Center	IT		$ 7,500	$ -	$ 7,500
In-Dash GPS Units	IT		$ 23,030	$ -	$ 23,030
Network Enhancements	IT		$ 20,000	$ -	$ 20,000
Tablet Replacements	IT		$ 67,827	$ 37,125	$ 30,702
Anti virus upgrade	IT		$ 25,000	$ -	$ 25,000
ImageTrend Data Mart	IT		$ 35,000	$ -	$ 35,000
Refresh gateways in ambulances 1/3 per year	IT		$ 25,000	$ 21,623	$ 3,377
Replace portable radios	Logistics		$ 150,000	$ -	$ 150,000
Additional Capital Items FY 2017-2018					
Purchase 12 Dodge Chassis (Sep 2017 Mtg)	Fleet		$ 513,732	$ -	$ 513,732
Diagnostic Software and tools (Sep 2017 Mtg)	Fleet		$ 21,074	$ -	$ 21,074
Building Retrofit (Sep 2017 Mtg)	Fleet		$ 214,278	$ 222,514	$ (8,236)
Quality Air and Lift (4) (Sep mtg)	Fleet		$ 85,722	$ -	$ 85,722
Compter room dehumidification	IT		$ 25,547	$ 25,547	$ -
Total Capital Request			**$ 7,890,846**	**$ 2,727,241**	**$ 5,163,606**

Billing and Collections - Key Trends

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Total
Collections	$ 3,508,157	$ 3,943,196	$ 3,393,401	$ 3,201,204	$ 2,656,929								$ 16,702,886
Billed Transports	9472	8986	9511	10089	9164								47222
Cost to Bill and Collect	$ 151,887	$ 150,132	$ 149,284	$ 144,597	$ 142,936								$ 738,836
Cost per claim	$ 16.04	$ 16.71	$ 15.70	$ 14.33	$ 15.60	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	$ 15.65
Cost as % of collections	4.33%	3.81%	4.40%	4.52%	5.38%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	4.42%

FY 17-18 Billed Transports = 47222

Business Gold Rewards
MEDSTAR/AMAA
DOUGLAS R HOOTEN
Closing Date 02/25/18 Next Closing Date 03/28/18

New Balance	**$6,294.78**
Please Pay By	**03/12/18 ‡**

‡ Payment is due upon receipt. We suggest you pay by the Please Pay By date. You may have to pay a late fee if your payment is not received by the Next Closing Date.

Membership Rewards® Points
Available and Pending as of 01/31/18
790,424
For more details about Rewards, please visit **americanexpress.com/rewardsinfo**

Account Summary

Previous Balance	$22,121.32
Payments/Credits	-$22,121.32
New Charges	+$6,294.78
Fees	+$0.00
New Balance	**$6,294.78**

Days in Billing Period: 28

See page 2 for important information about your account.

American Express Bank, FSB ("FSB") will undergo a legal entity change and be known as **American Express National Bank** ("AENB") as of April 1, 2018. Following that date, AENB will become the issuer of your Account. To review our Privacy Notice, please visit **americanexpress.com/privacycenter**.

See Page 7 for an Important Notice About a Change to Your Cardmember Agreement.

Effective February 28, 2018, Card Members will no longer earn 2X Membership Rewards® points on Uber rides.

Customer Care

Pay by Computer
open.com/pbc

Customer Care
1-800-492-3344

Pay by Phone
1-800-472-9297

See Page 2 for additional information.

☑ APPROVED Douglas R Hooten 2/27/18
signature date

↓ Please fold on the perforation below, detach and return with your payment ↓

Payment Coupon
Do not staple or use paper clips

Pay by Computer
open.com/pbc

Pay by Phone
1-800-472-9297

Enter 15 digit account # on all payments.
Make check payable to American Express.

DOUGLAS R HOOTEN
MEDSTAR/AMAA
2900 ALTA MERE DR
FORT WORTH TX 76116-4115

Please Pay By
03/12/18
Amount Due
$6,294.78

☐ Check here if your address or phone number has changed. Note changes on reverse side.

AMERICAN EXPRESS
P.O. BOX 650448
DALLAS TX 75265-0448

0000349991382953784 000629478000629478 24 H

Business Gold Rewards
MEDSTAR/AMAA
DOUGLAS R HOOTEN
Closing Date 02/25/18

Payments and Credits

Summary

	Total
Payments	-$22,121.32
Credits	$0.00
Total Payments and Credits	**-$22,121.32**

Detail
*Indicates posting date

Payments			**Amount**
02/09/18*	DOUGLAS R HOOTEN	CHECKLESS PYMT RECEIVED-THANK YOU	-$22,121.32

New Charges

Summary

	Total
DOUGLAS R HOOTEN	$5,694.17
JOAN E JORDAN 9-32039	$600.61
Total New Charges	**$6,294.78**

Detail

DOUGLAS R HOOTEN
Card Ending 9-39000

Date	Description					Amount
01/26/18	LA TORRETTA LAKE RESRT Arrival Date 01/25/18 00000000 LODGING	Departure Date 01/26/18	MONTGOMERY Hotel deposit for Scott Bellen Attending TEMSA Conference	TX	690330-1000	$157.07
01/26/18	LA TORRETTA LAKE RESRT Arrival Date 01/25/18 00000000 LODGING	Departure Date 01/26/18	MONTGOMERY Hotel deposit for Tabatha Ellis Attending TEMSA Conference	TX	690330-1000	$157.07
01/26/18	LA TORRETTA LAKE RESRT Arrival Date 01/25/18 00000000 LODGING	Departure Date 01/26/18	MONTGOMERY Hotel deposit for Tracy Holmes Attending TEMSA Conference	TX	690330-1000	$157.07
01/26/18	LA TORRETTA LAKE RESRT Arrival Date 01/25/18 00000000 LODGING	Departure Date 01/26/18	MONTGOMERY Hotel deposit for Lauren Junker Attending TEMSA Conference	TX	690330-1000	$157.07
01/27/18	WYNDHAM AUSTIN & WOODW Arrival Date 02/14/18 00000000 LODGING	Departure Date 02/15/18	AUSTIN Hotel room for Douglas Hooten - Attended GETAC meeting in Austin, TX	TX	690330-1000	$148.00
01/29/18	STATEFEDERALPOSTER 8884887678 State & Federal Law posters for HR		8884887678	CA	PO 14266	$25.21
01/30/18	CORNER BAKERY 0275 0275 302516 761090 Lunch for HOPE Squad meeting		FORT WORTH	TX	PO 14118	$344.50
01/31/18	CONCUR TECHNOLOGIE BELLEVUE	WA	TVL Website		PO 14347	$150.00

Continued on reverse

Detail Continued

Date	Description	City	State	Notes	Amount
01/31/18	PANERA BREAD #601542 6015 5819005 76132 Lunch for System Measures Task force meeting	FORT WORTH	TX	PO 14279	$328.92
02/01/18	WORLD TRAVEL SERVICES AMERICAN AIRLINES From: DALLAS/FORT WORTH To: CHARLOTTE Carrier: AA Class: G To: DALLAS/FORT WORTH Carrier: AA Class: G Ticket Number: 00170416057044 Date of Departure: 02/19 Passenger Name: HOOTEN/DOUGLAS R Document Type: PASSENGER TICKET	TULSA	OK	690330-1000 Moved original dpt time to later so Doug could attend other meetings.	$205.20
02/01/18	AMAZON.COM MERCHANDISE Adhesive card holders for front of bins on trucks	AMZN.COM/BILL	WA	PO 14295	$33.80
02/02/18	FROSCH/GANT TRAVEL BLOOMINGTON Matt: Nat'l Ldrshp Conf DC		IN	690330-9000	$316.10
02/02/18	FROSCH/GANT TRAVEL MANAGE TRAVEL AGENCY SERVICE Fee for Matt's ticket to Nat'l Ldrshp Conf DC Ticket Number: 89007203838582 Passenger Name: ZAVADSKY/MATTHEW SCO Document Type: TRAVEL AGENCY FEE	BLOOMINGTON	IN	690330-9000	$21.00
02/02/18	FULLBARS CELL PHONE AND C 00-080311605 ELECTRONICS REPAIR Fix 2 broken cell phone chargers	FORT WORTH	TX	PO 14344	$139.00
02/02/18	PANERA BREAD #601542 6015 ############0501 76132 Lunch for Neuro Symposium	FORT WORTH	TX	PO 14323	$309.67
02/03/18	AMAZON MKTPLACE PMTS BOOK STORES SDS/MSDS Sheets & Bins to hold Notebooks	AMZN.COM/BILL	WA	PO 14314	$270.41
02/04/18	WEBSITEHOSTINGBILLCOM WEBSITEHOSTINGB 4059488300 Reoccuring website invoice	OKLAHOMA CITY	OK	680540-7000	$69.00
02/05/18	FROSCH/GANT TRAVEL MANAGE TRAVEL AGENCY SERVICE Ticket fee for Navigator 2018 meeting in Las Vegas Ticket Number: 89007206136682 Passenger Name: HOWERTON/DWAYNE DOUG Document Type: TRAVEL AGENCY FEE	BLOOMINGTON	IN	690330-2000	$5.00
02/05/18	FROSCH/GANT TRAVEL MANAGE AMERICAN AIRLINES Ticket for Navigator 2018 meeting in Las Vegas From: DALLAS/FORT WORTH To: LAS VEGAS MCCARRAN Carrier: AA Class: G To: DALLAS/FORT WORTH Carrier: AA Class: G Ticket Number: 00170113218940 Date of Departure: 04/19 Passenger Name: HOWERTON/DWAYNE DOUG Document Type: PASSENGER TICKET	BLOOMINGTON	IN	690330-2000	$316.60
02/05/18	BATTERIES PLUS 8173772288 Rechargeable batteries for Boardroom speaker phones	FORT WORTH	TX	PO 14346	$64.91
02/05/18	NETWORK SOLUTIONS 888-642-9675 Renewal of Domain Name	888-642-9675	FL	PO 14348	$69.97
02/09/18	THE OLIVE GARDEN 817-7320618 Paramedic Mentor Lunch Meeting	FORT WORTH	TX	PO 14441	$330.64
02/09/18	NCTCOG RTC TRAINING REGIONAL GOV Proj Mgmt for Non-PM Leila Peeples	ARLINGTON	TX	PO 14431	$165.00
02/16/18	FULLBARS CELL PHONE AND C 00-080311605 ELECTRONICS REPAIR Fix broken cell phone chargers	FORT WORTH	TX	PO 14553	$139.00
02/16/18	TACO CABANA 10133 ECOM 800-580-8668 Breakfast with the Supervisors - NEOP	FORT WORTH	TX	PO 14395	$97.36
02/20/18	FROSCH/GANT TRAVEL MANAGE AMERICAN AIRLINES From: JOPLIN To: DALLAS/FORT WORTH Carrier: AA Class: G To: JOPLIN Carrier: AA Class: Q Ticket Number: 00170122933131 Date of Departure: 04/01 Passenger Name: COX/LOUIS Document Type: PASSENGER TICKET	BLOOMINGTON	IN	690330-1000 Mr. Louis Cox - here to do a mock CAAS inspection for us.	$331.60

Continued on next page

Business Gold Rewards
MEDSTAR/AMAA
DOUGLAS R HOOTEN
Closing Date 02/25/18

Detail Continued

Date	Description	City	State	Note	Amount
02/20/18	FROSCH/GANT TRAVEL MANAGE TRAVEL AGENCY SERVICE Ticket Number: 89007209131120 Passenger Name: COX/LOUIS Document Type: TRAVEL AGENCY FEE	BLOOMINGTON	IN	690330-1000 TVL fee for Mr. Louis Cox's ticket	$5.00
02/22/18	TX HLTH RES INST 0921 682-236-6273	ARLINGTON	TX	PO 14651 Reg's for Capper Heart Symposium	$1,000.00
02/22/18	TX HLTH RES INST 0921 682-236-6273	ARLINGTON	TX	PO 14654 Regs for Tim Gattis & Evan Mathews to attend Heart Symposium	$120.00
02/23/18	NTTA CUST SVC TOLLS ONLINE TOLL FEES	PLANO	TX	Tolls	$60.00

JOAN E JORDAN

Date	Description	City	State	Note	Amount
02/02/18	TWILIO TWILIO 8778894546	SAN FRANCISCO	CA	680540-7000 Reoccurring charge	$10.02
02/02/18	PAYFLOW/PAYPAL 0045 888-883-9770	LAVISTA	NE	680540-7000 Star Service charge	$31.50
02/15/18	BUFFALO WEST USFC76116	FT WORTH	TX	650502-1000 Lunch for PIO shadowing	$98.21
02/18/18	TWILIO TWILIO 8778894546	SAN FRANCISCO	CA	680540-7000 Reoccurring charge	$10.01
02/18/18	SMK*SURVEYMONKEY.COM 30999608 76110	971-244-5555	CA	690900-1000 Yearly dues for use of Survey Monkey	$252.00
02/21/18	STARBUCKS STORE 4913 FAST FOOD RESTAURANT	FORT WORTH	TX	650502-1000 Coffee during electricity outage.	$88.87
02/21/18	FULLBARS CELL PHONE AND C 00-080311605 ELECTRONICS REPAIR	FORT WORTH	TX	PO 14652 Fix cell phones broken chargers	$110.00

Fees

	Amount
Total Fees for this Period	**$0.00**

2018 Fees and Interest Totals Year-to-Date

	Amount
Total Fees in 2018	$0.00
Total Interest in 2018	$0.00

Tab C – Operations Report

MedStar Response Time Reliability and AVG Response Time Performance

Period: Feb 2018

		Current Month							100 Response Compliance Period		
Member City	Pri	Calls	On Scene	Avg RT	Late Responses	On Time %	Extended Responses Count	%	Compliance Calculated Responses	Late Responses	On Time %
Blue Mound	1	6	6	00:03:47	0	100.0%	0	0.0%	25	2	92.0%
	2	9	9	00:05:44	0	100.0%	0	0.0%	41	3	92.7%
	3	2	2	00:08:42	0	100.0%	0	0.0%	13	1	92.3%
Total Blue Mound		17	17								
Burleson	1	78	73	00:07:55	17	78.2%	4	5.1%	78	17	78.2%
	2	154	144	00:08:00	17	89.0%	7	4.5%	154	17	89.0%
	3	76	65	00:08:45	4	94.7%	0	0.0%	76	4	94.7%
	4	214	214	00:27:47	11	94.9%	5	2.3%	214	11	94.9%
Total Burleson		522	496								
Edgecliff Village	1	5	5	00:07:52	0	100.0%	0	0.0%	27	3	88.9%
	2	7	7	00:08:48	0	100.0%	0	0.0%	42	0	100.0%
	3	4	3	00:08:47	0	100.0%	0	0.0%	23	0	100.0%
Total Edgecliff Village		16	15								
Forest Hill	1	44	42	00:08:43	9	79.5%	0	0.0%	44	9	79.5%
	2	68	61	00:08:28	6	91.2%	0	0.0%	68	6	91.2%
	3	35	34	00:10:11	3	91.4%	0	0.0%	77	6	92.2%
	4	1	1	00:02:10	0	100.0%	0	0.0%	2	0	100.0%
Total Forest Hill		148	138								
Fort Worth	1	2329	2268	00:08:04	349	85.0%	36	1.5%	2329	349	85.0%
	2	4512	4174	00:08:08	360	92.0%	37	0.8%	4512	360	92.0%
	3	2302	2127	00:09:34	158	93.1%	23	1.0%	2302	158	93.1%
	4	940	930	00:26:09	58	93.8%	23	2.4%	940	58	93.8%
Total Fort Worth		10083	9499								
Haltom City	1	82	79	00:08:35	16	80.5%	4	4.9%	82	16	80.5%
	2	158	148	00:08:54	22	86.1%	0	0.0%	158	22	86.1%
	3	77	64	00:10:02	5	93.5%	1	1.3%	77	5	93.5%
	4	5	5	00:24:38	0	100.0%	0	0.0%	85	4	95.3%
Total Haltom City		322	296								

MedStar Response Time Reliability and AVG Response Time Performance

Period: Feb 2018

		Current Month							100 Response Compliance Period		
Member City	Pri	Calls	On Scene	Avg RT	Late Responses	On Time %	Extended Responses Count	%	Compliance Calculated Responses	Late Responses	On Time %
Haslet	1	3	3	00:09:09	1	66.7%	0	0.0%	34	5	85.3%
	2	10	8	00:07:50	2	80.0%	1	10.0%	97	20	79.4%
	3	8	8	00:05:20	0	100.0%	0	0.0%	30	2	93.3%
	4	7	7	00:43:57	2	71.4%	1	14.3%	27	2	92.6%
Total Haslet		**28**	**26**								
Lake Worth	1	20	20	00:06:07	0	100.0%	0	0.0%	101	9	91.1%
	2	56	54	00:07:20	6	89.3%	0	0.0%	114	13	88.6%
	3	9	8	00:10:07	1	88.9%	0	0.0%	51	1	98.0%
	4	4	4	00:08:36	2	50.0%	2	50.0%	13	2	84.6%
Total Lake Worth		**89**	**86**								
Lakeside	1	1	1	00:10:19	0	100.0%	0	0.0%	17	6	64.7%
	2	11	11	00:11:37	3	72.7%	1	9.1%	37	8	78.4%
	3	2	2	00:12:27	0	100.0%	0	0.0%	15	4	73.3%
Total Lakeside		**14**	**14**								
River Oaks	1	14	14	00:07:38	2	85.7%	0	0.0%	104	19	81.7%
	2	27	27	00:09:05	2	92.6%	0	0.0%	60	5	91.7%
	3	14	13	00:09:01	1	92.9%	0	0.0%	66	7	89.4%
Total River Oaks		**55**	**54**								
Saginaw	1	34	32	00:08:57	5	85.3%	1	2.9%	34	5	85.3%
	2	70	57	00:08:32	9	87.1%	0	0.0%	70	9	87.1%
	3	42	37	00:10:16	6	85.7%	1	2.4%	101	14	86.1%
	4	1	1	00:15:35	0	100.0%	0	0.0%	2	0	100.0%
Total Saginaw		**147**	**127**								
Sansom Park	1	18	18	00:07:40	3	83.3%	0	0.0%	109	14	87.2%
	2	26	24	00:08:35	4	84.6%	2	7.7%	26	4	84.6%
	3	12	12	00:07:43	0	100.0%	0	0.0%	62	3	95.2%
Total Sansom Park		**56**	**54**								
Westover Hills	1	3	3	00:08:41	0	100.0%	0	0.0%	5	0	100.0%

MedStar Response Time Reliability and AVG Response Time Performance

Period: Feb 2018

Member City	Pri	Current Month					Extended Responses		100 Response Compliance Period		
		Calls	On Scene	Avg RT	Late Responses	On Time %	Count	%	Compliance Calculated Responses	Late Responses	On Time %
Westover Hills	2	2	2	00:07:34	0	100.0%	**0**	**0.0%**	**6**	**1**	**83.3%**
Total Westover Hills		**5**	**5**								
Westworth Village	1	8	8	00:07:54	0	100.0%	**0**	**0.0%**	**45**	**2**	**95.6%**
	2	29	27	00:08:46	1	96.6%	**0**	**0.0%**	**68**	**2**	**97.1%**
	3	12	11	00:10:26	0	100.0%	**0**	**0.0%**	**97**	**4**	**95.9%**
	4	3	2	00:17:10	0	100.0%	**0**	**0.0%**	**6**	**0**	**100.0%**
Total Westworth Village		**52**	**48**								
White Settlement	1	53	50	00:06:24	3	94.3%	**0**	**0.0%**	**100**	**5**	**95.0%**
	2	102	94	00:06:05	2	98.0%	**0**	**0.0%**	**102**	**2**	**98.0%**
	3	46	46	00:09:20	4	91.3%	**2**	**4.3%**	**140**	**4**	**97.1%**
	4	12	12	00:06:29	1	91.7%	**1**	**8.3%**	**12**	**1**	**91.7%**
Total White Settlement		**213**	**202**								
System Wide	1	2698	2622	00:08:03	405	85.0%	**45**	**1.7%**	**3134**	**461**	**85.3%**
	2	5241	4847	00:08:08	434	91.7%	**48**	**0.9%**	**5555**	**472**	**91.5%**
	3	2641	2432	00:09:33	182	93.1%	**27**	**1.0%**	**3131**	**213**	**93.2%**
	4	1187	1176	00:26:17	74	93.8%	**32**	**2.7%**	**1309**	**79**	**94.0%**
Total System Wide		**11767**	**11077**								

Tab D – Human Resources

FMLA Leave of Absence (FMLA Detailed Report)
Fiscal Year 10/1/17 - 9/30/18
Percentages by Department/Conditions

Conditions	
Asthma	1
Back	3
Cardiology	1
Chronic Illness	2
Diverticulitis	1
FMLA - Child	8
FMLA - Parent	11
FMLA - Spouse	4
Gastric	1
Hip	1
Kidney Stones	1
Migraines	1
Neurological	1
Orthopedic	1
Pregnancy	5
Psychological	7
Grand Total	**49**

Percentages by Department

	#of EEs	# on FMLA	% of FTE	% by FMLA	% by Dep
Advanced	135	11	2.45%	22.45%	8.15%
Basics	130	9	2.00%	18.37%	6.92%
Business Intelligence - Deployment, QI, Scheduler	4	1	0.22%	2.04%	25.00%
Business Office	29	13	2.90%	26.53%	44.83%
Communications	35	8	1.78%	16.33%	22.86%
Controller - Payroll, A/P, Purchasing	4	1	0.22%	2.04%	25.00%
Mobile Integrated Health	15	1	0.22%	2.04%	6.67%
Office of the Medical Director	10	1	0.22%	2.04%	10.00%
Support Services - Facilities, Fleet, S.E., Logistics, S.E., Logistics	41	4	0.89%	8.16%	9.76%
Grand Totals	**403**	**49**			

Total # of Full Time Employees - February 2018 **449**

MedStar Mobile Health Care Separation Statistics - February 2018

	Current Month			Year to Date			Compared to Feb '17		Headcount
	Vol	Invol	Total	Vol	Invol	Total	Feb '17	%inc/dec	February
Full Time Separations	3	0	3	17	9	26	16	62.5%	449
Part Time Separations	3	0	3	7	0	7	8	-12.5%	61
Total Separations	6	0	6	24	9	33	24	37.5%	510

	Full Time	Part Time	Total	Full Time	Part Time	Total
Total Turnover %	0.67%	4.92%	1.18%	5.79%	11.48%	6.47%

Separations by Departmen

Full time

	Current Month			Year to Date			Headcount
	Vol	Invol	Total	Vol	Invol	Total	18-Feb
Administration							1
Advanced	1	0	1	5	0	5	135
Basics	2	0	2	5	4	9	130
Business Intelligence - Deployment, QI, Scheduler							4
Business Office				0	2	2	29
Communications				1	1	2	35
Compliance							1
Controller - Payroll, Purchasing, A/P							4
Customer Integration							1
Executives							6
Field Manager/Supervisors - Operations							10
Human Resources				1	0	1	6
Information Technology							5
Medical Records							2
Mobile Integrated Health Department							15
MTAC - MedStar Training Academy							12
Office of the Medical Director							10
Risk and Safety							2
Support Services - Facilities, Fleet, S.E., Logistics	0		0	5	2	7	41
Total	3	0	3	17	9	26	449

Part Time

	Current Month			Year to Date			Headcount
	Vol	Invol	Total	Vol	Invol	Total	18-Feb
Advanced	2	0	2	3	0	3	30
Basics				2	0	2	21
Business Intelligence - Deployment, QI, Scheduler							
Business Office							
Communications	1	0	1	1	0	1	3
Compliance							
Controller - Payroll, Purchasing, A/P							
Customer Integration							
Deployment							
Directors							
Field Manager/Supervisors							
Fleet							
Human Resources				1	0	1	2
Information Technology							
Medical Records							
Mobile Integrated Health Department							1
MTAC - MedStar Training Academy							
Office of the Medical Director							
Risk and Safety							
Support Services - Facilities, Fleet, S.E., Logistics							4
Total	3	0	3	7	0	7	61

LIGHT DUTY for Fiscal Year 2017-2018													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Goal
Hours/Mo	151:32	47:55	329:08	350:49	340:49	0:00	0:00	0:00	0:00	0:00	0:00	0:00	
FY 2017	151:32	199:27	528:35	879:24	1220:13	1220:13	1220:13	1220:13	1220:13	1220:13	1220:13	1220:13	3846:39
FY 2016	101:47	190:15	510:11	950:15	1153:25	1459:51	2019:41	2284:10	2539:01	3208:28	3778:03	4274:04	

GOAL: Reduce number of lost hours due to job-related injuries by 10%

Worker's Comp LOA for Fiscal Year 2017-2018													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Goal
Hours/Mo	0:00	12:00	24:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	
FY 2017	0:00	12:00	36:00	36:00	36:00	36:00	36:00	36:00	36:00	36:00	36:00	36:00	1125:51
FY 2016	192:00	233:45	358:22	401:38	490:08	510:29	678:46	917:57	1097:57	1145:57	1181:57	1250:57	

GOAL: Reduce number of lost hours due to job-related injuries by 10%

FMLA LOA for Fiscal Year 2017-2018													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	AVG
Hours/Mo	1300:38	1470:57	1455:45	1628:26	1200:40	0:00	0:00	0:00	0:00	0:00	0:00	0:00	705:38
FY 2017	1300:38	2771:35	4227:20	5855:46	7056:26	7056:26	7056:26	7056:26	7056:26	7056:26	7056:26	7056:26	
FY 2016	954:44	1667:45	2150:28	2709:24	3277:17	3922:35	4392:34	4937:28	5492:41	6282:42	7564:55	8673:49	722:49

Military Leave for Fiscal Year 2017-2018*													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	AVG
Hours/Mo	85:58	110:07	84:00	108:00	132:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	52:00
FY 2017	85:58	196:05	280:05	388:05	520:05	520:05	520:05	520:05	520:05	520:05	520:05	520:05	

*Unfilled shifts only

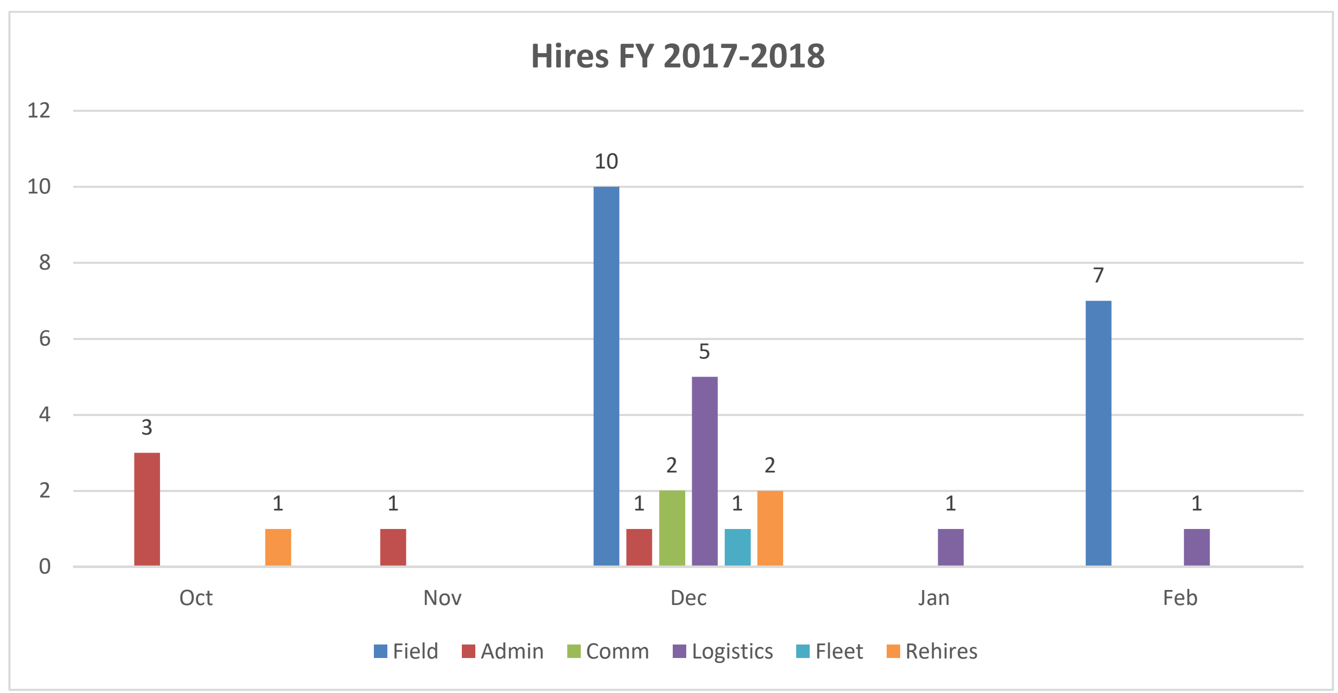
Total Leave Hours													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	AVG
Hours/Mo	1538:08	1640:59	1892:53	2087:15	1673:29	0:00	0:00	0:00	0:00	0:00	0:00	0:00	883:16
FY 2017	1538:08	3179:07	5072:00	7159:15	8832:44	8832:44	8832:44	8832:44	8832:44	8832:44	8832:44	8832:44	

	Goals and Projection				
	Light Duty	Worker's Comp	FMLA	Military	Total
YTD	1220:13	36:00	7056:26	520:05	8832:44
Projection	***2928:31***	***216:00***	***16935:26***	***1248:12***	21328:09
Goal-Compare	3846:39	1125:51	8673:49	1757:24	15403:43

736:03 (shifts)

Recruiting & Staffing Report

FY 2017-2018



Fiscal Year Separations
FY 2017-2018

35
83%
6
17%
Hires
Terms

Fiscal Year Statistics
Total hires to date 35
Total separations from hires 6:

1 – Dissatisfied with Job
1 - Attendance
1- Job Abandonment
1 – Falsified application
1- Krum FD
1- Conduct - Outside of Protocol

Hired Employee Referral Source
FY 2017-2018

Source	Count
Rehires	2
Employment Agency	
Other (EMS Conference/WalkIn/Etc)	1
Other Website (Indeed/Facebook/Etc)	4
MedStar Website	15
Employee Referral	10
College	2
MedStar EMT School	1

0 2 4 6 8 10 12 14 16

Applicant Rejection Reasons
FY 2017-2018

AXIS TITLE

350 300 250 200 150 100 50 0

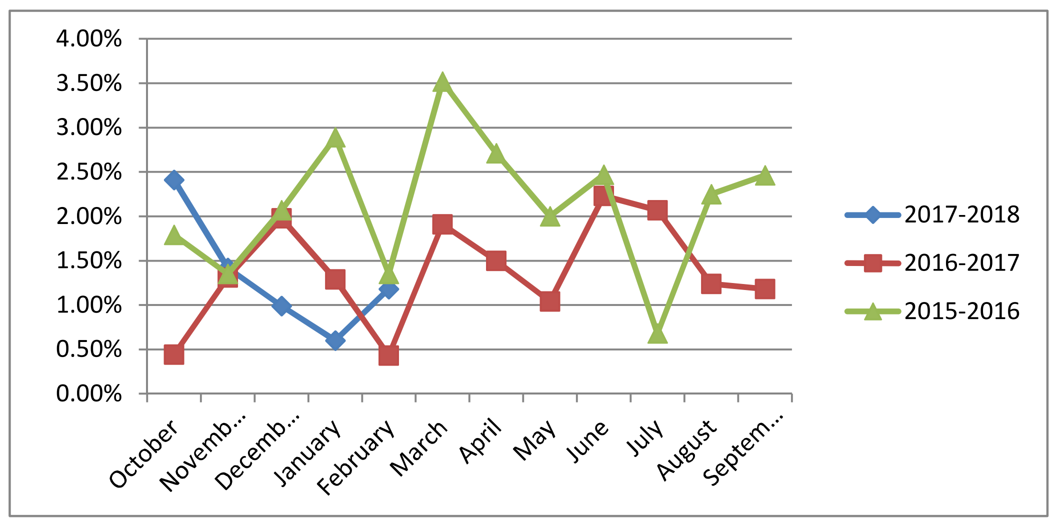
	Schedule	Low assessment / Interview score	No offer post intv	More qualified candidates/ Does not meet/Hard Stop	Unable to contact / App incom/NCNS	Dupl App / Misc / Other	Background / Empl Ver / MVR	Declined / Withdrawn	Previous EE uneligible
#	2	44	21	279	300	23	2	20	7

TOTAL APPLICATIONS REJECTED - 909

TOTAL APPLICATIONS REVIEWED - 917

MedStar Mobile Healthcare Turnover
Fiscal Year 2017-2018

	Monthly Turnover By Fiscal Year		
	2017-2018	2016-2017	2015-2016
October	2.41%	0.44%	1.79%
November	1.42%	1.31%	1.35%
December	0.99%	1.98%	2.07%
January	0.60%	1.29%	2.89%
February	1.18%	0.43%	1.35%
March		1.91%	3.52%
April		1.50%	2.71%
May		1.04%	2.00%
June		2.23%	2.47%
July		2.07%	0.68%
August		1.24%	2.25%
September		1.18%	2.46%
Projected	15.840%	16.620%	25.540%



Tab E – FRAB

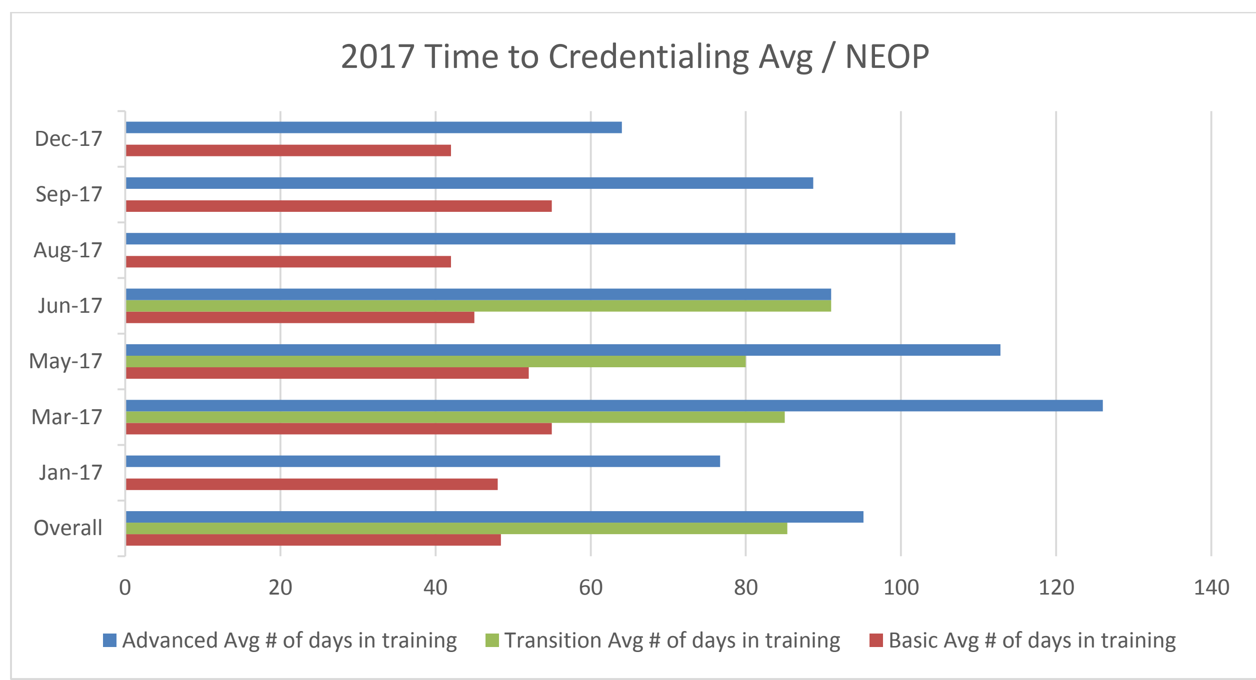
Tab F – OMD

Medical Director's Report

Education and Training

- Education
  - OMD Quarterly CE completed
    - Focus on resuscitation management
  -

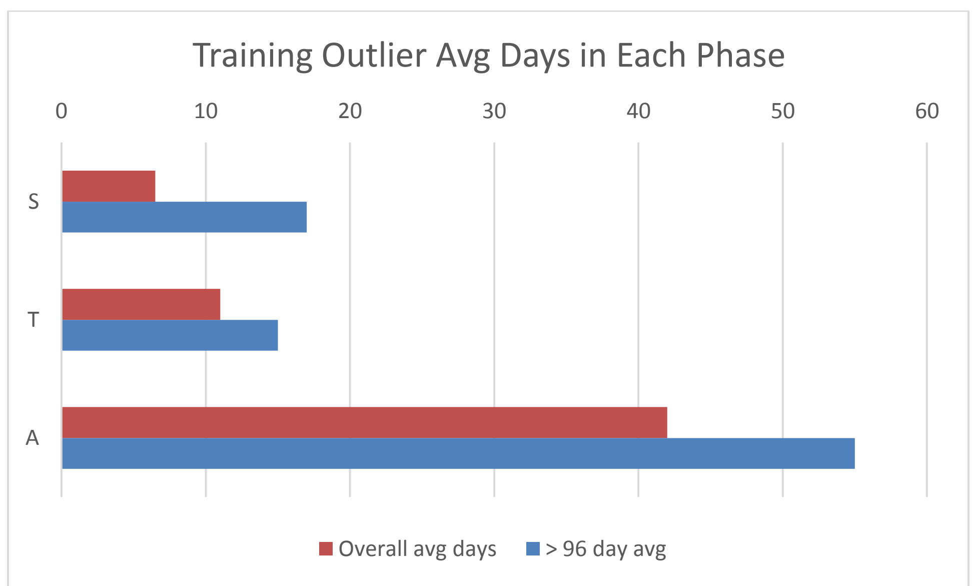
Credentialing



- 2017 Credentialing
  - Advanced Credentialing 2017
    - 45 candidates
    - 31 credentialed
    - 3 in training (as of Feb 1, 2018)
    - 6 failure to progress – Basic credential
    - 5 Separation
    - Avg 96 days to credential
  - Advanced Upgrade Credentialing 2017
    - 15 candidates
    - 9 credentialed
    - 5 failure to progress – Basic credential
    - Avg 70 days to credential

- Basic Credentialing 2017
  - 60 candidates
  - 36 credentialed
  - 1 in training (as of Feb 1, 2018)
  - 1 failure to progress – Moved to Logistics
  - 2 Separation
  - Avg 50 days to credential

- 2017 Credentialing Outlier (> average of 96 days)
  - 17 candidates
  - Range 99-141 days
  - Protocol exam – 12 / 17 > 1 attempt
    - Contributes an additional 7-10 days to training
  - Avg days in each phase

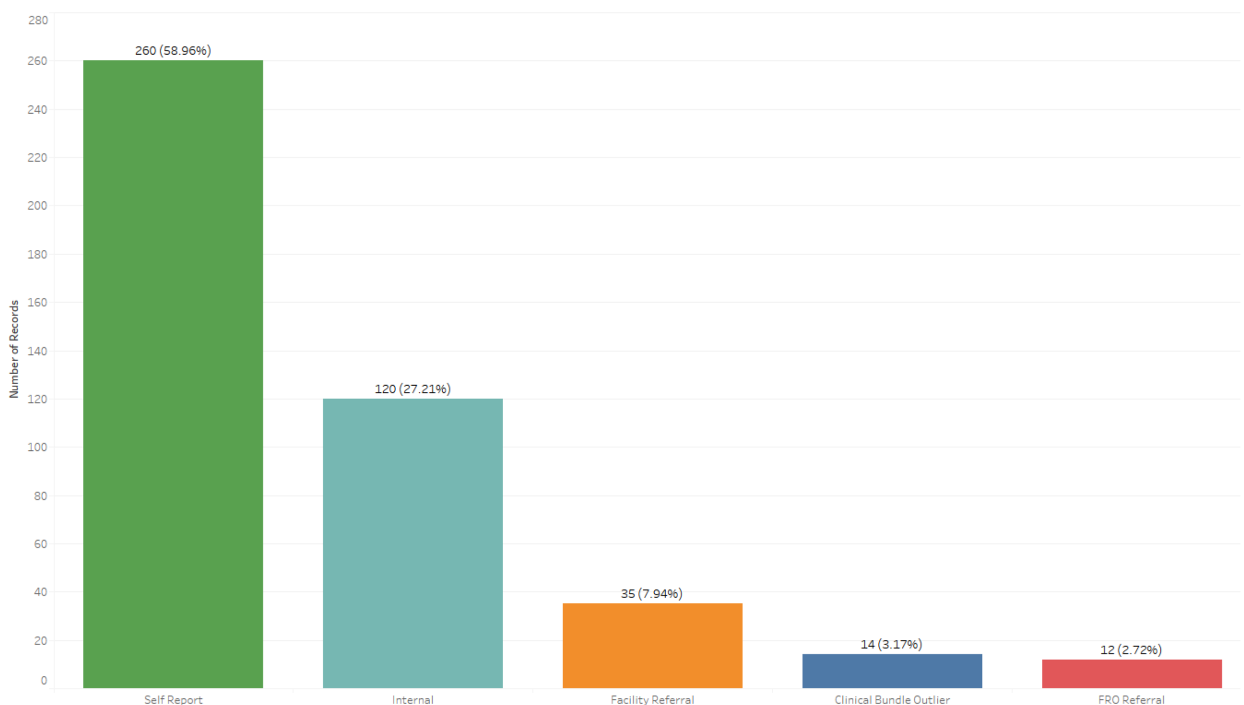


    - From EMT to Paramedic with no experience
    - Limited 911 experience (low volume and / or volunteer service)
    - No primary 911 experience (transfer service only)
    - Hospital experience only
  - Credentialed 17 / 17

- 2017 Credentialing Recidivism
  - 6 pulled from training, credentialed as Basic
    - 2 placed back into training
      - Both pulled
  - 6 remain Basic credentialed
    - 2 currently in FTOs

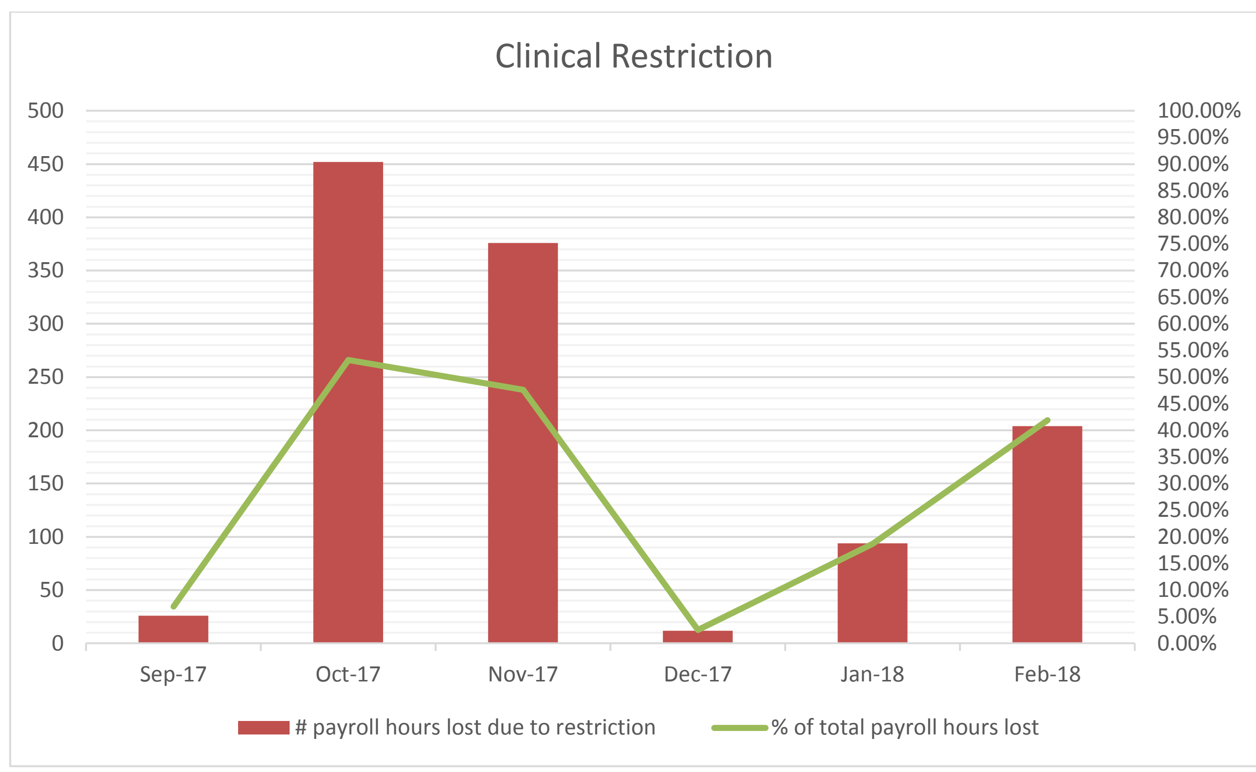
QA

- Sentinel Event Review: February
    - Cases
        - High Priority
        - Moderate Priority
        - Low Priority
    - Disposition
        - Coaching/Education Provided at Case Review
        - Clinical Improvement Plan's Implemented
        - No Fault
        - Cases Forwarded to external QA
    - QA referral source



- System Improvement Topics
    - EtCO2 usage (BVM, CPAP, Advanced Airway)
    - Cardiac arrest management
    - Spinal Motion Restriction protocol
    - AMA/RAS Protocol
    - Advanced airway management

- Clinical Restriction Impact



Month	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18
Number of providers restricted	4	10	4	1	7	6

- Primary reason for extended time in restriction center around patient assessment in airway management and management of the patient with declining clinical course.

Research

- PART study results set to be presented at the Society for Academic Emergency Medicine conference in May 2018. MedStar was recognized as the highest enrolling agency.
- Citation

10.1161/CIRCULATIONAHA.117.033067

Time to Epinephrine Administration and Survival from Non-Shockable Out-of-Hospital Cardiac Arrest Among Children and Adults

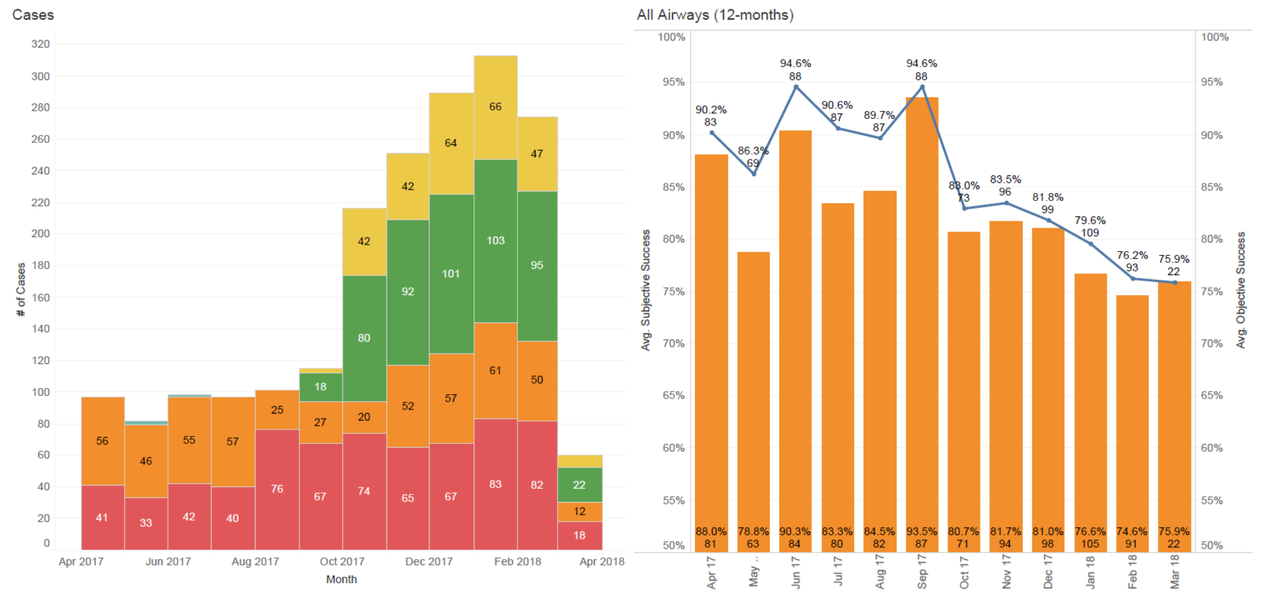
Running Title: *Hansen et al.; Time to Epinephrine OHCA*

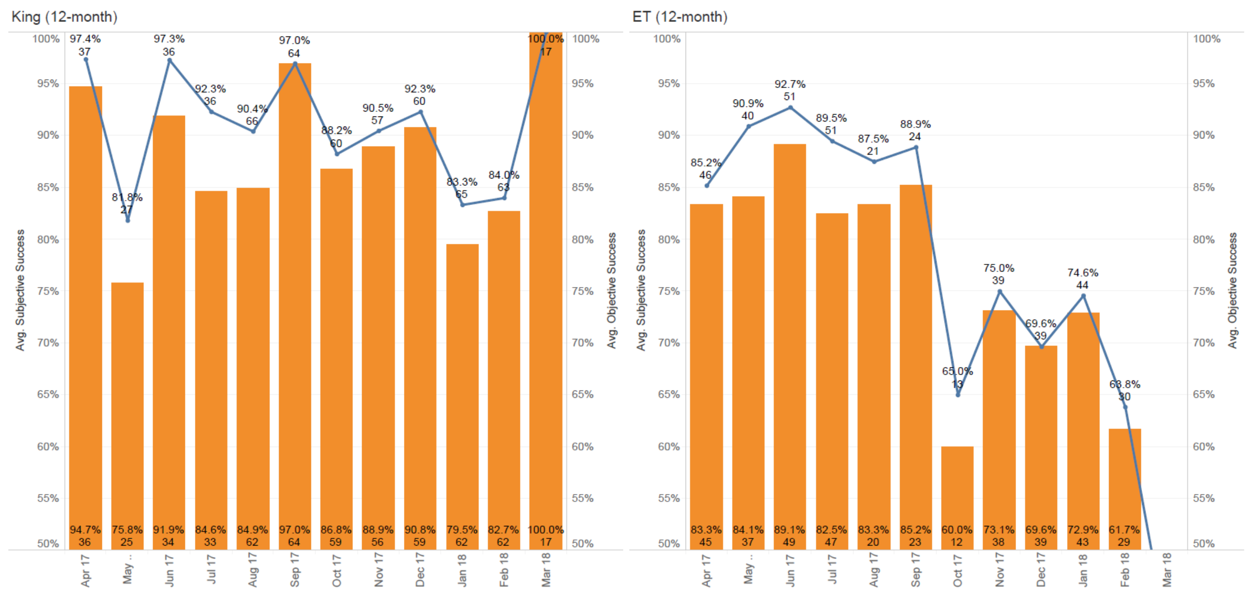
Matthew Hansen, MD, MCR[1]; Robert H. Schmicker, MS[2]; Craig D. Newgard, MD, MPH[1]; Brian Grunau, MD, MHSc[3]; Frank Scheuermeyer, MD, MHSc[4]; Sheldon Cheskes, MD[5]; Veer Vithalani, MD[6]; Fuad Alnaji, MD, FRCPC[7]; Thomas Rea, MD, MPH[8]; Ahamed H. Idris, MD[9]; Heather Herren, RN, MPH[2]; Jamie Hutchison, MD[10]; Mike Austin, MD[11]; Debra Egan, MPH[12]; Mohamud Daya, MD, MS[1]; For the Resuscitation Outcomes Consortium Investigators

System Diagnostics

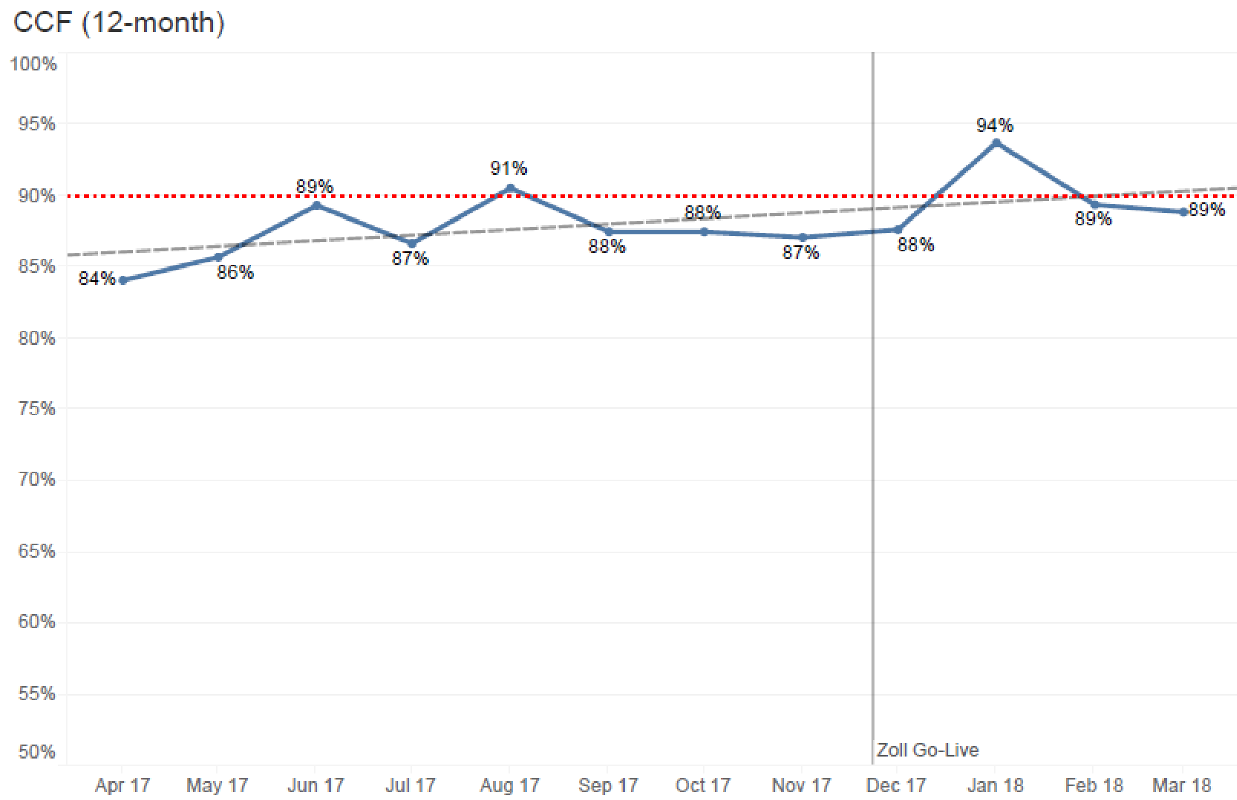
- First Pass bundles of care report
    - STEMI
    - Stroke
    - SMR
- Airway Report
- Resuscitation Metrics
- CARES Report - pending validation of 2017 data

Airway Report

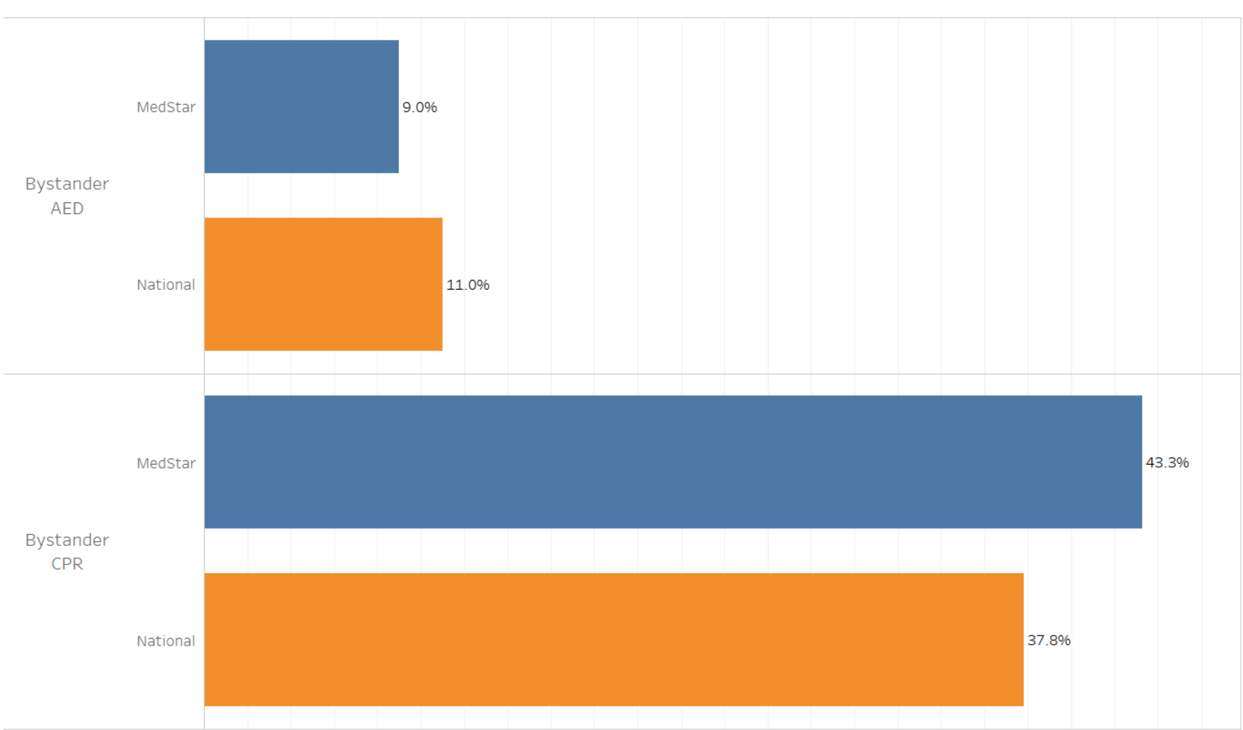




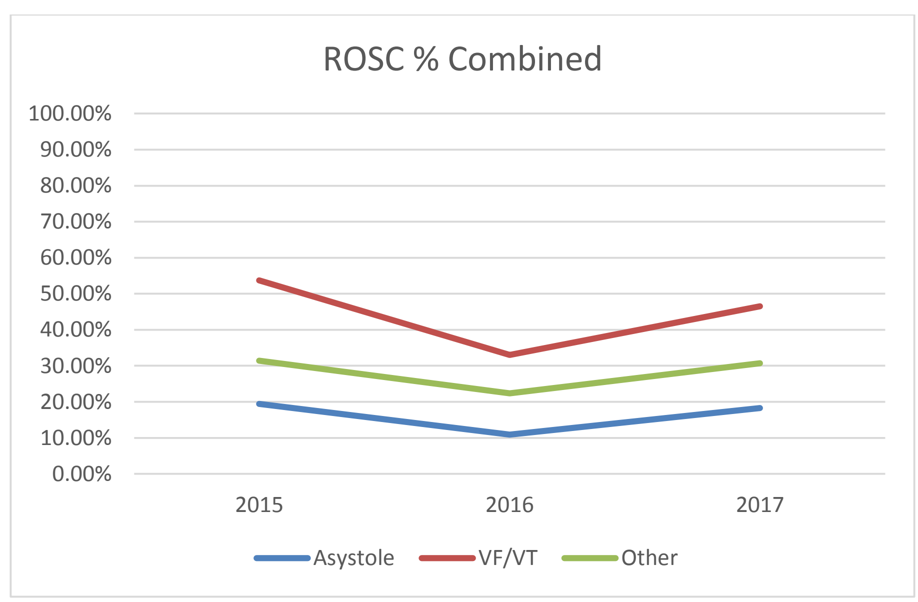
Resuscitation Metrics



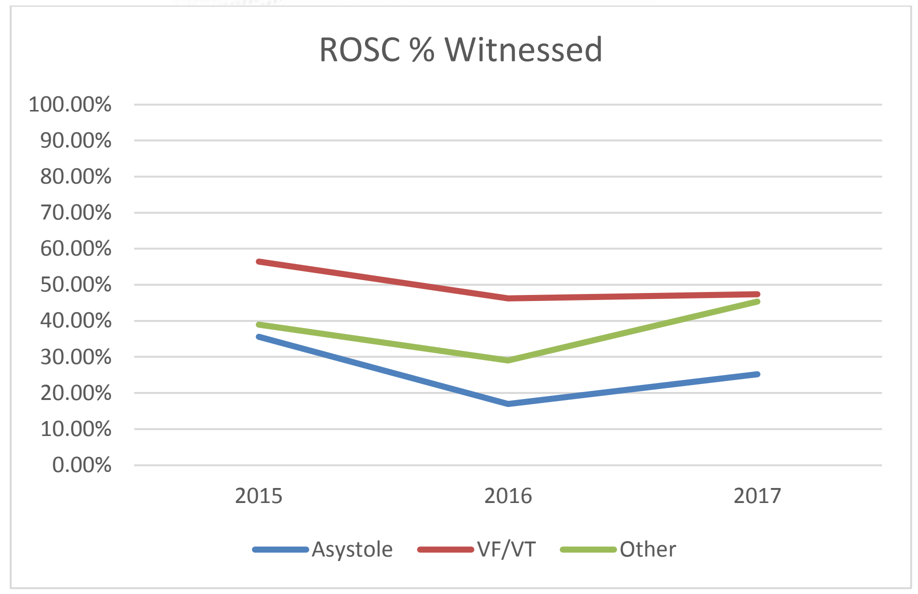
- Bystander CPR and AED utilization

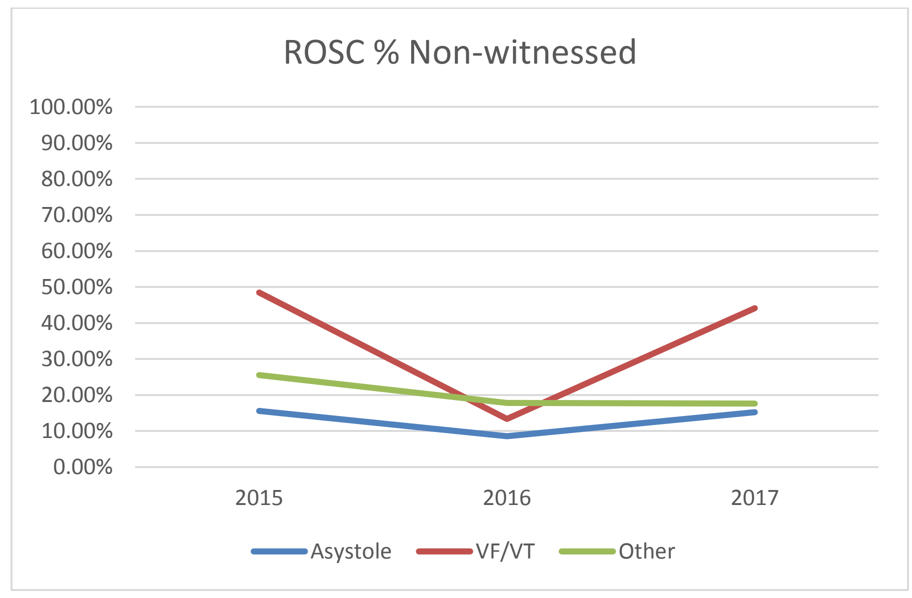


- ROSC rate by initial rhythm and whether witnessed or non-witnessed



OFFICE OF THE
MEDICAL DIRECTOR
EMERGENCY PHYSICIANS ADVISORY BOARD


ROSC % Witnessed
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
2015
2016
2017
Asystole
VF/VT
Other


ROSC % Non-witnessed
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
2015
2016
2017
Asystole
VF/VT
Other

Tab G – Chief Compliance Officer/Legal

March 21st, 2018
Compliance Officer's Report
February 19th, 2018 to March 20th, 2018

Compliance Officer Duties

- Three narcotic anomalies processed
- Submitted employee provider roster changes to DSHS
- Permitting Process for outside agencies - Met with five member cities

Paralegal Duties

- FRO agreements – 11 member cities have returned executed agreements
- 17 DFPS reports processed
- 5 Pre-trial meetings held with the District Attorney's office
- 4 Criminal court witness appearances
- 3 Law Enforcement agency interviews
- 8 Subpoena(s) for witness appearance processed
- Created and reviewed multiple contractual agreements with GC

Chad Carr
Compliance Officer
Paralegal – Office of General Counsel
CACO, CAPO, CRC, EMT-P

Tab H – Chief Strategic Integration Officer

Strategic Integration Summary

March 2018

3rd Party Payer Alternate Payment Models

- Projects still in the Works
  - One commercial capitated PMPM – **EXECUTED**!
    - Interventions: Nurse Triage, HUG enrollments and Ambulance Transport Alternatives
      - Implementation 4/1/18
      - Meeting weekly on operationalization plans
      - Contract executed – awaiting counter execution from payer
      - Data transfer process completed
      - CCP alternate destination referral process nearly completed for pilot
  - One Medicaid Managed Care capitated PMPM
    - Met with them on 1/18 to discuss the program more fully
    - Updated claims data being analyzed
    - Agreement being reviewed by both parties

MAEMSA Special Event and Ambulance Permitting Process

- Compliance and Legal, working with OMD and other departments formalized the permitting and credentialing process
  - Published on-line
  - Notifications sent to all Member Jurisdictions
  - 2 area face to face briefings conducted
    - Awaiting scheduling of 2 additional
  - 1st organization going through the process

Dispatch and Billing Symposium

- Hosted a national symposium for innovations in dispatch and billing
  - Partnership with Logis
- 51 attendees registered
  - EMS agencies, hospitals, payers, EMS billing agencies

Paid Consulting Activity

- Covenant Health System (Lubbock)
  - Request by them to conduct a state licensure renewal and CAAS readiness assessment
  - Operations and Executive Team conducting the project
- Abaris Group
  - Sonoma County (CA) ambulance RFP development (May '18)
    - Assisting with community assessment for quality measures and MIH programs
  - Alternate Payment Model webinar (May '18)
- Center for Public Safety Management (division of ICMA)
  - Charlevoiux, MI project to help community develop options for EMS program

Speaking Engagements:

Event	Date	Location	Attendees
NAEMT EMS Transformation Summit	April '18	Washington, DC	~300
Nat. Org. of State Offices of Rural Health	April '18	Tucson, AZ	~300
Zoll Summit	May '18	Denver, CO	~500
MidWest EMS Expo	May '18	LaCrosse, WI	~1,000
IAFC Fire/Rescue Med	June '18	Henderson, NV	~1,000
Pinnacle EMS	July '18	Phoenix, AZ	~1,000

Media:

Local –

- Influenza Like Illness – prevention, disinfection and response volume – numerous stories and mentions weekly
    - FOX 4
    - NBC 5
    - ABC 8
    - CBS 11
    - Star-Telegram
    - KRLD
    - KLIF/WBAP
    - Dallas Morning News

- Fort Worth Business Press
    - Highlight in Smart City technology use

National –

- EMS Innovation
    - EMS World Magazine
- Alternate payment models for EMS
    - Journal of Emergency Medical Services

Mobile Integrated Healthcare Report

Planning an MIH/CP training course

- Attendees planned from MedStar, Burleson Fire, Dallas Fire and Eagle Mountain Fire
- Anticipated in Spring 2018

February Stats -

Hospice:

Community Hospice: 1 active

- 1 9-1-1 calls

Vitas: 20 active

- 4 9-1-1 call

Holy Savior: 15 active

- 1 9-1-1 encounter

Home Health:

Klarus: 191 active

- 20 total 9-1-1 calls w/CCP on scene
- 2 in-home, scheduled visits

Healthmasters: 18 active

- 0 total 9-1-1 calls
- 2 in-home, scheduled visit

Readmission Avoidance Enrollments:

- JPS: 12
- THR Alliance: 10
- THRFW: 8
- Silverback: 4

High Utilizer:

- UTSW NAIP: 4

Palliative Care, Silverback:

- 3 active

9-1-1 Nurse Triage:

- 144 total calls
- 21 Lyft/cab transportations
- 6 Private vehicle

Published article for the Nonprofit Financial Fund, Investing in Results: Can Paramedics Help to Achieve the Triple Aim?
http://investinresults.org/story/can-paramedics-help-achieve-triple-aim

Education and Community Programs Report

- TCC MedStar paramedic class has finished the first semester with 100% pass rate.
- January 2018 EMT class started with 18 students. Two students have dropped for personal reasons, one student was unsuccessful in the course. Completion date is April 12, 2018.
  - Next EMT classes planned for summer and fall 2018.
- Three high school EMT courses should finish at the end of May 2018.
  - Byron Nelson and VR Eaton with NWISD and Weatherford High School EMT started February 5, 2018.
- Hands only CPR and AED taught to 220 High School students with Everman ISD on March 7th & 8th, 2018.
- Stop the Bleed Course taught to approximately 50 Weatherford ISD & Aledo ISD HOSA students March 9th, 2018.
- In 2017, the MedStar Training Academy hosted 983 students.
  - This is an increase from 668 in 2016.

StarSaver Membership Report:

Membership New / Renewal Comparison								
New Households	**2016**	**Cumulative**	**2017**	**Cumulative**	**% Change**	**2018**	**Cumulative**	**% Change**
January	35	35	37	37	5.7%	38	38	2.7%
February	58	93	32	69	-25.8%	41	79	14.5%
March	51	144	48	117	-18.8%	21	100	-14.5%
April	40	184	68	185	0.5%	0	100	-45.9%
May	48	232	44	229	-1.3%	0	100	-56.3%
June	24	256	40	269	5.1%	0	100	-62.8%
July	22	278	29	298	7.2%	0	100	-66.4%
August	36	314	22	320	1.9%	0	100	-68.8%
September	42	356	38	358	0.6%	0	100	-72.1%
October	53	409	38	396	-3.2%	0	100	-74.7%
November	32	441	43	439	-0.5%	0	100	-77.2%
December	9	450	19	458	1.8%	0	100	-78.2%
Total New Member Households	450		458			100		
Renewing Households	**2016**	**Cumulative**	**2017**	**Cumulative**	**% Change**	**2018**	**Cumulative**	**% Change**
January	454	454	344	344	-24.2%	347	347	0.9%
February	306	760	117	461	-39.3%	546	893	93.7%
March	192	952	78	539	-43.4%	40	933	73.1%
April	1137	2089	788	1327	-36.5%	0	933	-29.7%
May	910	2999	1493	2820	-6.0%	0	933	-66.9%
June	354	3353	521	3341	-0.4%	0	933	-72.1%
July	357	3710	172	3513	-5.3%	0	933	-73.4%
August	335	4045	437	3950	-2.3%	0	933	-76.4%
September	326	4371	163	4113	-5.9%	0	933	-77.3%
October	192	4563	220	4333	-5.0%	0	933	-78.5%
November	165	4728	145	4478	-5.3%	0	933	-79.2%
December	126	4854	249	4727	-2.6%	0	933	-80.3%
Total Renewing Households	4854		4727			933		
Total Member Households	**5304**		**5185**			**1033**		

Visit us online at EMSWorld.com

FEBRUARY 2018 | VOL. 47, NO. 2 $7.00

EMSWORLD®

Charting the future of EMS

STROKE SCANS ON THE STREET

Specialized Units Provide Mobile CT Capabilities
Page 22

Spotlight: Next-level STEMI Care
Page 28

PLUS

How to Handle Service Animals
Page 32

Bringing Narcan to the Community
Page 44

EMSWORLD EXPO #EMSWorldExpo OCTOBER 29-NOVEMBER 2 | NASHVILLE, TN EMSWorldExpo.com

AN HMP PUBLICATION

Structured for Results: Building the PIE Project

Diverse groups of stakeholders informed every step of the process

By Matt Zavadsky, MS-HSA, NREMT

NAEMT Serving our nation's EMS practitioners

Over the next year EMS World, in conjunction with the National Association of EMTs, will provide detailed implementation strategies for key recommendations of the Promoting Innovation in EMS (PIE) project (www.EMSInnovations.org). The PIE project utilized broad stakeholder involvement over four years to identify and develop guidance to overcome common barriers to innovation at the local and state levels, and foster development of new, innovative models of healthcare delivery within EMS. Each month we will focus on one recommendation and highlight the document's actionable strategies to continue the EMS transformation. Find the series introduction at www.emsworld.com/article/219575.

Last month's inaugural article on the Promoting Innovation in EMS project provided a 30,000-foot view of the effort from the perspective of Dr. Kevin Munjal, one of its principal investigators. With that orientation, over the next several months we will dive more deeply into how the report was generated, the major recommendations it contains, and what work should be undertaken to help bring them to fruition.

Munjal mentioned that members of the PIE team came up with 290 recommendations for promoting EMS innovation. In this column we'll explore who was involved in that and the process they used.

The Right People

The EMS profession hasn't always been known for its effectiveness in collaborating with external stakeholder groups. Let's be honest: We can even have a difficult time collaborating with some of our internal stakeholders. However, the PIE project leaders knew the key to success in identifying meaningful recommendations for eliminating barriers to EMS innovation was broad stakeholder representation. They successfully engaged those who would become pivotal to the project. Let's look at the list of the organizations, people, and roles they served on the PIE project.

Internal Stakeholders

Stakeholder group: Private providers
Organization: American Ambulance Association
Representative/role: Aarron Reinert, NREMT-P, treasurer, AAA; executive director, Lakes Region EMS, North Branch, Minn.

Stakeholder group: EMS practitioners
Organization: NAEMT
Representative/role: Jason White, MPA, EMS consultant, Mid-America Regional Council

Stakeholder group: EMS regulators
Organization: National Association of State EMS Officials
Representative/role: Tom Nehring, division director, North Dakota Department of Health, Division of EMS and Trauma

Stakeholder group: Emergency physicians
Organization: American College of Emergency Physicians
Representative/role: Jeff Beeson, DO, RN, EMT-P, medical director, Acadian Ambulance of Texas; ACEP EMS Committee; NAEMSP board; Harry J. Monroe, Jr., director, chapter and state relations, ACEP

Stakeholder group: Emergency nurses
Organization: Emergency Nurses Association
Representative/role: Mary Alice Vanhoy, MSN, RN, NREMT-P, nurse manager, Shore Emergency Center, Queenstown, Md.

Stakeholder group: Fire chiefs
Organization: International Association of Fire Chiefs
Representative/role: John Sinclair, board of directors, second VP, IAFC; chief, Kittitas Valley Fire and Rescue; emergency manager, Ellensburg, Wash.

Stakeholder group: Fire-based EMS
Organization: International Association of Fire Fighters
Representative/role: Lori Moore, DrPH, MPH, EMT-P, assistant to the general president

Stakeholder group: Public health
Organization: National Association of County and City Health Officials
Representative/role: Jeffrey Elder, MD, director/medical director, New Orleans EMS

Stakeholder group: EMS medical directors
Organization: National Association of EMS Physicians
Representative/role: Brent Myers, MD, president, NAEMSP

Stakeholder group: Volunteer/small providers
Organization: National Volunteer Fire Council
Representative/role: Ed Mund, director at large, EMS/Rescue Section, NVFC

Stakeholder group: Home health
Organization: Visiting Nurses Associations of America
Representative/role: Tracey Moorhead, MA, president and CEO, VNAA

External stakeholders/experts

Representative: Katrina Altenhofen, MPH
Affiliation: State director, EMS for Children, Iowa Department of Public Health; NEMSAC
Role/expertise: EMS-C, NEMSAC

Representative: David Cone, MD
Affiliation: Professor of emergency medicine, Yale University; chief, EMS section; director, EMS fellowship
Role/expertise: EMS education, fellowships

Representative: Mike Edgeworth, MD
Affiliation: Medical director, Cigna-Healthspring; teleneurologist, HCA
Role/expertise: Payer

Representative: David Emanuel
Affiliation: CEO and cofounder, Medlert
Role/expertise: Technology solutions

Representative: Lance Gable, JD
Affiliation: Associate dean of academic affairs, Wayne State University School of Law
Role/expertise: EMS legal issues

Representative: Jay Goldman, MD
Affiliation: Medical director for EMS/ambulance, Kaiser Permanente
Role/expertise: Payer

Representative: Sharon Henry, MBA
Affiliation: President, Evolution Health, West Region
Role/expertise: EMS innovation

Representative: Doug Kupas, MD
Affiliation: Associate chief academic officer, Geisinger Health System; Council of Medical Directors, NASEMSO; NAEMSP
Role/expertise: IDN, EMS innovation

Representative: Baxter Larmon, PhD, MICP
Affiliation: Adjunct professor, emergency medicine, David Geffen School of Medicine at UCLA; founding director, Prehospital Care Research Forum; NAEMSE
Role/expertise: Research, EMS education

Representative: Chris Montera
Affiliation: Assistant CEO/chief of clinical services, Eagle County Paramedic Services, Colo.
Role/expertise: EMS innovation, rural EMS

Representative: Todd Olmstead, PhD
Affiliation: Associate professor of public affairs, Lyndon B. Johnson School of Public Affairs, University of Texas; James M. and Claudia U. Richter Fellow in Global Health Policy
Role/expertise: Research, healthcare policy

Representative: Lainie Rutkow, PhD, JD, MPH
Affiliation: Associate professor, Johns Hopkins Bloomberg School of Public Health
Role/expertise: Healthcare law, policy

Representative: Scott Somers, PhD
Affiliation: Former vice mayor, Mesa, Ariz.; professor of practice, Arizona State University College of Public Service; senior fellow, Center for Cyber and Homeland Security, George Washington University
Role/expertise: Local public policy

Representative: Brenda Staffan
Affiliation: Project director, CMMI, Regional EMS Authority, Reno, Nev.
Role/expertise: EMS innovation

Representative: Dan Swayze, DrPH, MBA, MEMS
Affiliation: Vice president, COO, Center for Emergency Medicine of Western Pennsylvania, Inc.
Role/expertise: EMS innovation

Representative: Jonathan Washko, MBA, NREMT-P
Affiliation: Assistant vice president, Center for EMS, SkyHealth, Northwell Health
Role/expertise: EMS innovation

Representative: David Williams, PhD
Affiliation: Executive director, Institute for Healthcare Improvement
Role/expertise: Healthcare improvement science

Representative: Gary Wingrove, EMT-P
Affiliation: Director of government relations and strategic affairs, Gold Cross/Mayo Clinic Medical Transport; founder and president, The Paramedic Foundation
Role/expertise: EMS innovation

Representative: Matt Zavadsky, MS-HSA, NREMT
Affiliation: Chief strategic integration officer, MedStar Mobile Healthcare; president-elect, NAEMT
Role/expertise: EMS innovation

The Right Environment

The PIE project created an environment for collaborative input into the process. Leaders held regional meetings in California and New York and a national steering committee meeting in Washington, D.C. (strategically held at the Kaiser Family Foundation offices). At each regional meeting live, interactive webinar platforms were also facilitated. These venues and web platforms made it easier for people from different areas of the country to either physically attend the meetings or participate from wherever they were.

Report drafts and revisions were shared on the PIE website, and invitations for public comment were solicited through e-mail and social media. This created a rich database of feedback with hundreds of comments received from EMS and other interested parties.

The Right Process

To kick off the process, project leaders distributed a robust online survey to solicit input on barriers to EMS innovation from EMS and important partner organizations such as hospitals, payers, home health, integrated delivery networks, independent physician practices, and community health workers. The project team also reached out to key healthcare industry leaders and interviewed them for their unique topical insights:

- Dr. Eric Beck, Evolution Health
- Teresa Lee, Alliance for Home Health Quality and Innovation
- Erin Denholm, Trinity Health Home Services, Robert Wood Johnson Nurse Executive Fellow
- Elizabeth Madigan, Independence Foundation professor in nursing education, Frances Payne Bolton School of Nursing
- Lainie Rutkow, associate professor of health policy and management, Johns Hopkins Bloomberg School of Public Health; assistant director, Johns Hopkins Center for Law and the Public's Health
- Dr. Robert Rosati, vice president of data and quality, chair, Connected Health Institute

Once the main themes were identified, committees for each theme were seated; these consisted of topical subject matter experts. For example, the Interdisciplinary Collaboration section included the following stakeholders: John Brennan, St. Barnabas Medical Center; David Emanuel, Medlert; Jay Goldman, Kaiser Permanente; Lori Moore, International Association of Fire Fighters; Tracey Moorhead, Visiting Nurses Associations of America; Scott Somers, ASU College of Public Service; Brenda Staffan, REMSA; Mary Alice Vanhoy, Shore Emergency Center; Jason White, EMS consultant; Matt Zavadsky, MedStar.

After nearly a year of work, each committee chair presented their recommendations at the national steering committee meeting in Washington, D.C. Each recommendation was voted on electronically to either support, support with modification, or not support for inclusion in the report.

Each recommendation was broken down by a specific "actor." "Actors" are the targeted groups that should take action on each recommendation. In the report, actors for the recommendations include local and state EMS agencies, national EMS associations, hospitals, health systems, and health insurers.

Finally, to assure ample input into the report, the final draft was publicly published with the opportunity for anyone to electronically submit comments and feedback. Once the comment period closed, the individual committees reviewed comments related to their sections and made appropriate adjustments to the recommendations.

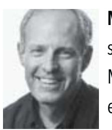
Conclusion

This project was a monumental undertaking, but it's already generating results. For example, the home health profession has invited EMS representatives to present MIH program models at national home care conferences, and home care leaders have participated as presenters at national EMS conferences to better define the value of EMS and home health collaboration.

Similarly, payer relationships developed through the PIE project have led to invitations for EMS leaders to present at national payer meetings and payer reps to speak at EMS conferences about their perspectives on the value of EMS to the payer community.

In our next column we'll begin unpacking the themes from the report and the process being used to prioritize implementation guidance for the top recommendations.

ABOUT THE AUTHOR



Matt Zavadsky, MS-HSA, NREMT, is chief strategic integration officer at MedStar Mobile Healthcare, the exclusive emergency and nonemergency EMS/MIH provider for Fort Worth and 14 other cities in North Texas.

IMAGETREND CONTINUUM®

Show Pin Mode

Bring Your World of Data Closer.

See Continuum in person at:

EMS TODAY The JEMS Conference & Exposition

Booth #711

1-888-469-7789 • sales@imagetrend.com

Get Started Today.
www.ImageTrend.com/Closer

IMAGETREND®

For More Information Circle 19 on Reader Service Card

Smart Cities: Technology is changing, well, almost everything

Paul K. Harral

Mar 2, 2018

FORT WORTH BUSINESS PRESS

http://www.fortworthbusiness.com/news/briefs/smart-cities-technology-is-changing-well-almost-everything/article_7ec0d0d2-1e60-11e8-8f33-6bd2bb55a350.html

People have been talking about harnessing the power of big data to make cities more efficient and user-friendly since the 1990s. But the real expansion of the effort had to wait on a new technology.

"The movement that kicked off all this in earnest is the release of the original smart phones back in probably about 2008 or so," says Steven Duong, associate vice president of design and planning at AECOM.

Duong was speaking as part of a panel on The Future of Smart Cities in America at the recent Ninth Annual Northeast Tarrant Transportation Summit.

He introduced a term that some may find unfamiliar – Internet of Things – and said that the smart phone "served as the best IOT device in the world."

"The idea is that lots of different devices around your everyday life connect to the internet and [are] sending data back to the cloud that allows some central database, in this case probably artificial intelligence (AI), to harness that data and make better decisions," he said.

Smart Cities started in the information technology sector but in the last five years or so it has moved into transportation, housing and other general construction industries, Duong said.

Implications of the change are stunning, from self-driving cars to the end of private ownership of cars to precise city planning that doesn't guess how people want to live, work and play, but knows what they want.

Putting aside the privacy issues, the devices in people's cars and the devices they carry with them and use in their homes have resulted in an explosion of data. Duong noted that 90 percent of the world's data was created in the last two years and that 80 percent of the world's data today is unstructured.

"When I say unstructured data, I mean that this is information that is being created that hasn't yet been harnessed in a controlled fashion that we can apply in a very specific manner," he said. And one way to do that is through artificial intelligence.

"And when I say artificial intelligence, I don't actually mean things like the Alexa that might be in your home," Duong said.

He means powerful computers and programs that can learn from their own experience.

The implications for the transportation system for rapidly growing states like Texas are enormous, said Kristi Chin, director of civic innovation for the Texas Innovation Alliance.

“The population of Texas is expected to double by the year 2050. How do we manage that growth? And how do we anticipate the changes that are happening at a pace where it’s difficult for us in the public sector to constantly keep up when we [do] business in the same way that we always have,” Chin said.

The Texas Innovation Alliance works with the Texas Department of Transportation, the agency charged by the Legislature with developing the Texas Technology Task Force as a way to anticipate the trends on the population side as well as on the technology side.

Most people think of congestion and traffic jams on streets and highways when they think about transportation problems.

“I’d like to ask for us to take a step back from that,” Chin said. “One of the things that we’re ultimately trying to solve is, ‘How do we help get people to jobs? How do we help those who … maybe don’t own a car? How do we provide them reliable transportation to be able to get to the places they need to?’”

An example is MedStar in Fort Worth, where the dispatch system learns from experience and combines a number of sources of information to direct ambulances to where they are supposed to be.

“You have the pre-call, which is analyzing data on where calls have come from by hour of day, day of week, which then tells us where to position ambulances for the next hour,” said Matt Zavadsky, chief strategic integration officer for MedStar Mobile Healthcare.

Taking it to the next level, when a 911 call comes in, even before it is answered, the system automatically uses geolocating to select and notify the closest ambulance to that incoming call, he said, and sends the most efficient route to the ambulance’s navigation computer.

The choice of closest ambulance is not based on distance but on time, using historical drive times and current traffic information from the traffic sensors that MedStar taps into, Zavadsky said.

TRANSFORMATIONAL

Stephen Coulston, managing principal in the Austin office of architecture firm Perkins+Will, said his company believes that design has the power to transform people and the planet for the better.

One way is technology, mobility and people, and technology, cities and people.

“We’re in Texas, so I guess we can talk about horses tied to the hitching rails, but at the end of the day it really comes down to how we typically acquired mobility in the past was … mostly through single ownership, whether we owned our own horse, or we owned our own car,” he said. “But technology in the world around us today has really transformed how we get around, right?”

In the future, a traveler can ask on a smart phone for the best choice for getting from here to there, and integrated technology might say by bicycle because of a train derailment or some other problem.

Coulston said that in the Greater Los Angeles area, people spend on average 104 hours a year in traffic congestion and the Southern California Association of Governments (SCAG) is trying to attack that problem.

“We decided let’s take a look in collaboration and in partnership with Perkins and Will and [transit consulting firm] Nelson/Nygaard and with Lyft to think about how design could have an influence on changing that environment in the future,” Coulston said.

They took one of the most congested cities in the country and one of the most congested intersections in that city – the intersection of Wilshire Boulevard and Veterans Avenue in Los Angeles, about six miles from the beach, just around the corner from Beverly Hills and near the University of California, Los Angeles.

The analysis put about 30,000 people going through that intersection in an hour, he said.

Lyft was interested in studying its Lyft Line, which provides ride sharing for passengers going the same direction, a carpool-like solution to reduce single-occupancy vehicle trips.

Coulston said that in Los Angeles, about 70 percent of the trips are by a single occupant and SCAG's goal was to reduce that by half in the Greater Los Angeles are by 2035. The companies decided to see whether they could develop a design that would focus on community, people and public gathering places and allow for alternative forms of transportation.

What happened, he said, is that they did that and also doubled the number of people able to pass through the Wilshire-Veterans intersection in an hour.

"So then we ended up with not only better opportunities for decreasing traffic, but we actually ended up designing better places for people," Coulston said. "But this must happen in public-private partnerships as we race for the technology and the infrastructure to be put in place."

FORT WORTH

Fort Worth's chief technology officer/IT solutions director, Kevin Gunn, says one thrust of the Smart Cities effort is to do more with less. Growth puts a lot of stress on city budgets because the infrastructure has to go in before there are returns on that investment. The constant repair to older systems adds to the pressure.

"We need to find the efficiencies within the organization to be able to meet those demands of growth and maintaining our current infrastructure without having to raise tax rates, without having to raise utility fees and those sorts of things.

"So we're leaning more on working smarter and not harder. I think that's kind of where the Smart City moniker comes from: working smarter," Gunn said. "We're using data more now than ever to be analyzing, and turning raw data into information, and turning information into things that can support management decisions. And so we're making better, wiser decisions about how to invest our limited resources based on Smart City-type efforts."

Gunn said there are many efficiencies to be gained by using smart technology – automating things, using sensors that collect information and send it back to City Hall to be processed in an automated way that doesn't take people.

"That's kind of freeing up those people then to do higher-level, more value-added things," he said. "That is kind of key to our strategy – finding ways to do those tasks that we have to do that kind of feed into our operations and into the machinery and how we keep this city running, but do it in a way that doesn't require a lot of labor and is more automated."

Gunn says the Smart Cities concept is evolving.

"The first round was really aimed at efficiencies, getting machines to do things that people used to do. I think Fort Worth is pretty far along in those," he said, citing the city's parking meter app that increases efficiency for the customer and makes collecting parking fees more efficient as well.

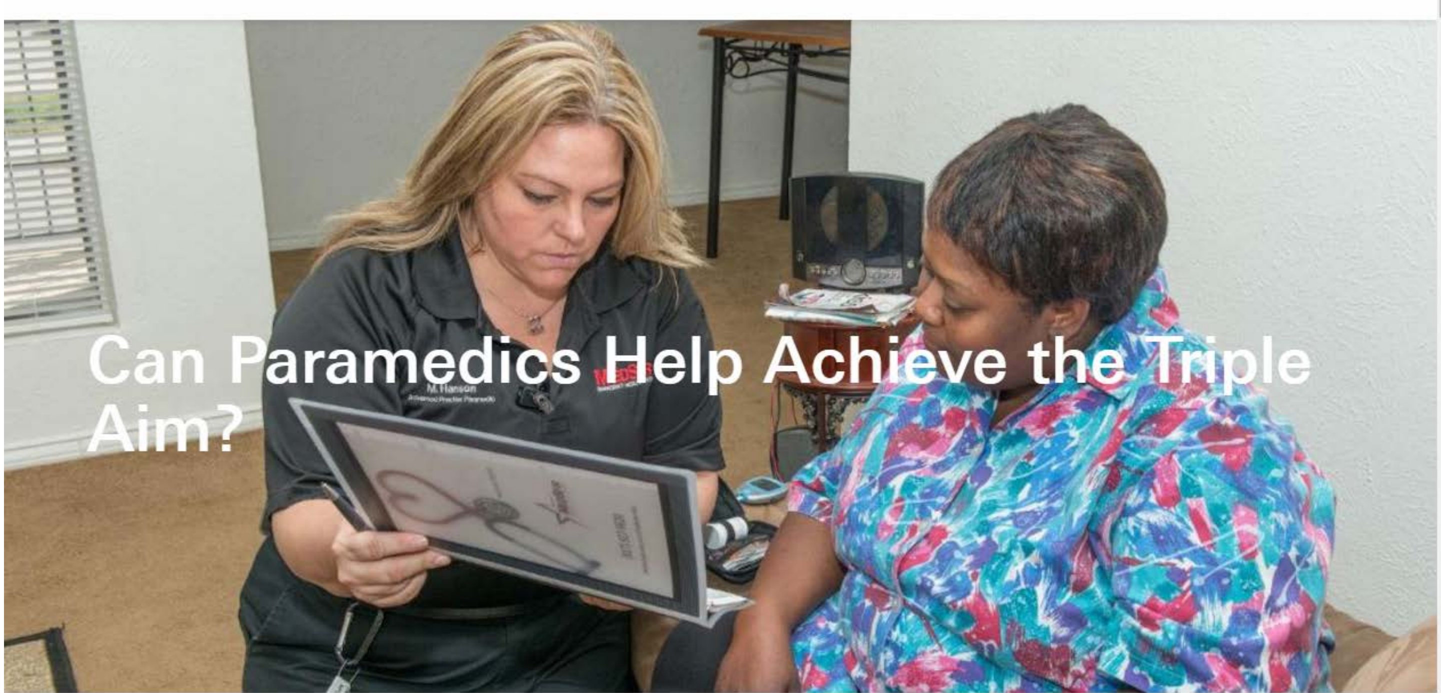
The next level is collecting raw information and processing it to support management decisions. Under City Manager David Cooke, that's been an emphasis, Gunn said.

The third evolution is integrating both private and public agencies and interested parties, and the city is reaching out to those groups, individuals and organizations, he said.

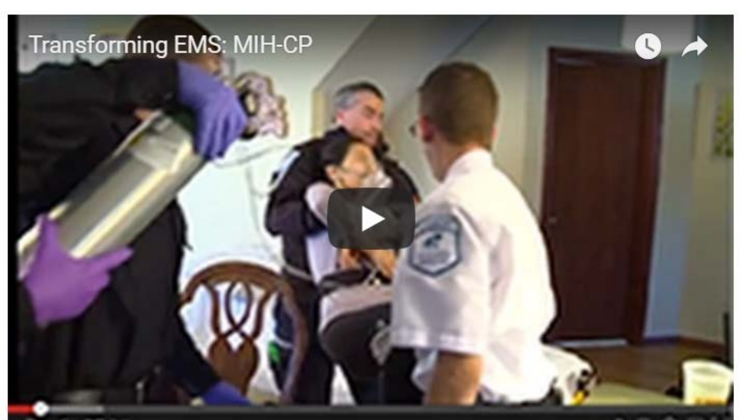
The press toward ever more sophisticated data collection and analyses and the resulting efficiencies that can come from it is only increasing with the population

Coulston notes that there are 10 U.S. cities with more than a million people and three are in Texas: Dallas, Houston and San Antonio. Fort Worth soon will be one as well.

“We have eight of the top 20 largest cities in the country in Texas and we’re continuing pretty exponential growth,” he said.



http://investinresults.org/story/can-paramedics-help-achieve-triple-aim



High performance health systems of the future have been challenged to create integrated approaches that focus on improving the health of populations, improving the patient experience of care from a quality and satisfaction perspective, and reducing the per capita cost of healthcare.

This concept, known as the "Triple Aim," was first established by the Institute for Healthcare Improvement who launched initiatives in 2007 to bring the concept into action. Many health systems today have adopted strategic goals that are aligned with the Triple Aim in order to optimize system performance.

Why the big push to improve health system performance? According to the Institute of Medicine, it is estimated that 30% of total healthcare spending - approximately $765 billion dollars - goes to unnecessary, wasteful, and ineffective services. One of many reasons emergency medical services contribute to those expenses is that EMS is the safety net provider for the general population, who has been taught to call 9-1-1 because they panic, they are instructed by their professional care takers, or because it is the only most appropriate action. Paramedics have a duty to respond to these calls and provide an assessment, intervention, and transport recommendation. When these services occur, the patient is billed and most ambulance services *hope* to then get paid. MedStar Mobile Healthcare, a governmental ambulance agency, is the exclusive provider for emergency and non-emergency services in Fort Worth and 14 surrounding cities in Texas. Averaging approximately 140,000 responses annually, the MedStar system receives a variety of requests, approximately 30% of which require an emergency (lights and sirens) response. A few high frequency users often account for a disproportionate share of 9-1-1 calls and emergency department (ED) visits, many of which were for unnecessary care and represent staff, time, and resources that could have been directed to patients who truly needed services. For example, in 2008, the same 21 individual patients were transported to local emergency rooms over 2,000 times by MedStar, resulting in $962,429 in ambulance charges. A majority of these bills remain uncollected.

What if MedStar could direct these patients to a destination other than the ER for non-emergency medical conditions, and reduce unnecessary spending in the process?

In 2009, MedStar created Mobile Integrated Healthcare (MIH), consisting of programs that took a different approach to patient care by collaborating with various stakeholders in the community to provide care using the *right* resource, at the *right* time, for the *right* patient, at the *right* cost, to ensure the *right* outcome. MIH serves to fill gaps in patient care and navigate patients to the most appropriate resources using a patient-centric approach.

Readmission Avoidance Program

Over the years, MIH has developed and implemented several collaborative partnerships and programs that work toward successfully navigating patients through the healthcare system. In Fort Worth, these strategic partnerships have been made with local hospitals, home health, hospice, and care management agencies. For hospitals and care management agencies, patients who are at risk for a 30-day admission or readmission are referred to the MIH program by the patient's case manager, social worker or PCP to reduce the unfavorable outcomes and high financial costs associated with a readmission. Hospitals see the cost associated with enrolling patients in to the MIH programs trivial in comparison to the potential costs and penalties seen with a readmission and the main reason why they are paying for the partnership.

Home Health Program

Through an innovative partnership with local home health agencies, MedStar and the agencies collaborate to provide after-hours and episodic care for home health patients in the event of a 9-1-1 call. Working together, the agency staff and specialty trained paramedics determine the most appropriate care for the patient. Since MedStar has the ability to track 9-1-1 calls made by home health patients, send a specialized paramedic, and work with the agency for the most appropriate care management solution, home health agencies are then able to set themselves apart from the competition by enhancing their service delivery. The agency pays MedStar a fee-for-service or capitated rate.

Hospice Revocation Avoidance Program

MedStar was approached by several hospice providers in the Fort Worth area to help try and reduce the incidence of revocation for patients on home hospice, leading to the creation of the Hospice Revocation Avoidance program. Enrollment and disenrollment in hospice is frequently an emotionally taxing process for all involved, including EMS and hospital personnel. Hospice agencies can accurately predict patients who are at-risk of dis-enrolling in hospice services due to a perceived emergency by calling 9-1-1. These events often occur during a moment of panic in the dying process and may be precipitated by family members who may not agree with the care plan of the patient. In partnership with hospice agencies, MedStar will enroll high-risk revocation patients in to the MIH program. These patients are identified at the time of their 9-1-1 call and a specialized paramedic is deployed to the scene. The paramedic will then work with the hospice agency to coordinate care that is in-line with the patient's hospice care plan with the overall goal of reducing a revocation from the program. Payment is set up such that MedStar will receive an outcome-based fee (i.e. if revocation is avoided and the patient remains at home), a per patient, per month fee, or capitated rate.

High Utilization Program

The paramedics will also conduct scheduled, proactive visits in the patient's home for the high frequency and readmission avoidance patient population. During home visits, the paramedic provides a medical and environmental assessment, ensures that the patient is taking their prescribed medications, has transportation resources, is following up with their PCP, and provides education on disease management and diet. The paramedics will develop individual care plans or reinforce previous plans to ensure the length of time in the program is meaningful for both the patient and the provider. Patients are given specific goals that relate to their health and graduate from the program once those goals have been met. If a patient has identified gaps in their care related to transportation, the organization has a partnership with Lyft and will set up rides to and from doctor's appointments with the goal that by the end of enrollment, the patient will have the resources in place to arrange transportation on their own.

Measuring Success

Evaluating MIH program success is captured in several ways. For the High Utilization program, a comparison of ambulance, emergency room, and admission costs for enrolled patients based on utilization 12 months prior to enrollment versus 12 months post program graduation is analyzed. Since July 2009, MIH has reduced ambulance transports to the ED for 535 patients with 1-year pre- and post- enrollment data by 5,009 (59.7%). It has also reduced ED visits in this patient population by 2,395 and prevented 462 hospital admissions. This reduction has saved $9.27 million in healthcare expenditures for ambulance, ED, and admissions.

For the Readmission Avoidance program that began in 2013, 295 patients who had a 30-day readmission and the referring agency felt would have a readmission have been referred in to the program. Of those, only 140 had a 30-day readmission, a 52.5% reduction in readmissions for this high-risk readmission cohort.

MedStar also conducts both external satisfaction surveys and health status surveys on all patients who have completed the High Utilization and Readmission Avoidance program. The satisfaction surveys evaluate the paramedics, quality of care, patient's understanding of instructions, compassion, and overall satisfaction with the program. The health status surveys assess the patient's perception of their mobility, self-care, usual activities, pain, anxiety or depression, and overall health status. For patients in the High Utilization program where pre- and post- surveys were conducted, there was a 39% improvement in overall health status. For patients in the Readmission Avoidance program, there was a 29.5% improvement in overall health status. Paramedics play a vital role in improving outcomes by filling gaps in the healthcare system, whether it's providing care for patients who don't otherwise qualify for services (like home health or rehabilitation) after a hospital admission or assisting in care coordination for a hospice patient during the time of a 9-1-1 call. MIH provides integrated post-acute care, chronic care, and prevention services on a 24-hour a day basis and is quickly becoming the wave of the future for EMS providers. The days of "you call, we haul" are a distant memory in EMS as MIH continues transform care delivery through strategic partnerships and innovative programs that work to improve population health, enhance care, and reduce costs.

Desiree Partain *is the clinical program manager at MedStar Mobile Healthcare in Fort Worth, TX. She is a critical care paramedic with 13 years' experience in EMS and five years as a mobile healthcare practitioner at MedStar. MedStar was named the 2013 Paid EMS System of the Year by NAEMT and EMS World. Its MIH-CP program is profiled in the AHRQ's Healthcare Innovation Exchange.*

Sources

"The IHI Triple Aim," *Institute for Healthcare Improvement*, www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx.

Institute of Medicine. *Interim Report of the Committee on Geographic Variation in Health Care Spending and Promotion of High-Value Care: Preliminary Committee Observations*. Washington, DC: The National Academies Press, 2013. https://doi.org/10.17226/18308.

"MedStar Mobile Healthcare," *MedStar Mobile Healthcare | Serving Fort Worth, TX & Surrounding Communities*, www.medstar911.org/.

News and Winning Strategies for EMS Leaders

TURNING THE CORNER

New economic models are changing the face of EMS delivery

By Matt Zavadsky, MS-HSA, NREMT, Chris Cebollero, & Jay Moore, MD

It's taken more than 20 years, but it seems EMS has finally turned the corner on the vision imagined by the authors of the preamble for the EMS Agenda for the Future, written more than 20 years ago. They predicted a future where EMS is key to "community-based health management that is fully integrated with the overall health care system."[1]

Although the authors note that EMS remains the public's emergency medical safety net, EMS agencies would also have the "ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to the treatment of chronic conditions and community health monitoring."[1]

Thanks to the hard work of innovative EMS agencies—large and small, public and private—and key industry associations like NAEMT, NAEMSP, ACEP and the IAFC, healthcare payers have begun to see the true value EMS brings to the table.

A representative pivot point to this realization occurred on Dec. 13, 2017, when *JEMS* hosted the first EMS webcast sponsored by a commercial payer, Anthem Blue Cross and Blue Shield.

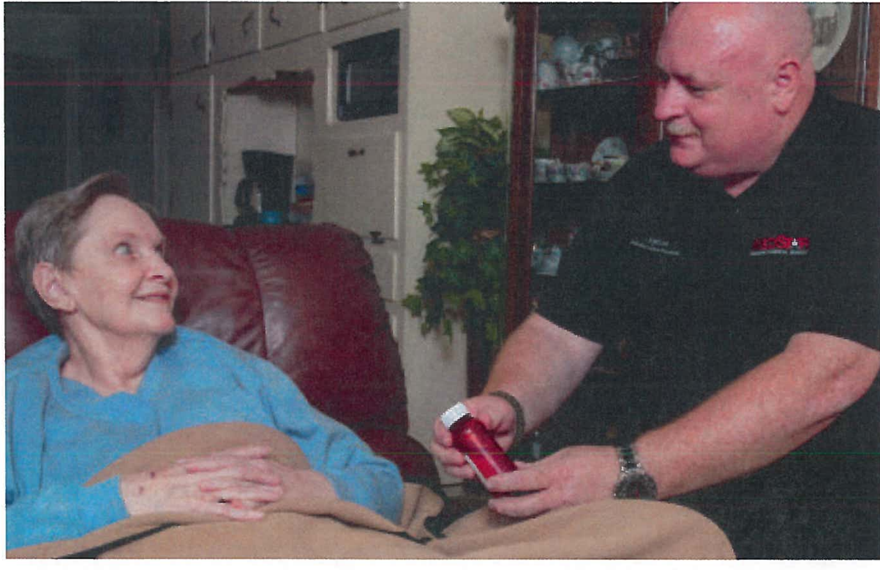
Not surprisingly, the title was "New Payment Models for EMS," and was facilitated by Jay Moore, MD, from Anthem, Chris Cebollero from Cebollero and Associates, and Matt Zavadsky, MS-HSA, NREMT, from MedStar Mobile Healthcare.

The webcast came on the heels of the October 2017 announcement that Anthem would begin paying EMS agencies for healthcare common procedure coding system (HCPCS) code A0998: Ambulance response and treatment, without transport.

This code has existed for years, but because the 1965 Medicare statute includes ambulance *transportation* as a covered benefit, Medicare and most other payers, generally don't cover an ambulance response that doesn't result in a transport.

The webcast covered not only the strategy being implemented by Anthem, but the reasons for the decision, and a discussion on the regulatory changes that may (or may not) need to happen to implement this revolutionary new EMS payment model.

After 60 minutes of presentation and a question and answer session, there were several questions left unanswered, so the presenters offered to publish the answers to some of the most commonly asked questions in EMS Insider.



Anthem believes that if we de-couple payment from transport, it allows EMS personnel to help patients make informed, patient-centered medical care decisions based on clinical need. Photos courtesy Matt Zavadsky

Why is Anthem doing this?

Jay: For 40 years, payers have incentivized EMS to use the "you call, we haul" method of EMS services by only paying for the transport. Many of the patients assessed and treated by EMS don't need care in an ED.

A recent analysis by ACEP revealed that 17% of the patients brought to an ED are brought there by EMS, and 61% of these patients are treated and released from the ED.

Many patients can be more appropriately treated in alternate, more patient-centered settings like urgent care or primary care.

Anthem believes that if we de-couple payment from transport, it allows EMS personnel to help patients make informed, patient-centered medical care decisions based on clinical need—without having to rely on transport to an ED as the basis for payment.

We believe that you should be paid for the care you deliver, not whether or not you transport someone to an ED.

How did Anthem determine the reimbursement rate for A0998?

Chris: Anthem will reimburse EMS at 75% of the state average of the allowed payment for all ambulance trips.[2]

Let's use Missouri as an example: The state average allowed amount for an ambulance trip is $688—that includes ALS, BLS, emergency and non-emergency. Seventy-five percent of $688 is $516.08, the amount allowed for the A0998 payment.

This basis considers regional variations, such as the geographic practice cost index that Centers for Medicare and Medicaid Services (CMS) uses for the ambulance fee schedule. It costs more to provide EMS service in California vs. Mississippi, and this methodology accounts for those variations.

Are regulatory changes needed for an EMS agency to do this?

Matt: As with most transformational things in EMS, it depends. Generally, patients have the right to refuse transport to an ED, but EMS is typically not reimbursed for the refusal against medical advice (AMA). Under this model, you can bill A0998 and get paid.

Many EMS agencies have protocols that don't allow the EMS provider to initiate the conversation about alternate destinations for a 9-1-1 patient, and some states have regulations about this as well. Historically, this is because the transport economic model didn't encourage EMS agencies, medical directors or regulators to do anything different.

In this model, we can offer options to patients who meet clinical eligibility guidelines as established by the medical director. This may require some regulatory and statutory changes.

How will patient safety and quality be assured?

Jay: EMS agencies should have already established patient safety and quality metrics for patients who are treated and not transported.

For example, if a patient AMAs, do you end up responding to the same patient within 24 hours for a related complaint? Did the patient have any other adverse outcome as a result of the AMA?

In this new payment model, we would expect the EMS agency and the medical director to expand that quality assessment process.

If the patient was referred to an urgent care or primary care center, did the patient end up at an ED within six hours? Was there any other adverse outcome?

We're encouraged by the group of EMS innovators working on national outcome measures for ambulance transport alternatives, and we anxiously await the release of the measures they develop regarding patient safety and quality.

Can these payment models be used by other payers?

Chris: Most certainly! Anthem is breaking the mold for EMS reimbursement by taking this comprehensive approach across the 14 states where they operate, but we anticipate other payers to follow suit.

In fact, more than 10 years ago Medicare began paying for cardiac arrest patients who are treated and pronounced dead on scene.

Conventional wisdom tells us this was adopted by Medicare to avoid the incentive for EMS transport to an ED—and CMS incurring the ED expense—for a patient who had no chance of survival.

One of the most innovative payers in the country, Medicaid, has begun reimbursing for mobile integrated healthcare (MIH) services in states such as Minnesota, Nevada and Idaho. Any payer who recognizes the value of this type of model can reimburse for it.

For more information, visit JEMS.com/rs and enter 4 .

Are there other economic models being tested by commercial payers?

Matt: Yes. In addition to the models mentioned already, MedStar is implementing a model with another commercial payer, and a managed Medicaid payer, to pay a capitated, per member, per month (PMPM) fixed rate for their members in our service area. The PMPM covers traditional ambulance and MIH services.

This allows us to use all our MIH strategies (9-1-1 nurse triage, community paramedicine and ambulance transport alternatives) to help navigate patients to the most appropriate healthcare resource based on their clinical need—not based on whether or not we transport them to an ED.

Additionally, a managed Medicare payer is working with us to implement a regional MIH program to manage high utilizer members in their network. That model will pay MedStar a monthly fee for each high utilizer enrolled in the program.

How can we learn more about how to approach payers in our community about changing the EMS economic model?

Matt: First, keep reading *JEMS* and EMS Insider for updates. The National Association of EMTs has developed numerous resources to help the EMS transformation.

Their website (www.naemt.org) has an EMS 3.0 resource section that contains value statements for discussions with commercial payers, accountable care organizations (ACOs), hospitals, home health agencies and other stakeholders. The NAEMT will also be hosting their next EMS 3.0 Transformation summit on April 10, 2018, in Washington, D.C., as part of the EMS on the Hill Day. JEMS

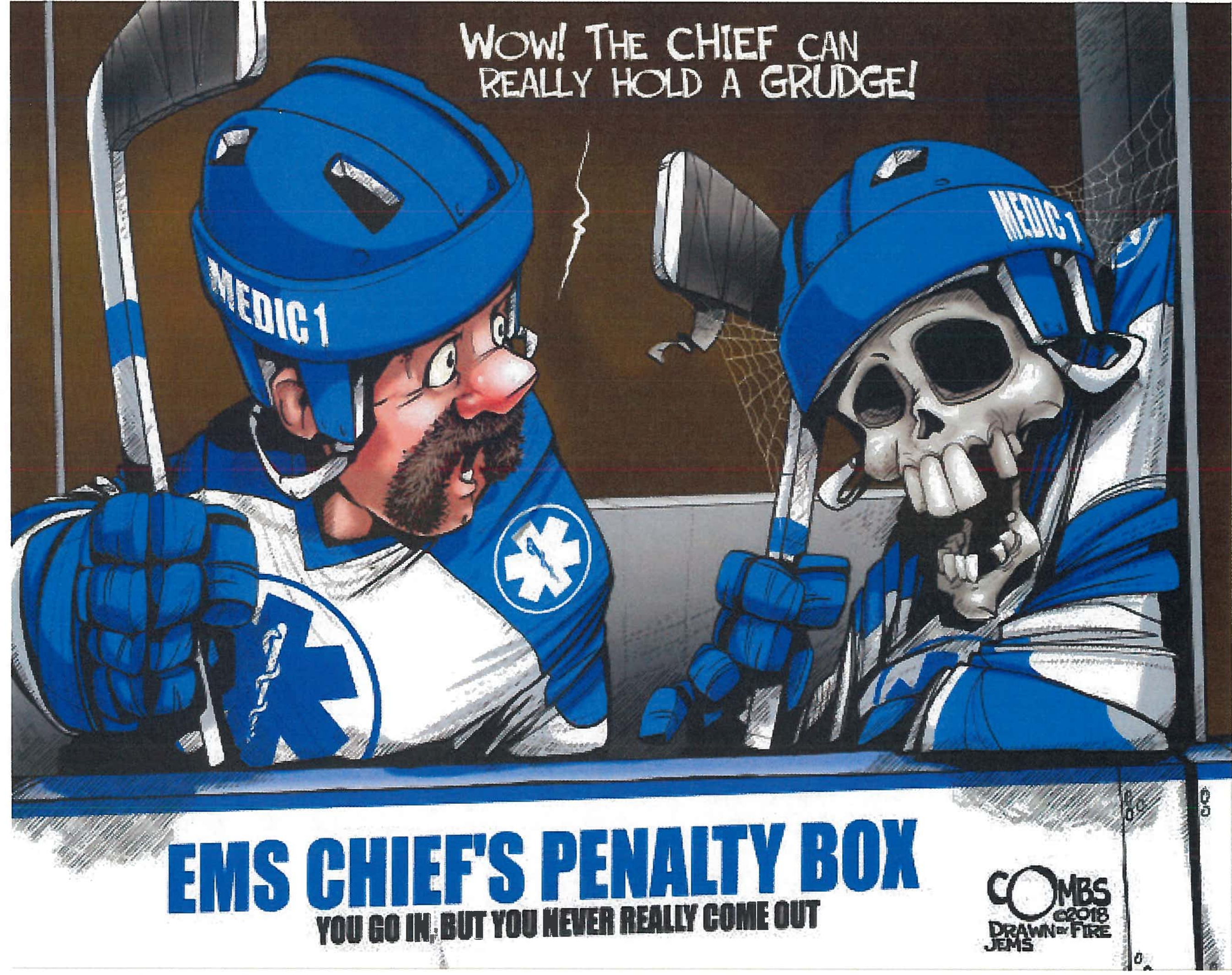
REFERENCES

1. National Highway Traffic Safety Administration. (1996.) Emergency medical services agenda for the future. *National Highway Traffic Safety Administration.* Retrieved Jan. 23, 2018, from https://one.nhtsa.gov/people/injury/ems/agenda/emsman.html.
2. Augustine JJ. (Dec. 17, 2014.) Emergency medical services arrivals, admission rates to the emergency department analyzed. ACEP Now. Retrieved Feb. 6, 2018, from www.acepnow.com/article/emergency-medical-services-arrivals-admission-rates-emergency-department-analyzed/.

Matt Zavadsky, MS-HSA, EMT, is the chief strategic integration officer at MedStar Mobile Healthcare in Fort Worth, Texas. He holds a master's degree in health service administration and has 30 years of experience in EMS, including volunteer, fire, public and private sector EMS agencies.

Chris Cebollero is a senior partner at Cebollero and Associates, a medical consulting firm. He previously held leadership positions in several EMS organizations throughout the U.S. Since 2015, he has helped develop and implement a number of community paramedic programs around the country.

Jay Moore, MD, is the senior clinical officer for Anthem. Prior to joining Anthem, he was the vice president of medical affairs and chief medical officer of SSM DePaul Health Center.



COMMONLY USED ACRONYMS

A

ACEP – American College of Emergency Physicians

ACLS – Advanced Cardiac Life Support

AED – Automated External Defibrillator

ALJ – Administrative Law Judge

ALS – Advance Life Support

ATLS – Advanced Trauma Life Support

B

BLS – Basic Life Support

C

CAAS – Commission on Accreditation of Ambulance Services (US)

CAD – Computer Aided Dispatch

CAD – Coronary Artery Disease

CISD – Critical Incident Stress Debriefing

CISM – Critical Incident Stress Management

CMS – Centers for Medicare and Medicaid Services

COG – Council of Governments

D

DFPS – Department of Family and Protective Services

DHSH – Department of State Health Services

DNR – Do Not Resuscitate

E

ED – Emergency Room

EKG – ElectroCardioGram

EMD – Emergency Medical Dispatch (protocols)

EMS – Emergency Medical Services

EMT – Emergency Medical Technician

EMTALA – Emergency Medical Treatment and Labor Act

EMT – I – Intermediate

EMT – P – Paramedic

ePCR – Electronic Patient Care Record

ER – Emergency Room

F

FRAB – First Responder Advisory Board

FTE – Full Time Equivalent (position)

FTO – Field Training Officer

FRO – First Responder Organization

G

GCS – Glasgow Coma Scale

H

HIPAA – Health Insurance Portability & Accountability Act of 1996

I

ICD – 9 – International Classification of Diseases, Ninth Revision

ICD -10 – International Classification of Diseases, Tenth Revision

ICS – Incident Command System

J

JEMS – Journal of Emergency Medical Services

K

L

LMS – Learning Management System

M

MCI – Mass Casualty Incident

MI – Myocardial Infarction

MICU – Mobile Intensive Care Unit

MIH – Mobile Integrated Health

N

NAEMSP – National Association of EMS Physicians

NAEMT – National Association of Emergency Medical Technicians (US)

NEMSAC – National EMS Advisory Council (NHTSA)

NEMSIS – National EMS Information System

NFIRS – National Fire Incident Reporting System

NFPA – National Fire Protection Association

NIMS – National Incident Management System

O

OMD – Office of Medical Director

P

PALS – Pediatric Advanced Life Support

PHTLS – Pre-Hospital Trauma Life Support

PSAP – Public Safety Answering Point (911)

PUM – Public Utility Model

Q

R

RFQ – Request for Quote

RFP – Request for Proposal

S

SSM – System Status Management

STEMI – ST Elevation Myocardial Infarction

T

U

V

VFIB – Ventricular fibrillation; an EKG rhythm

W

X/Y/Z