



Michigan
Municipal
Executives

ate of ICMA



EMS On Life Support



CPSM
Center for Public Safety Management, LLC

TODAY'S SPEAKERS



Thomas Wiczorek
Director
Center for Public Safety Management



Matt Zavadsky
Senior Associate – EMS
Center for Public Safety Management

CPSM: The Exclusive Provider of Public Safety Technical Assistance to ICMA




CPSM has conducted over 450 public safety studies, in more than 300 jurisdictions, in 46 states and Canada

Services

- Strategic Planning
- Master and Strategic Plans
- Risk Assessments
- Public Safety Training
- Dispatch, EMS, Police & Fire Technical Assistance
- Chief Selection Advantage
- Standards of Response Coverage





Understand the current challenges
in EMS delivery

- Staffing/Workforce
- Economics
- Supply Chain

Learn how to balance cost &
service delivery

- Based on clinical evidence!

Learn how to *evaluate EMS
effectiveness* in your community

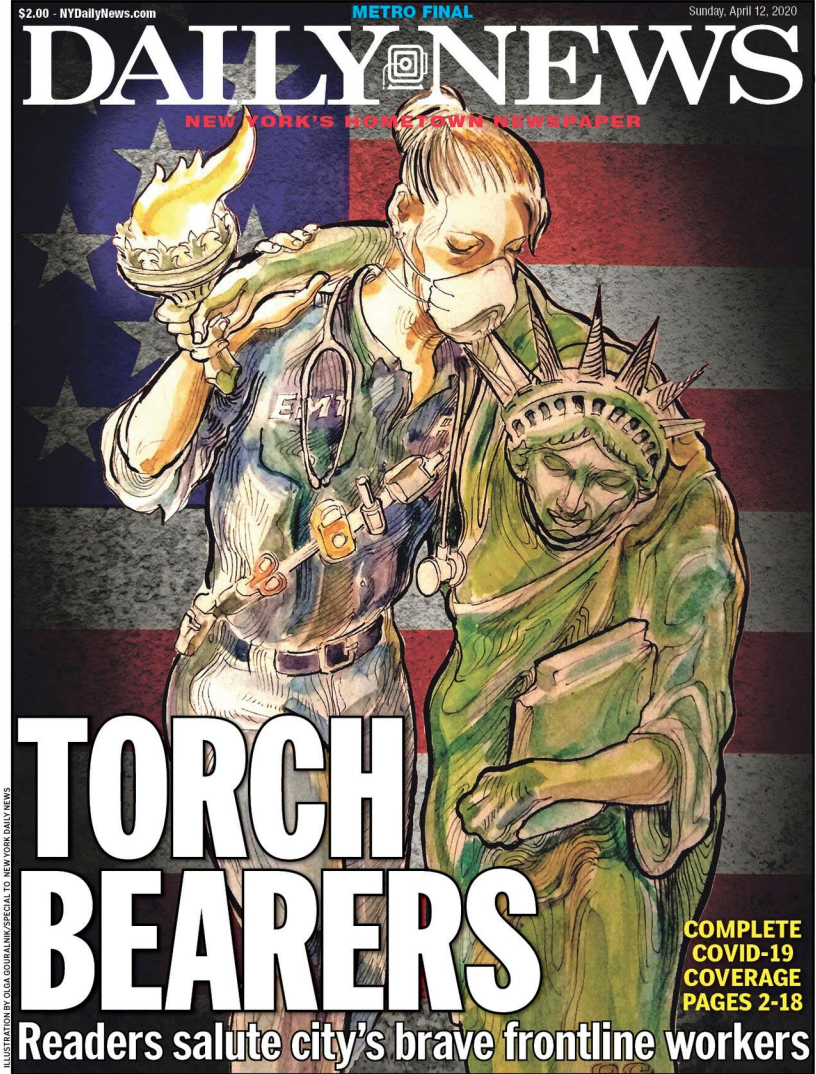
- Clinical
- Operational
- Economic
- Experiential

Learn ways some communities are
transforming “EMS” delivery

WHAT WE'RE GONNA DO....

WORKFORCE CHALLENGE





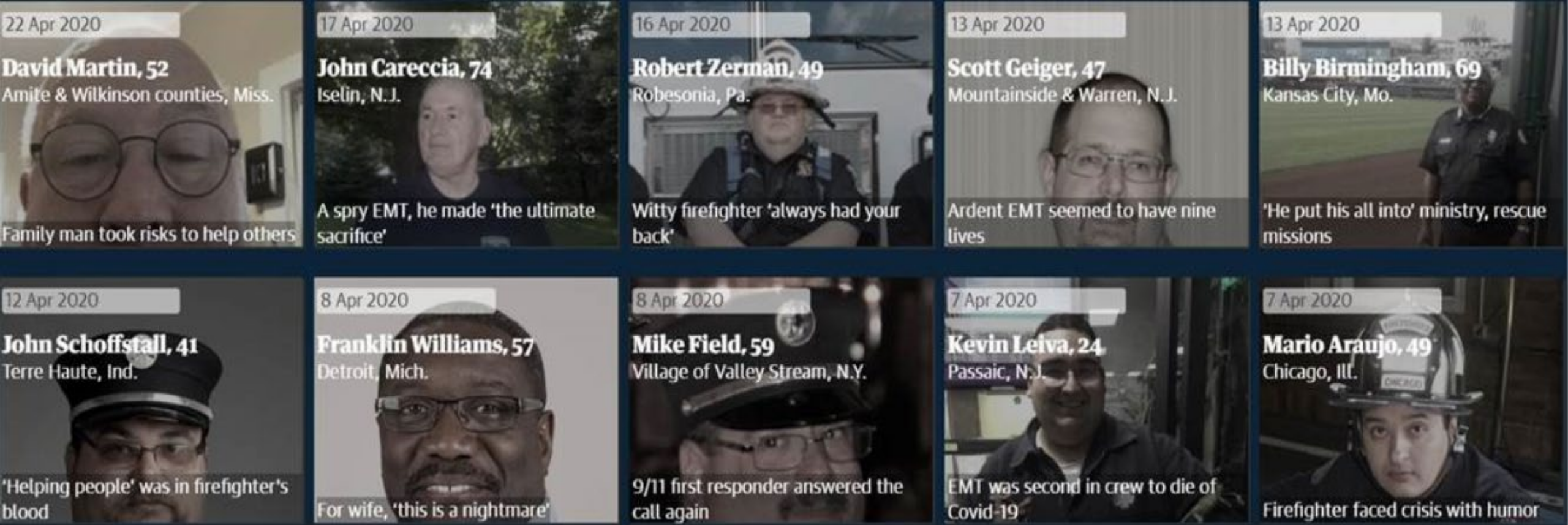


Photo Credit: KHN



Lost on the Frontline

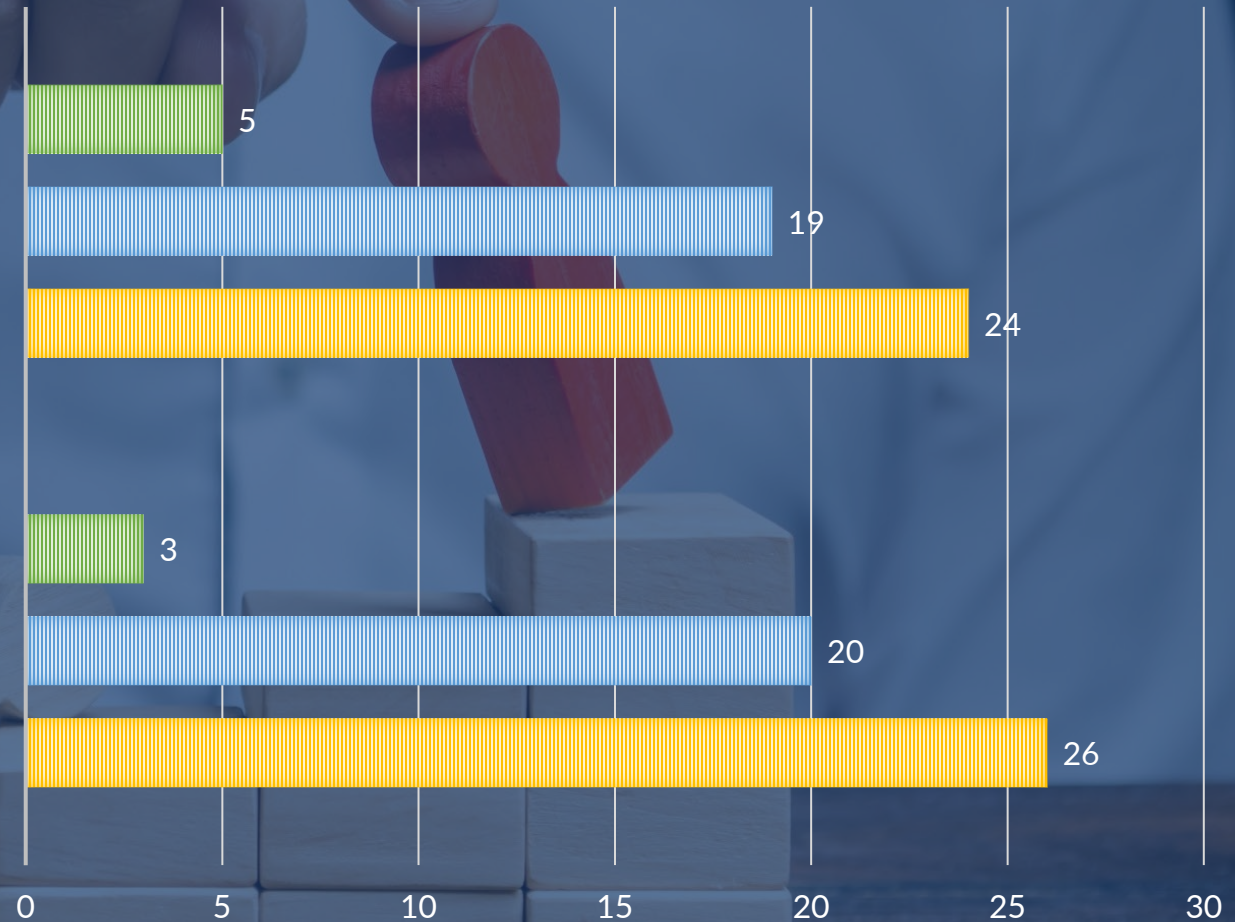


AAA/NEWTON 360 2021 AMBULANCE INDUSTRY EMPLOYEE TURNOVER STU

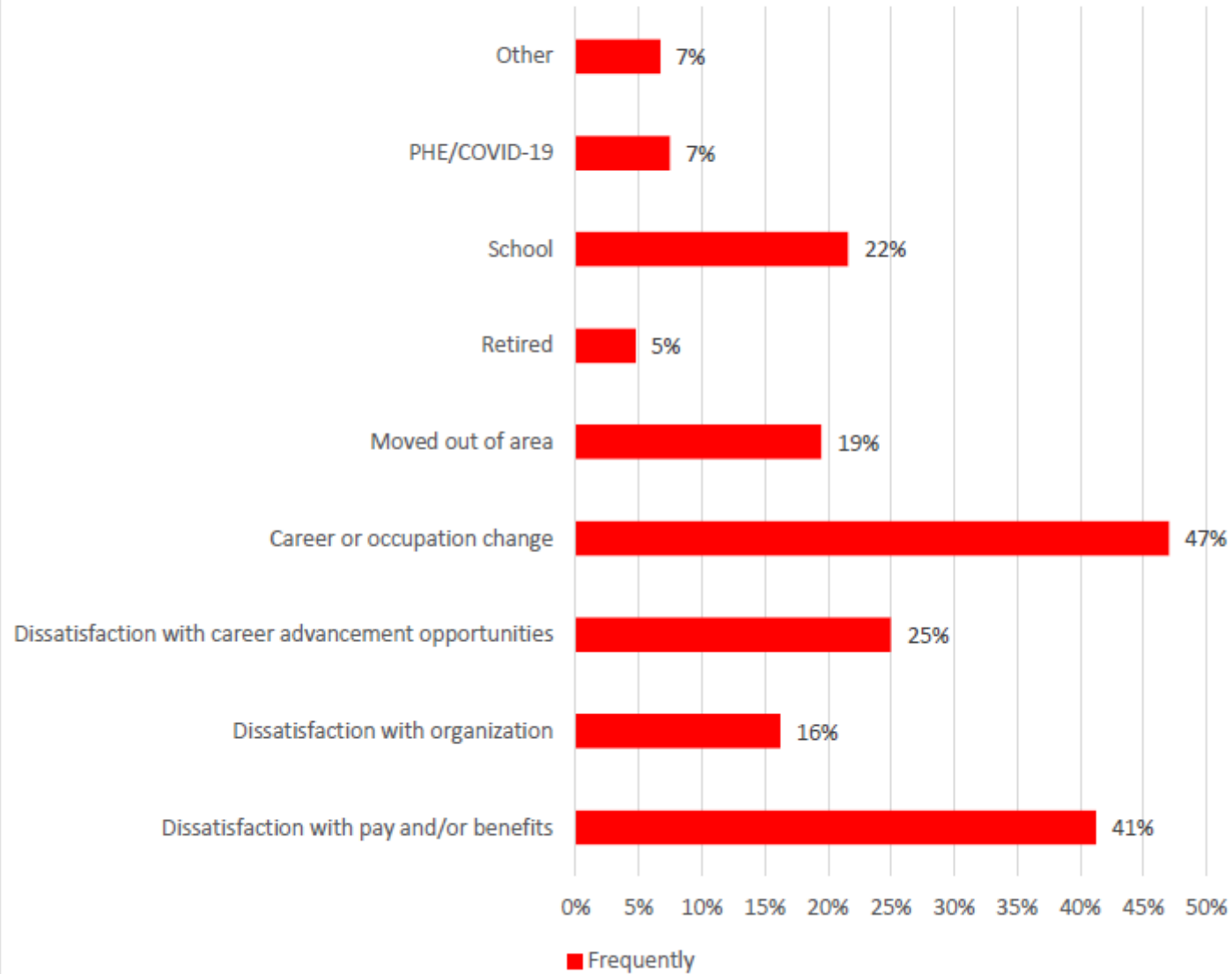
Mean Turnover Rates for
Full Time EMTs

Mean Turnover Rates for
Full Time Paramedics

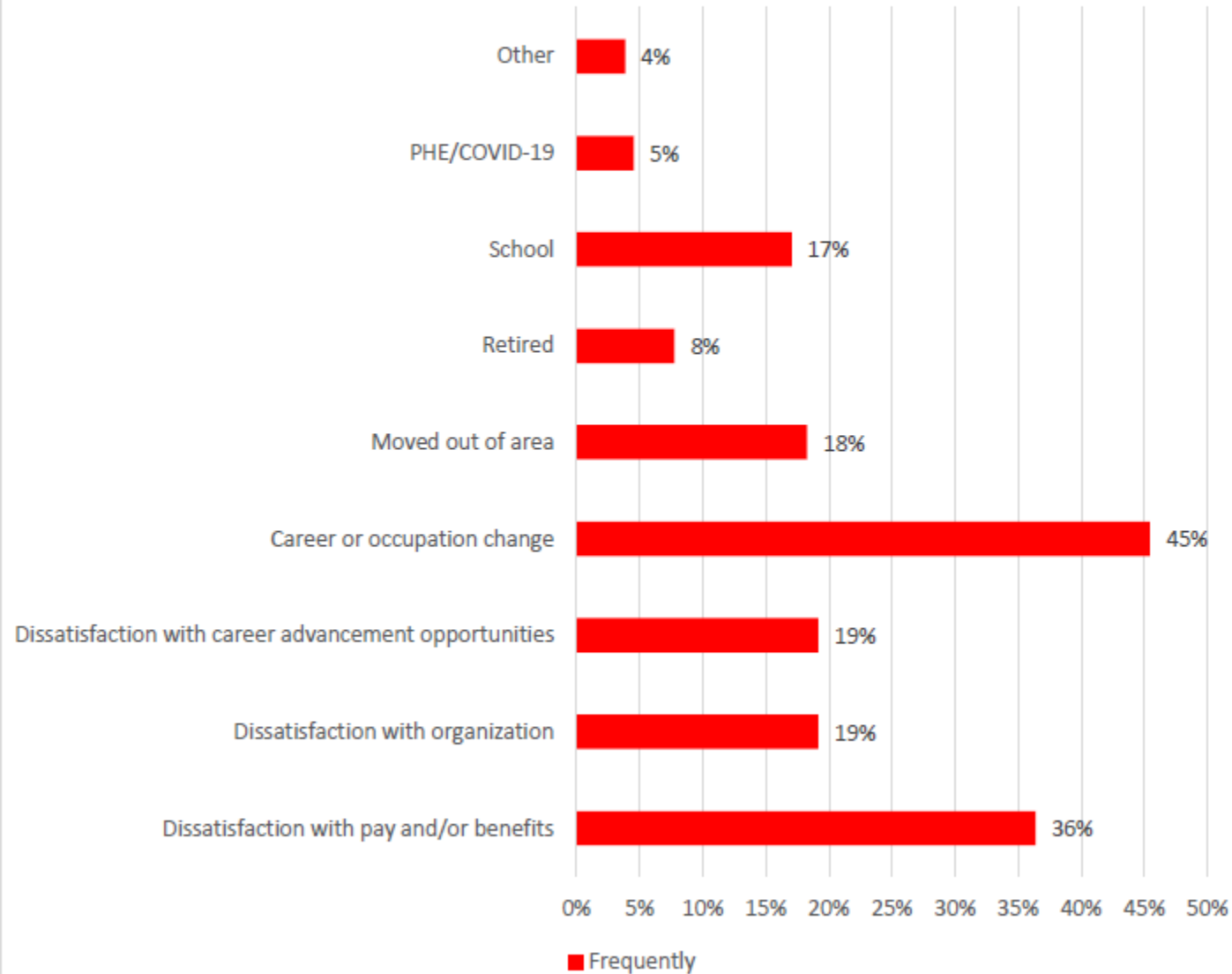
■ Involuntary Turnover ■ Voluntary Turnover ■ Total Turnover



Reasons for Voluntary Turnover for Full-Time EMTs

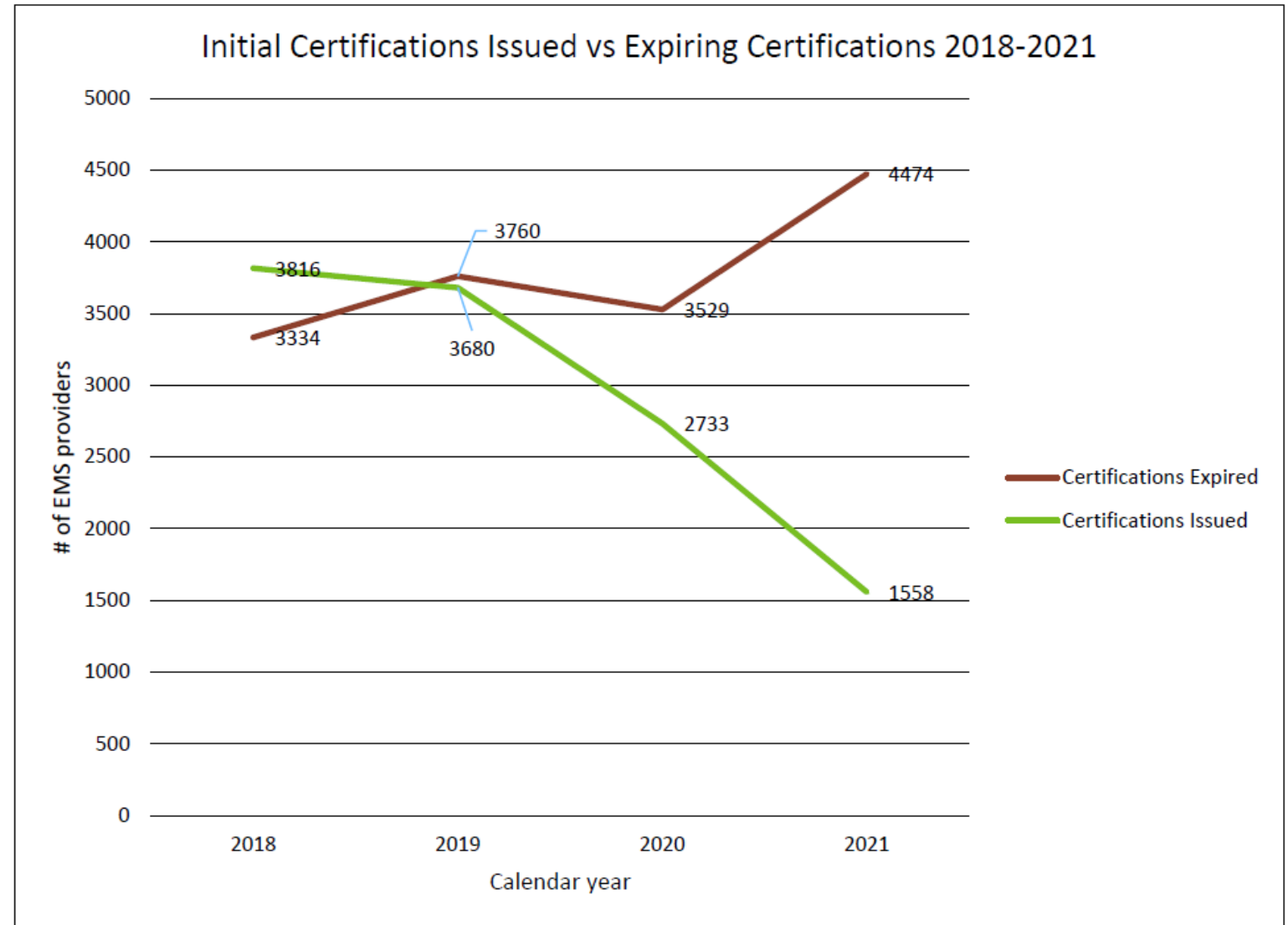


Reasons for Voluntary Turnover for Full-Time Paramedics



Analysis and Trends of the Minnesota EMS Workforce *April 2022*

Figure 4: Initial Certifications Issued vs Expiring Certifications 2018-2021



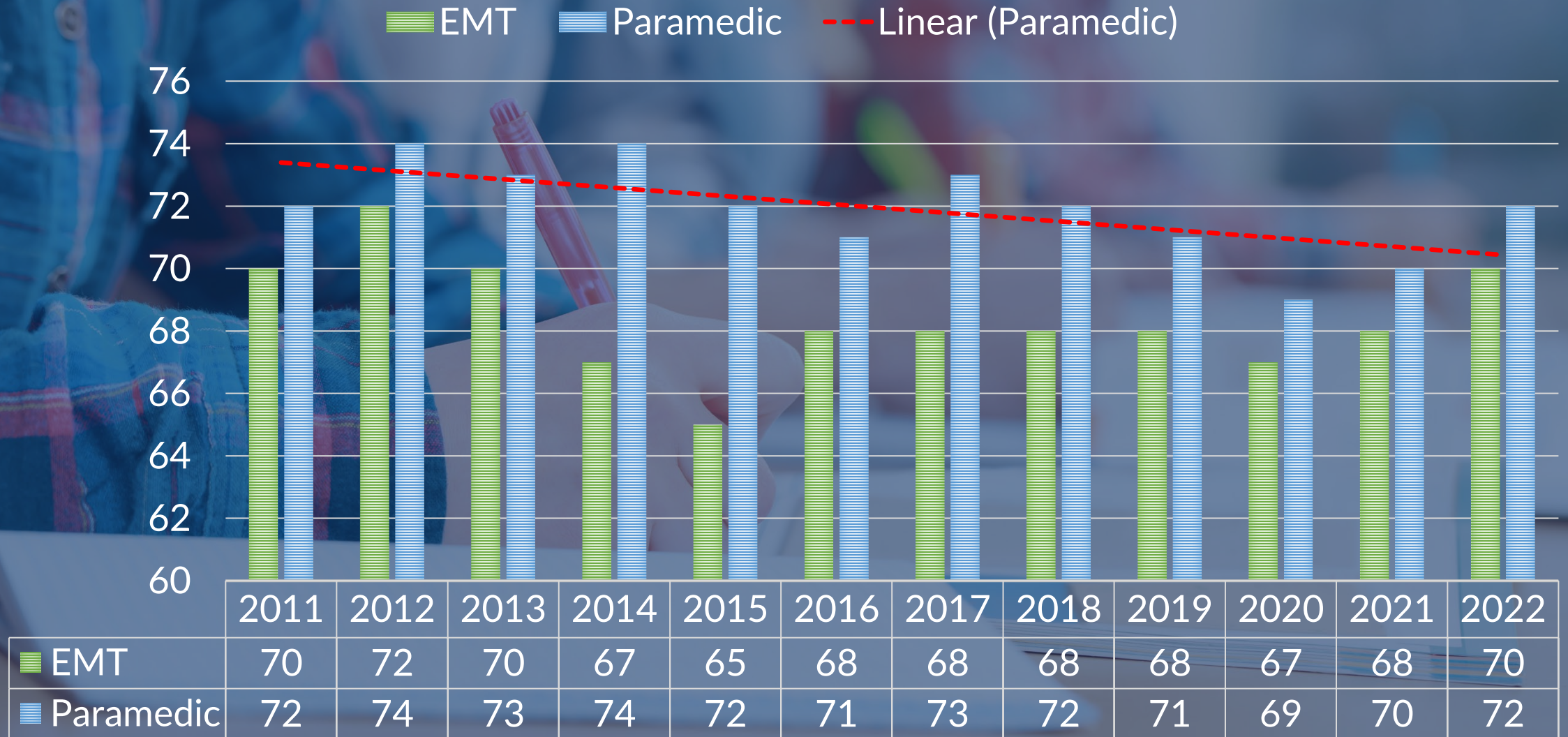
Source: Minnesota EMS Certification/Licensure System

Table 5: Workforce Engagement & Salary Analysis by MNDEED Area as of 04/14/2022

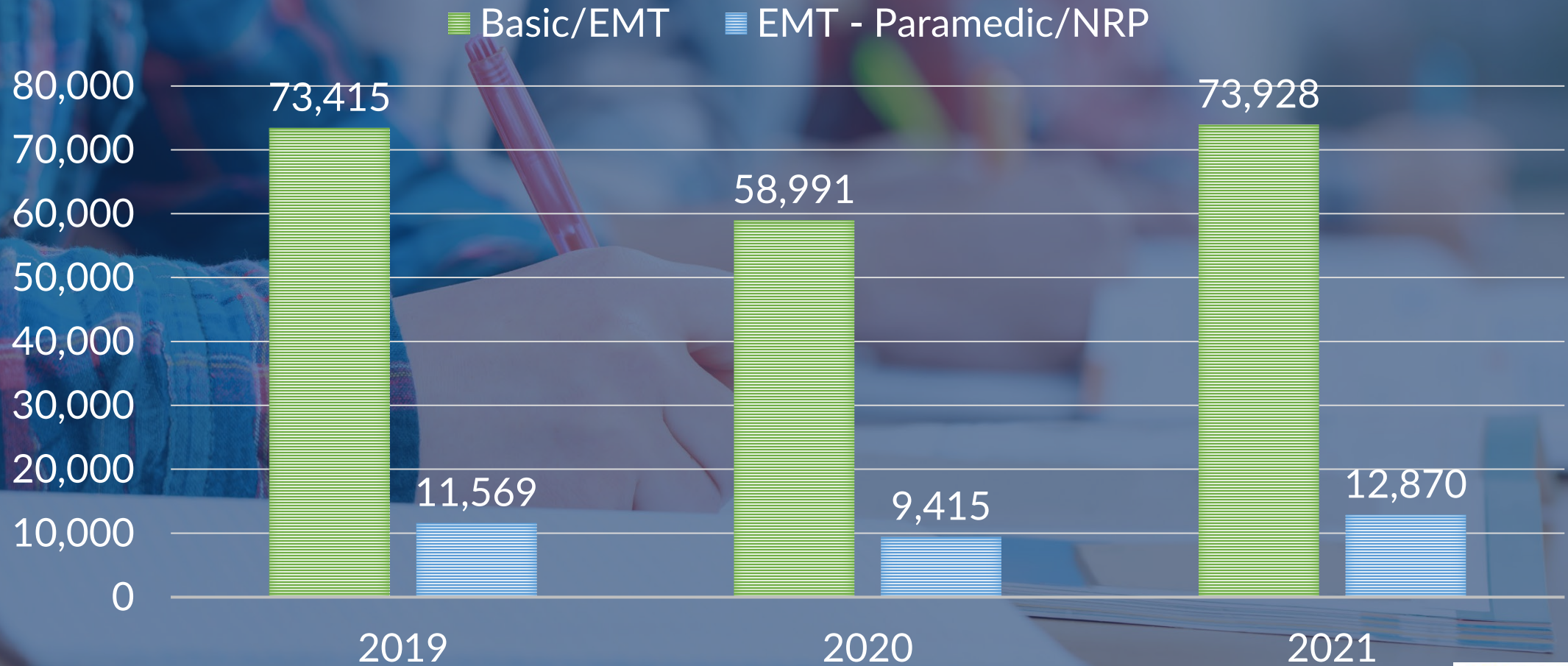
MNDEED Planning Area	EMT Engagement Rate	Paramedic Engagement Rate	EMT/Paramedic Wage	Construction Laborer Wage	Patrol Officer Wage	RN Wage
Central	57.76%	94.59%	\$19.28	\$21.42	\$32.28	\$40.54
Northeast	59.51%	100%	\$16.6	\$19.74	\$33.1	\$34.38
Northwest	67.26%	85.52%	\$17.83	\$17.46	\$30.05	\$34.77
Seven County Metro	27.01%	91.66%	\$23.84	\$29.19	\$42.82	\$42.44
Southeast	66.04%	91.26%	\$19.58	\$23.54	\$33.25	\$35.31
Southwest	89.50%	93.72%	\$17.60	\$18.20	\$28.83	\$36.89

Source: Minnesota EMS Certification/Licensure System/PCR System/Minnesota Department of Employment and Economic Development

NREMTST1 TIME PASS RATE



1st TIME CERTIFIED




new

Paramedic - Baroness Hospital -...

Erlanger Health System 3.5 ★

Chattanooga, TN 37403 +5 locations

 Full-time


- One year emergency services experience in a **hospital** setting.
- Current licensure privileges to practice as a **paramedic** in the state of employment.


Today · More...


Paramedic/ Urgent care

Pontiac General Hospital 2.4 ★

Pontiac, MI 48341

 \$19 - \$22 an hour

 Part-time +1

 Overnight shift +2

 Easily apply  Responsive employer

 Urgently hiring

- MINIMUM WORK EXPERIENCE: Two (2) years **paramedic** experience required or equivalent.
- To supply, prepare and process supplies and equipment in the patient care...

Active 5 days ago · More...

new

Paramedic - Waynesboro Hospital

WellSpan Health 3.6 ★

Waynesboro, PA 17268 +1 location

 Full-time

- Certification as Emergency Medical Technician-Paramedic in PA OR Pre-hospital RN Certification; BLS, ACLS and PALS certifications; Medical Command Authorization...


4 days ago


new

Paramedic Emergency Department

Henry Ford Health System 3.8 ★

Detroit, MI 48202(Henry Ford area) +3 locations

 Part-time +1

 12 hour shift +2

 Easily apply  Responsive employer

- A **Paramedic** Clinical Extender is a professional care provider who shares responsibility and accountability for a group of patients in the inpatient and/or...

Today · More...

Job highlights

Identified by Google from the original job post

Qualifications

- H.S. Diploma or Equivalent Required
- 3 months paramedic experience or completion of a paramedic internship Required
- Licenses and Certifications
- EMT-P - Emergency Medical Technician-Paramedic Upon Hire Required
Or
- LP - Licensed Paramedic Upon Hire Required
- ACLS - Advanced Cardiac Life Support 90 Days Required And
- BCLS - Basic Cardiac Life Support prior to providing independent patient care and maintained quarterly Required And
- PALS - Pediatric Advanced Life Support 90 Days Required And
- CPI - Crisis Prevention Intervention Training ED Only 60 Days Required
- Possesses organizational skills to function in a fast paced environment, positive interpersonal skills, good verbal and written communication skills, able to perform basic computer skills

Benefits

- \$8000 Sign On Bonus for Eligible External Hires

\$48/hr

EMS services sound the alarm over financial crisis as demand for care increases

by CBS 21 News
Monday, June 6, 2022



Lawmakers hear of 'silent crisis' impacting EMS



By Mike Nolting
May 22, 2022

'We're way past crippling': EMS officials tell of funding, staffing woes to area county commissioners

By Sean P. Ray
May 17, 2022



HSHS to close Decatur Ambulance Service on Sept. 1



Brenden Moore
6/27/22

What if you call 911 and no one comes?

Inside the collapse of America's emergency medical services.

By Erika Edwards
Oct. 22 2019



EXPENSE THREATS/CRUITING/RETENTION COMPETITION ALL POSITIONS

\$10,000 HIRING INCENTIVE

The Grapevine Fire
Department is Now Hiring

Test Date July 29th, 2022

Application Closes July 27th, 2022

Apply at: <https://www.governmentjobs.com/careers/grapevinetx>

* 48/96 Schedule Starting August 14, 2022 *

Firefighter/Paramedics Only: Starting Salary \$64,559.04

> \$5,000 Upon Hire

> \$2,500 Upon Completing of FTP Internship

> \$2,500 At End of 1st Year With Passing Evaluation



We are currently accepting applications for Firefighter/Paramedic (Preferred) and/or Firefighter/EMT.

<https://www.governmentjobs.com/careers/friscotexas/jobs/3593874/firefighter-paramedic-preferred-or-firefighter-emt> (<https://www.governmentjobs.com/careers/friscotexas/jobs/3593874/firefighter-paramedic-preferred-or-firefighter-emt>) See More

NOW HIRING

Starting Annual Salary
FF/PM - \$77,000

Potential Lateral Starting Annual Salary up to
\$86,395

Commit to your Craft
Come join the Frisco Fire Department
Sports City USA

- Professional Growth Opportunities
- Train Smart, Train Often, Grow Everyday
- Dedicated Safety Officers 24/7
- Established Peer Support/Mental Health Programs
- TMRS - Your 7% pre-tax contribution is matched 2:1 by the City. Vested after 5 years. Retirement after 20 years
- Out of State Firefighters eligible to test without TCFP certs
- Frisco will assist with reciprocity for the State of Texas

Most Smoke
Divers in Texas

www.frisco.texas.gov/FireRecruiting

dentonfire

CIVIL SERVICE ENTRANCE EXAM

REQUIREMENTS*

- 18-36 Years of Age
- High School Diploma or GED

SCAN FOR MORE DETAILS & TO APPLY ONLINE AT [dentonfire.com](https://www.dentonfire.com)

*Additional requirements shown online at [dentonfire.com](https://www.dentonfire.com)

GREAT BENEFITS

STARTING SALARY
\$72,835.36

100% TUITION REIMBURSEMENT

EDUCATION INCENTIVE PAY

LONGEVITY PAY

TLFFRA PENSION

PLUS
20-Year Retirement
Vacation & Sick Leave
Medical & Dental Insurance

11:46 1.5N

Come join us!!! 2 shifts a week!

Summer Plan Paramedic, 41/hr

Fort Worth, TX, United States

Cook Children's Medical Center

TEMP - 12-Hour

Home Health

RN Summer Plan, Emergency Department 82/hr

Fort Worth, TX, United States

Cook Children's Medical Center

TEMP - 12-Hour

Medical Center

Can't find what you're looking for?

Join our Talent Network to opt-in to future jobs

14 42 comments 6 shares

Like Comment Share

GOOD NEWS

CBS Austin: ATCEMS tentative agreement with city on labor contract includes competitive pay raises | KEYE

Under the wage proposal in the tentative agreement:

Starting pay for EMTs – the entry level position – will increase by 12.5%, to \$22/hour.

Starting pay for paramedics – which rank higher than EMTs – will increase by 11.2%, to \$30.03/ hour.

All current employees will receive a pay increase ranging from 4% to 11.2% depending on position and tenure.

"The increase in wages that we're going to see for our entry level EMT's and paramedics is really going to make us much more competitive with other EMS systems across the country,"

Chief Luckritz said. "One of the unique things we're seeing in our new labor agreement is the ability to hire directly at the paramedic level, which is truly going to change the game for us in the recruitment process."

FIREFIGHTER/PARAMEDICS

ENTRANCE EXAM - AUGUST 18, 2022

For Eligible Candidates who receive a passing score, the Physical Ability Test is scheduled for August 19 & 20, 2022, weather permitting.

TEST SIGN-UP DEADLINE - AUGUST 3, 2022

- Base Starting Salary **\$74,763**
- Plus Paramedic Pay **\$4,200/year**
- 2 Year Top-Out - **\$94,130**
- 4 Person Staffing Across 18 Major Pieces of Apparatus
- Training Facility opening 2022
- Special Operations Program
- Officer Development
- 388 Civil Service Positions

PLANO FIRE RESCUE Est. 1886

Professional SERVICE with heart — INTEGRITY always.

Why so many firefighters don't become paramedics

Five factors help explain why our current crop of firefighters and firefighter-EMTs never make the move
May 28, 2022

Within fire-based EMS systems everywhere, the numbers of firefighter-paramedics are dwindling. Fire departments are scrambling to fill their immediate vacancies by drawing in new paramedics. Recruitment campaigns promising great benefits, sign-on bonuses and guaranteed shifts away from the ambulance are filling up social media feeds.

Ten years ago, when fire department jobs were scarce, campaigns like these would have brought in a flood of qualified candidates. Not so in today's world. Everyone is hiring. And many agencies that used to require a paramedic license to even be considered have lowered the required qualifications just so they can fill all the empty seats on their fire engines. Even those vacancies have become a struggle to fill.

It's time for fire-based EMS to realize that there simply aren't enough paramedics out there to fix our problem. The answer lies within – encouraging our existing firefighters and firefighter-EMTs to become paramedics. But to do that we must first be honest and talk about the reasons they don't become paramedics.



<https://www.firerescue1.com/career-1/articles/why-so-many-firefighters-dont-become-paramedics-VK08qSl6qA7pkEwI/>

THE AMBULANCE

When compared to a suppression apparatus, being assigned to an ambulance means longer hours away from the station and more territory to cover. It brings paperwork, liability and the constant battle to remain professional in the face of disgruntled nurses at overcrowded hospitals. And because firefighter-paramedic numbers are so limited, many are being forced to spend the majority of their careers on ambulances. Due to department necessity, they're stuck.

ORGANIZATIONAL CULTURE

"I'm not going to medic school because I want to be a firefighter."

To the outside world, we're all firefighters. But for those working within fire-based EMS, we are either firefighters or paramedics. The divide is real. So when firefighters and firefighter-EMTs talk about going to paramedic school, they're treated as if they are changing teams. They're shamed, ridiculed and reminded of all the hardship they will be bringing upon themselves.

Fight for your firefighter-paramedics as hard as you fight for that new fire engine. Show them you care. Because if you don't, why should anyone else?



<https://www.firerescue1.com/career-1/articles/why-so-many-firefighters-dont-become-paramedics-VK08qSl6qA7pkEwl/>

614 Local & National news reports tracked since January 2021

353 (58%) focusing on staffing crisis

Edit as at	11/16/2022														
Date	Location	State	Rural	Vax	Pay	Resp Tim	Staffing	Call Center	APOT	988	Funding	Closure	Other	Headline	
9/9/2022	Penrose	CO									Y		ARPA Funds	Thanks to levy, Colo. agency restores, improves service	
9/9/2022	Cherokee County	GA				Y								Hefty fines included in ambulance contract	
9/12/2022	Flagstaff	AZ								Y				U.S. to award \$35M in tribal grants for 988 crisis line	
9/13/2022	Los Angeles	CA					Y				Y	Y	Closure	AMR to Close Los Angeles County's Non-Emergency Operations	
9/14/2022	Lockport	NY					Y							LFD chief: Data shows lack of ready ambulance service	
9/14/2022	Youngstown	OH									Y	Y	AMR out 12/31/22	AMR to discontinue service in Youngstown	
9/14/2022	Bedford	VA				Y	Y							'We're all in trouble': Saxton looks for solution to ambulance problem	
9/14/2022	Taylor County	WI									Y			County ambulance costs climbing	
9/16/2022	Niles	MI									Y		Covering op costs	City of Niles approves 5-year funding increases for ambulance service	
9/17/2022	Orange County	CA									Y		Fire GEMT Rate hike	Medi-Cal ambulance rides are going to cost taxpayers a lot more	
9/17/2022	San Diego	CA					Y							San Diego's new ambulance provider, facing steep fines, revamps policy to improve response times	
9/19/2022	Chippewa County	MI	Y				Y					Y	Closure	Pickford ambulance service shuts down after 60 years	
9/19/2022	Aitken County	SC					Y							S.C. county staffing woes lead to 71 incidents of status zero	
9/20/2022	Carrollton	GA	Y										Acquisition	Tanner Acquires West Georgia Ambulance	
9/20/2022	Fife	WA					Y				Y	Y	Leaving the market	Ambulance company ending WA service, including Fife office; more than 100 jobs to be cut	
9/21/2022	Los Angeles	CA									Y	Y	Op/Ed Podcast	AMR closure: a bellwether of things to come?	
9/21/2022	Pickford	MI	Y									Y	Closure	Mich. EMS agency closes after 60 years in service	
9/21/2022	Grove City	PA					Y		Y		Y			Struggling to survive, Pa. ambulance service asks communities for help	
9/22/2022	Wanzey	NH									Y		ARPA Funds	With new chief on board, N.H. county preps to launch EMS service	
9/23/2022	Oxford	AL					Y				Y	Y	Closure Oct 2022	Financially troubled Oxford EMS to close, be replaced by new ambulance service	
9/23/2022	Placer County	CA										Y	Closure FD	Increased operational costs causing local fire department to close stations	
9/23/2022	Mankato	MN	Y				Y				Y			Minn. EMS panel sounds alarm on rural struggle	
9/23/2022	Penn Hills	PA									Y		ARPA Funds	Pa. city officials to use \$1.5M in stimulus funds to buy emergency vehicles	
9/24/2022	Multnomah County	OR			Y		Y							Oregon's EMS provider shortage reaches 'breaking point'	
9/25/2022	Hudson Valley	NY	Y										RLS / AAA Quoted	Valatie ambulances will limit use of sirens for safety's sake	
9/30/2022	USA	USA									Y		Supporting Our First R	Congressman Kim Introduces Bipartisan Legislation to Increase Support For Emergency Medical Services	
10/3/2022	Struthers	OH					Y							Struthers buys ambulance as stopgap	
10/3/2022	USA	USA					Y						Podcast	What is a life worth to an elected official?	
10/4/2022	Columbia Twp	OH					Y					Y	Closure FD	Montour Township Fire Department set to close	
10/5/2022	Hawkins County	TN									Y			'Crying out for help': Hawkins EMS will seek 'Beby Doe' funds to offset drug response expenses	
10/6/2022	State	NC					Y							EMS departments across North Carolina are understaffed and overburdened	
10/6/2022	State	WI									Y			Gov. Evers, DHS announces financial support to EMS providers	
10/7/2022	East Jordan	MI									Y		Tax Levy	Jordan Valley EMS asks voters for ambulance funds	
10/15/2022	Newtown Twp	PA					Y				Y			Newtown Ambulance Squad: 'We won't be here' without more public funding	
10/16/2022	Kendall	NY					Y				Y	Y	Closure	Kendall Fire Department will disband ambulance service after Dec. 31	
10/19/2022	Cambridge Spring	PA									Y		Tax Levy	Ambulance service asks Cambridge Springs for support with tax hike	
10/19/2022	Stonerstown	PA					Y						VRS EMT Shortage	Liberty updated on ambulance situation	
11/9/2022	Jefferson County	MO									Y		Tax Levy	Proposition Reduced Property Taxes passes in Jefferson County Ambulance District	
11/16/2022	Seneca County	OH									Y		Tax Levy	Ambulance District levy approved	
11/14/2022	State	ME									Y			Commission recommends annual infusion of \$76 million to help Maine's beleaguered emergency med	

- Methods of EMS Funding
 - Fee for service (ambulance transport)
 - Tax subsidy
- When cost is more than revenue generated from user fees
 - Tax subsidy



ECONOMIC CHALLENGES

Cost Drivers

- Response time
 - Faster = More cost
 - 'Slower' = Less cost
- ALS vs. BLS
 - All ALS = More cost
 - Tiered (ALS & BLS) = Less cost
- Deployment Model
 - Fixed (24/48, or 48/96 schedule) = More cost
 - Flexible (10's & 12's, peak staffing) = Less cost



ECONOMIC CHALLENGES

Provider Cost Per Trip Analysis

ALL PROVIDER STATISTICS			
	2019	2020	2021
Provider Count	371	363	385
Average Cost Per Trip Inclusive of Outliers	\$2,604.66	\$2,866.37	\$2,750.40
Average Cost Per Trip - Outliers Removed	\$2,132.89	\$2,361.06	\$2,351.34
Year Over Year Change		10.70%	-0.41%
FIRE & EMS Providers			
	2019	2020	2021
Provider Count	302	300	312
Average Cost Per Trip Inclusive of Outliers	\$2,945.55	\$3,223.20	\$3,106.41
Average Cost Per Trip - Outliers Removed	\$2,405.44	\$2,673.78	\$2,680.77
Year Over Year Change		11.16%	0.26%
EMS Only Service Providers			
	2019	2020	2021
Provider Count	69	63	72
Average Cost Per Trip Inclusive of Outliers	\$ 1,127.47	\$1,190.35	\$1,242.06
Average Cost Per Trip - Outliers Removed	\$975.60	\$1,008.59	\$1,026.32
Year Over Year Change		3.38%	1.76%

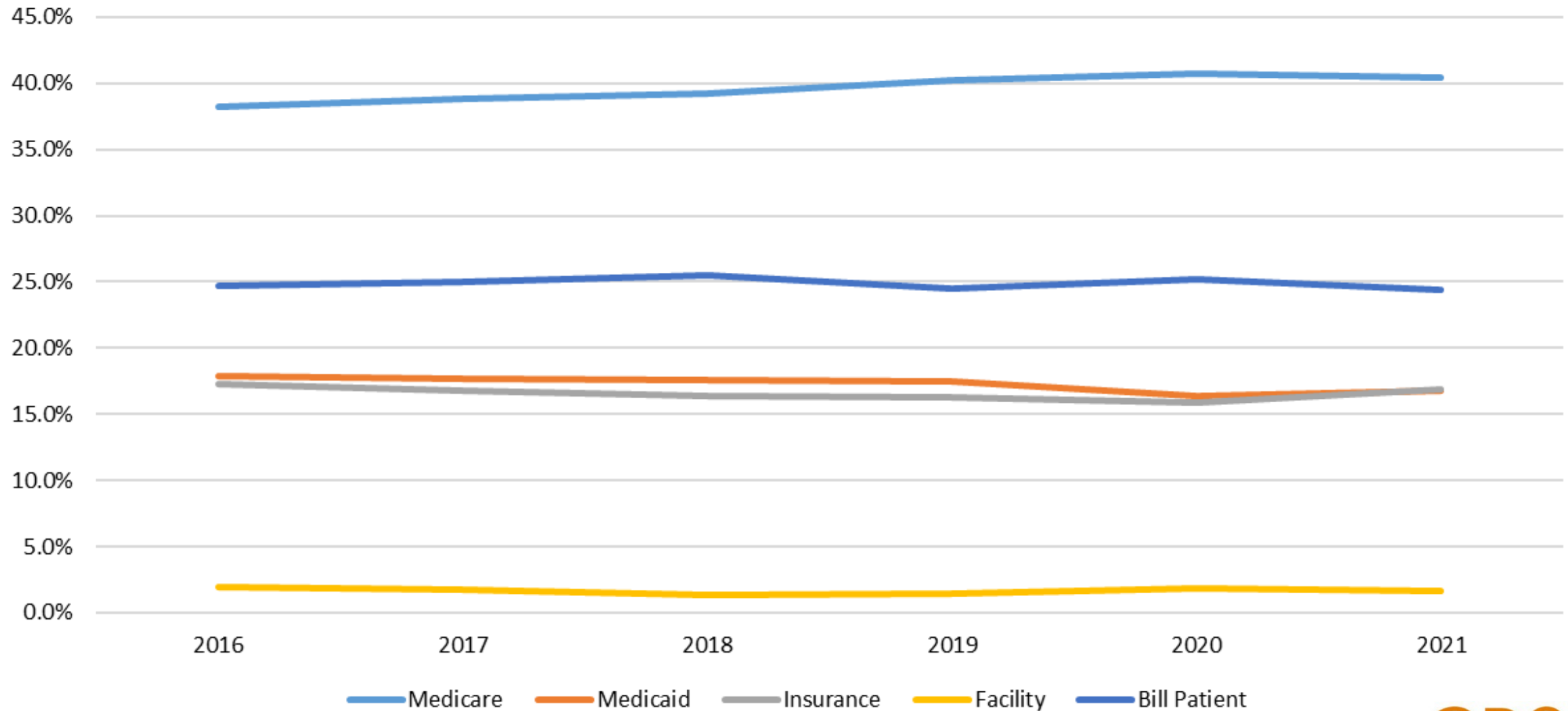
Revenue Drivers

- Payer mix
 - % of payers for Medicare, Medicaid, Commercial Insurance, Private Pay
- Fees charged
 - $\downarrow \text{fee} = \downarrow \text{revenue}$
- Under-billing is essentially using tax \$ to subsidize commercial insurers

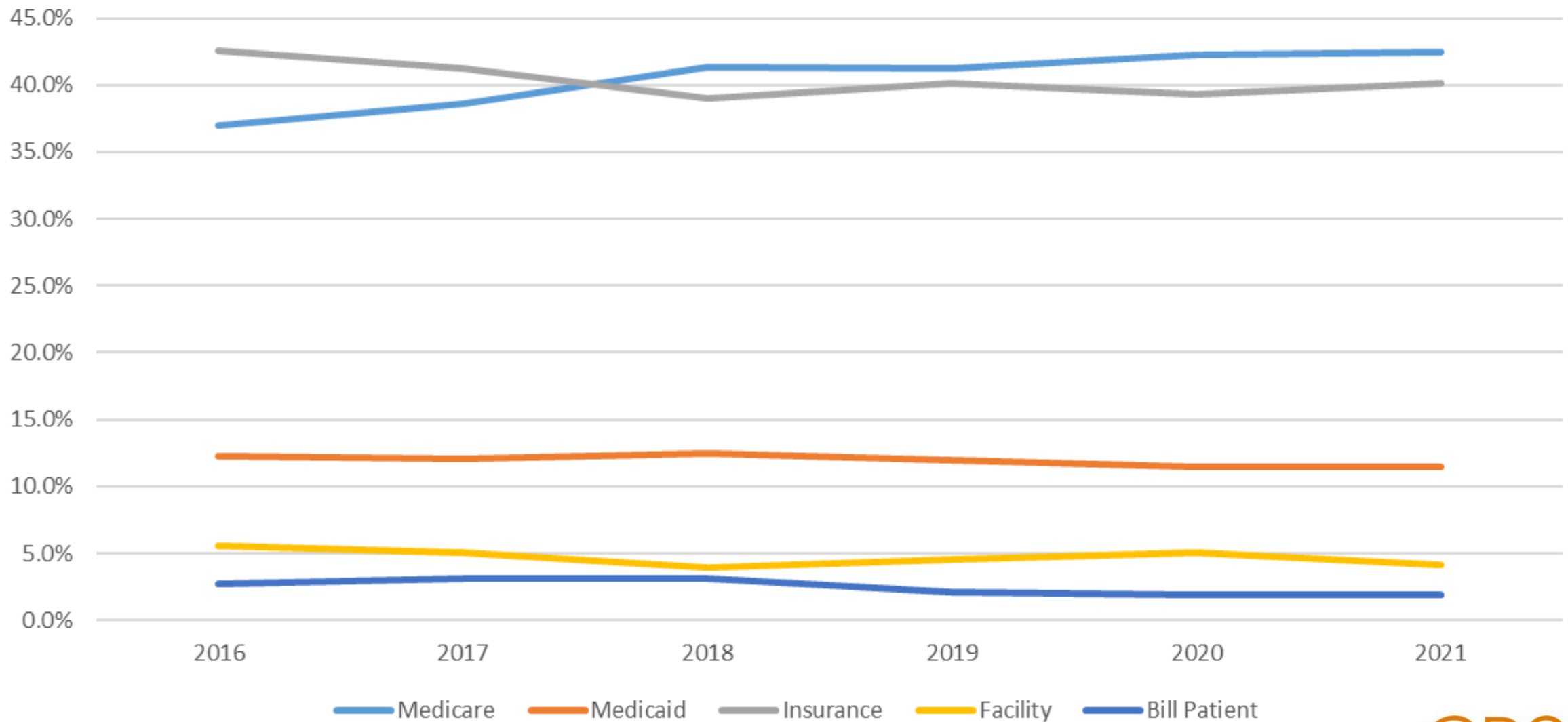


ECONOMIC CHALLENGES

Payer Mix: Billed

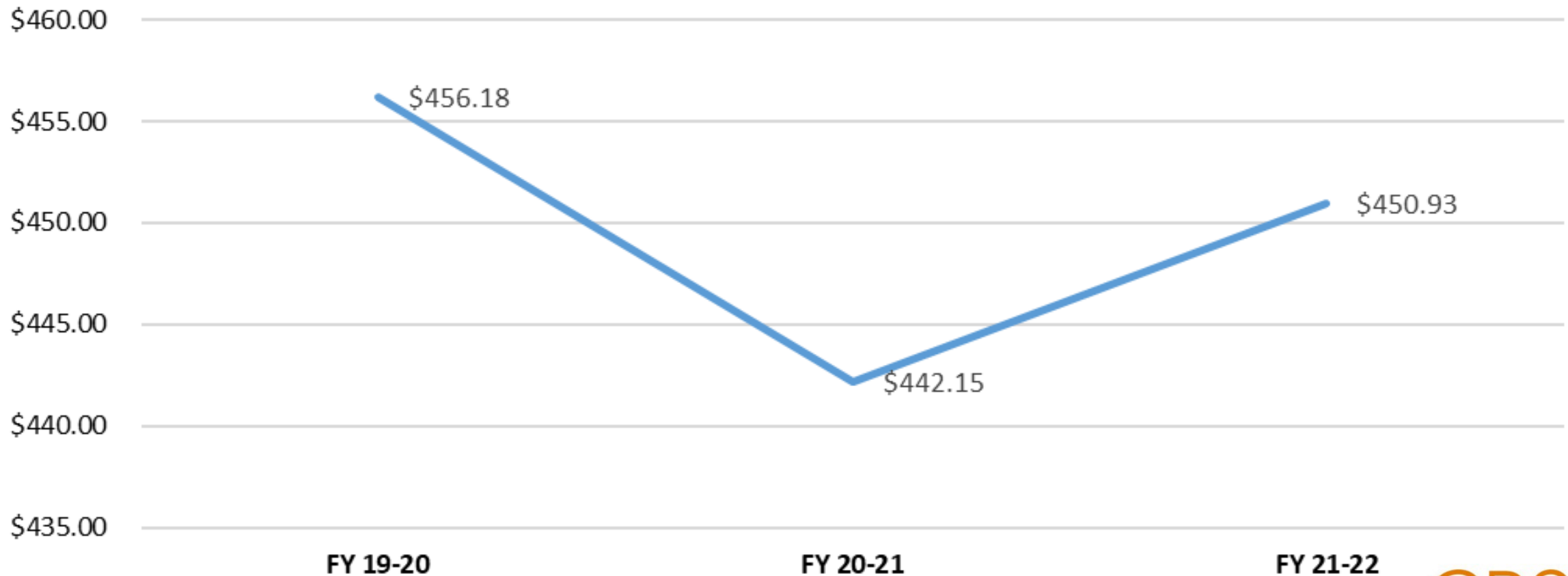


Payer Mix: Collected

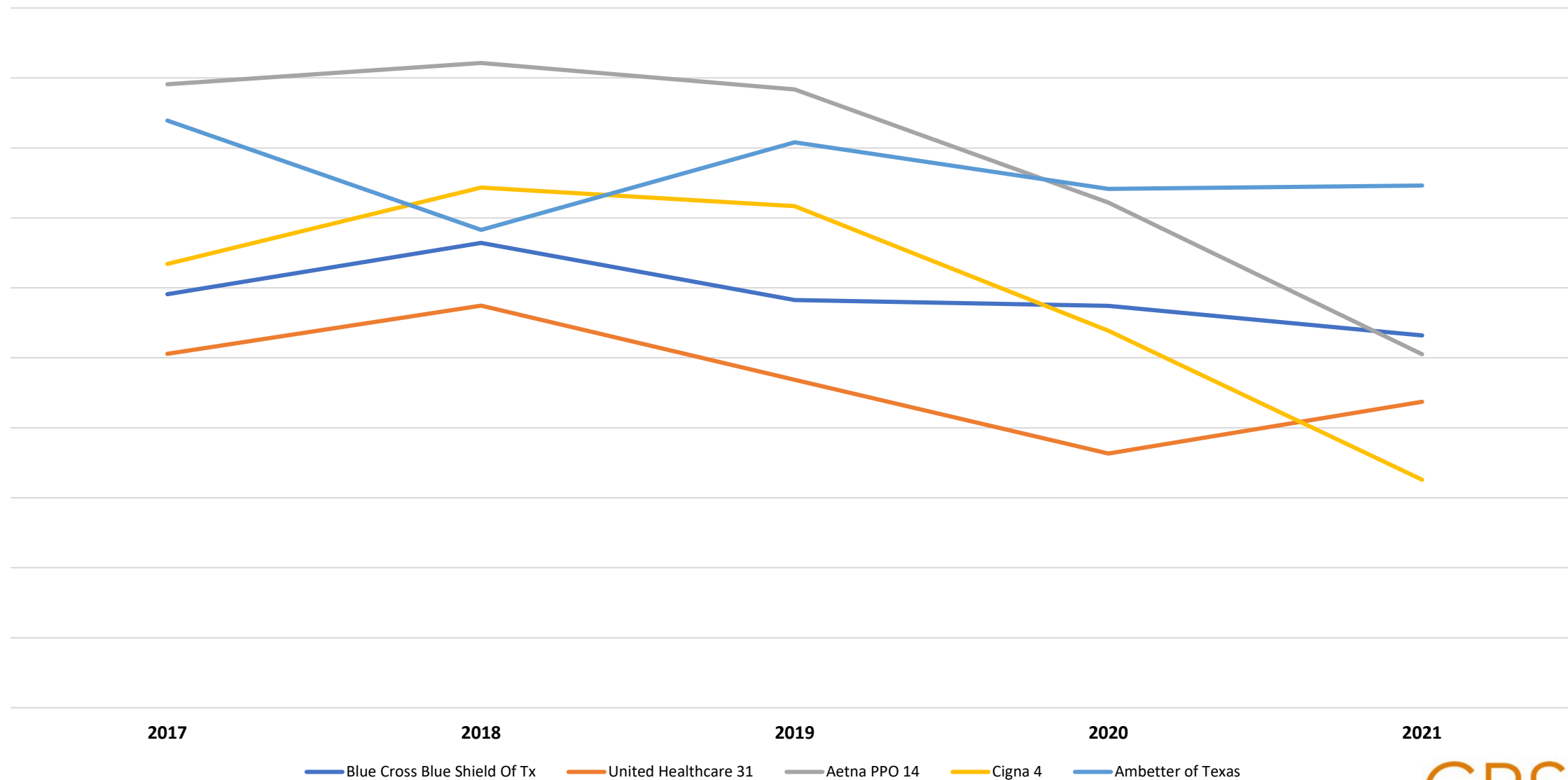


“REIMBURSEMENT”

Net Revenue Per Transport



Average **Patient** Payment Per Transport





GEMT ISSUES

Many public agencies participate in Ground Emergency Medical Transport (GEMT) supplemental payment programs

- Medicaid program to reimburse Medicaid under-payments
- Compensate for Certified Public Expenditures
 - Reimburse taxpayers for State underpayments

PROVIDER COST PER TRIP ANALYSIS



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PROVIDER COST PER TRIP ANALYSIS

Provider TPI	Provider	Settlement Amount	Prorata reduction to Pool Size	Federal Share Due to Provider
	Total	\$ -	\$ -	\$ -
088224301	City of Houston	\$ 51,396,013.07	\$ 16,371,075.48	\$ 11,133,968.44
107688701	San Antonio Fire Department	\$ 50,943,775.13	\$ 16,227,024.98	\$ 11,035,999.69
086411801	Dallas Fire-Rescue	\$ 29,036,833.57	\$ 9,249,048.04	\$ 6,290,277.57
086370601	Austin Travis County EMS	\$ 21,416,848.98	\$ 6,821,868.67	\$ 4,639,552.88
088201102	El Paso Fire Department	\$ 9,841,985.09	\$ 3,134,949.02	\$ 2,132,078.83
088208601	Laredo Fire Department	\$ 8,742,979.50	\$ 2,784,884.83	\$ 1,894,000.18
107760401	Corpus Christi Fire Department	\$ 8,191,429.49	\$ 2,609,200.64	\$ 1,774,517.36
086299701	Irving Fire Department	\$ 7,959,663.02	\$ 2,535,376.51	\$ 1,724,309.56
088220101	MedStar Mobile Healthcare	\$ 6,770,944.09	\$ 2,156,736.10	\$ 1,466,796.22
000746001	City of Grand Prairie	\$ 5,663,737.01	\$ 1,804,059.51	\$ 1,226,940.87
107752101	Montgomery County Hospital District (MCHD)	\$ 4,493,462.96	\$ 1,431,294.31	\$ 973,423.26
292377301	Harris County Emergency Services District #50	\$ 3,834,133.84	\$ 1,221,279.45	\$ 830,592.15

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-26-12
Baltimore, Maryland 21244-1850



CMCS Informational Bulletin

DATE: August 17, 2022
FROM: Daniel Tsai, Deputy Administrator and Director
Center for Medicaid and CHIP Services
SUBJECT: Applicable Federal Cost Principles for Ground Emergency Medical Transportation
(GEMT)

Background

CMS is issuing this informational bulletin to remind states of existing federal requirements relevant to payment for GEMT services in Medicaid to assist them in developing state plan amendments (SPAs) and other proposals that are consistent with such federal requirements.

Comprehensive Cost Reconciliation Methods in the Medicaid State Plan

Section 1902(a)(30)(A) of the Social Security Act (the Act) requires Medicaid state plans to provide for methods and procedures relating to the utilization of, and payment for, Medicaid-covered services as may be necessary to safeguard against unnecessary utilization and to assure that payments are consistent with efficiency, economy, and quality of care. Further, state payment rates or methodologies must be sufficient to enlist enough providers so that care and services are available under the plan at least to the extent that such care and services are available to the general population in the geographic area.

Costs such as fire and rescue personnel and equipment are generally not directly or indirectly related to Medicaid covered services.

As such, cost identification methodologies that inappropriately allocate costs associated with fire and rescue personnel and equipment to the Medicaid program potentially would be unallowable under the federal cost allocation requirements.

For example, if state or local law requires that both a fire truck and an ambulance be dispatched to emergency scenes to transport a potential patient, even though the ambulance will be the only vehicle that participates in the transport of the Medicaid beneficiaries to a facility for treatment, only costs incurred in the provision of a Medicaid-covered service may be allocated to Medicaid.

For example, costs associated with fire and rescue personnel who do not provide Medicaid covered services to Medicaid beneficiaries on the scene of an emergency, but who are present during the emergency as required by state law or local code would potentially be unallowable.



SUPPLY CHAIN



FDA Drug Shortages

[f SHARE](#) [TWEET](#) [in LINKEDIN](#) [PIN IT](#) [EMAIL](#) [PRINT](#)

Current and Resolved Drug Shortages and Discontinuations Reported to FDA

Generic Name or Active Ingredient	Status
Atropine Sulfate Injection	<i>Currently in Shortage</i>
Dextrose 10% Injection	<i>Currently in Shortage</i>
Dextrose 25% Injection	<i>Currently in Shortage</i>
Dextrose 5% Injection	<i>Currently in Shortage</i>
Dextrose 50% Injection	<i>Currently in Shortage</i>
Diltiazem Hydrochloride Injection	<i>Currently in Shortage</i>
Epinephrine Injection, 0.1 mg/mL	<i>Currently in Shortage</i>
Epinephrine Injection, Auto-Injector	<i>Currently in Shortage</i>
Ketamine Injection	<i>Currently in Shortage</i>
Lidocaine Hydrochloride (Xylocaine) Injection	<i>Currently in Shortage</i>





SYSTEM REDES

- All ALS to Tiered Response
 - Right Resource → Right Patient
- Changing response time expectations
 - 9 minutes?
 - 11 minutes?
 - 30 minutes?
 - 60 minutes?
 - Call triage

Tiered Ambulance Deployment Pilot Project

Overview:

The Tiered Response Task Force of the Metropolitan Area EMS Authority (MAEMSA) proposes a six-month pilot project to evaluate the clinical, operational and fiscal impact of transitioning from an all-Advanced Life Support (ALS) ambulance deployment model, to a combination of ALS and Basic Life Support (BLS) ambulances for response to 9-1-1 medical calls in the MAEMSA service area (Tiered Deployment Model). The pilot is anticipated to start February 1st, 2021.

Evaluation Statement:

The current all ALS deployment model presents operational challenges related to staffing, response, outcomes, and cost-effectiveness. The goals of the Tiered Deployment Model pilot are to increase clinical and operational effectiveness and efficiency within the system. Addressing both challenges requires determining where and how a different response model may enhance service delivery, while improving clinical proficiency and patient outcomes.

Table 1: OMD Evaluation of ALS Utilization for Select EMD Determinants

EMD D..	Incidents	% of Total Calls	ALS?	Transported?	L&S?	Critical?	Vital?
4B01	1,752	1.3%	2.6%	48.7%	2.3%	0.1%	2.6%
4D05	189	0.1%	2.6%	35.4%	7.5%	0.5%	2.6%
16A01	101	0.1%	3.0%	52.5%	1.9%	0.0%	3.0%
20B02	193	0.1%	2.6%	51.8%	0.0%	0.0%	4.7%
23B01	276	0.2%	0.7%	77.5%	2.8%	0.4%	3.6%
24B01	138	0.1%	0.7%	96.4%	3.8%	0.0%	2.9%
24B02	166	0.1%	2.4%	75.9%	1.6%	0.0%	2.4%
24C03	205	0.2%	2.9%	94.1%	0.0%	0.0%	2.0%
24D03	405	0.3%	0.5%	95.1%	3.9%	0.0%	3.2%
25A02	419	0.3%	2.4%	67.8%	1.4%	0.0%	2.1%
25B03	1,672	1.3%	2.6%	54.5%	1.3%	0.2%	2.0%
25O01	510	0.4%	1.4%	75.5%	1.3%	0.0%	2.5%
25O02	326	0.2%	1.2%	81.9%	0.0%	0.0%	0.6%
26A06	147	0.1%	2.0%	83.7%	2.4%	0.0%	3.4%
26O28	111	0.1%	1.8%	89.2%	1.0%	0.0%	0.9%
29A02	201	0.2%	3.0%	26.9%	1.9%	0.0%	1.0%
29B01	7,193	5.5%	2.6%	33.8%	2.8%	0.1%	1.5%
29B03	713	0.5%	2.9%	40.1%	4.5%	0.3%	2.1%
29B05	2,386	1.8%	2.4%	28.1%	4.5%	0.3%	1.5%
32B03	2,432	1.9%	2.8%	24.1%	4.3%	0.8%	2.4%
Grand ..	19,535	14.9%	2.5%	42.1%	2.6%	0.2%	2.0%

Incidents, % of Total Calls, ALS?, Transported?, L&S?, Critical? and Vital? broken down by EMD Determinant. The data is filtered on EMD original and EMD Card. The EMD original filter keeps 412 of 813 members. The EMD Card filter excludes 33 and 37. The view is filtered on average of Critical?, average of Vital?, average of ALS?, distinct count of Incident Patient Care Report Number and EMD Determinant. The average of Critical? filter ranges from 0.0% to 1.0%. The average of Vital? filter ranges from 0.0% to 5.0%. The average of ALS? filter ranges from 0.0% to 3.0%. The distinct count of Incident Patient Care Report Number filter ranges from 100 to 7,193. The EMD Determinant filter keeps 20 members.

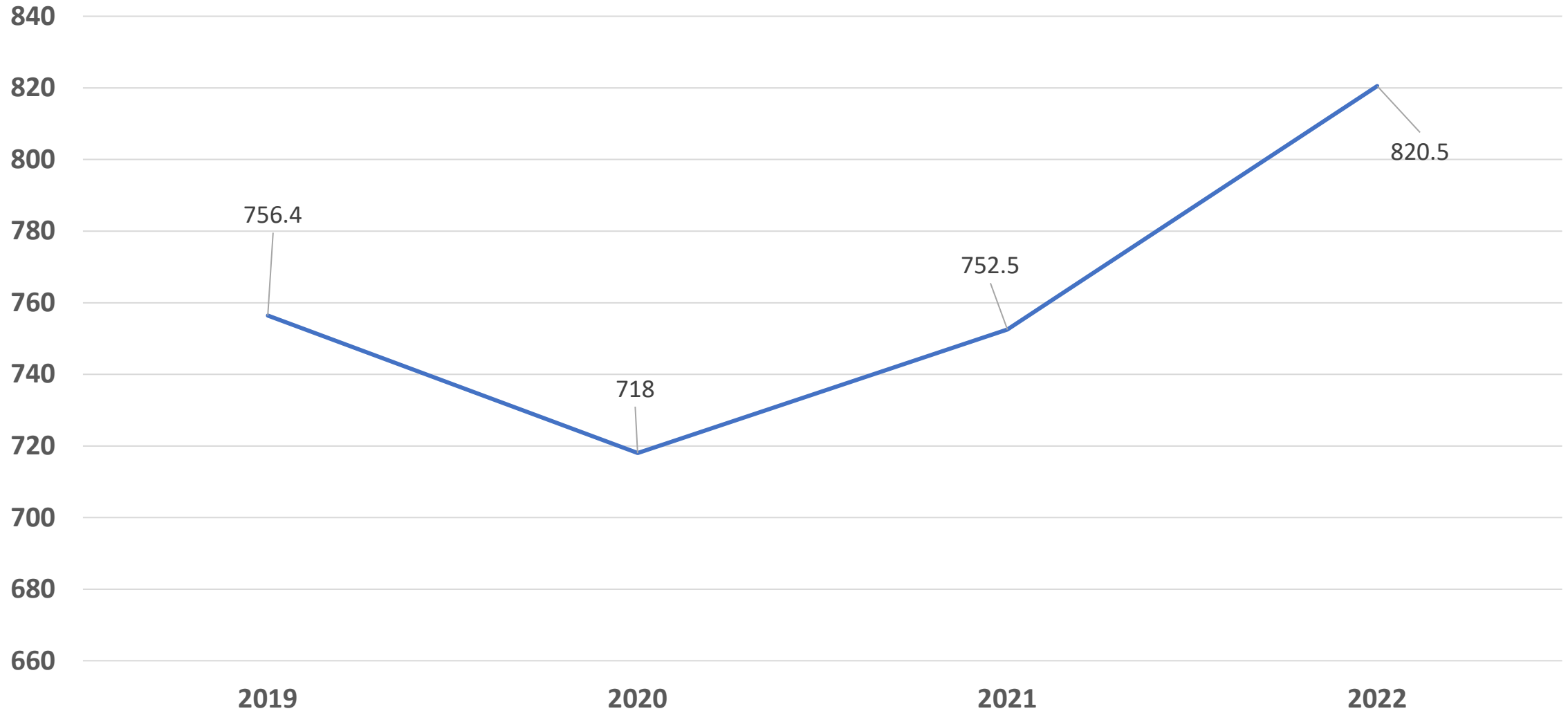
BLS Response Report Summary - BLS Eligible Determinants

Through: **10/31/2021**

**BLS Response Determinants w/BLS Unit Response*

Determinant	Responses	Patients Assessed	Transports	Transport Ratio
01A03 - Abdominal Pain / Problems - P3	10	8	7	70.0%
04B01 - A - Assault - Assault - P2	69	60	33	47.8%
04B03 - A - Assault / Sexual Assault / Stun Gun - Assault - P2	10	9	7	70.0%
04D05 - A - Assault - Assault - P1	14	12	6	42.9%
05A01 - Back Pain (Non-Traumatic or Non-Recent Trauma) - P3	6	6	6	100.0%
16A01 - Eye Problems / Injuries - P3	4	4	3	75.0%
20B02 - H - Heat / Cold Exposure - Heat exposure - P2	24	11	5	20.8%
20O01 - H - Heat exposure - Heat exposure - P3	4	2	1	25.0%
23B01 - Overdose/Poisoning/Ingestion	1	1	1	100.0%
24B02 - Pregnancy/Childbirth/Miscarriage	0	0	0	
24C03 - Pregnancy/Childbirth/Miscarriage	2	2	2	100.0%
24D03 - Pregnancy/Childbirth/Miscarriage	3	3	3	100.0%
25A02 - Psychiatric / Abnormal Behavior / Suicide Attempt - P3	20	18	13	65.0%
25B03 - Psychiatric / Abnormal Behavior / Suicide Attempt - P2	50	40	37	74.0%
25O01 - Psychiatric / Abnormal Behavior / Suicide Attempt - P3	36	33	27	75.0%
25O02 - Psychiatric / Abnormal Behavior / Suicide Attempt - P3	28	25	23	82.1%
26A06 - Sick Person (Specific Diagnosis) - P3	14	12	10	71.4%
26A10 - Sick Person (Specific Diagnosis) - P3	68	54	43	63.2%
26C02 - C - Sick Person (Specific Diagnosis) - Suspected coronavirus illness - P2	23	20	12	52.2%
26O28 - Sick Person (Specific Diagnosis) - P3	13	12	12	92.3%
29A02 - V - Traffic Collision / Transportation Incident - Multiple patients - P3	60	21	13	21.7%
29B01 - V - Vehicle vs. vehicle - Multiple patients - P2	271	141	88	32.5%
29B02 - V - Vehicle vs. vehicle - Multiple patients - P2	4	1	1	25.0%
29B03 - V - Vehicle vs. vehicle - Multiple patients - P2	56	18	9	16.1%
29B05 - Traffic Collision / Transportation Incident - P2	322	116	82	25.5%
32B03 - Unknown Problem (Person Down) - P2	109	37	16	14.7%
Total	1221	666	460	37.7%

Average Staffed U/H per Day



Colorado Springs Fire Department debuts new emergency response system for 911 calls

By Debbie Kelley

Mar 1, 2022

As of Tuesday, some Colorado Springs residents may hear something different when they call 911.

"A unit will respond when a unit is available," call takers will say to residents in the south part of town who contact the emergency service for non-emergency situations — for example, when symptoms indicate the flu, a sprained ankle or a fractured hip.

Instead of immediately dispatching an ambulance, firetruck or other substantial vehicle, new Community Medicine Response Units — in medically outfitted SUVs that are on back order — will arrive at the scene.

The appropriate response could be EMTs requesting an ambulance to transport the patient to a hospital; setting a telehealth appointment for the patient; sending the patient to an urgent care center; or applying a splint, dispensing pain medication and helping the person get connected with an orthopedic center, said Fire Chief Randy Royal.

"With an ankle sprain, you may not want to sit in an emergency department for several hours," said Dr. Matt Angelidis, co-medical director for the Colorado Springs Fire Department.

The Gazette

https://gazette.com/news/local/colorado-springs-fire-department-debuts-new-emergency-response-system-for-911-calls/article_8a6caa10-99a8-11ec-bb56-3791da481e37.html



OUR PATIENTS



OUR PEOPLE



OUR STEWARDSHIP

System Design in a Post – COVID World

RESPONSE CONFIGURATION CHANGES



New Configuration

- E/D 10:59 – FR RL&S; Ambulance RL&S
- C/BH 12:59 – FR RL&S; Ambulance RL&S
- Sierra 30:00 – FR RL&S; Ambulance No RL&S
- BC/A 60:00 – No FR; Ambulance No RL&S
- OTO 90:00 – No FR; Ambulance No RL&S

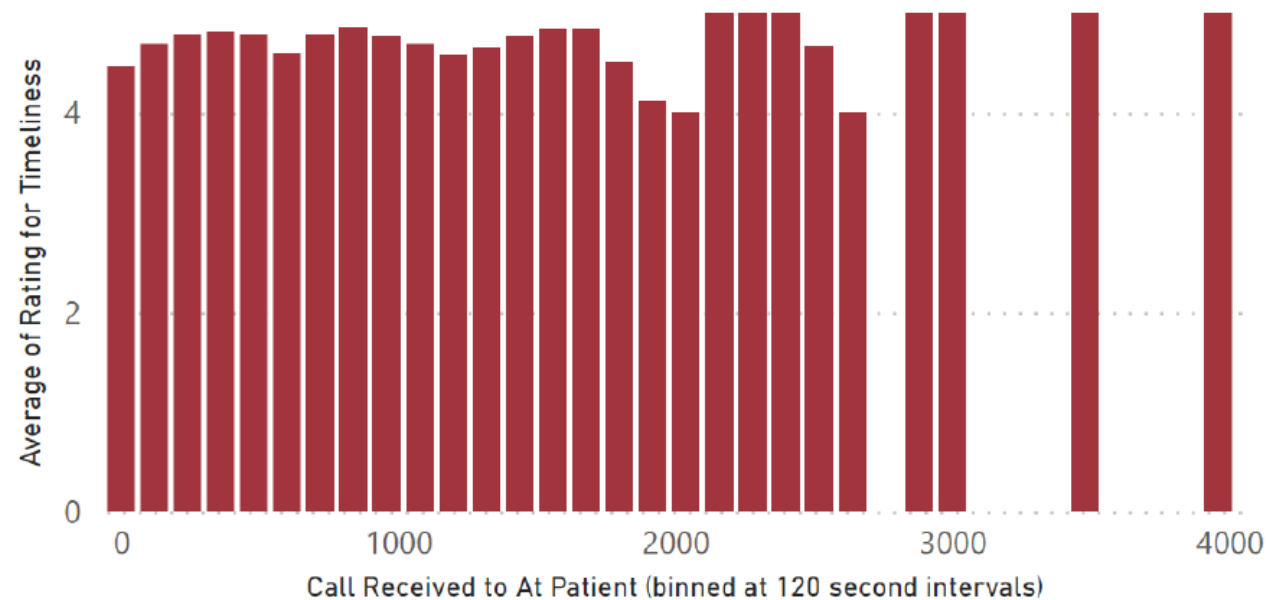
PUBLIC EXPECTATION?

Analysis of EMS Survey Team “Ambulance Arrived in a Timely Manner” Rating and Ambulance Response Time for Priority 3 (non-lights and siren) Response Times

MedStar’s Business & Data Analytics Manager, Whitney Morgan, merged data between the response times for Priority 3 (non-lights and siren) responses and our EMS Survey Team customer experience survey data.

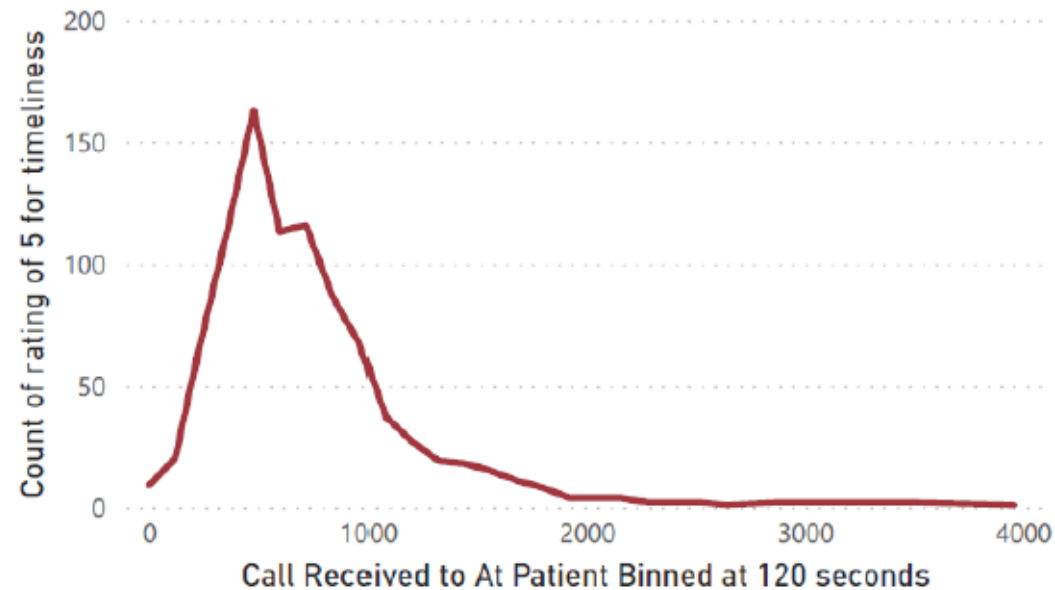
The charts and graphs below provide a summary of the data analysis:

Average Survey Response per 2-minute binned response time

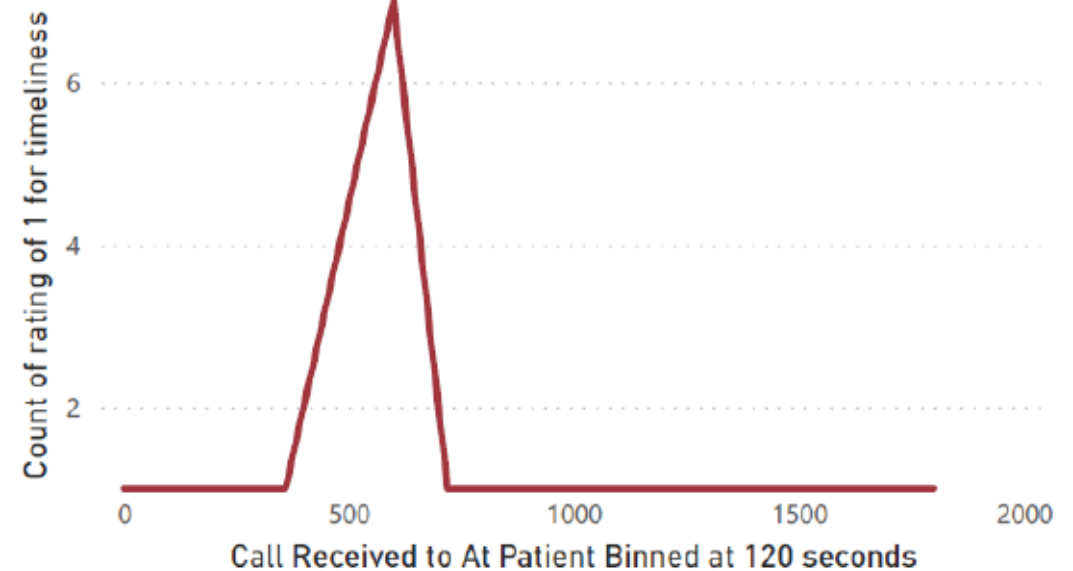


PUBLIC EXPECTATION?

Count of Rating of 5 versus Time to Patient



Count of Rating of 1 versus Time to Patient



Coefficient: 0.0174607

No correlation between time response and survey score.

Coefficient: -0.01038471

No correlation between time response and rating on ambulance arriving in a timely manner:





COST ANALYSIS

- Total Annual Cost
- Cost per Unit Hour
 - Total costs ÷ **Produced** or **Scheduled** Unit Hours
- Cost per Response
 - Total costs ÷ Responses
- Cost per Transport
 - Total costs ÷ Transports
- Cost per Capita
 - Total costs ÷ Population Served

EXPENSE ANALYSIS



		<u>Notes</u>
Agency	Anytown, USA	
Population	40,000	Total population served
Annual Ambulance Unit Hours	8,760	Total Ambulance on-duty hours/yr (i.e.: 1 Ambulance 24/7 is $24 * 365 = 8,760$)
EMS Calls/Yr	2,000	Annual EMS responses in which an ambulance was dispatched
EMS Transports/Yr	1,401	Annual ambulance transports
UH/U	0.160	Annual ambulance transports divided by annual unit hours
Legend		
		= User Entered Fields
		= Auto-Calculated/Protected Fields

EXPENSE ANALYSIS BASIC

Per Ambulance		
FTEs	7	Number of FTEs required to be hired to staff the ambulance(s)
Cost/FTE	\$ 80,000	All costs, pay, benefits, uniform, personal equipment, pension costs, etc.
Personnel cost	\$ 560,000	FTEs * Personnel cost
Ambulance	\$ 250,000	Cost of the ambulance, delivered
Equipment	\$ 65,000	Cot, monitor, etc.
Cost	\$ 315,000	Total costs
Useful Life/Years	5	Depreciation expense
Number of Ambulances	1	Count of ambulances in the fleet
Ambulance Cost	\$ 63,000	Annual cost of each ambulance
Other		
Maintenance	\$ 20,000	Annual allocated or actual cost of maintenance
Fuel	\$ 25,000	Annual cost of fuel
Supplies	\$ 21,750	Annual cost of disposable supplies and drugs
Total Annual	\$ 689,750	
Cost/UH	\$ 78.74	Total costs divided by annual <u>unit hours</u>
Cost/Response	\$ 229.92	Total costs divided by annual <u>responses</u>
Cost/Transport	\$ 328.45	Total costs divided by annual <u>transports</u>

REVENUE ANALYSIS

Commercial Payer Example

Month	Payer Name	Claim Count	Patient Count	Billed Charges	Charge per Transport	Contractual Adjustments	Net Charges	Paid	Collected per Transport	Collection Rate
Jan-22	ABCD1	470	457	\$ 300,022	\$ 638.34	\$ 2,700	\$ 297,322	\$ 290,810	\$ 618.74	96.9%
Jan-22	ABCD2	30	30	\$ 33,013	\$ 1,100.42	\$ 6	\$ 33,006	\$ 33,006	\$ 1,100.21	100.0%
Jan-22	ABCD3	12	12	\$ 12,879	\$ 1,073.21	\$ 9,512	\$ 3,367	\$ 6,662	\$ 555.18	51.7%
Jan-22	ABCD4	3	3	\$ 1,281	\$ 426.99	\$ -	\$ 1,281	\$ 1,281	\$ 426.99	100.0%
Total		515	502	\$ 347,194	\$ 674.16	\$ 12,218	\$ 334,976	\$ 331,759	\$ 644.19	95.6%

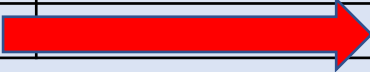
Medicare Example

Month	Payer Name	Claim Count	Patient Count	Billed Charges	Charge per Transport	Contractual Adjustments	Net Charges	Paid	Collected per Transport	Collection Rate
Jan-22	M'Care	470	457	\$ 300,022	\$ 638.34	\$ 102,620	\$ 197,402	\$ 197,400	\$ 420.00	65.8%
Total		470	457	\$ 300,022	\$ 638.34	\$ 102,620	\$ 197,402	\$ 197,400	\$ 420.00	65.8%

REVENUE ANALYSIS

\$1,500 Average Charge	Services	Billed	% of Billed	Collected	% of Collected	Payer Collection Rate
Commercial Insurance	298	\$447,620	21.3%	\$313,334	50.2%	70.0%
Medicare	324	\$485,447	23.1%	\$121,362	19.4%	25.0%
Medicaid	115	\$172,323	8.2%	\$34,465	5.5%	20.0%
Facility	62	\$92,466	4.4%	\$64,726	10.4%	70.0%
Private Pay	604	\$905,747	43.1%	\$90,575	14.5%	10.0%
Total	1,402	\$2,103,602	100.0%	\$624,461	100.0%	29.7%



REVENUE ANALYSIS BASIC

Agency Name:	Anytown, USA
Total Annual Costs	\$689,750
Total Annual Revenue	\$624,461
Net Retained Earnings	 (\$65,289)
Responses	2,000
Cost per Response	\$344.88
Revenue per Response	\$312.23
Net Retained Earnings	(\$32.64)
Transports	1,401
Cost per Transport	\$492.33
Revenue per Transport	\$445.73
Net Retained Earnings	(\$46.60)
Unit Hours	8,760
Cost per Unit Hour	\$78.74
Revenue per Unit Hour	\$71.29
Net Retained Earnings	(\$7.45)

COSTS BASED ON LEVEL OF SERVICE DELIVERY

Response Time: 7 minutes @ 90%, 5 minutes @ average; All ALS						
Station	Unit Type	Staffed Unit Hours	Total Runs	Unit Hour Utilization	Unit Hour Expense	Annual Unit Expense
1	ALS Ambulance	8,760	1,471	0.168	\$171.98	\$1,506,545
2	ALS Ambulance	8,760	1,127	0.129	\$171.98	\$1,506,545
3	ALS Ambulance	8,760	904	0.103	\$171.98	\$1,506,545
4	ALS Ambulance	8,760	1,267	0.145	\$171.98	\$1,506,545
Total		35,040	4,769	0.136	\$171.98	\$6,026,179
Revenue @ \$500/Transport						\$1,788,375
Retained Earnings						(\$4,237,804)
Response Time: 9 minutes @ 90%, 7 minutes @ average; All ALS						
Station	Unit Type	Staffed Unit Hours	Total Runs	Unit Hour Utilization	Unit Hour Expense	Annual Unit Expense
1	ALS Ambulance	8,760	1,671	0.191	\$171.98	\$1,506,545
2	ALS Ambulance	8,760	1,580	0.180	\$171.98	\$1,506,545
3	ALS Ambulance	8,760	1,518	0.173	\$171.98	\$1,506,545
Total		26,280	4,769	0.181	\$171.98	\$4,519,634
Savings						\$1,506,545
Revenue @ \$500/Transport						\$1,788,375
Retained Earnings						(\$2,731,259)

COSTS BASED ON LEVEL OF SERVICE DELIVERY

Response Time: 7 minutes @ 90%, 5 minutes @ average; All ALS						
Station	Unit Type	Staffed Unit Hours	Total Runs	Unit Hour Utilization	Unit Hour Expense	Annual Unit Expense
1	ALS Ambulance	8,760	1,471	0.168	\$171.98	\$1,506,545
2	ALS Ambulance	8,760	1,127	0.129	\$171.98	\$1,506,545
3	ALS Ambulance	8,760	904	0.103	\$171.98	\$1,506,545
4	ALS Ambulance	8,760	1,267	0.145	\$171.98	\$1,506,545
Total		35,040	4,769	0.136	\$171.98	\$6,026,179
Revenue @ \$500/Transport						\$1,788,375
Retained Earnings						(\$4,237,804)
Response Time: 7 minutes @ 90%, 5 minutes @ average; Tiered Response						
Station	Unit Type	Staffed Unit Hours	Total Runs	Unit Hour Utilization	Unit Hour Expense	Annual Unit Expense
1	ALS Ambulance	8,760	1,471	0.168	\$171.98	\$1,506,545
2	BLS Ambulance	8,760	1,127	0.129	\$135.21	\$1,184,440
3	ALS Ambulance	8,760	904	0.103	\$171.98	\$1,506,545
4	BLS Ambulance	8,760	1,267	0.145	\$135.21	\$1,184,440
Total		35,040	4,769	0.136	\$171.98	\$5,381,969
Savings						\$644,210
Revenue @ \$500/Transport						\$1,788,375
Retained Earnings						(\$3,593,594)

COSTS BASED ON LEVEL OF SERVICE DELIVERY

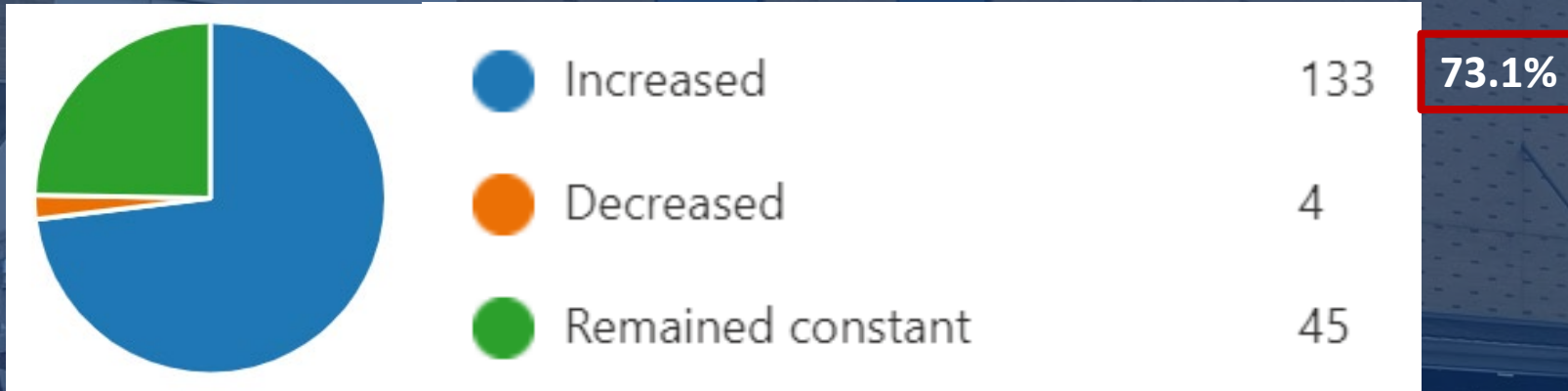
Response Time: 7 minutes @ 90%, 5 minutes @ average; All ALS						
Station	Unit Type	Staffed Unit Hours	Total Runs	Unit Hour Utilization	Unit Hour Expense	Annual Unit Expense
1	ALS Ambulance	8,760	1,471	0.168	\$171.98	\$1,506,545
2	ALS Ambulance	8,760	1,127	0.129	\$171.98	\$1,506,545
3	ALS Ambulance	8,760	904	0.103	\$171.98	\$1,506,545
4	ALS Ambulance	8,760	1,267	0.145	\$171.98	\$1,506,545
Total		35,040	4,769	0.136	\$171.98	\$6,026,179
Revenue @ \$500/Transport						\$1,788,375
Retained Earnings						(\$4,237,804)
Response Time: 9 minutes @ 90%, 7 minutes @ average; Tiered Response						
Station	Unit Type	Staffed Unit Hours	Total Runs	Unit Hour Utilization	Unit Hour Expense	Annual Unit Expense
1	ALS Ambulance	8,760	1,671	0.191	\$171.98	\$1,506,545
2	BLS Ambulance	8,760	1,580	0.180	\$135.21	\$1,184,440
3	ALS Ambulance	8,760	1,518	0.173	\$171.98	\$1,506,545
Total		26,280	4,769	0.181	\$171.98	\$4,197,529
Savings						\$1,828,650
Revenue @ \$500/Transport						\$1,788,375
Retained Earnings						(\$2,409,154)

HOSPITAL DELAY CHALLENGE

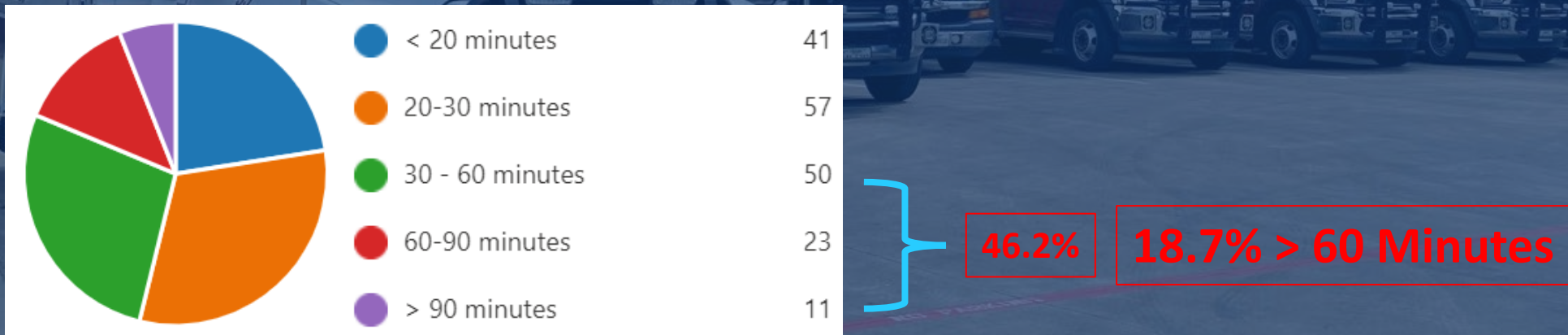


FLASH POLL AUGUST 2021

Compared to 6 months ago, on average, have your hospital turn around times increased, decreased or remained constant:



What is your current average hospital turn around time:



STANDING EMS PROTOCOL

WAITING ROOM CRITERIA

Upon arrival in the emergency department, if transfer of care has not occurred in accordance with NRS 450B.790, any patient, excluding patients placed on a legal psychiatric hold, meeting **ALL** the following criteria may be placed in the hospital waiting room or other appropriate location:

1. Normal vital signs
 - A. Heart rate 60 - 100
 - B. Respiratory rate 10 - 20
 - C. Systolic BP 100 - 180
 - D. Diastolic BP 60 - 100
 - E. Room air pulse oximetry >94%
 - F. Alert and oriented x 4
2. Did not receive any parenteral medications during EMS transport except a single dose of a narcotic and/or an anti-emetic.
3. In the judgment of the Paramedic/EMT-P, does not require continuous cardiac monitoring. Note: Any ECG monitoring initiated by a transferring facility may not be discontinued by EMS personnel.
4. Can maintain a sitting position without adverse impact on their medical condition.
5. Is left with a verbal report to hospital personnel.



PROPERLY MEASURING PERFORMANCE

EVIDENCE-BASED PERFORMANCE MEASURES FOR EMERGENCY MEDICAL SERVICES SYSTEMS: A MODEL FOR EXPANDED EMS BENCHMARKING

A STATEMENT DEVELOPED BY THE 2007 CONSORTIUM U.S. METROPOLITAN MUNICIPALITIES' EMS MEDICAL DIRECTORS (APPENDIX)

J. Brent Myers, MD, MPH, Corey M. Slovis, MD, Marc Eckstein, MD, MPH,
Jeffrey M. Goodloe, MD, S. Marshal Isaacs, MD, James R. Loflin, MD,
C. Crawford Mechem, MD, Neal J. Richmond, MD, Paul E. Pepe, MD, MPH

PROPERLY MEASURING PERFORMANCE

ABSTRACT

There are few evidence-based measures of emergency medical services (EMS) system performance. In many jurisdictions, response-time intervals for advanced life support units and resuscitation rates for victims of cardiac arrest are the primary measures of EMS system performance. The association of the former with patient outcomes is not supported explicitly by the medical literature, while the latter focuses on a very small proportion of the EMS patient population and thus does not represent a sufficiently broad selection of patients. While

TABLE 1. Key Treatment Elements for Various Clinical Entities Encountered by EMS Systems

Clinical Area	Elements in Model
ST-Elevation Myocardial Infarction (STEMI).	Aspirin (ASA), if not allergic 12-Lead electrocardiograph (ECG) with prearrival activation of interventional cardiology team as indicated Direct transport to percutaneous coronary intervention (PCI) capable facility for ECG to PCI time < 90 minutes
Pulmonary edema	Nitroglycerin (NTG) in absence of contraindications Noninvasive Positive Pressure Ventilation (NIPPV) preferred as first-line therapy over endotracheal intubation
Asthma	Administration of beta-agonist
Seizure	Blood glucose measurement Benzodiazepine for status epilepticus
Trauma	Limit non-entrapment time to < 10 minutes Direct transport to trauma center for those meeting criteria, particularly those over 65 (with time consistent caveats for air medical transport situations)
Cardiac arrest	Response interval < 5 minutes for basic CPR and automated external defibrillators (AEDs)

MAEMSA Clinical Bundle Performance Dashboard

Agency:

Cardiac Arrest

	Goal	May-22	Jun-22	Jul-22
% of recognizable Out-of-Hospital Cardiac Arrests (OHCA) cases correctly identified by Dispatch				
Median time between 9-1-1 call and OHCA recognition				
% of recognized 2nd party OHCA cases that received tCPR				
Median time between 9-1-1 Access to tCPR hands on chest time for OHCA cases				
% of cases with time to tCPR < 180 sec from first key stroke				
System response time < 5 mins for Dispatch-presumed cardiac arrest				
% of cases with CCF \geq 90%				
% of cases with compression rate 100-120 cpm 90% of the time				
% of cases with compression depth that meet appropriate depth benchmark 90% of the time				
% of cases with mechanical CPR device placement with < 10 sec pause in chest compression				
% of cases with Pre-shock pause < 10 sec				
% arrive at E/D with ROSC				
% discharged alive				
% neuro intact at discharge (Good or Moderate Cognition)				
% of cases with bystander CPR				
% of cases with bystander AED use				
# of people trained in CCR				

MAEMSA Clinical Bundle Performance Dashboard

Agency:

Ventilation Management

	Goal	May-22	Jun-22	Jul-22	Aug-22
% of cases with etCO2 use for non-invasive ventilation management (CPAP, BVM) when equipped					
% of cases with etCO2 use for invasive ventilation management (KA, ETT, Cric)					
% of successful ventilation management as evidenced by etCO2 waveform throughout the case					
% of successful King Airway placement					
% of successful endotracheal tube placement					
System response time < 5 mins for Dispatch-presumed compromised airway					

STEMI

	Goal	May-22	Jun-22	Jul-22	Aug-22
% of suspected STEMI patients correctly identified by EMS					
% of suspected STEMI patients w/ASA admin (<i>in the absence of contraindications</i>)					
% of suspected STEMI patients w/NTG admin (<i>in the absence of contraindications</i>)					
% of suspected STEMI patients with 12L acquisition within 10 minutes of patient contact					
% of suspected STEMI patients with 12L transmitted within 5 minutes of transport initiation					
% of suspected STEMI patients with PCI facility notified of suspected STEMI within 10 minutes of EMS patient contact					
% of patients with Suspected STEMI Transported to PCI Center					
% of suspected STEMI patients with EMS activation to Cath Lab intervention time < 90 minutes					

Santa Cruz County First Responder Report Card				
Criterion	2016	Goal	Weighted Value	Score
Cardiac Arrest				
End-tidal CO2 monitored	38.9%	90.0%	4.0%	1.73
Complete documentation (see System QI P&P)	90.0%	90.0%	4.0%	4.00
Respiratory Distress				
Mental Status assessed/documented	90.9%	90.0%	4.0%	4.00
bronchodilator administration for wheezing within 10 minutes	72.0%	85.0%	4.0%	3.39
Airway Management				
End-tidal CO2 performed on any successful ET intubation	38.8%	90.0%	4.0%	1.72
Other confirmation techniques (e.g., visualize chords, chest rise, auscultation)	90.0%	90.0%	4.0%	4.00
Complete documentation (see System QI P&P)	90.0%	90.0%	4.0%	4.00
STEMI				
ASA administration within 5 minutes	56.7%	90.0%	4.0%	2.52
SpO2 recorded	98.3%	95.0%	4.0%	4.00
12 LEAD EKG acquired within 5 minutes	35.0%	80.0%	4.0%	1.75
Complete documentation (see System QI P&P)	90.0%	90.0%	4.0%	4.00
Stroke				
Time last seen normal	0.0%	90.0%	4.0%	-
Use of a prehospital BEFAST stroke scale	58.9%	90.0%	4.0%	2.62
Complete documentation (see System QI P&P)	90.0%	90.0%	4.0%	4.00
Trauma				
PAM scale recorded	60.8%	90.0%	4.0%	2.70
Complete documentation (see System QI P&P)	90.0%	90.0%	4.0%	4.00
Safety				
Protocol compliance rate per chart review (high acuity, AMA/RAS, & random)	90.0%	90.0%	10.0%	10.00
Patient Satisfaction (use standardized questions to allow inter-agency comparison)				
Degree to which the firefighters took your problem seriously	96.0%	94.0%	4.0%	4.00
How well the firefighters explained things in a way you could understand	95.5%	95.4%	4.0%	4.00
Skill of the firefighters	94.3%	94.1%	4.0%	4.00
Extent to which the firefighters cared for you as a person	96.0%	94.1%	4.0%	4.00
Professionalism of the firefighters	95.0%	94.1%	4.0%	4.00
ePCR Submission Compliance				
Transfer of Care (TOC) critical ePCR elements completed within 10 minutes of patient departure from scene	80.0%	90.0%	3.0%	2.67
Full ePCR completed within 24 hours	100.0%	100.0%	3.0%	3.00
Total Standards			100.0%	84.10

Green: Meet/Exceed Goal

Orange: 0-20% Below Goal

Red: >20% Below Goal

Criteria

- 1) Measurable
- 2) Must be improvable
- 3) Reflect value to the patient

Santa Cruz County Transport Report Card				
Criterion	2016	Goal	Weighted Value	Score
Cardiac Arrest				
End-tidal CO2 monitored	38.9%	90.0%	3.0%	1.30
Complete documentation (see System QI P&P)	75.0%	90.0%	3.0%	2.50
Respiratory Distress				
Mental Status assessed/documented	90.9%	90.0%	3.0%	3.00
bronchodilator administration for wheezing	72.0%	85.0%	3.0%	2.54
Airway Management				
End-tidal CO2 performed on any successful ET intubation	38.8%	90.0%	3.0%	1.29
Other confirmation techniques (e.g., visualize chords, chest rise, auscultation)	75.0%	90.0%	3.0%	2.50
Complete documentation (see System QI P&P)	75.0%	90.0%	3.0%	2.50
STEMI				
ASA administration	56.7%	90.0%	3.0%	1.89
SpO2 recorded	98.3%	95.0%	3.0%	3.00
12 LEAD EKG acquired within 5 minutes	35.0%	80.0%	3.0%	1.31
Scene time less than 15 minutes	16.7%	80.0%	3.0%	0.63
Transport to STEMI center rate (with notification)	96.7%	95.0%	3.0%	3.00
Complete documentation (see System QI P&P)	75.0%	90.0%	3.0%	2.50
Stroke				
Time last seen normal	0.0%	90.0%	3.0%	-
Use of a prehospital BEFAST stroke scale	58.9%	90.0%	3.0%	1.96
Scene time less than 15 minutes	18.7%	80.0%	3.0%	0.70
Complete documentation (see System QI P&P)	75.0%	90.0%	3.0%	2.50
Trauma				
PAM scale recorded	60.8%	90.0%	3.0%	2.03
Scene time less than 15 minutes	12.7%	50.0%	3.0%	0.76
Trauma center destination	29.8%	90.0%	3.0%	0.99
Complete documentation (see System QI P&P)	75.0%	90.0%	3.0%	2.50
Safety				
Employee injuries per 10,000 hours worked	1.11	1.00	2.0%	1.80
Employee turnover rate	36.7%	25.0%	8.0%	5.45
Protocol compliance rate per chart review (high acuity, AMA/RAS, & random)	75.0%	90.0%	10.0%	8.33
Patient Satisfaction (use standardized questions to allow inter-agency comparison)				
Communication by medics (patient and family)	96.0%	97.2%	3.0%	2.96
Care shown by the ambulance crew	95.0%	94.4%	2.0%	2.00
Skill and professionalism of our ambulance crew	94.3%	93.8%	2.0%	2.00
Cleanliness of ambulance	96.0%	94.1%	2.0%	2.00
Ride of the ambulance	80.0%	92.3%	2.0%	1.73
ePCR Submission Compliance				
At time of patient drop off (over 90 days)	75.0%	90.0%	2.0%	1.67
High acuity (ROSC, STEMI, Stroke, Trauma) cases at time of drop off	75.0%	95.0%	2.0%	1.58
Completed within 24 hours	75.0%	100.0%	2.0%	1.50
Total Standards			100.0%	70.43

Green: Meet/Exceed Goal

Orange: 0-20% Below Goal

Red: >20% Below Goal

Criteria

- 1) Measurable
- 2) Must be improvable
- 3) Reflect value to the patient

New Choices When an Ambulance is Dispatched to You Following a Call to 911



You have new care options when emergency medical services respond to your 911 call. You may be offered alternative services instead of being transported by ambulance to the hospital. These services will make sure you receive the most appropriate care at the right time and place for your medical needs.

If your ambulance team finds that you do not need emergency medical treatment at a hospital:

- You may be offered transportation to another medical facility to get care, such as an urgent care center or a doctor's office.
- You may also be offered treatment with a qualified health care provider right where you are (in person or by telehealth).

If you are offered one of these options, you can still ask your ambulance team to take you to the hospital.

Why are there new options?

- Save you and your family time waiting in the emergency department and get you care more quickly
- Help you avoid hospital costs, when appropriate
- Allow ambulance teams to focus on transporting patients with the greatest emergency needs to the hospital

For more information, please contact your emergency medical services provider, or visit the Centers for Medicare & Medicaid Services website at:

<https://innovation.cms.gov/innovation-models/et3>



ALTERNATE PAYMENT

- Treatment in Place (TIP)
- Transport to Alternate Destinations
- Telehealth Facilitation
- Community Paramedicine

- EMS Systems are the most challenged they have been, **EVER**
 - Regardless of the provider/delivery model
 - Staffing
 - Economics
 - Supply Chain
- Systems should be re-designed based on science and evidence
 - **Realistic** public expectations
 - Economic and customer service balance



- Response time is **NOT** a quality measure
- EMS Systems should be evaluated on *what matters*
 - Clinical outcomes/bundle compliance
 - Cost of service delivery
 - Patient experience



QUESTIONS?

A diverse group of people are seated in an audience, facing towards the left. In the foreground, a woman with dark curly hair is smiling and raising her right hand. Next to her, a man in a plaid shirt is also smiling. Other audience members in the background include a woman with short blonde hair, a man with a beard and glasses, and several others of various ethnicities. The setting appears to be a modern room with a brick wall in the background.

CONTACT INFORMATION



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An aerial photograph of a historic town, likely Annapolis, Maryland, featuring a prominent church with a blue and white dome and steeple. The town is built on a hill, with various colorful houses and buildings. The sky is a mix of blue and purple, suggesting dusk or dawn. The text "THANK YOU" is overlaid in large, white, sans-serif capital letters.

THANK YOU

EMS on Life Support

CONTACT



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