



One Team One Mission

2023 MedStar Careholders' Report



Inspirational and Relatable Quotes to MedStar Team Members

“It’s not what you look at that matters, it’s what you see.”

Henry David Thoreau

“I can’t change the direction of the wind, but I can adjust my sails to always reach my destination.”

Jimmy Dean

“My mission in life is not merely to survive, but to thrive; and to do so with some passion, some compassion, some humor, and some style.”

Maya Angelou

“If I have done the public any service, it is due to my patient thought.”

Isaac Newton

“Perfection is not attainable, but if we chase perfection we can catch excellence.”

Vince Lombardi



2023 Annual Careholders’ Report ONE TEAM - ONE MISSION

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Service Area Profile

15 Cities, included Naval Air Station

Population / 1,119,441

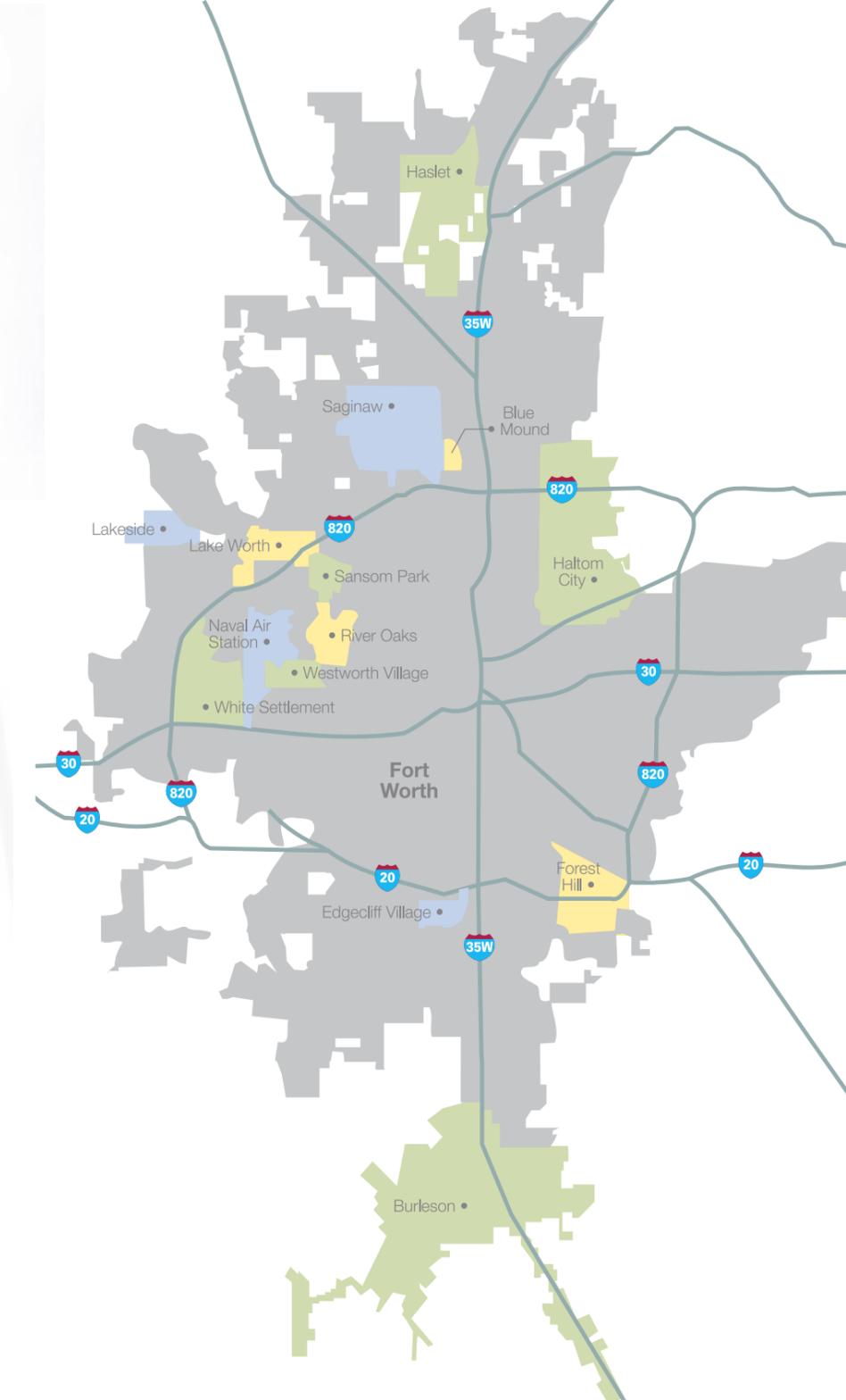
Square Miles / 434

Median Income / \$67,977

Median Home Price / \$212,300

Median Age / 32.8

Source: US Census.gov 2022-2020, Ft. Worth median income, home value data from census.gov; median age Ft. Worth city-data.com





CEO MESSAGE



Ken Simpson, MedStar Mobile Healthcare CEO

We are pleased to present the 2023 MedStar Careholders' report.

The last year provided numerous examples of our team's commitment to the patients and the community we have the honor of serving. From ice storms to record-setting heat waves to cyber-attacks, our team rose to overcome these challenges and, together, learned a few things along the way. The compassion for patients, community dedication, and resiliency displayed by our team is awe-inspiring!

In addition to continued to provide exceptional care to the communities we serve, the MedStar team continues to be on the national forefront of organizations seeking better ways to deliver quality, healthcare options, specifically tailored to our community. Through collaboration with external partners, our teams have demonstrated success in transformative programs that field and mobile integrated healthcare EMTs and paramedics provide such as on-scene treatment and referral using telemedicine, fall risk identification and prevention, elder abuse recognition and referral, readmission avoidance, high-risk patient management, and opiate detection, overdose treatment, and intervention programs.

The success of these innovative programs is some of the things that attract EMTs and paramedics from all over the country to join the MedStar team, leading to a 19.5% increase in staffing from the previous year. This increase bucks the national trend of EMS workforce shortages. We are excited to work with our expanding team as we find more ways to improve the health and wellness of our communities!



MedStar's team of employees expanded to meet the needs of the community.

The System Medical Director is an integral part of the success and advancement of the MedStar system, and this year Dr. Jeff Jarvis joined the team as the System Medical Director and Chief Medical Officer for the EMS system and MedStar. Dr. Jarvis' national reputation for making data-driven decisions make him a natural fit for this key role as the system looks to explore innovative, sustainable ways to meet the needs of our growing community.

The environment for innovation in EMS and mobile healthcare is creating a metamorphosis driven by workforce shortages, increasing utilization of the 911 system for a growing variety of complaints, COVID-19, supply chain challenges, and a challenging economic model. Despite these challenges, MedStar's team of healthcare providers and support staff are making positive, meaningful impacts in the lives of their patients. We are excited and encouraged by the ongoing commitment of our community partners, member cities, Board of Directors, and others who want to be part of the team that finds a better, more patient-centric way to deliver appropriate care to those in need of services in the community. That is why the theme of this year's annual report is

"One Team - One Mission"!



MedStar administered monoclonal antibody infusions, above photo.



MedStar on the scene of an accident to initiate mobile healthcare and transport to a nearby hospital.



PEOPLE CENTERED MISSION

The People are the Heart of MedStar

MedStar is grounded as a People-Centered Mission around our highly-trained, professional MedStar team. The team and community have a co-dependent relationship to bring out the best in everybody.

MedStar Employment Engagement Initiatives offered recognition, goodwill, fun contests, and wellness initiatives that occasionally included their families. In addition to employee spotlights, MedStar held 22 employment engagements in 2022.



Some employment engagement initiatives in 2022 included the Independence Day photo contest, Field Day, and Santa at the Star Day (photos above). MedStar also participated in honoring EMS workers who have passed with the Tree of Life - National EMS Memorial (below).



HOPE SQUAD WEEK

Mental wellbeing continued to be a struggle for many in our community and the EMS profession. MedStar worked to support our employees and train staff on suicide and mental health warning signs.

Various themed activities and treats are highlighted throughout Hope Week to shed light into this, too often, silent issue. In 2022, MedStar introduced a wellness room to help staff decompress and reduce anxiety.

2022 Hope Squad Activities

- Hope Squad Scavenger Hunt
- Messages of HOPE
- Ice cream
- Missing Man Table
- Yoga
- Green/Yellow/Teal ribbons
- Project Semicolon
- Employee nacho bar It's Nacho Day Suicide



MedStar helped light up the Parade of Lights in downtown Fort Worth.



Pictured - A Christmas Story – bunny costumes, Survivor Meeting, and fun in the truck.

A Year of Activities

- Truck Detailing project - Detailed 40 trucks in 30 days
- EMS Week
- Clay shoot
- Grilling at the Star - Ranger Game, t-shirts, kickball, paintball, Knockerball, food trucks, blood drive, the main event, nerf capture the flag wars
- MedStar Pet Wall
- Hope Week
- Ride For Life Motorcycle Event
- Guns and Hoses table sponsorship to support one of our own (Andrea Dornan fought)
- The Heart Walk - First Responder 5K (winning most participants and top 5 times awards)
- Field Day
- Trunk or Treat at MedStar
- Ambulance decorating - Halloween and Christmas
- Reunited 8 survivors with the first responders and hospital staff that helped to treat them for our survivor reunions
- A Christmas Story bunny costumes
- MedStar Toy Store with MWR sponsorship for our Little Stars
- Santa @ MedStar
- Christmas Adoptions- 56 total kids adopted, internally and externally (Samaritan House, One Safe Place)
- Toy drive - 180 toys donated





PEOPLE CENTERED MISSION

Personal Profiles

MedStar employees tell us WHY they work at MedStar.



Finance - Rosa

"I have a team, a family, a commitment to be a part of here with Medstar. I admire the team and their strengths that they each show every day; I enjoy being part of the success and encouraging individuals to be proud of themselves. I do this to have a part in helping the community, whether it is behind the scenes or up close. Big or small, I admire MedStar's presence in the community and the foundation it has built over the years."



Logistics - Wayne

"I feel that I am blessed and honored to be part of the MedStar team of highly trained professionals that provide world-class mobile healthcare to the city of Fort Worth and surrounding communities, I come to work every day with the hope that I can contribute to the success of the MedStar team, They are like family."



Mobile Integrated Healthcare - Anthony

"Let's be clear, I am a joyful dreamer. Resilient to the core! One of the many purposes as a provider at MedStar is to utilize the natural medicine of my character. Medstar has supported me throughout my journey. In that journey, there has been a transformation that has been my inspiration of my career. Every day I have had the opportunity to represent myself and MedStar in all my interactions. I can't help but want to infectiously change the world around me with my gift. I want to share my joyous and contagious smile with just one more each day. Just maybe I can save just one more."



Field Ambulance Operations - Deanna and Jenny

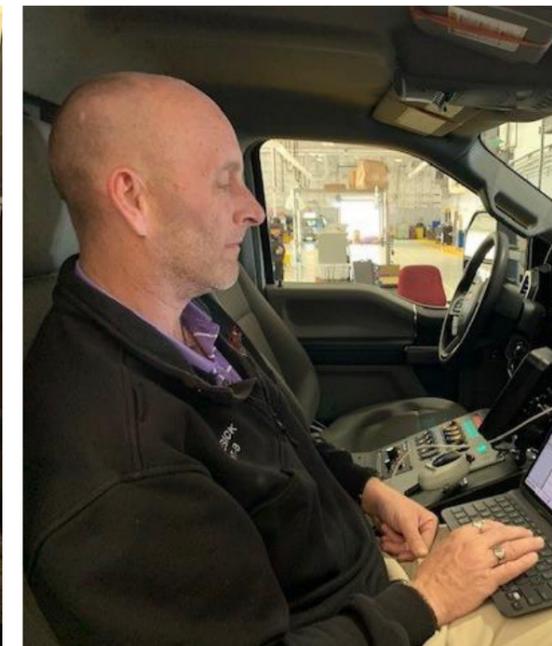
Deanna - "My co-workers are amazing, and we have a great support system. I love my partner. She makes coming to work fun, and we are always laughing. When we have bad calls, she can always make me feel better. MedStar has helped me advance my career by sending me to Paramedic school."

Jenny - "I feel like EMS was a calling for me. Nowhere else will you have the privilege and responsibility of meeting new people every day and helping in their emergency."



Communications - Stacey

"The past 36 years worked at MedStar has afforded me the opportunity to help people on a daily basis. Whether I was on the unit or now wearing a headset; I leave work knowing I have tried to make a difference. MedStar has always been at the forefront of EMS and typically sets the bar for other EMS providers. Risk and Safety."



Health Information Systems - Scott

"I chose to work for Medstar because of its true team structure, and the way Medstar treats its team. Everyone has a vital part in this System, and every part of this System is valued for their abilities. I come to work every day for my family first, and second for the family that is MedStar, and my community."



MedStar at a Glance

Demand for Mobile Healthcare continued to Rise

MedStar transported 120,742 in the fiscal year 2022, a 3.5% increase over 2021, while responses were up by 4.2% with 180,858.

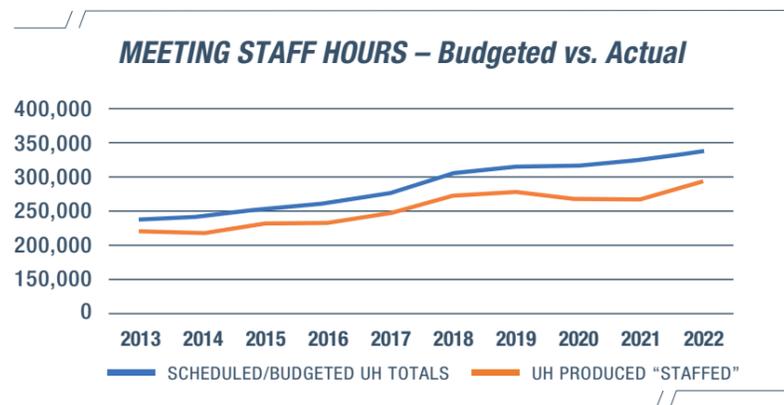
Time is of Essence in Mobile Healthcare

Throughout the region that MedStar covers, MedStar has teams strategically positioned to reduce response times. Tracking time to reach patients helps improve outcomes. In 2022, response times for trauma and CPR (Priority 1 calls) were reduced by 8.4% from 2021, and responders shaved off 8.8% of emergency response time (Priority 2). Priority 3 is for non-emergency responses.



Staffed Hours Nearly Rebound

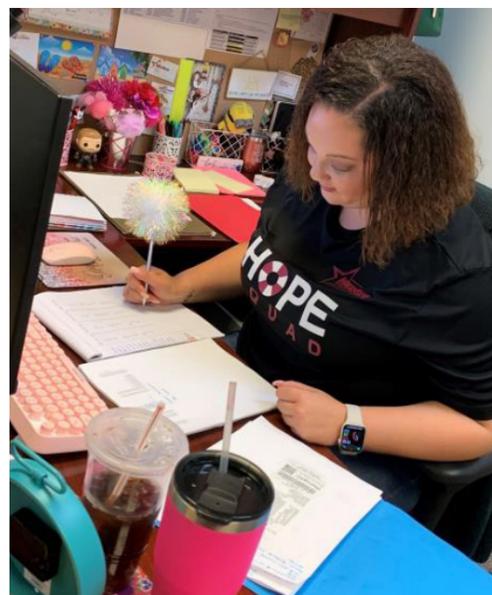
Meeting MedStar's staff-budgeted hours planned since 2019 has been challenging. Despite near-record low 2022 nationwide unemployment rates and many sectors reporting staffing challenges, MedStar's staffing efficiency improved – meeting 87% of the 335,993 hours budgeted in the 2022 fiscal year.



During EMS week, MedStar employees built comradery with external partners.



Team members make a difference for the Greater Fort Worth Community.

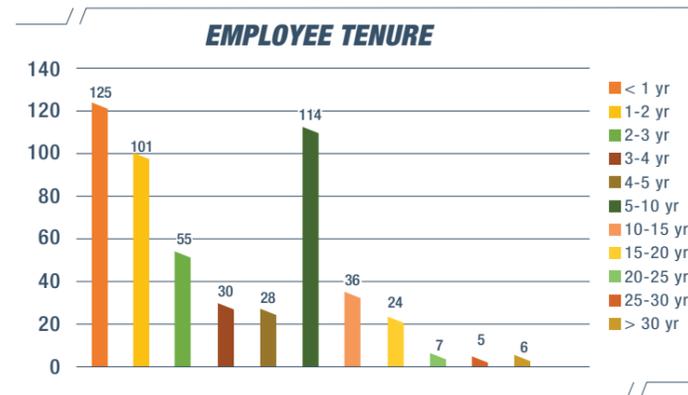


MedStar Welcomed New Team members

One hundred sixty-seven new hires joined MedStar in 2022 - 76% joined the Field Department. It is a particularly proud point that these team members chose to work at MedStar in 2022's highly competitive job market. New hires by department:

- **Field – 127 (8 rehires)**
- **Administration – 13**
- **Communications – 17**
- **Logistics – 7**
- **Fleet – 3**

Over 36% of team members have 5+ years at MedStar!



More Responses/Transports + Greater Fuel Costs

Fuel costs surged by 69% in price from 2021 to 2022. MedStar primarily attributes the increased cost of diesel and gas and the 11,282 more responses and transports.

2022 Fleet Facts

Total Miles Driven: 3,206,136
 Engine Hours: 186,301



Risk and Safety Planning and training are a priority at MedStar.





MedStar at a Glance

2022 News Highlights



January — February — March — April — May — June — July — August — September — October — November — December

- January**
 - MedStar held COVID vaccine clinics.
 - COVID cases began to spike again – attributed to new Omicron variant.
- February**
 - Collaborated and reached agreement with 14 national and international associations on best practices for using lights and sirens.
 - Media interviews remembered the epic ice storm a year ago that necessitated the use of MedStar's AMBUS.
- March**
 - Smoke from distant wildfires drove 87 calls for patients having trouble breathing, and MedStar transported 67 patients to area hospitals.
 - Collaborated with Cook Children's to distribute vaccines to the doorsteps of the most vulnerable children.
- April**
 - Achieved 65-minute first medical contact to Reperfusion time for a STEM patient.
- May**
 - Upgraded the powerLOAD systems on 65 ambulances – elevating the safety for the entire fleet.
- June**
 - 130 community members received training on *Stop the Bleed Kits and CPR* with help from media publicity.
- July**
 - The national program, *Good Morning America*, and local media coverage warned viewers about the health impact of high outside temperatures.
- August**
 - Media covered the unique and successful partnership between MedStar and Fort Worth Police Department to effectively address nightlife challenges in the West 7th District.
 - MedStar's innovative program to reduce overdoses was featured on a local newscast.
- September**
 - Scarcity of new ambulances due to supply chain disruptions required MedStar to incorporate an atypical ambulance into the fleet.
 - Launched **MedStarSAVER+Plus**, which offers 24/7 access to area residents to avoid a preventative ER visit.
- October**
 - Jeffrey Jarvis MD named as the EMS System Medical Director and Chief Medical Officer.
- November**
 - During *Crash Responder Safety Week*, MedStar reinforced the need for drivers to respect our roadside heroes by observing safe driving practices.
- December**
 - Influenza cases hit the area hard.
 - MedStar held a community blood donation drive.
 - MedStar collected gifts to give to children of families in need.



MedStar Accreditations

MedStar actively participates and has leadership roles in many healthcare-related associations that establishes and recognizes best practices and procedures.



Academy of International Mobile Healthcare Integration

- Board of Directors
- Chair, Education Committee
- Chair, Reimbursement Committee
- Communications Committee



CMS Quality Measures

- Member, ED Throughput Measures Task Force
- Member, Acute Coronary Syndrome Outcome Measures Task Force



National Association of Emergency Medical Technicians

- President
- Chair, EMS Transformation Committee



National Association of Mobile Integrated Healthcare Providers

- Board of Directors



National Association of EMS Physicians Texas Chapter

- President



National EMS Management Association

- EMS Health and Safety Officer Committee



National Fire Protection Association

- EMS 450 Standards Committee
- EMS 451 Mobile Integrated Healthcare Committee



Texas EMS Alliance

- Board of Directors



Governor's Trauma Advisory Council

- Governor Appointed Member of the Board



U.S. Fire Administration National Fire Academy

- Instructor, Mobile Integrated Healthcare Administration





Caring for Our Community

MedStar Innovates with New Models for On-Scene Care

MedStar is known for transforming how we deliver service to our patients and community. In 2022, we fully implemented an innovative program with the Centers for Medicare and Medicaid Services (CMS), Center for Medicare, and Medicaid Innovation (CMMI).

The new program is called Emergency Triage, Treatment, and Transport, or “ET3” for short

This model allows MedStar to be reimbursed by Medicare for assessing patients on scene, determining if the patient could avoid a preventable ER visit by engaging with our partner telemedicine provider, Integrative Emergency Services (IES), to guide the patient to other, more appropriate care.

Since the program launched in April 2021, over 1,200 Medicare patients have been successfully navigated to healthcare resources other than an ER.

We also worked with the Texas Health and Human Services Commission and the Texas legislature to implement a similar program for patients covered by Medicaid.

Likewise, commercial insurers reimburse MedStar for treatment without transport to an ER.

Programs like these are model programs that dramatically change the landscape for EMS delivery and allow us to deliver patient-centered care that enhances the patient experience and dramatically reduces healthcare expenditures. We are privileged to be driving many of these transformative programs.

ET3 Intervention Offered	6,984
ET3 Intervention Accepted	1,175

OUTCOMES			
TRANSPORTED		TREATED IN PLACE	
HOSPITAL ED	96	DISPATCH HEALTH REFERRAL	96
OTHER	9	MCOT REFERRAL	9
TOTAL	105	TOTAL	985



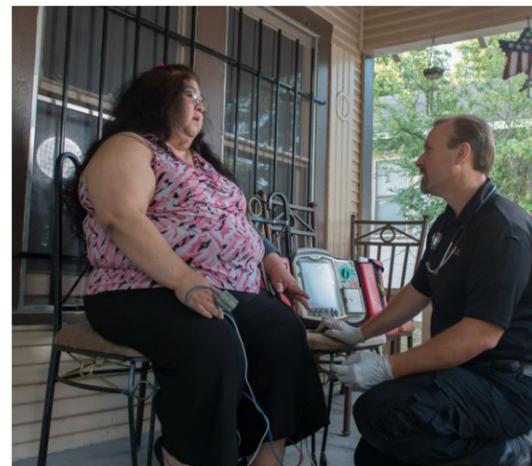
ET3 INTERVENTIONS PER DAY

APR 21	9.5
MAY 21	14
JUN 21	15.5
JUL 21	13.4
AUG 21	13.7
SEP 21	11
OCT 21	11.2
NOV 21	10.9
DEC 21	8.3
JAN 22	11.9
FEB 22	9.2
MAR 22	8.5
APR 22	9.9
MAY 22	14
JUN 22	17.8
JUL 22	13.9
AUG 22	14.3
SEP 22	12.2
OCT 22	7.3
NOV 22	9.4
DEC 22	8.6

Example ET3 Treat – No Transport Cases Roy Bird, Ryan Chappell, Sokol Bajraktari (Student)

MXX dispatched to a residence for an XX-year-old m with CC of weakness for the past couple of days per family. The patient was found in the back bedroom, AA&Ox4, GCS of 15, VS stable for transport, and the patient is a candidate for ET3. The patient accepted the treatment in place suggested by the physician of Toradol 15mg IM and 125mg of Solumedrol for arthritic pain in the lumbar, a chronic condition for the patient.

The patient assessment shows no abnormal findings from normal. VS was monitored throughout treatment in place with neutral changes. The patient treated in place with no additional intervention and no adverse reactions from treatment. Patient signed ePCR and stated, “I’m going to follow up with my PCP in the morning and see if I can get back into home health or some kind of rehab place.” The crew cleared the call, and no transport.



Noah Vasquez, Brenden Carter, Mohaned Mhanna (Student)

MXX Emergent response to a private residence for reported breathing problems. AOS To find the patient sitting on the edge of the bed. The patient reports she’s been having shortness of breath all day. She has a Hx of COPD. She advised she tried her inhaler. The patient is GCS 15 a/ox4 and is having 3-word dyspnea. MedStar crew assessed v/s and auscultated lung sounds. V/s were within normal limits, and lung sounds found wheezing. The crew administers breathing treatments per protocol while reassessing lung sounds and performing an EKG. EKG showed normal sinus rhythm, and lung sounds showed improvement.

The patient’s lungs were found to be clear bilaterally after the duo neb, and the patient felt better and did not want to be transported. MedStar offered an ET3 Telemedicine option. MedStar crew initiated the ET3 intervention. The telehealth physician advised it is suitable for the patient to remain in place. The MedStar crew reassessed the patient, offered any other assistance, and then cleared the scene.



Austin Walker, Shakira Sadler

The patient reports cough, fever, chills, body aches, specific back and chest pain, and general weakness for the last three days. The patient says she cannot access OTC medications to manage her illness. Patient denies N/V/D or changes in intake or output. The patient states that her shelter has had a recent flu outbreak. The patient denies any vaccinations in the last year, included flu, covid, or pneumonia. The patient is observed to be a XX y/o Caucasian female, walking out of the shelter without difficulty meeting EMS. The patient has no immediate life threats visible, ABC’s intact, GCS 15.

The patient’s vitals were unremarkable. Physical exam noted clear lung sounds with no increased respiratory effort, productive cough, CMS equal and intact in all extremities without remarkable weakness, skin pink/warm/clammy, mucous membranes appear moist. Reassessment held no remarkable changes. EMS diagnosis is URI. The patient was met outside the women’s shelter, where she walked to meet the crew. The crew assisted the patient to the ambulance’s curbside door, assessed the patient’s vitals, performed a physical exam, and gathered history. IES consult was offered to the patient and accepted. IES consult was conducted with Dr. Adibi. With the physician’s consent, the patient accepted the EMS plan to transport her to JPS UCC. Dr. Adibi ordered 30mg of Toradol IM for the patient’s pain during transport and the patient was given IM injection in the right deltoid. The patient was then transported to P3 ALS to JPS UCC. The patient was monitored continuously during transport. On arrival, the patient was walked from the ambulance into the JPS UCC, where she was handed off to RN. The transfer of care went without incident. MXX returned to service.



Caring for Our Community

MedStar Foundation Hosted Clay Shoot for a Good Cause

MedStar had 17 teams participate in a Clay Shoot to benefit the Jordan Elizabeth Harris Foundation, which educates the community about depression, provides suicide prevention training, and works toward erasing the stigma associated with mental illness, included First Responders.

Awards

TOP GUN AWARD / **Randy Alexander from Peloton Land Solutions.** Score of 91.

1ST PLACE / **HUB International/Gus Bates**
Average overall score: 78.

GAVE IT OUR BEST SHOT (Last Place) / **Ed Kraus, Frank Testa, Matt Z., Trey Lewis**

Average overall score: 32.

Average score overall of all participants: 47



Hands are raised in response to whether they had been personally impacted by suicide. Mental health matters.

MedStar Special Operations at 2022 Events

MedStar presence at major events is an important safety measure. In 2022, MedStar was onsite at:

Standby Events – 849

Community Events – 189

Some of the major events included:

- All Western Parade
- Fort Worth Stock Show and Rodeo (7 days a week for 3 weeks)
- Cowtown Marathon
- Spring Break at the Zoo
- Ubbi Dubbi Rave Event
- Texas Motor Speedway (3 times per year)
- Alliance Air Show
- TCU Football (6 home games)
- TCU Sporting Events
- Armed Forces Bowl (at TCU)
- West 7th Friday and Saturday Night
- Partnership with FWPD Bike Patrol

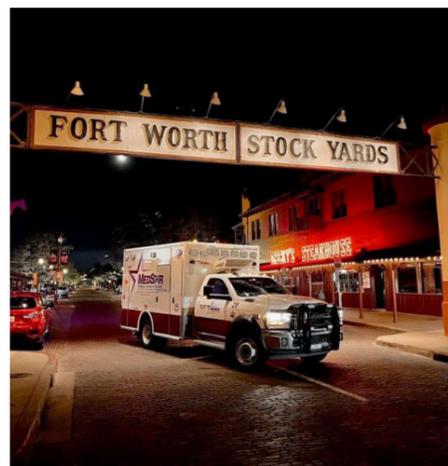
The AMBUS was used at Main Street Arts Festival, Mayfest, and a TCU Football Game. Exercises were conducted with Cook Children's and THR Fort Worth Static display at Alliance Air Show, Traffic Incident Management Conference, Weatherford College Safety Expo, and NCTTRAC General Membership Meeting.



Looking the part at the Fort Worth Stock Show and Rodeo



9/11 Rangers Cowboy game



MedStar Agreement with the Lights and Sirens Reduction Project, Joined 14 National and International Associations

In astounding unity to improve safety, fourteen national and international associations came together on the use of Lights and Siren Vehicle Operations in Emergency Medical Services (EMS) Responses. The associations recognized that increased safety and patient outcomes could be achieved by decreasing the use of lights and sirens (L&S).

Highlights of L&S standards for emergency vehicle response to medical calls and initiatives:

- Although L&S use for selected time-sensitive medical conditions may improve the patients's outcome, its use poses a significant risk to both EMS practitioners and the public. Therefore, during the response to emergencies or transport of patients by EMS, L&S should only be used for situations where the time saved by L&S operations is anticipated to be clinically important to a patient's outcome.
- L&S should not be used when returning to the station or posting on standby assignments.
- Communication centers using best practice standards (developed with active physician medical oversight and monitored by QA programs) would call triage and call categorization to identify response resources needed and medical urgency of the call.
- L&S response or transport use would be applied where it is clinically justified.
- Clinically justified emergency response assignments would be developed at the local level with local physician medical oversight to develop and establish safe response policies.
- Emergency response agency leadership, included physician medical oversight and QA personnel should monitor the rates of use, appropriateness, EMD protocol compliance, and medical outcomes related to L&S use during response and patient transport.
- All emergency vehicle operators should complete a robust initial driver training program for emergency vehicles, and all operators should have required regular continued education on emergency vehicle driving and appropriate L&S use.
- Municipal government leaders should be aware of the increased risk of crashes associated with L&S response to the public, emergency responders, and patients. Service agreements with emergency medical response agencies can mitigate this risk by using tiered response time expectations based on EMD categorization of calls. Rather than time, quality care metrics should drive these contract agreements.
- Emergency vehicle crashes and near misses should trigger clinical and operational QA reviews. States and provinces should monitor and report on emergency medical vehicle crashes to better understand the use and risks of these warning devices.
- EMS and fire agency leaders should work toward improving public education about the risks of L&S use to create safer expectations for the public and government officials.



14 National and International Associations and MedStar are following the best practices outlined in the Lights and Sirens Reduction Project.



Service Delivery

One Team – One Mission: The Patient’s Experience

At MedStar, we believe that putting the patient at the heart of everything we do includes not only the CLINICAL care we deliver, but also the patient’s EXPERIENCE with our communications, field, and business office team members.

MedStar is one of only 221 EMS agencies in the country that believe we should hold ourselves accountable for patient experience using an outside agency for unbiased data collection methods. Monthly, MedStar uploads all our emergency patient data to a secure server at the EMS Survey Team (EMSST). The EMSST then uses a computer algorithm to select a representative sample of patients to contact and conduct a patient experience survey.

We are exceptionally proud of our entire team and the way they work together to help assure our patients have the best possible experience, even during the potentially worst moment of their lives! In addition to the numeric scores, here are what some of our patients said on their surveys: “The EMT, who was in the back with me, was amazing, she got my IV line in the first shot, which is hard to do with my veins, and she kept me talking and even made small talk. She was quick and effective and made sure I was in no pain. She also made sure she got as much history out of me as possible.”

“I wish I could remember names so I could thank them personally, because the crew who took care of me on 12/24 was exceptional in every way. Not only in their medical professionalism but in human caring and attitude as well.”

“The EMTs gave absolutely the best care and attention to detail. They were highly concerned with my well-being and made the whole process so much easier with their attention to detail. Kudos to both of them!”

“We brought my father home from the hospital to hospice care. Both MedStar staff were extremely kind and considerate, answered questions, and made me feel comfortable with this decision. My father passed after only 8 hours at home, but is where he would have wanted to be.”

“I would totally be friends with the three people who helped me on the ambulance ride. They were empathetic and kind and didn’t treat me like a number. They also had an excellent sense of humor and bedside manner. I can only hope that if I ever need an ambulance again, that I get these three! Seriously I adored them.”

“The two women who helped me that day were phenomenal. Not only were they caring, they were kind, concerned, and even able to make me laugh in such a way that made me feel at ease. I was considering not going to the hospital, and they said I should just get checked out, and to me, that showed real care and concern. They were amazing women and definitely should hire more like them.”

“Outstanding assistance and help throughout my medical emergency. I thank the whole staff, in particular the 2 EMTs who were a lifeline.”



MedStar EMSST Patient Experience Scores	2022 Composite Score
Helpfulness of the person you called for ambulance service	93
Concern shown by the person you called for ambulance service	91.8
Extent to which the ambulance arrived in a timely manner	90.5
Cleanliness of the ambulance	94.2
Skill of the person driving the ambulance	92.5
Care shown by the medics who arrived with the ambulance	93
Degree to which the medics took your problem seriously	92.5
Degree to which the medics listened to you and/or your family	92.3
Skill of the medics	93.3
Extent to which medics included you in the treatment decisions	91
Degree to which the medics relieved your pain or discomfort	87
Extent to which medics cared for you as a person	92.2
Willingness of the billing office staff to address your needs	85.7
Appropriateness of Emergency Medical Transportation treatment	91.8
Overall rating of the care provided by Emergency Medical Transport	91.4
Likelihood of recommending this ambulance service to others	90.6
Overall Score	90.7

Service Delivery: MedStar has the Pulse on the Mobile Care Needs of the Greater Fort Worth Area

EMS (Emergency Medical Services) are vital health services and EMS-dedicated professionals are committed to providing fast, efficient, and effective emergency medical care to those in need.

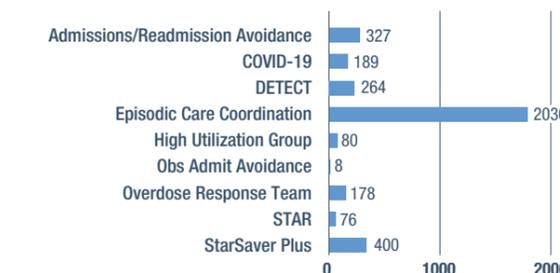
MedStar’s quick response time can mean the difference between life and death in many emergencies; thus, performance measures are tracked and situations are categorized based on the need and the urgency of the situation. These standards are mission critical to effective EMS Service Delivery.

Innovative programs have been developed by MedStar as a result of data tracking and analysis. Data helps MedStar identify gaps in patient care delivery. The **Episodic Care Coordination Program** is one such program, with 57.2% of the total enrollments - the largest of MedStar’s programs. The program aims to collaborate with partnering agencies at the time of a 911 call to provide in-home care and reduce unnecessary transports to acute care facilities, thereby reducing the burden on the patient and family.

The **Admission/Readmission Avoidance, COVID-19 Non-Transport for low-acuity, High Utilization Group, and Observation Admission Avoidance** programs are similar in their objectives to connect patients to community resources, enhance the patient experience, reduce healthcare expenditures, and improve the health of the community.

Other programs addressed senior care and drug overdose solutions, such as the **Detection of Elder abuse through Emergency Care Technicians (DETECT)** and the **Overdose Response Team**.

Mobile Integrated Health Enrollments (2022)



The **MedStarSave+PLUS** membership is an annual subscription offered by MedStar. People who live or work in the MedStar’s service area are also eligible. The program launched in 2022 to offer even more notable financial benefits to all the household members during an emergency. Benefits include ambulance and mobile medical services with an allowance for urgent home visit by a specialty trained Mobile Health Paramedic through MedStar-On-Demand service.

Program Participants Improve

MedStar’s programs helped patients maintain mobility, perform self-care and usual activities, and reduce pain and anxiety. Patients’ perceptions of their conditions are measured at enrollment and graduation in the **High Utilization Group, Admission/Readmission Avoidance, and Observation Admission Avoidance Programs**.

On average, patients saw improvement in every quality-of-life metric. Overall health improvement increased by 30.8%, 27.8%, and 40.7%, respectively.

Programs Helped Reduce Costs

Admissions/Readmission Avoidance*	Graduate Reduction
Emergency Department Utilization	-20.6%
Unplanned Admission	-49.2%
High Utilization Group*	
EMS Responses	-35.7%
EMS Transports	-39.9%
Observation Admission Avoidance*	
Emergency Department Utilization	-24.8%
Unplanned Admission	-33.0%

*comparing 12 months prior to enrollment vs actions within 12 months after graduation

MIH Encounters (2022)



As Overdoses Surged, MedStar Works to Reduce Deaths and Addiction

MedStar responded to an average of two overdoses per day in 2022. Paramedics and a Peer Support Specialist from the Recovery Resource Council followed up on overdose patients that MedStar crews treated in the field.

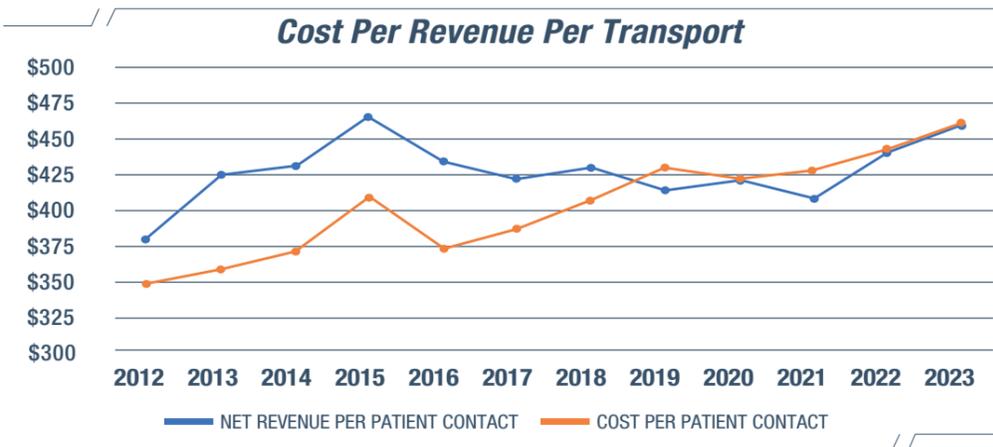
In 2022, 169 patients were connected to a Peer Support Specialist and were provided with in-patient and outpatient treatment options. Narcan, a drug that can reverse an opioid overdose, was provided to 168 overdose victim families who were also trained in CPR.



Finance

Revenue Per Patient and Costs Continued to Increase

The cost of services outpaced the net revenue collected per patient. A decade ago, MedStar generated a revenue peak of an average of \$65 over the average costs. MedStar has introduced many innovative programs to reduce uncollectable services. In 2022, labor shortages, pandemic impacts, fuel, and uninsured/uncollectable expenses drove a continued increase in costs. MedStar will continue to work toward positive financial solutions as 2023 is projected to have slightly greater costs than collected (\$460.96 cost projected vs. \$459.69 projected collected average.)



Special event mobile-health services/BERT are led by MedStar experts.



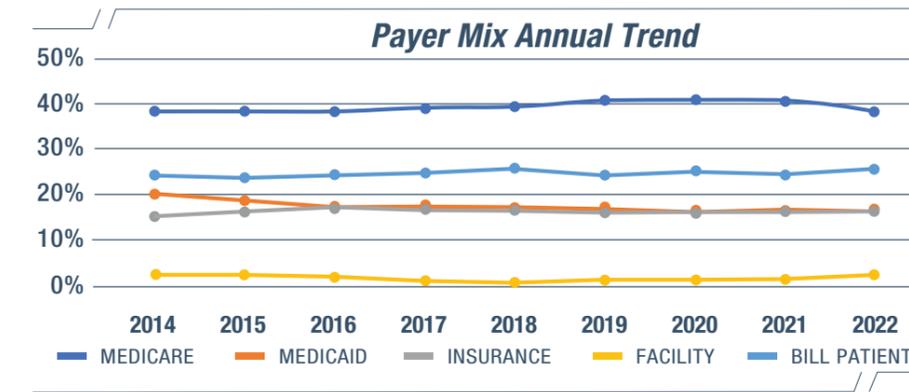
Texas Health recognized the crew for outstanding service.

AMBUS to the Rescue

AMBUS can handle multiple patients simultaneously, such as a significant traffic pile-up. MedStar also deployed it in 2022 when area hospitals had multiple discharges on treacherous snow days. MedStar's AMBUS team expertly accomplished the mission.

Payer Distribution Remained Fairly Consistent through the Years

Payments for MedStar services come from 5 sources: Medicare, Medicaid, Insurance, Facility, and Bill Patient. These sources have remained relatively constant. Medicare accounts for 38.4% of the total revenue collected – the highest of all payer types. Medicare payments in 2022 were down 1.9% from 2021 and were less than MedStar received in the last five years. Other payers remained virtually unchanged.



Some heavily-trafficked districts benefit from the use of MedStar Bicycle Emergency Reponse Team (BERT) members.

Recognized as a World-Class Integrated Mobile Healthcare Provider ★★★★★

★ On average, MedStar crews assessed a patient every 98 minutes, and are on an EMS response 69% of the time they are on duty!

This patient care experience level is one of the reasons MedStar is an AMAZING healthcare provider!

★ MedStar is one of the only 22 EMS agencies in the country with DUAL Accreditation, both with the International Academies of Emergency Dispatch - IAED AND Commission on Accreditation of Ambulance Services (CAAS).

MedStar holds itself to a higher standard!

★ MedStar is a governmental agency providing high-performance, high-value EMS to 1.1 million residents.

MedStar's team members responded to an average of 480 calls per day without using ANY tax subsidy!

★ MedStar 'posts' ambulances throughout the community at locations like QT's based on data-predictive models based on EMS calls.

Ambulances on standby, are stationed in places to get to where they are needed quickly. Time is of essence!

★ MedStar is the lowest cost ambulance provider in the state, according to an independent evaluator used by public EMS agencies to report the cost-of-service delivery to Texas Medicaid.

Outstanding service, lowest cost = VALUE!

★ In 2022, MedStar crews treated over six times more influenza-like illnesses in patients than in 2021, yet managed a remarkable 87% staffed rate.

While the community illnesses spiked, MedStar met the mobile healthcare demand.



The Medicine

MedStar Jeffrey Jarvis MD named the new EMS System Medical Director and Chief Medical Officer – effective December 2022

Howdy y’all. I’m new around here. My name is Dr. Jeff Jarvis and I’m the new Chief Medical Officer and System Medical Director. I am so excited to join such an amazing team of passionate, compassionate, and energetic people who are committed to serving their community in a system known nationally for its innovation! In fact, it was these people and the nimbleness of the system that drew me here.



As a Texas paramedic since 1988, I’ve followed MedStar’s history remotely since just after its inception. As I was studying EMS systems in grad school in the early 90’s, the public utility model always stood out as an innovative approach to solving the Fort Worth region’s challenge of how to best serve its emergency health needs in a flexible and efficient method. Interviewing here, I was struck by how the system has evolved to meet these needs even as those needs continue to change.

Our system, as with all EMS systems across the nation, is facing a dramatically different environment that the one it was designed for and the challenges we’re facing are similarly different. While we were built for a community that largely had access to health care and only called 911 for high acuity emergencies, that is no longer the reality. The challenge we must now address is a rapidly growing call volume with fewer and fewer high acuity calls, all in an environment of rising costs and decreasing re-imburements.

While the entire nation is facing these same issues, the MAEMSA system is uniquely situated to solve them by nature of its design: it is flexible and able to rapidly implement multiple small tests of change to find the solutions that work best for this community.

Coming back to what attracted me here, we have smart people who are willing, able, and deeply committed to meeting this challenge. And, while this type of change can be scary, it is also exciting. I’d like to share a bit of the vision we are developing about how the Office of the Medical Director can help the overall system, both MedStar and our first responder partners, adapt and thrive in this new environment.

We are currently building an infrastructure that will allow us to implement the tenants of improvement science and the Model for Improvement as our management strategy throughout both OMD and MedStar. While the system has always recognized the need for specific clinical performance measures, something that already puts our organization far ahead of most EMS systems, we are worked to refine and expand these measures. In the past few years, a national EMS quality movement has taken root, included an organization dedicated to developing and validating performance measures (NEMSQA). We’ll adopt these measures, in addition to those already approved by the system. The system is known for its leadership in Mobile Integrated Healthcare (MIH) and our bundle of measures will most certainly include MIH measures.

We are designing the technical components to allow us to automatically monitor performance on these measures and display the results on a dashboard designed to show us variation in performance across time. These process control charts are how we can tell when improvement has occurred and which areas we need to focus our attention on. We are also implementing an office-wide project management strategy to help us implement the Model for Improvement. We continue to share the lessons we’ve learned through our improvement process with the larger EMS community.



As an example, Buck Gleason and Kerby Johnson presented the work they led on improving the use of mechanical compression devices at the National Association of EMS Physicians course on quality & safety. At that same conference, our EMS fellows Drs. Tiffany Pleasant and Erin Lincoln, along with our associate medical directors Drs Brian Miller and Angela Cornelius and former CMO Dr. Veer Vithalani presented their work. To give you an idea of the breadth of this work, here’s a list of what OMD staff presented:

1. Cornelius AP, Picard E, Hinton C, Laird CH, Blair S, Blackwell J, Miller BL, Vithalani VD. Disparities in Emergency Medical Services Usage in a Large Metropolitan Area.
2. Vithalani VD, Earle M, Gleason W, Hejl L, Miller BL. Minimization of Unrecognized Failed Supraglottic Airways Using a Structured Quality Improvement Program.
3. Lincoln E, Crowe R, Cornelius AP, Vithalani VD, Miller BL. Are Characteristics of Pediatric Cardiac Arrest Associated with Social Vulnerability Index.
4. Pleasant T, Willens M, Miller BL, Vithalani VD, Pate B, Cornelius AP. A 12-Year Retrospective Analysis of a Mobile Integrated Healthcare System.
5. Pleasant T, Willens M, Miller BL, Vithalani VD, Pate B, Cornelius AP. Healthcare System Utilization Following Implementation of a High Utilizer Group Program.
6. Goebel M, Larrite D. Reed, R. J. Lolley, Ratcliff T, Jarvis J. Intraosseous Access Location Does Not Change Rates of Return of Spontaneous Circulation in Prehospital Cardiac Arrest.
7. Jarvis J, Perez A, Sahni R, Verkest M, Crowe R. Association between Prehospital Advanced Airway Attempts Made On-Scene versus Enroute and First Pass Success.
8. Green A, Cuellar A, Gallo P, Schwester C, Wampler D, Crowe R, Myers B, Jarvis J. The Association between Negative Prehospital Spinal Motion Restriction Screening and Spinal Cord Injury.
9. Johnson K, Gleason WB, Vithalani VD. MCDQI: Improving the Safety and Effectiveness of Mechanical Compression Devices Vithalani VD. Development of a Safe Emergency BLS Ambulance Deployment Model Using Historical Clinical Data.

In addition to the focus on building the infrastructure needed for systemic and ongoing improvement, we’re looking into ways of more rapidly delivering education in a fashion that is scalable to our growing system. We’ll focus on distributed learning to deliver just-in-time need-focused brief education that can also be used to bring new clinicians more rapidly in the system up to speed.

We will never forget that our fundamental mission is to provide world-class mobile integrated healthcare to our community. We look forward to continued to enhance the knowledge and skills of our clinicians, both through education and through assuring our medicine is guided by the latest evidence. As we are emerging from the pandemic, we are facing the impact it had on our workforce, our practice, and our performance. We have seen a decrease in several of our performance measures. We look forward to using our improvement infrastructure to reverse this decrease and enhance the quality of our care.



MedStar provided mobile clinical care in response to a 911 call. Photo credit: Glen E. Ellman/FWFD



The Medicine

Clinical Cardiac Arrest Outcomes



Every second counts for someone in cardiac arrest. Therefore, bystander CPR and AED use can improve outcomes when performed right away. MedStar tracks the use of these methods. Throughout the pandemic these metrics were down, but in 2023 bystander CPR performance is projected to be near pre-pandemic levels.

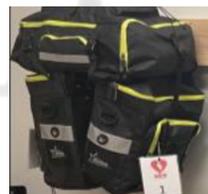
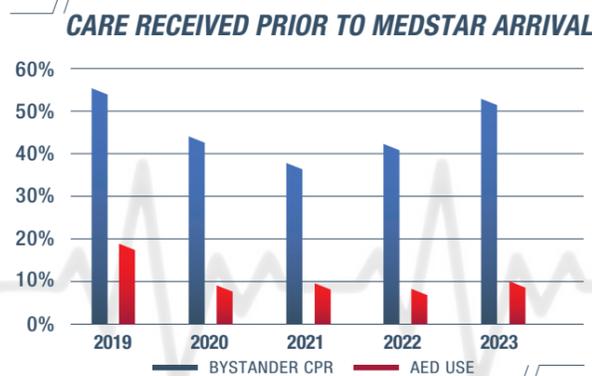


Photo credit: Glen E. Ellman/FWFD

MedStar's Community CPR Training Aided Bystander CPR Responsiveness

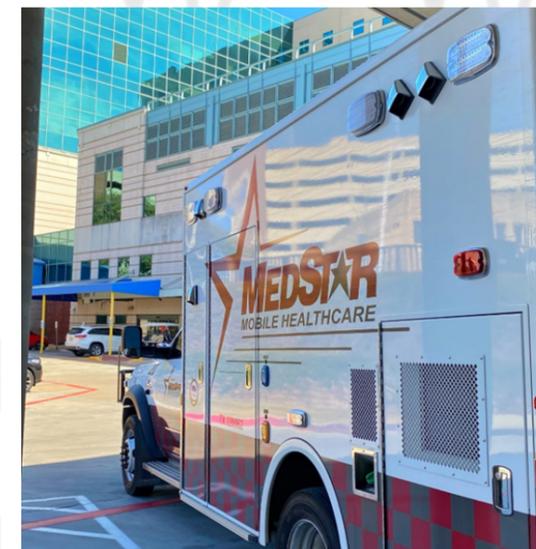
CARES data compares MedStar's cardiac arrest results with national benchmarks. MedStar's bystander CPR exceeded the national benchmark in 2022. This success can be attributed to MedStar's free CPR training to community members and community reminders that bystanders can make a difference.

Focused on Improving Results for the Most Dangerous Heart Attacks

STEMI (ST-Segment Elevation Myocardial Infarction) is a heart attack or myocardial infarction classified as the most dangerous type - typically totally blocking the artery. MedStar established aggressive goals toward survival and met them in three of the measures. Identifying STEMI correctly and notifying the PCI facility within 10 minutes of a STEMI are areas MedStar is worked to improve.

STEMI GOALS

Measure	Goal
% of suspected STEMI patients correctly identified by EMS	75%
% of suspected STEMI patients w/ASA admin (in the absence of contraindications)	90%
% of suspected STEMI patients w/NTG admin (in the absence of contraindications)	90%
% of suspected STEMI patients with 12L acquisition within 10 minutes of patient contact	90%
% of suspected STEMI patients with 12L transmitted within 5 minutes of transport initiation	90%
% of suspected STEMI patients with PCI facility notified of suspected STEMI within 10 minutes of EMS patient contact	75%
% of suspected STEMI patients transported to PCI center	90%



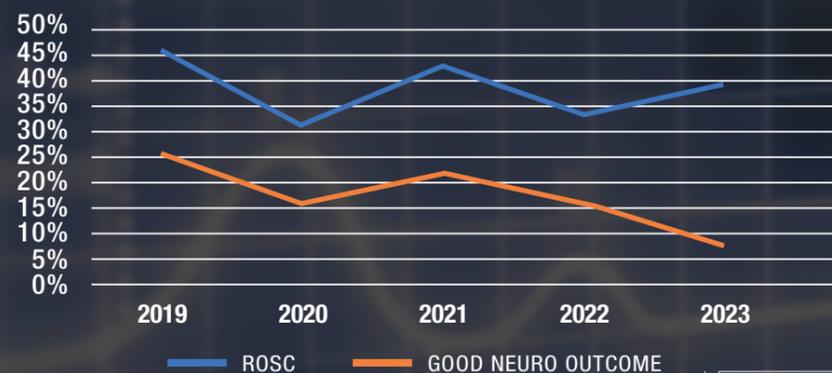
ROSC Results Improve

MedStar participated in the national Cardiac Arrest Registry to Enhance Survival (CARES) program to track the Return Of Spontaneous Circulation (ROSC) when a pulse is detected and the resulting outcome. While ROSC is improving the metric for good neuro outcomes is declining.



New Quick Respons Vehicles were placed in-service in 2022 for Field Supervisors and Critical Care Paramedic Teams.

CARES Tracking





Leadership

Executive Team

Kenneth Simpson, Chief Executive Officer
 Christopher Cunningham, Chief Operations Officer
 Dwayne Howerton, OMD Chief of Staff
 Dr. Jeffrey Jarvis, System Medical Director & Chief Medical Officer
 Leila Peeples, Chief Human Resources Officer
 Steve Post, Chief Financial Officer
 Kristofer Schleicher, General Counsel & Chief Legal Officer
 Matt Zavadsky, Chief Transformation Officer

Management Team

Whitney Burr, Business & Data Analytics Manager
 Chad Carr, Compliance Officer, Paralegal
 Odelle Carrette, Controller
 Dr. Angela Cornelius, Associate Medical Director
 Bradley Crenshaw, Clinical Practice Manager
 Linda Curtis, 911 Communications Center Manager
 Shaun Curtis, Director of Operations
 Jessica Duke, Director of Revenue
 William Gleason, Clinical Quality Manager
 Ricky Hyatt, Health Information Systems Manager
 Dr. Brian Miller, Associate Medical Director
 Brandon Pate, Operations Manager
 Desiree Partain, Transformation Manager
 Pete Rizzo, Information Technology Director
 Michael Shelton, Risk & Safety Manager
 Heath Stone, Operations Manager
 Emily Vinson, Assistant Operations Manager
 Jason Weimer, Operations Manager
 Brian White, Assistant Operations Manager



Janice Knebl
Chariman



Carlos Flores
Fort Worth City Council
Vice Chairman



Doug Spears
Saginaw Fire Chief
Secretary



Susan Alanis
Tarrant County College



Dr. Chris Bolton



Dr. Brad Commons



Bryce Davis
City of Haltom City



Jim Davis
Fort Worth Fire Chief



Teneisha Kennard
John Peter Smith
Health Network



Ken Simpson
CEO, MedStar
Ex-officio



Dr. Jeff Jarvis
EMS System Medical
Director & Chief Medical
Officer, Ex-officio

BOARD OF DIRECTORS

- 11 total members - nine voting members
- 4 members representing the City of Fort Worth
- 1 member representing the suburban member cities
- 2 physician representatives of the Emergency Physicians Advisory Board (EPAB)
- 2 members of the First Responder Advisory Board (FRAB).
- 2 ex-officio (non-voting board members) MedStar's EMS System Medical Director/Chief Medical Officer and the EMS Authority's CEO



Emergency Physicians Advisory Board Members

Voting Member	Representing	Specialty
Chris Bolton	Baylor All Saints - Fort Worth	Emergency Medicine
Daniel Guzman	Cook Children's Medical Center	Pediatrics
Chet Schrader	John Peter Smith Hospital	Emergency Medicine
Rajesh Gandhi	John Peter Smith Hospital (Trauma)	Trauma Surgeon
Holly Baselle	Medical City - Alliance	Emergency Medicine
Alana Snyder	Medical City - Fort Worth	Emergency Medicine
Open	Tarrant County Medical Society	To Be Determined
Open	Tarrant County Medical Society	To Be Determined
Dan Goggin	Tarrant County Medical Society	Psychiatry
Angela Self	Tarrant County Medical Society	Emergency Medicine
Brett Cochrum	Tarrant County Medical Society	Family Medicine
Terry McCarthy	Texas Health Resources - Fort Worth	Emergency Medicine
Brad Commons	Texas Health Resources - Alliance	Emergency Medicine
Tyler Hedman	Texas Health Resources - Huguley	Trauma Surgeon
Michelle Beeson	Texas Health Resources - Southwest	Emergency Medicine
Mark Tucker	Texas Health Resources - Fort worth (Trauma)	Emergency Medicine



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