RISING TO THE CHALLENGE

2024 MEDSTAR CAREHOLDERS' REPORT

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Why I Choose to Work at MedStar



"Seeing employees happy and proud to work for MedStar is what I love most!"

Cerenity J. - HR



"Together, let's continue to make a difference in our community's well-being. #EMS #Mentorship #CommunityCare"

Matt W. - OMD

"What sets MedStar apart, in my view, is its people and their unwavering commitment to adapt to community needs. Working here isn't merely a job; it's a conscious decision to impact lives positively and improve clinical outcomes for our communities."

Chad C. - Legal Team





"Rewarding. I do feel like I am making a difference in contributing to our success here and the community we proudly serve."

Traci R. - Billing



"I love being part of an agency that is looked to and respected around the world."

Ricky H. - Health Information Services

"Through my career at Medstar, I have gained a unique perspective on life by seeing it through the eyes of others. This has allowed me to truly understand the impact I have on my community, which has given me a deeper appreciation for the value of human connection."

Holly R. - MIH



2024 Annual Careholders' Report RISING TO THE CHALLENGE

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SERVICE AREA PROFILE

14 Cities Population / 1,111,860 (Fort Worth 87.7%) Median Income / \$ 91,049 Number of Housing Units / 396,099 Median Age / 39.0 Uninsured % / 17%

SOURCE: North Central Texas Council of Government 1/1/23 population estimate; other data 2022 data.census.gov





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Median Income 2022 data.census.gov



Percent without Healthcare Coverage 2022 data.census.gov











CEO MESSAGE 🤝

2023 was a year of growth, engagement, and change for MedStar, our team, and the community. We look at these as opportunities and continue rising to the challenge!

We started 2023 with ongoing conversations between our stakeholders, team members, and the community about how we best assure the right resources are being sent to the right calls.

Specifically, that the most critical patients are getting the fastest responses with maximal resources to give those patients the best opportunities for survival. By looking at the patient outcomes of over 300,000 previous calls we were able to refine how calls coming into the 911 system are prioritized.

The outcome of these efforts demonstrated an improvement in categorizing high acuity calls, while reducing the number of calls we respond to with lights and sirens, which make responses safer for the community and our team. Meanwhile, our clinical teams worked with our system first responders and MedStar's team members to make evidence-based updates to some of our treatment protocols to continuously drive patient care improvements within the system. The synergistic effects of these changes appear to be positive as we are seeing improvement in clinical outcomes, and, although somewhat early, in the percentage of cardiac arrest patients discharged from the hospital.

We moved quickly into preparations for fiscal year 23-24 budgeting. For several years we have been talking with our Board of Directors and leadership from our member cities about the increasing fiscal restraints and the need for additional resources to be added to the EMS system for it to be sustainable. With approval from our Board of Directors we have implemented numerous, difficult changes to maximize the utilization of our available resources and delay the need to ask for public funding, but we recognized that public funding conversation would need to be a more central part of our fiscal year 2024 discussion.

Ken Simpson, CEO

After much discussion with MedStar's Board of Directors, we recommended that it would be prudent to request a third-party consultant to evaluate the EMS system, provide comparisons throughout the country, and help determine the best path forward for EMS delivery in the Med-Star system. The City of Fort Worth volunteered to fund and host the study. Ultimately, Fitch and Associates was selected as the consultant to perform the study.

As we have been actively engaged in this study, MedStar's teams have continued to improve and excel despite the challenges and angst that can come with outside studies. We have increased the number of frontline providers, response times have decreased, clinical metrics have improved, insurance identification, billing and collections have improved, we've deployed new resources in rapidly growing outlying areas, our accredited dispatch center will answer your call in 15 seconds or less 90% of the time without sacrificing the quality of call triage, onboarded a record number of new team members to keep up with the growth, and capital improvement projects are continuing. While we don't know the direction that will ultimately be decided we remain focused on continuous improvement and rising to whatever the next challenge might be.

On behalf of our team here at MedStar, we are honored to serve you and your community. We sincerely thank you for this honor!





EMS System Response Reprioritization Exceeding Goals

MedStar and our community partners initiated a response reprioritization process that was collaboratively developed by the EMS System Performance Committee, comprised of representatives of fire response agencies, the Metropolitan Area EMS Authority (MedStar), the Office of the Medical Director, UNT Health Science Center, and JPS. Lake Worth Fire Chief Ryan Arthur is a valuable member of that committee.

The purpose of the reprioritization project was to refine EMS responses to help ensure the fastest, most efficient emergency medical response to the sickest patients. At the same time, enhance community safety by reducing the number of responses where MedStar responds by using lights and sirens to those where they are essential and beneficial.

MedStar implemented Phase 1 of the reprioritization plan on March 1, 2023. After evaluating the first 90 days of the new plan, the EMS System Performance Committee determined that the outcomes from the first 90 days exceeded the goals set by the EMS System Performance Committee and the EMS Authority.

Correct Identification of Critical Patients -

Under the old plan, only 5.34% of Priority 1 responses (the highest priority) were for a patient assessed by EMS crews as suffering a critical life-threatening emergency. Under the new plan, 35.9% of the Priority 1 responses identified a critical patient. This significant improvement helps ensure that the highest priority responses are for the sickest patients.



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Reducing Lights and Siren Responses -

Emergency vehicle lights and siren use dramatically increase risks for the public and responding personnel. National studies have found that an emergency medical vehicle responding with lights and siren is almost twice as likely to be involved in a crash, and for every emergency medical vehicle crash, there are four "wake-effect" crashes (crashes involving vehicles moving out of the way of an emergency medical vehicle).

Under the prior plan, 72.6% of MedStar's EMS response calls received a lights and siren ambulance response. Under the new plan, 37.6% of the calls received a HOT ambulance response.

This change in the EMS response plan has resulted in an improved focus on responses to critical patients while making ambulance responses safer for the community.



People Centered Mission

ENGAGEMENT ACTIVITIES: MedStar has a calendar of fun activities to reduce stress in this mission-critical service to the community and help improve communication, retention, and collaboration among employees.

JANUARY

Have fun at work day



FEBRUARY

Mardi Gras



Valentine's Day



MARCH

Dentist's Day



HR Week Snaps & Snacks



St. Patrick's Day



APRIL

Administrative Professional Day







MAY

Receptionists Day



JUNE Flag Day

Trivia Drawing

Summer Trivia Drawing

JULY

National Waterpark Day Enter to Win Independence Day Scavenger Hunt



AUGUST

Will Workshop with LegalShield



SEPTEMBER

Payroll Week



OCTOBER

Pumpkin Decorating, Costumes







OCTOBER

Truck and Office Halloween Décor, Trick Or Trunk











NOVEMBER

Thanksgiving Dinner and Parade of Lights







DECEMBER

Holiday Cheer









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Employer of Choice

Bucking the national EMS staffing crisis, MedStar has been blessed with the ability to hire added team members to meet the rising needs in the communities served.

72% Hires are Basic EMTs & Advanced Paramedics

NEW HIRE STATS – Demand for EMTs and Paramedics is high with the vast majority of MedStar new hires being Basic EMTs and Advanced Paramedics.





BY DEPARTMENT - Why they chose to work for MedStar.



FINANCE

My why I come to work has changed over the last 18 years. It was first because I needed a job and then it became, I'm a single mother and need money. Now I come to work because I love what I do. I enjoy working for Medstar over the last 18 years because I work with a great team of ladies and love what I do for the company.

Lesley L.



BILLING

My why I come to work has changed over the last 18 years. It I come to work because I enjoy the culture here at MedStar, and within the team that I have been a part of for more than 16 years. For me being able to see the results of my time, energy, and effort is extremely rewarding. I do feel like I am making a difference in contributing to our success here and the community we proudly serve.

Traci R.



HEALTH INFORMATION SERVICES

When I got involved in EMS, MedStar was my goal. It was the only EMS agency I really wanted to work for. In the 90's, it was a challenge to get hired here. It took me two years of applying before I was found worthy. I was attracted to the fast pace and wide variety of patients the service area is known for. In addition, I love being part of an agency that is looked to and respected around the world. Being with an industry leader, it keeps you on your toes.. Additionally, I enjoy the relationships I have formed over the years. Though the company has grown since I first started, it is still small enough that it feels much like getting to work with close friends and family.

Ricky H.



FLEET

The people. I work with some of, if not the best people on earth. If it ended today, it would go down as my favorite chapter in my profession.

Josh E.

BY DEPARTMENT - Why they chose to work for MedStar. (continued)



LEGAL COMPLIANCE

When I embarked on my journey in EMS thirty-two years ago, I never envisioned myself in a "desk job." What initially captivated me about EMS was the promise of diverse experiences, encountering various environments, people from all walks of life, and addressing their needs in times of crisis. Fast forward to today, I've spent two decades in an administrative capacity at MedStar, and the journey continues. My approach to work is straightforward: if you're not directly caring for patients, you should be supporting those who do. As both a Compliance Officer and Paralegal to General Counsel, I take immense pride in my role, grateful to be part of a team of compassionate individuals. Each day, I strive to provide the legal backbone essential for our agency's success, minimizing legal risks and ensuring compliance amidst the ever-shifting health-care landscape. From accompanying field providers to court as a witness to negotiating agreements and navigating new healthcare paradigms, my responsibilities are varied and demanding. Yet, what sets MedStar apart, in my view, is its people and their unwavering commitment to adapt to community needs. Working here isn't merely a job; it's a conscious decision to impact lives positively and improve clinical outcomes for our communities.

Chad C.



LOGISTICS

I started working here when I was just a 20-year-old that had no idea what I wanted to do in life. I was in college for general studies, and I happened to apply for MedStar because a high school friend of mine told me about it. EMS isnt something I had ever thought about before that conversation, in fact 5-year-old David wanted to be an astronaut that was also a part time freight train driver. I started here as an entry level tech and just loved the tight knit team atmosphere that I had been welcomed into. I found myself coming to work every day for my teammates and the fulfillment I received from knowing that I was contributing behind the scenes to the welfare of the citizens we serve. Here I am nearly 14 years later, and nothing has changed regarding why I wake up every day, put on my uniform, and head out the door. (Other than requiring a morning coffee since I am not 20 anymore.) I have cared for my patients on the frontline as an EMT, but my current path has me performing a small role in taking care of every single MedStar Patient and MedStar itself from behind the scenes. It fulfills my heart, and I am proud of the work that I do. I enjoy solving the challenges I face within medical supply management, asset management, process improvement, and the QA areas of my department as well as working to solve all those challenges while being mindful of fiscal responsibility. That responsibility adds another test to my duties, and I enjoy the challenge. It has developed me into being more financially aware on a professional level and it has carried over to me being more responsible in my personal life.

David W.



DRT

MIH

I come to work every day because of the people who make it a great place. My passion is being involved with the community and getting to know the people we are called to serve. I enjoy what I do here at Medstar because at the end of the day the quality of care is above the rest.

Kaliph F.



There are countless reasons why I enjoy coming to work every day. One of the main reasons I love Medstar is because of the satisfaction I feel when I am able to fill the voids in someone else's life. This fulfillment stems from the realization that I have also needed help at various times in my life. Understanding what it means to be vulnerable and in need of support because no one is immune to struggles and hardship. Medstar has provided me with the necessary tools and experience is to improve not only my own life, but also the lives of those around me. Through my career at Medstar, I have gained a unique perspective on life by seeing it through the eyes of others. This has allowed me to truly understand the impact I have on my community, which has given me a deeper appreciation for the value of human connection.

Holly R.



OPERATIONS

Ever-changing environment, Serving the Fort Worth community, Making a difference, even the small things count.

Christian M.



COMMUNICATIONS

The reason I enjoy coming to work is my team. I love being able to help navigate them each day and provide support to them whether it be work related or personal related. I enjoy working for MedStar because it feels like home as in it feels like people genuinely care for others and offer support in times of need.

Alyssa K.

BY DEPARTMENT - Why they chose to work for MedStar. (continued)



RISK AND SAFETY

Because MedStar is the greatest place to do the greatest job in the world! I started working for a funeral home-based ambulance in July of 1974 in my hometown of Burleson, Texas before there were any formal requirements to work on an ambulance, before there was "EMS". In those near 50 years I have seen it grow from a mostly voluntary community specific service to becoming a professional career. The advances in prehospital equipment, responsibility, and knowledge have gone from the very basics to what seemed like science fiction when I first started. With this vantage point, I know I am privileged to have been a small part in changing people's lives served by what EMS provides communities with today and working with those serving in a profession EMS organization.

Mike S.



DATA ANALYTICS

Throughout my 21 years at MedStar, my pride in working for this organization runs deep. I've witnessed its remarkable evolution, fueling my passion for our shared mission. Being part of MedStar gives me a profound sense of purpose in serving our community, patients, and each other. At MedStar, integrity is paramount, and I am deeply honored to contribute to it every day.

Christy C.



OMD

Every day, I'm privileged to make a meaningful impact in healthcare. Reflecting on my journey from a novice in the EMS field to the paramedic I am today, I'm reminded of the invaluable mentorship I received. Now, I aspire to pay it forward by guiding and supporting the next generation of EMTs and Paramedics as they embark on their own journeys in EMS. Together, let's continue to make a difference in our community's well-being. #EMS #Mentorship #CommunityCare.

Matt W.



HR

I enjoy working for MedStar because there is never a dull moment. It is rewarding because I get to work closely with various departments and engage with employees in a wide range of ways. Every day offers new challenges and opportunities for growth. Seeing employees happy and proud to work for MedStar is what I love most!

Cerenity J.

Good Morning America - national broadcast news at MedStar.

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MEDSTAR MOBILE HEALTHCARE

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Medstar At A Glance

32.5%

Emergency calls do not result in a transport



283,218 Ambulance unit hours
169,091 Ambulance patient contacts
129,800 Ambulance transports
67.5% Transport ratio

192,205 Trips Counted through December 31, 2023

Miles Driven

477,239.8 Gallons of Fuel Used



Fuel costs have risen to be close to supply costs in 2023, similar to a decade ago. Pay and pay-related expenses have increased over the years, especially since 2020.



Field Ops EMT/Paramedic/Field Sup: Pay & Pay Related Expenses



2023 Materials Used



Building Community -National, State, and Local Leadership

MedStar's leadership team members are actively engaged in advancing the EMS profession and building community through volunteer leadership roles in local, state, and national organizations. Highlights include:

NATIONAL ·

American College of Emergency Physicians

American College of Emergency Physicians (ACEP):

- Chair, EMS Committee
- Chair, Disaster Preparedness and Response Committee
- Chair, Air Medical Section
- Editor, ACEP Journal
- Clinical Resources Committee



- Academy of International Mobile Healthcare Integration (AIMHI):
- Board Member
- Treasurer
- Chair, Education Committee



EMS World Magazine:

• Advisory Board Member



International Board of Specialty Certification (IBSC): Exam Item Writer



Journal of Emergency Medical Services (IEMS):

Advisory Board Member



National Association of Emergency Medical Technicians (NAEMT):

- Board of Directors
- Chair, EMS Economics Committee
- Associate Medical Director
- Finance Committee
- Age-Friendly Public Health Systems (AFPHS) National Learning Collaborative



NBPHI

🕁 📩 🔂 NHTSA

National Association of EMS Physicians (NAEMSP):

National Highway Traffic Safety

Evidenced-Based Guidelines

NEMSOA National EMS Quality Alliance (NAEMSQA):

Standard Technical Panel

Administration (NHTSA):

• Exam Item Writer

National Board of Public Health Examiners:

Co-Principal Investigator, EMS Airway

Co-Chair, Measure Development Team

National Fire Protection Association (NFPA)

NFPA 450: EMS Standard Technical Panel

• NFPA 451: Mobile Integrated Healthcare

- LOCAL
- Response Alzheimer's Association:
 - Innovation Roundtable Advisory member



- American Heart Association of Tarrant County:
 - Board of Directors



Fort Worth Police Bicycle Support Group: • Board of Directors



Empower Fort Worth: Board of Directors

NCTORAC North Central Texas Trauma Regional

Advisory Council:

• Chair, Finance Committee



- John Peter Smith Hospital:
- Chair, Emergency Management



Bikers Against Child Abuse, Fort Worth Chapter:

Board of Directors



Prehospital Guidelines Consortium: Board of Directors

Prehospital Care Research Forum:

STATE

Texas College of Emergency Physicians:



PREHOSPITAL CARE

RESEARCH FORUM

Board of Directors

Finance Committee

Board of Directors



Governor's EMS and Trauma Advisory Council:

- Disaster Committee
- Pediatric Stroke Workgroup

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Medstar At A Glance

MedStar Fun Fact: One of the Most 'Awarded' EMS Agencies in the Country!

Since 2010, MedStar and/or our leadership team members have received the following awards and designations:





3 times received an **"EMS10"** award from the Journal of Emergency Medical Services recognizing innovation in EMS.

MedStar was the first, and only **AGENCY** to be named an "EMS10" innovator, the award is usually bestowed upon **individuals**.



Career EMS Agency of the Year by EMS World Magazine.



EMS Provider of the Year from the Texas Department of State Health Services. **EMS Medical Director** of the Year from the Texas Department of State Health Services.

Public Injury Prevention Program Award by the Texas Department of State Health Services.



2 President's Awards for Leadership in EMS by the National Association of Emergency Medical Technicians.



3 AMBY awards by the American Ambulance Association, recognizing excellence in ambulance service delivery.



Heart Safe Community designation by the Fort Worth Safe Communities Coalition.



Twice awarded 'Excellence in EMS/Mobile Healthcare Delivery' by the Academy for International Mobile Healthcare Integration.



Leadership in EMS Award, Academy of International Mobile Healthcare Integration.

Excellence in EMS Medical Direction by Academy of International Mobile Healthcare Integration.



• Healthcare Hero/Excellence in Healthcare by the Fort Worth Business Press.



3 awards for 'Excellence in Vehicle Operations Safety' by the National Safety Council and the Texas Department of Transportation.



Eisenhower Awards for Organizational Involvement by the Fort Worth Sister Cities International.



Public Relations Professional of the Year by the Fort Worth Chapter of the Public Relations Professionals of America.



Medstar At A Glance

MedStar has three service lines.

Ambulance Services - MedStar provides basic and advanced life support ambulance service to 436 square miles and more than 1 million residents and responds to over 190,000 calls a year with a fleet of 75 ambulances.

Mobile Integrated Healthcare (MIH) - MedStar is patient-centered, using mobile resources to care for patients outside of a hospital. MIH programs include EMS personnel, community paramedics, and other providers. MIH is focused on needs-based care and preventive services in the patient's home or mobile environment. MedStar is a high-performance, high-value Emergency Medical Services system that provides advanced clinical care with high economic efficiency.

Standby Services - MedStar provides medical coordination and oversight at large-scale events with multiple EMS resources and multi-agency interaction to conduct first aid on-site and emergency medical care at public events.





MedStar Family Thanks

Stork Crew

MedStar Family Thanks

Despite a tight job market in 2023, MedStar was able to keep turnover in line with previous years and an overall total annual turnover in 2023 at 14.84%. September and June were the most significant turnover months in 2023.



FULL TIME VOLUNTARY TURNOVER

Caring For Our Community

MedStar was on-site for 1,132 **Special Events in 2023**

Major events included Lightscape, Fort Worth Stock Show and Rodeo (46 Events in 22 days), PBR at Cowtown (43 Events), and PBR World Finals.

MedStar also supports the healthcare needs for 384 athletic and school events, including:

Area High School Football

TCU and TWU Football

TCU Men's and Women's Basketball

TCU Baseball

TCU Soccer

- **TCU Equestrian**
- **TCU Swimming**

TCU Volleyball

TCU Track and Field

TCU Tennis





173 additional events with EMS Coverage at **Bass Performance Hall**

Multiple CCR/First Aid Trainings with local Night Shelters

Over 50 Elementary School Career Days

Fort Worth Parade of Lights



Clay Shoot Community Event 2023

The Clay shoot benefits A Wish With Wings Foundation.

There were 72 total shooters with 18 shooter teams.

The top shooter team participants were awarded the "Nothing but Dust" trophies.

The event raised \$17,745.

Mayfest





Ubbi Dubbi Festival



20 National Night Out Events







Shaq's **Bass Allstars**





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MedStar introduced Emergency Triage, Treatment, and Transport, also known as "ET3," in April 2021.

This program allows MedStar to be reimbursed by Medicare for assessing patients and determining whether they 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. In 2023, there were 1,138 patients treated in place.

MedStar's transformative best practice delivered patient-centered care that enhances the patient experience while dramatically reducing healthcare expenditures.

Although the ET3 model was terminated early by CMS, MedStar is working with several national stakeholder groups to advocate for state and federal changes to reimbursement policies that enhance patient care and experience.

Examples of ET3 Treat – No Transport Cases

Roy Bird, Ryan Chappell, Sokol Bajraktari (Student)

MedStar unit XX dispatched to a residence for an XX-year-old male with chief complaint of weakness for the past couple of days per family. The patient was found in the back bedroom, awake, alert, and oriented, with a Glasgow Coma Score of 15, vital signs stable for transport, and a candidate for ET3. The patient accepted the treatment in a place suggested by a physician, Toradol, 15mg IM, and 125mg Solumedrol, for arthritic pain in the lumbar area, a chronic condition for the patient. The patient assessment showed no abnormal findings, vital signs were monitored throughout treatment in place with neutral changes, and the patient was treated in place with no additional intervention and no adverse reactions from the treatment. The patient signed an 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 there was no transport.



| Medicare ET3 Program | 2023 | | |
|--------------------------------------|-------|--|--|
| ET3 Intervention Offered | 6,712 | | |
| ET3 Intervention Accepted | 1,212 | | |
| IES/Telehealth | 640 | | |
| MHMR ICARE/Telepsych | 22 | | |
| Outcomes Transported | 133 | | |
| Hospital ED | 121 | | |
| Other | 12 | | |
| Treated in Place | 1,138 | | |
| Dispatch Health Referral | 502 | | |
| Mobile Crisis Outreach Team Referral | 8 | | |

Noah Vasquez, Brenden Carter, Mohaned Mhanna (Student)

MXX Emergent response to a private residence for reported breathing problems. MXX arrived at the scene 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 medical history of COPD. She advised she tried her inhaler. The patient has a Glasgow Coma Score of 15, is awake, alert, oriented to person, time, place, and events, and has a 3-word dyspnea. The Medstar crew assessed her vital signs and auscultated lung sounds. Her vital signs were within normal limits, and the crew found wheezing lung sounds. The crew administered breathing treatments per protocol while reassessing her lung sounds and performing an EKG. The EKG showed normal sinus rhythm, and lung sounds showed improvement; the patient's lungs were clear bilaterally after the duo neb, and the patient felt better and did not want to be transported. MedStar offered an ET3 Telemedicine option. The MedStar crew initiated the ET3 intervention. The telehealth physician advised that it is suitable for the patient to remain in place. The MedStar crew reassessed the patient and offered any other assistance, then cleared the scene.

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Caring For Our Community

MedStar cares about our patients and how we are perceived. Every month a third-party research company surveys users to help measure how patients feel. It is scored from 1 to 5, with five being excellent and one being poor. We are proud of the high marks given by the community!



5-Star Reviews

- 4.91 $\star \star \star \star \star$ The likelihood you would recommend the service to others
- 4.88 $\star \star \star \star \star$ Your overall satisfaction with our service
- 4.73 $\star \star \star \star \star$ Feel as though your overall health has improved with this service
- 5.00 \star \star \star \star \star The ability of our team to meet your needs
- 4.86 \star \star \star \star \star The level of care and compassion do you feel you received from the team
- 4.88 $\star \star \star \star \star$ The quality of the medical care/evaluation you received
- 4.88 $\star \star \star \star \star$ Thoroughness of the examination
- 4.88 $\star \star \star \star \star$ The advice given to you on how to stay healthy
- 4.88 $\star \star \star \star \star$ The instruction regarding medication/follow-up care
- 4.90 \star \star \star \star \star The MedStar Medic explained things in a way you could understand
- 4.90 \star \star \star \star \star The overall amount of time spent with you
- 4.89 \star \star \star \star \star The amount of time taken to answer your questions
- 4.89 $\star \star \star \star \star$ The willingness of the MedStar Medic to listen carefully to you

Additionally, the surveys allow comments and they are generally very positive and encouraging.



Patient Experience Survey Patient Comments December 2023



| Comment | Survey Date | Crew | | |
|--|-------------|---------------------------|------------------|--|
| It's refreshing to witness such young skilled professionals in action. Impressive! | 12/12/2023 | Matthew Duckett | Stephen Evans | |
| Medics made sure I had something to eat! I had low blood glucose. They went over and above my expectations. | 12/12/2023 | Joseph Keklen | Chris Briggs | |
| I felt very safe in the hands of the 3 gentlemen that transported me from one hospital to the next. They took wonderful care of me as well as answered questions from my family. | 12/12/2023 | Carlos Gonzalez, | Tyler Miller | |
| The delivery of my mom home on hospice was excellent. The three women attending her were so sweet to her. They were also sweet to her family members. | 12/13/2023 | Daniel Vidal | Joshua Hanna | |
| Ambulance # 74. The two ladies were Excellent!!! | 12/19/2023 | Kristeen Donohew | Rachel Rupp | |
| They were really amazing. Made me feel completely at ease and comfortable. Very friendly. Only my 2nd time in an ambulance and as bad as I was feeling and nervous they made it perfect. | 12/20/2023 | Alec Silva | John Pendley | |
| Barely felt the ambulance move. The main medic helping me was funny, kind, had a good rapport with the other medic, and kept me distracted. Also really good at putting in an IV. | | Ernesto Ojeda- Arevalo | Nassandra Wright | |
| First time riding in an ambulance. I was treated extremely well by two very knowledgeable and professional MedStar staff. | | Gary Sheets | Jason Reed | |
| Great PEOPLE GREAT CARE , SAVED MY LIFE! | 12/26/2023 | Fred Vaiasicca | Elijah Moore | |
| The guys are very nice and concerned about me getting better. I felt like they treated me like a person that needed help. The ride was awesome, and you need to have more concerned people like this on MedStar. | 12/27/2023 | Payton Alley | Curtis Van Geem | |

Improving Results through MIH/Community Paramedicine

MedStar launched our nationally recognized and award-winning Mobile Integrated Healthcare/Community Paramedicine program in 2009. This program uses specially trained and credentialed Community Paramedics, working with community partners and healthcare providers to help high-risk patients better understand their healthcare needs to avoid preventable 911 calls, ER visits, and inpatient admissions and readmissions.









Caring For Our Community

MedStar conducts programs to address the needs of the community, from health and wellness screening and CPR training to assisting people struggling with addiction and addressing overdoses. Programs are measured to determine effectiveness. Improvements in outcomes reflect fewer readmissions, overdoses, and improved quality of life.

Overdose Response Team - Quarterly Results by Program



| EMS Utilization of ORT Program Participants | Pre- Enrollment | Post- Enrollment | %∆ |
|--|--------------------|---------------------|---------|
| All 911 Calls | 886 | 524 | -40.86% |
| *EMD Determinant is "Overdose/Poisoning/Ingestion" | 128 | 55 | -57.03% |
| *Primary Impression contains "Opioid" | 32 | 7 | -78.13% |
| *Primary Impression contains "Overdose" | 88 | 10 | -88.64% |

Quality of Life - % Improvement after MIH Program





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Referrals to programs are patient-centered while offering practical measures to address costs.





2023

| StarSaver Plus | 4 | | 63 | 5 | 13 | 6 | | 4 | 3 | 3 | 310 | 5 |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| STAR | 38 | 37 | 37 | 32 | 30 | 44 | 51 | 72 | 39 | 39 | 32 | 33 |
| Overdose Response Team | 123 | 136 | 184 | 110 | 175 | 165 | 200 | 198 | 186 | 176 | 202 | 16 |
| Obs Admit Avoidance | 8 | 7 | 7 | 2 | 1 | | 1 | 1 | 1 | | 1 | |
| Hospital at Home | | | | | | | | | 11 | 17 | 12 | 9 |
| High Utilization Group (HUG) | 132 | 21 | 135 | 14 | 152 | 18 | 13 | 260 | 17 | 18 | 11 | 14 |
| I Episodic Care Coordination | 105 | 190 | 232 | 166 | 268 | 230 | 212 | 67 | 213 | 165 | 171 | 71 |
| DETECT | 35 | 37 | 34 | 35 | 1 | | | | | | | |
| COVID-19 | 3 | | 2 | | | | | | | | | |
| Admission/Readmission Avoidance | 45 | 78 | 136 | 211 | 192 | 191 | 184 | 150 | 121 | 100 | 33 | 39 |

30-Day Readmission Rate



Service Delivery

MedStar closely follows response time as a critical measure of emergency outcomes.

AVERAGE RESPONSE TIMES to 911 CALLS

Fiscal Year 2022-2023 (October 2022 through Sept 2023)



Hot responses



XEMERGENCY MEDICAL TASK FORCE 2

NCTURAC

MEDSTAR

Cold responses without lights and sirens

Glob



Selling in

0

2023 Emergency Medical Task Force Activations

3 Ambus Activations June 2023 Severe Weather Deployment to East Texas The six-year average responses and transports have increased while expenses per response and transport average decreased.

RESPONSE AND TRANSPORTS VS EXPENSES



Average Daily Responses Expense Per Response Average Daily Transports **Expense Per Transport**



PAYER MIX BY PAYER CLASS



The Medicine

Message From The System Medical Director & Chief Medical Officer



Dr. Jeff Jarvis

The Office of the Medical Director has been busy transforming the way we approach quality assurance and quality improvement this past year. I have some exciting things to share! In my first message last year, I mentioned plans we had to adopt a strategy of "quality as an organizational strategy" using the evidence-based and validated clinical performance measures developed by the National EMS Quality Alliance (NEMSQA.org). I'm proud to report that Buck Gleason and his team in OMD have finished building these measures and have implemented them in a way that uses automated data processing to minimize the amount of manual labor required. He has also incorporated purpose-built software to create Shewart Process Control Charts to track performance over time and help us quickly and visually recognize different causes for variation in performance. We have three large and intensive performance improvement efforts currently underway that are driven by these NEMSQA measures. I'd like to share a few examples of these measures, how Buck and his team have optimized how we visualize performance, and the impact we have seen from the beginning phases of our improvement efforts.



STEMI-02 Percentage of Aspirin Administration for STEMI

86

Stroke-03 Percentage of Pre-arrival Stroke Alerts for Suspected Stroke

Performed and Documented

Percentage of Hypoxic Patients Receiving Oxygen Administration



Respiratory-02



32



CA 05: Utstein Survival %

MAEMSA Performance

December 2023



31% TTM Performance



Trailing 12-Month



Percentage of patients experiencing OHCA of medical etiology in which the cardiac arrest was witnessed by a bystander and the patient was found in a shockable rhythm that are discharged from the hospital a live

Figure 3: CA-05 Utstein Survival

First, a word about data visualization. The graphic representation of data can be easy to build but not terribly informative (pie charts, anyone) and hard to build but more informative (run charts). Working with members of the MAEMSA Board and several other stakeholders, we have devised two broad visualizations to reflect different aspects of performance. First, is an easy-to-read table of 'gauges' that are a rapid reflection of our performance on the overall bundle of measures (Figure 1). In this visualization, green is good, red is bad, and both the gauge needle and central number reflect the most recent one-month performance. These gauges are considered a quick reference.

While quick references are great, we often want to dive a bit deeper. One of the fundamental questions in quality improvement is whether an apparent month-to-month change is an improvement or if it is just a normal variation. Figure 2: Shewart Control Chart

> To help with this, we use the Shewart control charts, Buck and his team built. These help us track change over time and rapidly identify any of several specific statistical 'rules' that help us tell the difference between true improvement and normal variation (special vs common-cause variation for any other improvement nerds out there).

> Finally, we created a summary slide for each measure with more detail. This demonstrates a run chart in the bottom left corner to help visualize change over time. In the upper left, it shows our most recent month's performance compared with national benchmarks, where available, or national goals where there are no national benchmarks. On the right, we have a simple bar chart showing our performance versus benchmarks for the most recent rolling 12-month period.

> Let's start with cardiac arrest. We measure CA – 05 "Utstein Survival" (figure 3) which looks at those patients in cardiac arrest most likely to benefit from a high-performance EMS system who survive to hospital discharge neurologically intact. These are patients who have a witnessed arrest, presumably from a cardiac event, as opposed to trauma or long-standing illness that is unlikely to respond to EMS interventions.

We adopted this measure from the national Cardiac Arrest Registry to Enhance Survival (CARES) and use that registry to benchmark our performance. Since the pandemic, our Utstein survival has lagged national performance. We undertook an improvement effort working in conjunction with our FRO partners, which brought together a broad range of clinicians and stakeholders to identify potential causes for poor performance ("drivers" in QI lingo) and suggest potential changes that might lead to improvement.

We broke these down into small, testable interventions and started to look at the impact these make. We first moved from managing the airway on these patients with endotracheal intubation and moved to rapid insertion of supraglottic airways, those that can be rapidly placed by EMTs, who most often arrive first to a cardiac arrest. We also implemented a delay in mechanical chest compression devices and, in conjunction with the Fort Worth Fire Department, began dispatching two-engine companies to each arrest for more manpower.

We have seen a steady improvement in survival, with the last four months being above national rates. This is just the beginning, however. Buck and Kerby Johnson are leading this continued improvement effort and have several tests of change ongoing now, including steps to speed up the time to first dispatcher-assisted compression, "rapid attack" approaches with our FRO partners to choreograph rapid initiation of chest compressions and AED use, and an alteration to how we time ventilations with compressions. We will be continuing this process throughout the next year and are excited about the opportunity this type of teamwork can have on important outcomes for our patients.

The Medicine

We also have an improvement effort underway about how we manage airways. One of the hardest clinical performance measures nationally is NEMSQA Airway 0-1 (Figure 4), endotracheal intubation outside of cardiac arrest without low blood pressure or low oxygen within the 5 minutes before and after the procedure. This is so hard that only a few agencies even attempt to measure it. National benchmark performance is around 30%, which mirrors our historical performance. We spent the past months or so working on tests of change around a new protocol to improve this measure. We finalized the implementation of it in December and now have our first several months of data showing improvement. As you can see from the attached graph, we saw a clear improvement with this new protocol. The number of patients undergoing intubation is small, so variation is expected, but the trend is promising. Our rolling 12-month performance will take time to improve since it includes performance on this measure before the new protocol went into effect. All new things take time to have their full effect, and we fully expect our performance

Airway 01: First Pass Intubation Success without Hypotension or Hypoxia

MAEMSA Performance









National

MAEMSA



Percentage of EMS responses originating from a 911 request for who receive a successful advanced airway placement on first attempt without documented hypotension or hypoxia during the peri-intubation period

Figure 4: Airway 01

on this measure to continue to improve. We will be partnering with NEMSQA to help bring this measure to a national improvement agency, sharing what we have learned so that patients in other areas can benefit, too.

One large part of Airway 01 performance is assuring appropriate preparation for patients in need of endotracheal intubation. NEMSQA Airway 02 (Figure 5) measures this in the proportion of patients who achieve an oxygen level above 93% for the 3 minutes prior to intubation. This has been demonstrated to improve safety. Our new protocol emphasizes this measure, and we have seen substantial improvements in this area, indicating enhanced safety for our patients. Patients having acute strokes benefit from timely therapy with medications and interventions only available in the Emergency Department (ED). Early EMS recognition of these conditions with early ED notification has been shown to improve the rapid administration of these medications and improve outcomes.

The NEMSQA Stroke 02 (Figure 06) measure looks at the proportion of patients felt by EMS to have had a stroke receive a prehospital stroke screen, something that increases recognition and notification. We made several changes to training and how we document these stroke screens, which have resulted in improved performance.

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Collectively, we feel OMD is at the point in our quality journey where we are able to rapidly work on multiple improvement projects, backed by robust measurement, using sound improvement science as described in the Institute of Healthcare Improvements Model for Improvement. This has taken us years to get to this point, but we are truly excited to begin to see the improved outcomes this hard work is resulting in. I can't wait to share further improvements next year! Airway 02: Adequate Oxygen Saturation Achieved Before Intubation Procedure

MAEMSA Performance





National

MAEMSA

Benchmark Performance

Figure 5: Airway 02 - Adequate Pre-Oxygenation



Percentage of intubation procedures performed during an EMS response originating from a 911 request in which adequate patient oxygen levels were achieved prior to intubation procedure.

Figure 6: Stroke 02 - Stroke Screen Performed

Stroke 02: Stroke Screen Performed and Documented

MAEMSA Performance

January 2024







TTM Performance



The percentage of EMS patients aged 18 years and older transported from the scene with a suspected stroke for whom a stroke screen was performed and documented during the EMS encounter.

Leadership

Executive And Management Team Alphabetical Order

Nicholas Bombardier – Assistant Operations Manager – Special Events Whitney Burr – Business Data Analytics Manager Odelle Carrette - Controller Bradley Crenshaw – Clinical Practice Manager Christopher Cunningham - Chief Operations Officer Lindy Curtis – Communications Manager Shaun Curtis – Director of Operations William Gleason - Clinical Quality Manager Dwayne Howerton – Chief of Staff Ricky Hyatt – Health Information Systems Manager Jeffrey Jarvis - Chief Medical Officer Jeremy Kelley – Director of Revenue Desiree Partain - Transformation Manager Brandon Pate – Operations Manager – MIH Leila Peeples - Chief Human Resources Officer Steven Post - Chief Financial Officer Peter Rizzo – Director of Information Technology Kristofer Schleicher – Chief Legal Officer Mike Shelton – Risk and Safety Manager Kenneth Simpson - Chief Executive Officer Heath Stone – Operations Manager Robert Strickland – Business Intelligence Manager Emily Vinson – Assistant Operations Manager Jason Weimer – Operations Manager Brian White – Assistant Operations Manager David Willette - Assistant Logistics Manager Matthew Zavadsky - Chief Transformation Officer

Board Of Directors Of The Metropolitan Area Ems Authority

FOUR

The MedStar system is governed by the eleven members of the Board of Directors of the Metropolitan Area EMS Authority (MAEMSA).

TWO

ELEVEN

total members

voting members

NINE

members representing the City of Fort Worth

members of the First Responder

member representing the suburban member jurisdictions

ONE

TWO

ex-officio, non-voting members

and the EMS Authority's CEO

include the system Medical Director

TWO

physician representatives of the Emergency Physicians Advisory Board (EPAB)



Janice A Knebl, DO, MBA, FACP, MACOI



Advisory Board (FRAB)



Susan Alanis

Carlos Flores



Teneisha Kennard





Chris Bolton, M.D.





Saginaw Fire Chief **Doug Spears**







Ken Simpston, MedStar CEO (Ex-officio)



Jeffrey L. Jarvis, M.D., M.S., EMT-P, System Medical Director & Chief Medical Officer (Ex-officio)



Fort Worth Fire Chief Jim Davis

2024 Emergency Physicians Advisory Board Members (EPAB)

| Name | Represents | Location | Туре | Priority | Status |
|---------------------|-------------------|------------|------------|----------|--------------------|
| Brad Commons | THR | Alliance | Chairman | Exec | Emergency Medicine |
| Dan Guzman | Cook Children's | | Vice Chair | Exec | Pediatrics |
| Steve Davis | TCMS | | Secretary | Exec | Critical Care |
| Alana Snyder | MC | Fort Worth | Treasurer | Exec | Emergency Medicine |
| Chris Bolton | Baylor All Saints | Fort Worth | Exec | Exec | Emergency Medicine |
| Terry McCarthy | THR | Fort Worth | Exec | Exec | Emergency Medicine |
| Jessica Kirby | JPS | | Member | Member | Emergency Medicine |
| Rajesh R. Gandhi | JPS Trauma | | Member | Member | Trauma Surgeon |
| Sam Matthews | MC | Alliance | Member | Member | Emergency Medicine |
| Dan Goggin | TCMS | | Member | Member | Psychiatry |
| Angela Self | TCMS | | Member | Member | Internal Medicine |
| Brett Cochrum | TCMS | | Member | Member | Family Medicine |
| Sreenivas Gudimetla | TCMS | | Member | Member | Cardiology |
| Sam Haraldson | THR | Huguley | Member | Member | Emergency Medicine |
| Michelle Beeson | THR | SW | Member | Member | Emergency Medicine |
| Mark Tucker | THR -Trauma | | Member | Member | Trauma Surgeon |



In Memoriam

During 2023, MedStar lost two very important members of our team.



Shawn Nicholson

Over the past 32 years, Shawn Nicholson has lived his calling of serving others. At age 20, Shawn joined the Navy, where he was trained in aviation electronics. He was stationed aboard the USS Midway out of Yokosuka, Japan, served in Dessert Storm and traveled worldwide while enlisted. After his time in the Navy, he served the city of Lubbock as a firefighter for the Lubbock Fire Department for 11 years. It was there that he discovered his true calling in Emergency Medical Services.

For the past 17 years, Shawn helped thousands of people while working at MedStar. He has mentored students, partners, and peers; we've been honored to have him as our EMS brother. Shawn was diagnosed with pancreatic cancer in 2022, and in the true spirit of service before self, continued to work on the ambulance, supported administrative efforts, and took care of his family, all while undergoing radiation, chemotherapy, and surgical interventions. Shawn passed away at home, surrounded by family on September 27, 2023, but his legacy of serving others before himself will live on forever.



Matt Aiken

Matt Aiken served the community with unwavering commitment and selflessly devoted his time and energy to public service. From 2010 to 2017, Matt served as a Burleson County Councilman, bringing a unique blend of passion, integrity, and a genuine love for the community to the decision-making table. Matt was a member of the MedStar Board from 2019 through 2021, and his leadership qualities did not go unnoticed. He served as the vice chairman during a portion of his tenure, demonstrating his ability to inspire and guide others toward a common goal. Matt's legacy will continue to inspire future generations of public servants and community leaders. We mourn the passing of a true visionary and dedicated public servant.



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