To provide world-class mobile healthcare with the highest-quality customer service and clinical excellence in a fiscally responsible manner.
MedStar’s service area encompasses 15 cities, 434 square miles and a population of over 1 million residents.
A Transformative Year

2018 was, in many respects, a transformative year for MedStar!

Our teams bring incredible value to our stakeholders. We continually meet the needs of our growing community in a way that has made MedStar among the most clinically proficient, operationally effective and fiscally efficient Emergency Medical Services (EMS) systems in the world. As a result, we are blessed to be one of the most recognized EMS agencies locally, nationally and even internationally.

MedStar made a significant investment in our community this year with the decision to change the type of ambulances we operate. Since MedStar entered service some 33 years ago, we’ve operated ambulances mounted on a van chassis (Type III ambulance).

Due to enhancements in chassis and patient compartment design, and with significant design input from our field staff, we made a $13.5 million commitment, over five years, to the safety and comfort of our patients and ambulance crews by contracting for 60 new ambulances that are mounted on a pick-up truck chassis (Type I). Since MedStar operates without tax subsidy, this investment does not use any taxpayer funding.

Some of the features specifically designed to MedStar’s specifications include:

• An integrated, under-the-hood generator that powers a dual high-performance air conditioning system, critical to providing mobile healthcare services to patients in the hot Texas environment.
• A specially designed “floating” patient compartment to smooth the ride not only for patients, but also crew members who perform medical care in the back of the moving ambulance.
• Revolutionary new crew seating that allows paramedics to complete patient care interventions while fully secured in a four–point harness for safety.
• A refrigerated safe to secure medications.
• Five “live-view” cameras on the ambulance, allowing the personnel to observe patient care, and providing an exterior view from the sides, front and rear of the ambulance.

With the growth of our community, we also made a significant change in how MedStar deploys resources to serve our member cities. For 33 years we operated from one central facility, with on-duty units deployed to designated “posts,” to cover geography and anticipated response volume.

The rapid population growth in the northern and southern areas of our region led us to acquire land for a north deployment center in Fort Worth’s Alliance development. Over the next year, we will construct a center that will house 14 ambulances to enhance services we provide to the rapidly growing northern region.

Plans are in the development stage to potentially add a deployment center for the southern region of our service area.

MedStar continues to be the “go-to” source for healthcare systems and EMS providers across the country who are considering testing new models for EMS service delivery. Our Mobile Integrated Healthcare (MIH) service delivery model continues to lead the EMS industry’s transformation from essentially a “you call, we haul” model, to a model that navigates patients through the healthcare system to improve patient outcomes, enhance the patient’s experience of care, and reduce expenditures.

In collaboration with multiple stakeholders and community groups, we developed new programs this year for patients receiving palliative care, and partnered with the University of Texas on a grant awarded by the Department of Justice to help identify patients who may be at risk of elder abuse and refer them to resources that can help.

We are extremely blessed to have the opportunity to serve this community. Speaking on behalf of the entire MedStar team, I can assure the community that we will continue to work tirelessly, every day, for every patient.

Douglas R. Hooten, MBA, CEO
Community Profile

- Resident population ........................................ 1,016,963
- Service Area Square Miles .................................... 434
- Median Household Income ................................... $55,888
- Age ................................................................. 34.5 yrs.

2018 Fleet Facts

- Ambulance miles .............................................. 2,658,082 221,506
- Support miles .................................................. 255,785 21,315
- Total miles ......................................................... 2,913,867 242,821
- Mobile Intensive Care Unit (MICU)
  gallons of fuel consumed ................................. 403,714 33,642
- MICU engine hours .......................................... 180,418 15,035

MedStar’s response times average less than 8 minutes for Priority 1 emergencies, which are life threatening or potentially life threatening. Priority 2 refers to emergencies involving unknown circumstances, and Priority 3 signifies emergencies that are not life threatening.
2018 Milestones

- 12 new ambulances deployed in the system—new platform designed by field EMS crews
- New payment model tested with a large commercial payer in MedStar’s service area
- Commission on the Accreditation of Ambulance Services (CAAS) issued reaccreditation to MedStar with perfect score during its on-site CAAS review
- MedStar received Injury Prevention Award from the Texas State Department of Health Services for its partnership with the University of North Texas to identify and refer potential elder abuse victims to Adult Protective Services
- MedStar implemented Hope Squad, a peer-driven program to help team members with stress-related issues
- MedStar’s golf tournament raised $30,000 for the MedStar Foundation and One Safe Place, an agency devoted to preventing crime and violence in Tarrant County’s neighborhoods, schools and homes
- MedStar launched mobile flu vaccine clinics

MedStar responded to over 150,000 ambulance dispatches in 2018 and had over 100,000 total transports.
### 2018 Training Academy Courses

<table>
<thead>
<tr>
<th>Class</th>
<th>Internal Employees</th>
<th>External Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric Advanced Life Support</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>Stop the Bleed/AED Training</td>
<td>12</td>
<td>346</td>
</tr>
<tr>
<td>CPR</td>
<td>131</td>
<td>181</td>
</tr>
<tr>
<td>Advanced Cardiac Life Support</td>
<td>84</td>
<td>36</td>
</tr>
<tr>
<td>Pre-Hospital Trauma Life Support</td>
<td>82</td>
<td>35</td>
</tr>
<tr>
<td>Emergency Pediatric Care</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>Advanced Medical Life Support</td>
<td>97</td>
<td>54</td>
</tr>
<tr>
<td>Tactical Emergency Casualty Care</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Neuro Symposium</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>EMT</td>
<td>3</td>
<td>141</td>
</tr>
<tr>
<td>EMR/ECA</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Psychological Trauma in EMS Patients</td>
<td>18</td>
<td>29</td>
</tr>
<tr>
<td>Paramedic</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>STEMI Case Review</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Mobile Integrated Healthcare Practitioner</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>BaylorCardiac/Transplant Symposium</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td><strong>Overall Total:</strong></td>
<td><strong>549</strong></td>
<td><strong>907</strong></td>
</tr>
</tbody>
</table>

**TOTAL NUMBER OF STUDENTS: 1,456**

---

*I understand how important my role is in assuring that these vehicles get to where they need to be, without fail—lives depend on it! MedStar is like my family and the community, they both rely on me.*

~ Josh Enlow, MedStar Fleet Team Member

MedStar EMT Blake Lena received the 2018 Representative Charles Geren Veteran Citizen of the Year Award.
Medstar Media Interviews

Over 70 media interviews conducted on topics including:

- Surviving during extreme weather
- Flu prevention
- Disinfecting ambulances after an EMS call
- Smart phone emergency health information
- Ambulance emergency warning equipment
- Trauma and CPR survivors’ reunions
- Drowning Prevention
- Mass CPR training event at DFW Airport

2018 Supplies Used

**Intravenous Needles (IV)**
- 16 g........................................... 1,350
- 18 g......................................... 21,950
- 20 g......................................... 32,300
- 22 g........................................... 4,162

Start Kits .................................. 48,417

**Intraosseous Needles (IO)**
- All Sizes .................................... 1,090

**Endotracheal Tube (ETT)**
- 7.0................................................ 380
- 7.5................................................ 460
- 8.0................................................ 160

All Sizes .................................... 2,512

**Monitor Supplies**
- Stat Pads .................................... 1,606
- Stat Pad Connectors ...................... 11
- Electrocardiogram (ECG) Cables...... 37
- 12 Lead Cables .............................. 31

**Bedding**
- Sheets........................................ 83,490
- Blankets.................................... 30,880

**Bandages**
- Adhesive Bandages..................... 79,800
- Gauze Rolls ................................. 11,000

**Saline**
- 1000 ml.................................... 16,758
- 250 ml...................................... 1,116

**Narcotics**
- Fentanyl..................................... 1,139,276 mg
- Midazolam................................... 22,083 mg
Community Initiatives and Involvement

MedStar continued to partner with our local community through various task forces, committees, and work groups. This has been a busy year with Fort Worth Safe Communities Coalition as we co-chair the new Cardiac Emergency Preparedness Task Force, which submitted and approved on behalf of the City of Fort Worth a Heart Safe Community Accreditation.

The MedStar Foundation

The MedStar Foundation hosted its 12th annual golf tournament, which benefited One Safe Place. Through this event we were able to donate over $15,000 to One Safe Place, which helped enrich the lives of children affected by family violence by providing opportunities for them to attend Camp Hope. Camp Hope offers a curriculum to help children gain independence and build resilience.

Holiday Festivities

We continued a MedStar Tradition of taking 2 medically challenged children and their families trick-or-treating in decorated ambulances. Our staff went all out in dressing up for the occasion! For Thanksgiving we were able to reunite 2 families for a Thanksgiving feast. These families would not otherwise have been at home due to transportation concerns for the patients.
MedStar regularly donates standby ambulance services at public events. The value of the donation in services was over $58,000, and over $129,000 in discounted services covering:

- 253 community events
- 601 standby events

Some of the major standby events with 10,000 people attending or more include:

- All Western Parade
- Fort Worth Stock Show and Rodeo
- Cowtown Marathon
- Spring Break at the Zoo
- Texas Motor Speedway (3 times per year)
- Alliance Air Show
- Main Street Arts Festival
- ArtsGoggle
- Red Bull Air Race (at TMS)
- Together 2018 (at TMS)

Fort Worth Safe Communities Coalition

MedStar serves in leadership roles for several Fort Worth Safe Communities Coalition task forces:

- Falls prevention
- Road safety
- Elder abuse
- Disaster preparedness
- Overdose prevention and drug safety
## MedStar’s Mobile Integrated Healthcare Expenditure Savings Analysis (June 2012–October 2018)

<table>
<thead>
<tr>
<th></th>
<th>—Ambulance Transports—</th>
<th>—ED Visits—</th>
<th>—Hospital Admissions—</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoided</td>
<td>Expenditure</td>
<td>Savings</td>
</tr>
<tr>
<td>9-1-1 Nurse Triage</td>
<td>3,834</td>
<td>$419</td>
<td>$1,606,446</td>
</tr>
<tr>
<td>High Utilizer Program</td>
<td>5,116</td>
<td>$419</td>
<td>$2,143,604</td>
</tr>
<tr>
<td>Readmission Prevention</td>
<td>81</td>
<td>$419</td>
<td>$33,939</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td></td>
<td>$3,783,989</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$13,135,500</td>
</tr>
</tbody>
</table>

**TOTAL EXPENDITURE SAVINGS: $22,692,971**

## 2018 CALL VOLUME (x1,000)

- **Incoming 9-1-1**
- **Incoming Member City**
- **Incoming Administration**
- **Outgoing Calls**

![2018 Call Volume Chart](chart.png)
### Metropolitan Area EMS Authority Payer Mix Analysis (FY 2016–2018)

<table>
<thead>
<tr>
<th></th>
<th>—Billed—</th>
<th></th>
<th>—Cash Collected—</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>% of Total</td>
<td>Amount</td>
<td>% of $ Billed</td>
</tr>
<tr>
<td>Medicare</td>
<td>$179,199,193</td>
<td>37.3%</td>
<td>$48,746,679</td>
<td>27.2%</td>
</tr>
<tr>
<td>Insurance</td>
<td>$65,114,000</td>
<td>13.5%</td>
<td>$51,642,936</td>
<td>79.3%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$77,931,951</td>
<td>16.2%</td>
<td>$15,776,388</td>
<td>20.2%</td>
</tr>
<tr>
<td>Facility</td>
<td>$10,272,166</td>
<td>2.1%</td>
<td>$8,452,447</td>
<td>82.3%</td>
</tr>
<tr>
<td>Bill Patient</td>
<td>$148,115,165</td>
<td>30.8%</td>
<td>$5,053,332</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$480,632,475</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>$129,671,781</strong></td>
<td><strong>27.0%</strong></td>
</tr>
</tbody>
</table>

### Alternate Destination by Type

- **Urgent Care**
- **Self Care/Other**
- **PCP/Primary Care Clinic**

### Payer Mix

- **Self-Pay/Unknown**
- **JPS Connection**
- **Commercial Insurance**
- **Medicare**
- **Medicaid**

### Cost and Revenue Per Transport

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost Per Transport</th>
<th>Revenue Per Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
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<td>2013</td>
<td></td>
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<tr>
<td>2014</td>
<td></td>
<td></td>
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<tr>
<td>2015</td>
<td></td>
<td></td>
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<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Expenditure Savings Analysis—High-Utilizer Program

All referral sources, based on Medicare rates.
- **Analysis dates:** Oct. 1, 2013 – Oct. 31, 2018
- **Number of patients enrolled:** 2,367
- **Ambulance trip to ED reduction:** -52.8%

<table>
<thead>
<tr>
<th>Utilization Change</th>
<th>Base</th>
<th>Avoided</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance Payment</td>
<td>$419</td>
<td>5,116</td>
<td>$2,143,604</td>
</tr>
<tr>
<td>ED Visits</td>
<td>$969</td>
<td>2,961</td>
<td>$2,869,209</td>
</tr>
<tr>
<td>Admissions</td>
<td>$10,900</td>
<td>1,072</td>
<td>$11,684,800</td>
</tr>
<tr>
<td>Total Expenditure Savings</td>
<td></td>
<td></td>
<td>$16,697,613</td>
</tr>
</tbody>
</table>

**Per Patient Enrolled Expenditure Savings—HUG**

---

#### Readmission Program Analysis (Through 10/2018)

<table>
<thead>
<tr>
<th>Program Partner</th>
<th>Enrollments</th>
<th>30-Day ED Visits</th>
<th>30-Day Readmissions</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTSP</td>
<td>46</td>
<td>6</td>
<td>17</td>
<td>37.0%</td>
</tr>
<tr>
<td>JPS</td>
<td>239</td>
<td>49</td>
<td>130</td>
<td>54.4%</td>
</tr>
<tr>
<td>THR/HMFW</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Baylor Scott &amp; White</td>
<td>54</td>
<td>14</td>
<td>22</td>
<td>40.7%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>348</td>
<td>70</td>
<td>169</td>
<td>48.6%</td>
</tr>
</tbody>
</table>

---

1. Comparison for enrolled patients based on use for 12 months prior to enrollment vs. 12 months post-program graduation.
2. Patients with data 12 months before and 12 months after graduation.
3. Includes High-Utilizer and Designated System Abusers.
4. Medicare Tables from CY 2012 as published.
Expenditure Savings Analysis—9-1-1 Nurse Triage Program

Based on Medicare rates

- Analysis dates: June 1, 2012 – Oct. 31, 2018
- Number of calls referred: 11,262
- Percent of calls with alternate response: 34.0%
- Percent of calls with alternate destination: 25.9%

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Base</th>
<th>Avoided</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance Expenditure</td>
<td>$419</td>
<td>3,834</td>
<td>$1,606,446</td>
</tr>
<tr>
<td>ED Expenditure</td>
<td>$969</td>
<td>2,919</td>
<td>$2,828,511</td>
</tr>
<tr>
<td>ED Bed Hours</td>
<td>6</td>
<td>2,919</td>
<td>$17,514</td>
</tr>
<tr>
<td>Total Payment Avoidance</td>
<td></td>
<td></td>
<td>$4,434,957</td>
</tr>
</tbody>
</table>

Per Patient Enrolled Payment Avoidance—ECNS

Total Payment Avoidance: $4,434,957

### Patient Self-Assessment of Health Status

**—High Utilizer Group—**

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Enrollment</th>
<th>Graduation</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>187</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient Self-Assessment</th>
<th>Sample Size</th>
<th>Enrollment</th>
<th>Graduation</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>469</td>
<td>2.33</td>
<td>2.55</td>
<td>9.6%</td>
</tr>
<tr>
<td>Self Care</td>
<td></td>
<td>2.60</td>
<td>2.80</td>
<td>7.4%</td>
</tr>
<tr>
<td>Perform Usual Activities</td>
<td></td>
<td>2.32</td>
<td>2.61</td>
<td>12.6%</td>
</tr>
<tr>
<td>Pain and Discomfort</td>
<td></td>
<td>2.46</td>
<td>2.64</td>
<td>7.2%</td>
</tr>
<tr>
<td>Anxiety/Depression</td>
<td></td>
<td>2.50</td>
<td>2.71</td>
<td>8.4%</td>
</tr>
<tr>
<td>Overall Health Status</td>
<td></td>
<td>5.40</td>
<td>7.00</td>
<td>29.5%</td>
</tr>
</tbody>
</table>

1. Average scores of pre and post enrollment data from EuroQol EQ-5D-3L Assessment Questionnaire. 2. Score 1–3 with 3 most favorable. 3. Score 1–10 with 10 most favorable.

### TOP FIVE HIGHEST EMSST PATIENT SURVEY SCORES

- Professionalism of the staff in our billing office
- Extent to which our staff eased your entry into the medical facility
- Helpfulness of the person you called for ambulance service
- Skill of the medics
- Cleanliness of the ambulance

Like all successful healthcare systems, MedStar prioritizes accountability to patient experience. Out of more than 20,000 EMS agencies nationwide, MedStar is among the top 150 that apply the highest survey standards, using pure data collection methods generated by an outside agency.

MedStar’s EMS Survey Team Patient Experience report from December 2018 was exceptional. MedStar’s overall score of 97.22 out of 100 is within the top two scores ever attained since starting the EMSST patient experience surveying process in October 2013.

Every department of the MedStar organization received exceptionally high patient satisfaction scores.

MedStar scored the highest in every category for similar sized agencies, all agencies in Texas (EMSST’s largest participation state) and all agencies accredited by the Commission on the Accreditation of Ambulance Services (C.A.A.S.).

### Patient Self-Assessment of Health Status (As of 10/31/2018)

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Enrollment</th>
<th>Graduation</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>469</td>
<td>2.33</td>
<td>2.55</td>
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<tr>
<td>2.60</td>
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<td></td>
</tr>
<tr>
<td>2.32</td>
<td>2.61</td>
<td>12.6%</td>
<td></td>
</tr>
<tr>
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<td>2.64</td>
<td>7.2%</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>5.40</td>
<td>7.00</td>
<td>29.5%</td>
<td></td>
</tr>
</tbody>
</table>

1. Average scores of pre and post enrollment data from EuroQol EQ-5D-3L Assessment Questionnaire. 2. Score 1–3 with 3 most favorable. 3. Score 1–10 with 10 most favorable.
National and State Industry Leadership

MedStar’s leadership team contributes to the advancement of the EMS profession through volunteer participation in numerous national and state level associations and groups:

- **CMS**
  - Quality Measures Task Force
  - Acute Coronary Syndrome Outcome Measures
  - ED Throughput

- **NAEMT**
  - National Association of EMTs (NAEMT)
  - President
  - Chair, EMS Transformation Committee
  - Member, Education Committee
  - State Education Coordinator
  - EMS Education Committee

- **AAA**
  - American Ambulance Association (AAA)
  - Board of Directors
  - Rural EMS Task Force
  - Communications Committee
  - Payment Reform Committee

- **NFPA**
  - National Fire Protection Association (NFPA)
  - EMS 450 Standards Committee
  - EMS 451 Mobile Integrated Healthcare Standards Committee

- **AIMHi**
  - Academy of International Mobile Healthcare Integration
  - President
  - Chair, Education Committee
  - Chair, Reimbursement Committee
  - Membership Committee
  - Communications Committee

- **NEMSMA**
  - National EMS Management Association (NEMSMA)
  - EMS Health and Safety Officer Committee

- **TMA**
  - Texas Medical Association (TMA)
  - Chair, EMS and Trauma Committee

- **TEMSA**
  - Texas EMS Alliance (TEMSA)
  - Board of Directors

- **TMA**
  - Texas Medical Association (TMA)
  - Chair, EMS and Trauma Committee

- **TEMSA**
  - Texas EMS Alliance (TEMSA)
  - Board of Directors

- **Texas Governor's EMS & Trauma Advisory Council**
  - Chair, EMS Education Committee
  - EMS Committee

- **Texas Chapter of the National Association of EMS Physicians**
  - Board of Directors
Letter from the Medical Director

The Emergency Physicians Advisory Board (EPAB), through the Office of the Medical Director (OMD), is responsible for medical direction and oversight of the entire 9-1-1 EMS in our service area. Our perspective however, is as an integral part of this system, rather than an external force applied to the system.

Medical Direction & Oversight spans multiple critical functions including Quality Assurance (QA), protocol development, provider credentialing, training, education, research, and inter-hospital relations. We have continued to perform these critical functions with the same transparency, integrity, and independence required of us by the citizens we serve.

More specifically, credentialing directly addresses the provider’s knowledge of medical protocols, skills and procedures to operate effectively under the Medical Director’s license. QA assures that, once credentialed, prehospital personnel provide the highest quality medical care, from the first seconds of a 9-1-1 call to stabilization and transfer of patient care. Training and education develops the knowledge, skills, and attitudes requisite to clinically perform in a system such as ours.

The continuum of prehospital care has more recently been extended to the entire out-of-hospital environment, and now medical direction includes nontraditional oversight of a variety of programs for hospital readmission avoidance, chronic home care, hospice or palliative care, nurse triage, and alternative navigation of 9-1-1 patients.

We are proud to actively collaborate with our colleagues in operations, communications, administration, and finance as we navigate this exciting realm of patient-centered and population-based healthcare. We are equally privileged to work with our EMT and Paramedic colleagues, who are no longer technicians, but clinicians, and who provide the highest quality out-of-hospital healthcare to our entire community.

Veer D. Vithalani, MD, FACEP, FAEMS

Credentialing

The OMD is responsible for the clinical proficiency of all prehospital providers who perform patient care in the system. All newly-hired EMTs and Paramedics at MedStar go through a rigorous training process including in-classroom lectures, high-fidelity patient simulation, and field mentorship. Culminating in an in-person medical case interview, this process ensures that the clinicians of this system are held to the highest standard of care.

Number of Providers Trained and Credentialed

<table>
<thead>
<tr>
<th>Year</th>
<th>Paramedics Trained</th>
<th>Paramedics Credentialed</th>
<th>EMTs Trained</th>
<th>EMTs Credentialed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>50</td>
<td>33</td>
<td>51</td>
<td>49</td>
</tr>
<tr>
<td>2017</td>
<td>71</td>
<td>53</td>
<td>60</td>
<td>57</td>
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<tr>
<td>2018</td>
<td>45</td>
<td>31</td>
<td>53</td>
<td>49</td>
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</table>

EMS Survey Team recognizes four MedStar team members for receiving the highest patient satisfaction scores.
Quality Assurance

The OMD is committed to providing our community with the highest quality patient care, based on evidence-based best practices. Our success as an organization relies on developing a culture of clinical excellence, and establishing a foundation for ingenuity, transparency, resourcefulness, and innovation.

To achieve these goals, our quality assurance (QA) processes are designed to track, monitor, and critically evaluate both individual sentinel events as well as system-based trends, and is founded on the following principles:

- Quality cannot be assumed, but must actively be built into the system.
- If you do not measure, you cannot improve.
- Every clinical event provides an opportunity for individual and system improvement.

Our QA program has been designed to be strictly educational in nature, with a keen focus on remediation and knowledge translation. Providers are encouraged to identify and refer all perceived clinical care concerns without fear of retribution for themselves or their peers. By fostering a culture of self-evaluation and growth, we have been proud to find that most cases are brought to our attention for review through this “self-report” process.

Out-of-Hospital Cardiac Arrest (OOHCA)

National survival rates from out-of-hospital cardiac arrest (OOHCA) remain dismal due to weak links in every step of the “chain-of-survival”—from 9-1-1 call to arrival in the Emergency Department.

Unfortunately, 9-1-1 EMS systems have traditionally focused the lion’s share of their efforts on response time—from the moment the ambulance’s wheels begin rolling, to the time the crew arrives on-scene. Even with the enormous resources devoted to narrowing the window for resuscitation, and even with national initiatives to improve the rates of bystander CPR, many of our communities have...
made little progress with this complex problem.

To address this issue in our own community, the OMD has taken a laser-like focus on what actually happens on-scene during a cardiac resuscitation, instead of solely focusing on how long it takes to get there. Every case of OOHCA is individually reviewed for the proportion of time spent doing chest compressions; the rate, depth, and quality of individual compressions; recognition and treatment of lethal heart rhythms; and objective confirmation of airway and breathing management.

For example, scientific research has proven the critical value of spending as much time as possible on the patient’s chest performing CPR, even while placing IVs, administering medications, and managing the patient’s breathing. The OMD has set the benchmark for time-on-the-chest or chest compression fraction (CCF) at 90% (higher than the current AHA recommendation of 60–80%).

In addition to monitoring, measuring, and quality assuring overall 9-1-1 system performance, OMD’s responsibilities extend to the

### CHEST COMPRESSION FRACTION MEDSTAR PERFORMANCE

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
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<tbody>
<tr>
<td>50%</td>
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<tr>
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<td></td>
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</tr>
<tr>
<td>90%</td>
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MedStar has significantly improved its ability to recognize failed airway placements.
larger public health environment with the monitoring of our community’s critical involvement in the chain-of survival for cardiac arrest—in particular, bystander CPR and the use of public access defibrillation (PAD).

To accomplish this, the entire system participates in the Cardiac Arrest Registry to Enhance Survival (CARES), which allows for the benchmarking of our community’s performance against national survival statistics.

Airway Management

Prehospital advanced airway management for patients unable to effectively breathe on their own remains challenging for all EMS systems across the country. While anesthesiologists and emergency physicians spend years in training developing these skills in the relatively controlled and supervised environments of an operating room or emergency department, our EMS and first responder personnel have to perform these procedures in some of the most challenging situations imaginable, whether in the streets or in our homes.

MedStar has had year-on-year improvement in successful recognition of misplaced advanced airway devices (lower is better).

While many systems rely solely on their EMS providers’ subjective assessment to measure the effectiveness of airway management, our system personnel are provided sophisticated electronic technology and tools to guide, measure, and thereby ensure, effective performance. As a result, MedStar has made significant improvements to reduce the rate of unrecognized failed airways through continuous, focused, quality improvement initiatives.
The MedStar community has had continuous improvement in the rates of bystander CPR, bystander automated external defibrillator (AED) use, and neurologically-intact survival, as well as exceeding national averages.
Executive Team:
• Douglas Hooten, Chief Executive Officer
• Dr. Veer Vithalani, Interim Medical Director
• Dwayne Howerton, OMD Chief of Staff
• Joan Jordan, Chief Financial Officer
• Kristofer Schleicher, General Counsel
• Kenneth Simpson, Chief Operations Officer
• Matt Zavadsky, Chief Strategic Integration Officer

Management Team:
• Richard Brooks, Customer Integration Manager
• Chad Carr, Compliance Officer, Paralegal
• Christopher Cunningham, Field Operations Manager
• Shaun Curtis, Support Services Manager
• William Gleason, Clinical Quality Manager
• Stacy Harrison, Controller
• Ricky Hyatt, Medical Records Manager
• Desiree Partain, Mobile Integrated Healthcare Manager
• Leila Peeples, Assistant Human Resources Manager
• Michael Potts, Risk and Safety Manager
• Pete Rizzo, Information Technology Manager
• Dale Rose, Communications Manager
• Tina Smith, Human Resources Manager
• Heath Stone, Assistant Field Operations Manager
• Bob Strickland, Business Intelligence Manager
• Susan Swagerty, Business Office Manager
• Macara Trusty, Education and Community Programs Manager

Voting Members—Metropolitan Area EMS Authority Board of Directors:

Emergency Physicians Advisory Board

<table>
<thead>
<tr>
<th>Board Member</th>
<th>Representing</th>
<th>Specialty</th>
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</thead>
<tbody>
<tr>
<td>Holly Baselle</td>
<td>Medical City-Alliance</td>
<td>Emergency Medicine</td>
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<tr>
<td>Michelle Beeson</td>
<td>THR-South West</td>
<td>Emergency Medicine</td>
</tr>
<tr>
<td>Chris Bolton</td>
<td>Baylor All Saints</td>
<td>Emergency Medicine</td>
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<tr>
<td>Brett Cochrum</td>
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<tr>
<td>Brad Commons</td>
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<td>Gary Floyd</td>
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<tr>
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<td>John Geesbreght</td>
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<td>Shawn Sanderson</td>
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<td>Angela Self</td>
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<td>Alana Synder</td>
<td>Medical City-Fort Worth</td>
<td>Emergency Medicine</td>
</tr>
<tr>
<td>William Witham</td>
<td>THR (Trauma)</td>
<td>Trauma Surgery</td>
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</tbody>
</table>
MedStar acquired new ambulances—including many enhancements.

Above right, Revolutionary new crew seating that allows paramedics to complete patient care interventions while fully secured in a four-point harness for safety.

Right, Live-view monitor that allows the personnel to observe patient care.

Far right, Refrigerated safe to secure medications.