

Ambulance Contract Performance Report

May 20, 2022
Submitted July 5, 2022



AMBULANCE CONTRACT PERFORMANCE REPORT

CONTRACT YEAR ENDING MAY 20, 2022

A Franchise Agreement (“Agreement”) between the City of Sioux Falls and Paramedics Plus (now PatientCare EMS) for ambulance service within the city went into effect on May 21, 2015. This Agreement was extended for a six-year term by City Ordinance approved on December 11, 2018. The Agreement term now runs through May 20, 2026.

PatientCare EMS continues to serve our community well and has continued to stay within contract compliance over the last two years without any issues throughout all the challenges.

—Matt McQuisten, REMSA Chair

The Agreement requires an annual report from REMSA to the City Council detailing performance in these areas:

- **Response Time Performance**
- **Clinical Performance**
- **System Improvements**
- **Workforce Stability**
- **Pricing Compliance**
- **Reporting Compliance**



Response Time Performance

Response time performance is the result of a coordinated effort of the Contractor’s total operation.

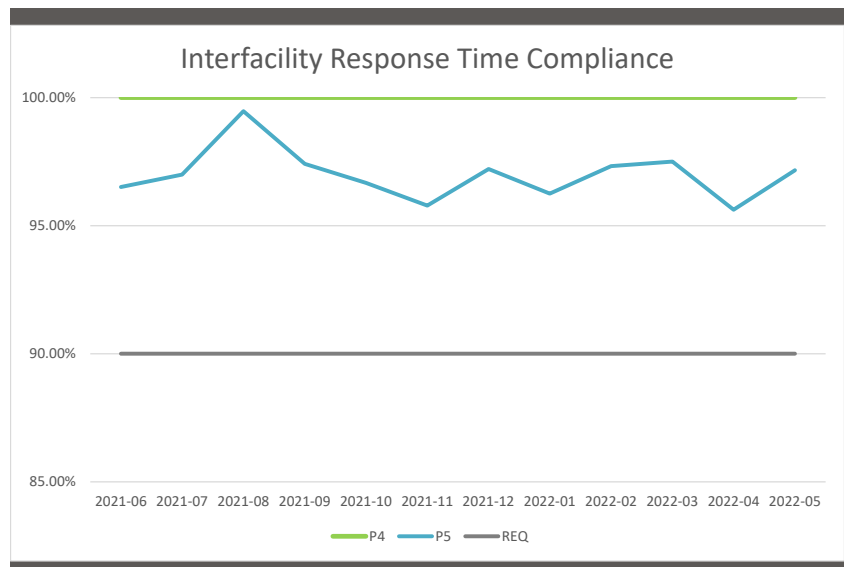
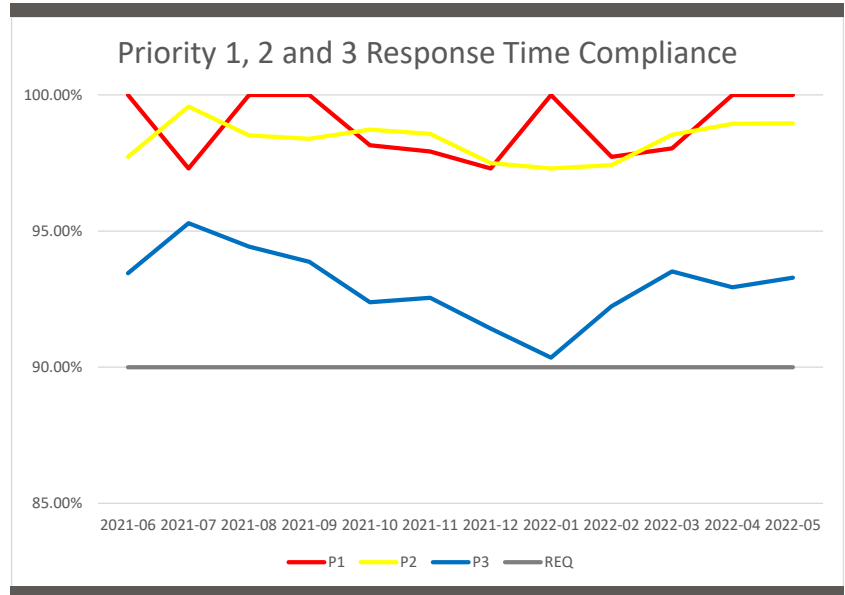
Response time requirements:

- Emergency calls:
 - **Priority 1** (Life-threatening emergencies) require a Paramedic ambulance on the scene within 8 minutes, 59 seconds, for not less than 90 percent of all Priority 1 response requests.
 - **Priority 2** (Non-life-threatening emergencies) require a Paramedic ambulance on the scene within 11 minutes, 59 seconds, for not less than 90 percent of all Priority 2 response requests.
 - **Priority 3** (Nonemergency ambulance requests) require a Paramedic ambulance on the scene within 15 minutes, 59 seconds, for not less than 90 percent of all Priority 3 response requests.

- Interfacility Transfers
 - **Priority 4** (Scheduled interfacility ambulance requests) require a Paramedic ambulance on the scene within 30 minutes of the requested pick up time 90 percent of the time.
 - **Priority 5** (Unscheduled interfacility ambulance requests) require a Paramedic ambulance on the scene within 3 hours of the request 90 percent of the time.

Findings:

- Response Time requirements for each priority have been met every month during this contract year.



Clinical Performance

PatientCare EMS has continued to adjust services to meet the needs of our rapidly growing community—without compromising patient care, timeliness or professionalism. Throughout another challenging and record breaking year our city’s emergency medical service has remained the highest quality.

—Abigail Polzin, MD, FACEP, CMET,
REMSA Medical Board Chair

REMSA utilizes local patient care protocols based on national standards and evidence-based best practices. The REMSA Medical Director and REMSA Medical Board approve these protocols which are then adopted by REMSA. REMSA, PatientCare EMS, and Sioux Falls Fire Rescue worked for over one year to develop new integrated EMS protocols which were implemented in 2020 and updated in 2021.

2021 was another challenging year for EMS, nationally and locally. The continuing COVID-19 pandemic is taking a toll on healthcare providers.

PatientCare EMS is an integral part of the City’s pandemic response Emergency Medical Services (EMS) branch. PatientCare EMS met frequently with partners including local hospitals, law enforcement, emergency management, fire, and health. As COVID-19 transport numbers declined, the additional ambulances PatientCare EMS brought into the system were released for use elsewhere. The EMS branch monitors need and will request these additional resources again if needed.

Call volumes initially dropped during the pandemic when hospitals stopped elective surgeries and transfers slowed down. After

COVID-19 peaked, call volumes fluctuated and staffing needs varied.

Because EMS schools and field training were shut down during the initial COVID-19 waves, the availability of new hires dwindled, creating continued staffing challenges. This is a problem across the nation, not just in Sioux Falls. Staffing continues to recover slowly, but the implications of COVID-19 on EMS in general are still being felt. Fewer young people are choosing EMS as a career due to the risks of practicing in this environment.

External quality assurance is provided under the direction of the REMSA Medical Board and REMSA Medical Director. Random ambulance calls are audited to ensure compliance with protocols. High-risk calls, including all medication-assisted airway management calls, are reviewed by the REMSA Medical Director, who found no calls outside the expected performance. All pediatric calls, cardiac arrests, strokes, heart attacks, and major trauma calls are reviewed. Additionally the FirstPass system provides 100 percent chart review and flags any calls for in-person review.

ESO, an EMS documentation software provider, publishes an index of key EMS performance metrics based on more than 2,000 EMS agencies and 9.9 million 911 calls. Comparing Sioux Falls PatientCare EMS performance to the ESO key metrics:

| Sioux Falls Compared to EMS Benchmarks from 2021 ESO INDEX | | |
|--|-------|-------------|
| | ESO | Sioux Falls |
| Stroke assessment | 73% | 79% |
| Weight recorded for ketamine administration | 83% | 100% |
| Transports without lights and siren | 83% | 90% |
| Non-Transport dispositions | 17% | 26% |
| Overdoses as percent of encounters | 2.64% | 2.50% |
| COVID-19 and influenza-like illness | 1.10% | 0.73% |

Additional Clinical Highlights

| CARDIAC | | STROKE | |
|--|-----------|---|-----------|
| 12 lead EKG done for patients with sustained pulses after cardiac arrest | 93.0% | Aspirin given to patients with cardiac chest pain | 83.0% |
| 12 lead EKG done for patients with acute coronary syndrome | 86.7% | Heart attack patients transported to appropriate hospital | 100.0% |
| 12 lead EKG done for patients > 35 with chest pain within 10 minutes | 91.7% | Hospital notification within 10 minutes from an EKG that shows a heart attack | 91.7% |
| Patient contact to cath lab in 90 minutes or less | 95.8% | Average time on scene for heart attack | 15.4 min. |
| | | Strokes recognized in the field with advance notification to hospital | 100.0% |
| | | Average time on scene for stroke patients | 13.0 min. |
| | | Last known well time documented | 81.6% |
| | | Stroke patients transported to appropriate hospital | 100.0% |
| TRAUMA | | ASTHMA | |
| Average time on scene for trauma patients | 11.5 min. | Oxygen saturation documented | 100.0% |
| Trauma patients transported to trauma center | 100.0% | Appropriate oxygen therapy | 100.0% |
| Average Early Trauma Team activation | 4.0 min. | Appropriate medications given | 100.0% |
| | | AIRWAY MANAGEMENT | |
| | | End tidal CO2 measured to confirm successful intubation | 100.0% |
| | | Airway success on 1st attempt | 91.4% |
| | | Airway success by 2nd attempt | 100.0% |
| | | Overall airway success | 100.0% |

Over this past year our EMS system has faced many challenges, including the lingering pandemic and an acute staffing shortage. All the EMS system participants faced these challenges with a strong sense of professionalism, collaboration, and dedication to serving the needs of the community. I am proud to be serving our system as its Medical Director. We strive to improve outcomes through various clinical and non-clinical strategies, such as embracing diversity, innovating with advanced life support technology, and focusing strategic planning efforts on adopting new methods to preserve team members' safety and overall well-being. Even while experiencing a staffing challenge during the pandemic, the system maintained its historic high levels of training and quality assurance. I have utmost confidence our system will continue providing high quality emergency medical services to the Sioux Falls community.

—Jeff Luther, MD FACEP, REMSA Medical Director

Mission: Lifeline® Gold Plus Recognition

Mission: Lifeline® is the American Heart Association’s national initiative to advance the SYSTEM OF CARE for patients with acute, high-risk, time-sensitive life and/or quality of life-threatening disease states, such as ST Elevate Myocardial Infarction (STEMI Heart Attack), Non-ST Elevated Myocardial Infarction (NSTEMI Heart Attack), Stroke, and Out-of-Hospital Cardiac Arrest. The overarching goals of Mission: Lifeline are to bring stakeholders together in a collaborative manner and to reduce mortality and morbidity for these patients while improving overall quality of care and patient outcomes.

For 2022, PatientCare EMS received the Mission: Lifeline Gold Plus award for the fifth consecutive year. Mission: Lifeline quality awards recognize an EMS agency’s commitment to ongoing quality improvement. Consistent monitoring of Mission: Lifeline achievement measures translates into better outcomes for cardiac and stroke patients. In addition, Mission: Lifeline awards represent a commitment to cardiac systems of care. Mission: Lifeline awards cannot be achieved without collaboration from hospitals and other responding agencies. Mission: Lifeline communities are communities that strive to

achieve the highest levels of care for cardiac and stroke patients.

This award is testament to the hard work of PatientCare EMS and the entire EMS team, as well as further proof of the incredible level of collaboration between the EMS system team and local hospitals. PatientCare EMS shares this award with their partners in pre-hospital care, Metro Communications, Sioux Falls Fire Rescue and Sioux Falls Police.

Mission: Lifeline quality awards recognize an EMS agency’s commitment to on-going quality improvement. Consistent monitoring of Mission: Lifeline achievement measures translates into better outcomes for cardiac patients. In addition, Mission: Lifeline awards represent a commitment to cardiac systems of care. Mission: Lifeline awards cannot be achieved without collaboration from hospitals and other responding agencies. Mission: Lifeline communities are communities that strive to achieve the highest levels of care for cardiac patients.

—Gary Myers, Former REMSA Chair



Cardiac Arrest Outcomes (2021)

Sioux Falls has participated in The Cardiac Arrest Registry to Enhance Survival (CARES) since 2007. This registry allows our community to compare our cardiac arrest causes and outcomes to an aggregate of other community's results.

EMS-treated out-of-hospital cardiac arrest (OHCA) affects more than 250,000 Americans each year and is the third leading cause of disability-adjusted life years (DALY) in the United States, behind cardiovascular disease and back pain. Typically, one in ten patients survives to hospital discharge, with 80 percent having no or moderate neurological disability. Cardiac arrest resuscitation is an important measure of a community's emergency response

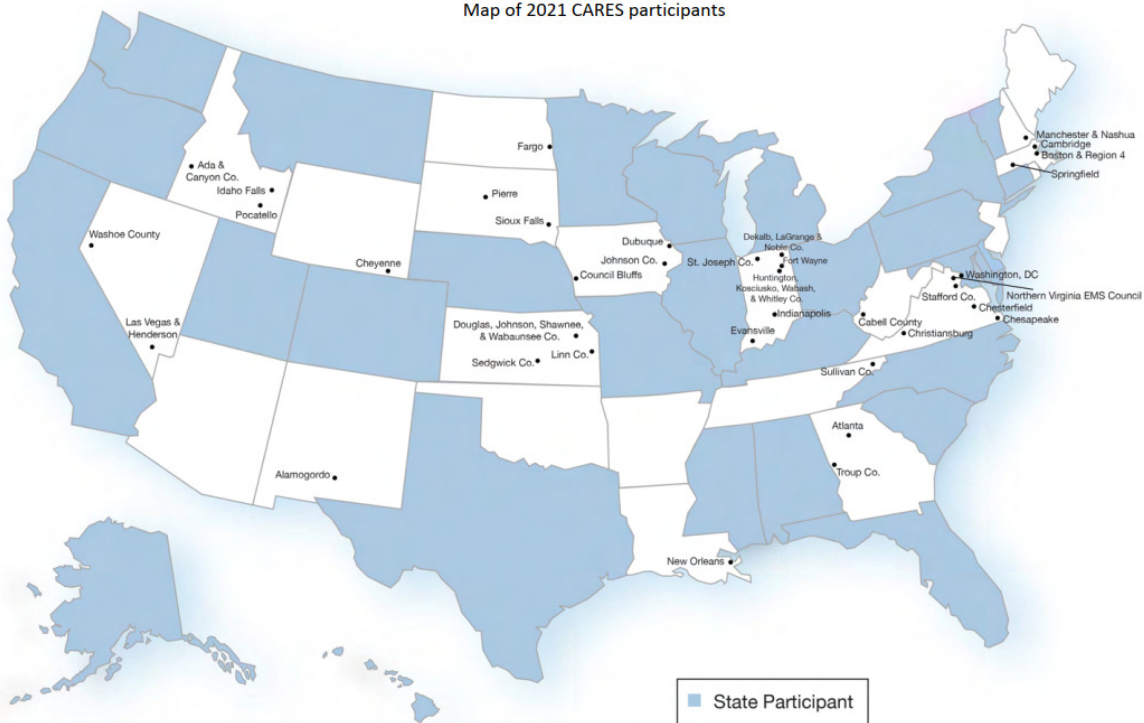
readiness. Successful resuscitation requires involvement by a range of individuals including bystanders, emergency medical dispatchers, first responders, Paramedics, and hospital providers.

2021 data taken from the CARES Registry, comparing cardiac arrest survival in Sioux Falls to survival in all CARES registry communities, including 30 states and 500 communities in 16 additional states, shows the excellent cardiac arrest outcomes our community achieves. Cardiac arrest survival in our community continues to exceed that in the aggregate CARES communities. Patterns, etiologies and outcomes of cardiac arrest have changed during the COVID-19 pandemic. Local and national investigation of these pandemic-related changes is ongoing.

- 21 lives were saved in Sioux Falls in 2021
- All non-traumatic cardiac arrests
 - Sioux Falls—15 percent survival
 - All CARES—9.0 percent survival

CARES Participants

Map of 2021 CARES participants



- Witnessed cardiac arrests of cardiac etiology with a rhythm that can be helped with defibrillation
 - Sioux Falls—55 percent survival
 - All CARES—29 percent survival
- Bystander CPR Rates
 - Sioux Falls—73 percent
 - All CARES—40 percent



| | OVERALL CARES | SIOUX FALLS |
|--|-------------------------|-----------------------|
| 2021 REGISTRY STATISTICS | | |
| Total registry records | 800,000 (since 2005) | 1,858 (since 2007) |
| Non-traumatic arrests in 2021 | 146,891 | 142 |
| Catchment area | 159,200,000 | 201,180 |
| 2021 EMS STATISTICS | | |
| EMS transporting agencies | 1,944 | 1 |
| Cardiac arrests who were female | 37% | 38% |
| Median age of cardiac arrests | 64 | 61 |
| Arrests in the home | 74% | 70% |
| 2021 BYSTANDER STATISTICS | | |
| Bystander-witnessed arrests | 37% | 40% |
| Bystander CPR | 40% | 73% |
| Bystander AED | 10% | 15% |
| 2021 HOSPITAL STATISTICS | | |
| Hospitals | 2,194 | 3 |
| Patients admitted | 25% | 35% |
| Patients discharged alive | 9% | 15% |
| Utstein survival (witnessed with shockable rhythm) | 29% | 47% |
| Cardiac Utstein survival | 29% | 55% |
| Lives saved from cardiac arrest in 2021 | 13,731 | 21 |

Medical Audits/CASE Review

PatientCare EMS participates in quarterly case reviews with all EMS system agencies. Specific calls with learning opportunities or other insights are reviewed by all agencies participating in care. This on-going multi-discipline review process is a valuable process for all agencies involved in the response process. Additionally, specific cases are reviewed with the REMSA Medical Director on an ad hoc basis.

Other Clinical Measures

The nationwide opioid crisis is being felt in Sioux Falls as well. PatientCare EMS and our system's first responder partners administered naloxone, an opioid reversal agent, 221 times last year, compared to 183 times the previous year. While opioid-specific calls are concerning, the total volume of EMS calls involving drugs including meth and/or alcohol is also considerable. Last year 21 percent of EMS calls (excluding interfacility transfers) were noted to involve drugs and/or alcohol. In 2021, 15 percent of cardiac arrests were due to drug overdose, up from 12 percent in the previous year.

PatientCare EMS was an active partner in planning for transportation to and from The Link, the new triage center for behavioral health issues that opened in June 2021.

As required by contract, every ambulance rendering emergency care services under the agreement has been staffed and equipped to provide Paramedic-level care and transport with a minimum of one (1) state certified and locally certified Paramedic and one (1) state and locally certified EMT.

As required, every call had a REMSA- certified Paramedic providing care to the patient in the back of the ambulance during transport.

All Paramedic and EMT staff have the required licensure and certifications. All required staff training, including mass casualty, driving, infection control, Incident Command, HIPAA, and reimbursement compliance, has been completed and documented. COVID-19 specific training was provided to all staff, including refresher training in proper infection control procedures and donning/doffing of Personal Protective Equipment (PPE).

The EMS system in the City of Sioux Falls continues to operate at a very high level. SFFR is extremely proud to be a partner in this system providing exceptional care for our community.

Matt McAreavey, Sioux Falls Fire Rescue Chief

System Performance

PatientCare EMS facilitates innovative programs to improve system performance within the City of Sioux Falls. Examples of PatientCare EMS's commitment to system innovation include:

- CAAS Accreditation

PatientCare EMS is accredited by the Commission on Accreditation of Ambulance Services (CAAS). PatientCare EMS is one of 203 accredited services nationwide and the only accredited ambulance service in South Dakota.

From CAAS: "The Commission on Accreditation of Ambulance Services was established to encourage and promote quality patient care in America's medical transportation system. Based initially on the efforts of the American Ambulance Association, the independent Commission established a comprehensive series of standards for the ambulance service industry. Accreditation signifies that a service has met the "gold standard" determined by the ambulance industry to be essential in a modern emergency medical services provider. These standards often exceed those established by state or local regulation. The CAAS standards are designed to help increase operational efficiency and decrease risk and liability across the entire spectrum of the organization."

The application process includes a detailed self-assessment followed by external review of the applying organization. The independent process provides verification that quality care is provided to the community.

PatientCare EMS's CAAS accreditation is effective through Fall of 2022. They are in the reaccreditation process. Their application with all supporting documents was submitted in May of 2022. Onsite CAAS review will occur the Summer of 2022.

- Mobile Dispatch Terminals

PatientCare EMS upgraded their mobile dispatch terminal (MDT) to Central Square Field Ops in the Fall of 2021. With this

upgrade in both hardware and software, PatientCare EMS is able to provide improved unit location to dispatch.

- Video Laryngoscope

Video Laryngoscopes were added to the system to allow video to be used to place advanced airways. While first pass success was historically high, PatientCare EMS has seen an increase in first pass success with implementation of this new technology.

- Performance LOAD Cot Fasteners

PatientCare EMS added Stryker Performance-LOAD cot fasteners for all response vehicles. This addition ensured that the highest level of safety is being provided while transporting patients.

- PULSE Process (Performance Utilization Late-call System Evaluation)

A daily conference call is conducted Monday through Friday and includes at minimum one management representative from REMSA, PatientCare EMS, and Metro Communications. All partners of the Sioux Falls REMSA system are able to participate, including Sioux Falls Police, Sioux Falls Fire Rescue, and the Sioux Falls Health Department. Every late call is reviewed by the participants. Other issues relevant to the EMS system are identified and addressed by stakeholders during this conference call.

- System Status Management (SSM)

PatientCare EMS utilizes an SSM model in the City of Sioux Falls that focuses on dynamic deployment whereby ambulance resources are strategically placed at different locations within the City based on the level of available resources and the best possible location for response. In 2021, post locations were updated due to changes in call patterns and growth in the City. Posting locations are frequently being evaluated due to the significant construction projects on major streets to minimize any response delays.

- FirstWatch and FirstPass

PatientCare EMS continues to partner with Sioux Falls Fire Rescue and Metro Communications to use First Watch and First Pass. FirstWatch is an advanced data analytics tool that alerts responders and leaders in real time of developing situations or trends. FirstWatch can combine data from both dispatch information and patient care reports for QA and system improvement purposes. PatientCare EMS continues to use FirstPass as a quality assurance tool to conduct 100 percent chart review and streamlines clinical feedback to EMTs and Paramedics. FirstPass helps to ensure REMSA protocols are being followed on every call. Both tools are used retrospectively to monitor system performance and quality.

- PPE

Personal Protective Equipment (PPE) has always been a priority in the medical field, but the COVID-19 pandemic heightened awareness. PatientCare EMS and their national organization have maintained supplies to meet the needs of the responders without any decrease in service quality. PatientCare EMS continues to be one of the only EMS providers in the state with a dedicated special pathogens team.

- Ambulance and Command Vehicle Fleet

In 2021, PatientCare EMS completed the replacement cycle of all ambulances in their fleet with AEV remounted 2021 Ford E350 models. This fleet update increases response readiness and reliability in our system. They also added additional staff to their fleet department to ensure that the highest level of maintenance and preventative care is being performed. PatientCare EMS uses state-of-the-art driver behavior monitoring systems in all ambulances and command vehicles.

○ System Integration

Sioux Falls Fire Rescue provides Advanced Life Support (ALS) pre-hospital EMS care along with back-up or mutual-aid ambulance transport capability. This ALS enhancement was coordinated by REMSA and embraced by the system partners and was successfully implemented through collaborative teamwork and a community-first approach. The ALS enhancement program was driven by REMSA to ensure we have Paramedics who are specially trained to provide ALS care in the most adverse of conditions related to rescue, hazardous materials, special weapons and tactics, explosive ordinance disposal, and all other special operations related incidents. The added benefits for the community from this enhancement include these same Paramedics providing ALS care to the community when called upon through the normal EMS response system in place through REMSA. This also includes the capability of SFFR to further support the system with mutual aid ambulance transport when called upon by PatientCare EMS. This enhancement program truly shows the commitment to our Sioux Falls EMS system excellence by all partners, and the diligent oversight of REMSA to ensure the community is provided the highest level of care possible at all times.

Workforce Stability

PatientCare EMS remains committed to recruiting and retaining a qualified and engaged workforce. Staffing challenges caused by the COVID-19 pandemic such as a large amount of care-providers leaving EMS and the reduction of EMTs and Paramedics entering the workforce continue to impact EMS operations across the nation. PatientCare EMS continues to take steps to mitigate the impact here in Sioux Falls through the provision of competitive benefits, sign-on bonuses for both EMTs and Paramedics, and wage increases of 6 percent in 2021 and 10 percent in 2022 to remain competitive. PatientCare EMS also leverages its School of EMS to provide a resource pool of high-

performing students from our classes. A new “Earn to Learn” program is also being initiated in May/June 2022.

PatientCare EMS utilizes a Professional Development Program to ensure the highest qualified employees are serving our community’s needs. New employees complete a week-long classroom orientation period which includes an introduction to the company’s guiding principles and standard operating procedures, an overview of the Sioux Falls REMSA system, and a comprehensive emergency vehicle operator course. This classroom period builds a strong foundation for new employees and helps ensure their success with PatientCare EMS. New employees are then assigned a Field Training Officer who evaluates their performance and skill level while working in the system. The Field Training Officer acts as an instructor and mentor for the employee as they progress through several stages of training with incrementally increasing levels of responsibility until the new employee is prepared to function independently. Throughout this field experience, the new employee is the third team member of a functioning in-service ambulance. More recently, the Professional Development Program expanded its Field training to include Paramedics from Sioux Falls Fire Rescue in support of Sioux Falls Fire Rescue’s Advanced Life Support expansion.

PatientCare EMS provides all required training, certification, and continuing medical education to employees through its ownership of the accredited School of EMS located in Sioux Falls. Through EMT and Paramedic courses offered at the School of EMS, PatientCare EMS can provide quality emergency medical personnel to not only Sioux Falls but also the region as a whole. In the 2021 annual employee survey, employees were asked about their personal and professional development. 89 percent of employees surveyed indicated they were satisfied with the opportunity to learn and grow at PatientCare EMS.

PatientCare EMS continues to collaborate with Sioux Falls Fire Rescue to provide quarterly skills verifications to all Paramedics within

the system. PatientCare EMS and Sioux Falls Fire Rescue supply all required instructors to accomplish this training. In 2021, PatientCare EMS, Sioux Falls Fire Rescue, and the Sioux Falls Police Department participated in multiple joint training exercises to strengthen the strong working relationship between the partner agencies.

PatientCare EMS continues to assess and explore ways to improve employee engagement. Management conducts an annual employee satisfaction survey. The results are analyzed, and action plans are developed in the key areas identified for improvement. The survey conducted in Sioux Falls in September 2021 demonstrated an 81 percent employee satisfaction rate, an increase from 77 percent in 2020.

PatientCare EMS continues to use a multi-level team member focus group to address concerns and foster innovation for improvement. The group is comprised of front-line employees and leadership working together to achieve their common goals. Two key large-scale areas of focus for improvement in the upcoming year are Supervisor Leadership Training and improving communication. As a result, PatientCare EMS is providing leadership training sessions through SafeTech Solutions, a well-known and respected leadership academy in the EMS industry.

To improve communication, PatientCare EMS is investing in the full deployment of Microsoft Teams to share information, and to provide the necessary resources to all, including the field level employee.

Although the full-time attrition rate was above what is desired in 2021, in the first quarter of 2022, the attrition rate was 11 percent.

Pricing Compliance

REMSA's review of total billing charges compared to total calls of each type shows that all were billed at the level approved in City Ordinance.

Annually, PatientCare EMS engages a qualified entity to conduct a claims review as described in the Office of Inspector General

Compliance Guidance. The independent audit reviews randomly selected Medicare claims for compliance with Centers for Medicare and Medicaid Services rules and regulations, appropriate documentation, medical necessity, and level of service. PatientCare EMS submits this audit report to REMSA within 120 days of the end of each contract year as required in the agreement.

Reporting Compliance

All reporting requirements have been met.

- Response time reports have been submitted monthly as required.
- Clinical, operational, and personnel data are available online at all times for REMSA review.
- Community affairs data has been reported monthly at REMSA meetings.

Summary

REMSA finds the ambulance contractor performance to be acceptable for the past year. The required services were delivered while improving system quality. Specific system improvements and actions to improve workforce stability continue to increase workforce stability. There were no breaches of the agreement. The required performance security bond remains in place. We look forward to PatientCare EMS' next year of service to the community.

