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Three-Year Strategic Plan

Sedgwick County EMS | March 2025

Contents

Disclaimer

This study was conducted by the Public Policy and Management Center (PPMC) at Wichita State University (WSU). The PPMC is an independent research body unaffiliated with Sedgwick County EMS. This report was prepared by the research team. It represents the findings, views, opinions and conclusions of the research team alone. The report does not express the official or unofficial policy of WSU.

About the PPMC

The PPMC enhances public service to best serve your community. The PPMC believes that every community and organization is unique and, as such, is dedicated to understanding the needs and nuances of each. The PPMC is a nonprofit, nonpartisan organization driven by the mission of public service and is committed to a quality product that serves the needs of each organization and community.

Acknowledgments

The PPMC would like to thank Sedgwick County EMS, leadership team members, and focus group participants who provided feedback for this Strategic Plan.

Background

In response to a request for services, the Public Policy and Management Center (PPMC) at Wichita State University assisted the Sedgwick County Emergency Medical Service (SCEMS) in a strategic plan process.

Through consultation with stakeholders and technical experts as well as data analysis and research, the PPMC developed a strategic plan that addresses:

- Staffing
- Equipment
- Funding
- Community Response Model
- Partnerships/Relationships

The process was collaborative to ensure commitment to the final plan. The PPMC has a successful record in strategic planning and expertise in emergency services. As a team comprised of experienced technical experts and project managers with a thorough understanding of local government, the PPMC offered a unique approach to this work. The PPMC ensured SCEMS received a thoughtfully developed plan, tailored to address departmental and community-specific needs, and concerns.

The purpose was to create a three-year strategic plan that will serve as a proactive and measurable tool that guides SCEMS in future service delivery and decision making. The process for the strategic plan involved several steps to ensure the organization had cumulative information from research, stakeholders, and leaders to understand the status of the organization and clearly define where SCEMS wants to be in the future.

Mission & Vision

The PPMC helped SCEMS craft a new and extended mission statement that better reflected the organization. This statement was influenced by the leadership team and stakeholders engaged in the planning process.

New Mission Statement:
<u>Built on trust that goes beyond emergency care,</u> SCEMS offers compassionate community response, prioritizing the health and well-being of everyone we serve.

Strategic Plan

Area 1: Staffing

Goal: Employ qualified staff to maintain and expand quality of services and changing needs (retain, attract, hire, specialize).

Key Performance Indicators:

- Decrease response times due to staffed resources by responding to all P1 and P2 calls with a target of 8 minutes 59 seconds
- Decrease UHU (workload). Target:
    - Year 1: 0.48, 90% of the time
    - Year 2: 0.45, 90% of the time
    - Year 3: 0.40, 90% of the time

Strategies:	Ownership:	Timeline:[1]
Prioritize the staff experience to expand the quality of services and changing needs by: • Using clear communication • Offering annual trainings • Conducting case reviews and quality audits, • Exploring alternative response models • Creating a culture of recognition and purpose	Chief, Deputy Chief Operations, Division Chief, District Chief	Q2 2026

[1] Note: SCEMS' fiscal and calendar years align with Q1 being January – March.

Explore opportunities to/create plans to support the work/life balance of employees by: • Celebrating non-work wins such as personal goals and milestones • Conducting quarterly pulse checks on burnout or workload satisfaction • Encouraging vacation use • Evaluating rotations for workload balance.	Chief, Deputy Chief Operations, Division Chief, District Chief	Q2 2026
Create a workspace environment that is safe, equipped with the appropriate tools, and a place of pride	Chief, Deputy Chief Operations, Division Chief, District Chief	Q1 2026
Provide support for new leaders	Chief, Deputy Chief, Division Chief, Chief Training Officer	Q1 2026
Provide alternatives motivators and rewards for advancement, including the continuation of shift options and promotions	Chief, Deputy Chief Operations, Division Chief	Q3 2026
Increase recognition and appreciation shown to EMS employees	Chief, Deputy Chief Operations, Division Chief, Employee Advisory Committee	Q3 2026
Maintain consistent communication through streamlined messages, a dedicated platform, and townhall meetings	Chief, Deputy Chief Operations, Division Chief	Q3 2026
Create more opportunities for hands-on and skills training and a plan to increase participation	Chief Training Officer	Q3 2026
Reduce salary compression	Chief, Deputy Chief Operations	Q3 2026

Area 2: Equipment

Goal: Support operations by staying at pace with industry standards regarding equipment, vehicles, and technology.

Key Performance Indicators:

- Achieve 95% compliance with scheduled end-of-life equipment replacement
- Maintain 100% compliance with preventative maintenance schedules for monitors, stretchers, powerloads, and ventilators
- Reduce the cost of disposable equipment (establish baseline)

Strategies:	Ownership:	Timeline:
Enhance the inventory management system, particularly for disposable equipment	Logistics Division Chief/Chief Logistics Officer, Sedgwick County IT	Q2 2027
Create a replacement plan for all capital equipment based on lifespan of materials	Logistics Division Chief	Q2 2026
Produce a plan with IT and EMS to enhance the integration of systems and create single sign-on	Chief Logistics Officer, Sedgwick County IT	Q3 2027
Continue discussions about the effectiveness of the current point system standard for ambulance replacement	Logistics Division Chief	Q1 2026
Keep up with technology through the acquisition of field-based ultra-sound, body cameras, and ambulance fleet expansion	Logistics Division Chief/Chief Logistics Officer	Q1 2027

Area 3: Funding

Goal: Develop a sustainable funding model that ensures growth, innovation, and safety for responders and the community.

Key Performance Indicators:

- Maintain collection percentages above industry averages through an accurate and accountable reimbursement model that minimizes taxpayer burden

Strategies:	Ownership:	Timeline:
Create a reimbursement model for non-transport calls that enhances the ability for treatment in place	Deputy Chief of Administration	Q2 2026
Develop a budget that is both proactive and realistic to achieve high quality work by EMS	Deputy Chief of Administration	Q1 2026

Area 4: Community Response Model

Goal: Develop community response models that connect patients with appropriate resources and increase availability of emergency resources.

Key Performance Indicators:

- Respond to all P1 and P2 calls with a target of 8 minutes 59 seconds 90% of the time to decrease response times on time critical calls
- Decrease calls to the same patients (establish baseline)

Strategies:	Ownership:	Timeline:
Amplify efforts to educate the public about use of emergency medical services by: 1. Prioritizing community events, and 2. Creating a system or platform to inform the public about how to appropriately engage EMS and where to go for different healthcare needs	Deputy Chief of Operations, Division Chief	Q2 2026
Create a mobile integrated healthcare model directed toward vulnerable populations that can be supported on the County level	Deputy Chief Operations, Division Chief	Q1 2026
Create a social media presence for EMS, independent of Sedgwick County communications	Chief, Deputy Chief of Operations, Sedgwick County Strategic Communications	Q1 2026
Collaborate with multiple allied agencies to create a nurse line at 911	Chief, Deputy Chief of Operations	Q4 2027
Create a format for non-emergent transport that has BLS capabilities	Chief, Deputy Chief of Operations, Deputy Chief of Administration	Q2 2026

Area 5: Partnerships/Relationships

Goal: Enhance relationships with allied agencies and community partners in order to provide a better continuation of care for the public.

Key Performance Indicators:

- Increase collection of patient satisfaction feedback by 10%
- Decrease EMS response to low acuity calls in comparison to transport calls (establish baseline)
- Decrease complaints from or about allied agencies (establish baseline)

Strategies:	Ownership:	Timeline:
Enhance communication with partner agencies through maintaining a regular meeting schedule	Chief, Deputy Chief of Operations	Q1 2026
Create the opportunity for joint training with allied agencies	Chief Training Officer, Allied Agencies	Q2 2026
Ensure intentionality to prioritize partnerships	Chief, Deputy Chief of Operations	Q1 2026
Create an information campaign to provide to other departments to educate on the work of EMS	Chief Workforce Officer, Division Chief of Operations	Q2 2026
Develop an understanding of the different priorities of allied agencies and communicate internally	Deputy Chief of Operations, Division Chief of Operations	Q1 2026

Stakeholder Engagement

Over the course of seven weeks, between December 3, 2024 and January 15, 2025, the PPMC conducted seven focus groups and eight interviews with internal and external stakeholders with SCEMS. Three focus groups were held with fire departments and hospital representatives. Four were held with internal employees at varying levels in the organization. Interviews were conducted with County Commissioners, County management, Emergency Communications/911, and the Office of the Medical Director. The purpose of these meetings was to provide feedback on the current state of SCEMS, which could be evaluated for the development of the 2025 Strategic Plan.

Included in this report are themes that emerged from the discussions. These themes do not catalogue the results of the 2025 Strategic Plan goals. Instead, they are intended to inform leadership of the broad concepts and ideas that were repeated throughout discussions, and those ideas that position the organization to identify new goals in the upcoming strategic planning process.

Leadership

- Leadership is viewed:
    - By external partners and County leadership as respected, good partners, respectful, quick and professional when responding.
    - By Commissioners as a positive change to previous leadership, but there is room for improvement.
- Open communication with the Office of the Medical Director (OMD) and 911.
- Regular meetings with 911, Sedwick County Fire Department, and hospital liaisons.
- Internal staff voiced frustrations about the gap between street staff and admin, frustrations about morale.
    - No unified idea of what the organization is working towards, contributing to burnout.
- Opposing opinions about leadership from internal employees.
    - While some employees think leadership is making positive strides in managing EMS more effectively, others feel there have been less significant changes.
- Quarterly town halls are not used to their full potential as a communication method between street staff and administration.
    - Communication mainly occurs through email and supervisors sending out communications.

Staffing

- Staffing stability is recognized as a necessity from internal staff, County management, County Commission.
    - Necessity to consider the pipeline for future staffing needs to support stabilization.

County Management & Commission

- County Commission would like to be advised on the ratio of EMTs to paramedics to make program/policy decisions.
- County management and Commissioners are hearing positive things about the E-to-P program paying off and view it as necessary but would like to be able to better measure the impact.

SCEMS Staff

- Internal staff acknowledged the need to think about the future of ambulances a decade from now when making decisions.
    - The organization has a young workforce due to turnover and retirements.
    - Promoting young employees can cause bottlenecks because they can be in a position for 10-15 years.
- Internal street staff and administrative staff support the need for additional staff, but want quality employees, not just additional bodies.
- Part-time staff going without pay increases.
- Internal staffing acknowledges pay and staffing in relation to call volume are the biggest issues that will affect their jobs.
- Internal staff suggested increased pay could lend to retention, meaning more employees to staff trucks.
    - They explained people are leaving due to burnout and better pay opportunities.
    - More staffing would allow for a better balance between patient care and documentation.
- Explained additional stressor of not having any control over work, including which post staff will be at and who they will be working with.
    - Suggested that staff work better when they know each other's ways.

- Internal staff noted it is stressful partnering with EMTs.
- Internal staff also noted the change to having voice contact when calling in sick.
    - Some expressed dislike of this change.

Integrated Health and Community Paramedicine

County management suggested the need to proactively address health in the community, especially with recidivist callers who require more time and attention from street staff. 911 and the Commission noted that the types of calls in the community will change, with overdoses, mental health, or behavioral health. Internal staff are taking calls that result in the patient using the EMS truck as a form of transportation, commonly by individuals who are homeless.

- Internal staff are experiencing calls that are non-emergent and are more suited for primary care.
- Internal staff suggest it could be beneficial to have a nurse line at 911 to attempt to resolve non-emergent calls, rather than solely have a truck respond.
- OMD would like to work toward integrated health and innovative care.
- Commission has differing opinions of paramedicine and Medic 11.
    - Some believe this model could be beneficial, as currently 30 percent of calls do not result in a transfer.
    - Others believe they are not needed if we heavily invest in EMS.
- County management believes this is something to strive for but need street level staff stability first.
- Management believes some street staff may view this role as doing nothing compared to their heavy load.
- Fire departments acknowledged that this type of service could prevent high acuity calls drawing all the resources to the core.

- Hospitals acknowledged that this would be beneficial to keep people out of the hospitals and treat in place.
- EMS street staff acknowledged that Medic 11 is especially helpful in the downtown area or in situations when PD is making requests of EMS, but Medic 11 is not always staffed.
- County management recommended tracking the expansion of ICT 1, due to the supporting role of EMS.

Response Times and Rural Communities

- Commissioners representing rural constituents and those outside the Wichita core report delayed EMS response.
    - Valley Center leadership and constituents reported to Commission that this post is often left vacant because it is pulled into Wichita.
    - Clearwater Fire noted they have one person and the CRV, which is adequate most times, but are still waiting 20 minutes for transport.
    - Derby Fire acknowledged there is only one EMS truck and it usually gets pulled into Wichita.
- WFD/SCFD/Derby acknowledged growing response times for calls to the rural areas and a frequent reliance on the fire departments for BLS care before EMS arrives on scene.
- Differing opinions on CRVs:
    - Some Commissioners heard positive things about the change with smaller vehicles in Cheney and Clearwater.
    - Some would like additional 12-hour vehicles in the townships.
    - Some hear worries that people won't have fast enough transports.
    - Some believe the CRVs caused a reduction in care.

Equipment

- Commissioners, Fire, hospitals, and internal staff acknowledged the need for additional trucks.
    - While responsive, more staffed trucks would reduce the amount of calls per staff member and reduce the fatigue.
- EMS and partner agency technology are not always compatible, leading to inefficiencies.
    - Tech Fire and EMS use are not always compatible.
    - Hospitals said they would like to use the Pulsera system, which is free to them, but would not work with the current EMS life packs.
- County management acknowledged the need for equipment stability. Hospitals acknowledged that trucks don't always have the right equipment or people with the right training.
- Internal staff suggested the need for more staff vehicles, beyond trucks, to be used in training.
- Internal staff report advocating for equipment that are industry standard: ventilators, bi-pap, and field-based ultrasound, for example.

Partnerships

- Internal staff noted good relationships with other providers, but not a lot of integration.
- Internal staff noted it would be beneficial for more community partners to play a more proactive role in addressing patient needs, particularly for cases better suited to primary care, rather than requiring EMS to handle them as emergency calls.
- Hospitals noted the possible benefit to have stakeholder meetings regularly with EMS, to express current problems and EMS capabilities.

911/Dispatch

- 911 acknowledged the majority of interactions go well and the main barrier is that each entity is advocating for their own staff, while also focusing on patient outcomes.
- Hospitals suggested that the operators don't always understand what they are told, so they don't communicate to EMS correctly.
- Internal staff commented that interactions with dispatch can be stressful, for example, EMS does not receive the dame information that PD gets, until they merge calls, which can cause issues on scene.

Office of the Medical Director (OMD)

- County management acknowledged there is always stress because EMS and Fire operate under his license, but leadership works well together.
- Hospitals noted the disconnect between OMD and EMS, how they communicate within the entire county could be improved.
    - The siloing between EMS and OMD exacerbates miscommunication and can extend processes longer than needed.
- Internal staff noted the relationship with the medical director is good, but feels disconnect with the staff.

Fire and Law Enforcement

- County management and Commissioners acknowledged tension with Fire and EMS because they work closely together.
    - Fire noted frustrations while waiting on scene.
    - EMS noted frustrations by Fire's frequent refusals to write green refusals, which allow EMS to continue to take calls elsewhere.
- County management acknowledged there are opportunities to improve relationships between Fire and EMS.

- County management acknowledged plan for Fire to have some EMTs to do medical first response, because firefighters don't want to do medical work.
    - Internal staff echoed that Fire wants to do less medical.
- Rural Fire experiences few complaints of disagreements between crews and sees a good working relationship.
    - Generally, Wichita Fire believes relationships have improved in recent years.
- Fire and internal staff acknowledged issues usually happen with crews that aren't familiar with each other and familiarity helps to mitigate a lot of issues.
- Fire noted it would be helpful to have a report on how often EMS is at status 1, 2, and 3 and the impact on the system.
- Fire has been working with OMD and other partners on analyzing calls and the prioritization of calls over the past year, getting together and looking at how to service the calls properly.
    - EMS providing the data set and suggests continuing this as a monthly meeting and looking at the impact on the entire system.
- Internal staff noted higher tensions with PD and experiencing unrealistic expectations relating to low acuity patients that could be handled by other first responders.

Training

- Fire acknowledged there is not collaborative training because both entities are staffed to respond to the emergencies but would like to if schedules could be aligned.
- 911 would like the opportunity for more cross training, additional time spent in the dispatch center with each promotion because interactions with the 911 staff look different on each level of EMS.

- Hospitals acknowledged EMS is good at having specialties come in to talk to them and doing a good job educating medics – IV pumps, specialty care patients, ventilators.
    - The training gives them a good start, but there is room to improve and could expand to the field staff.
- Internal staff discussed:
    - A lack of training from academy and need for additional time, more ride-outs, more training in the field.
    - The need for navigation training.
    - The impact of training on paramedic-EMT partnerships.
    - Stress resulting from on-duty training between calls.

Protocols

Recently protocols were developed and released by the OMD for the first time in twelve years, which resulted in a variety of perspectives from leadership and staff. The OMD brought in representatives from all partner agencies, including EMS, for the development and then intense training process for dissemination. The OMD, hospitals, and internal staff noted that the process took longer than expected, with frustration from the latter two groups. Hospitals shared EMS should have been included from the beginning in the development of trauma protocols. Internal street staff noted their feedback was not considered in the final protocols. The OMD has not received any complaints from any ED directors on the new protocols, but internal staff suggested there was a lack of information and lack of supplies with the change in protocol. They noted they have to operate under the new protocols, but the new medications were not supplied, and the trainings would not happen until the future.

Advocating to the Commission

The Commission emphasized that the department has been proactive in identifying and requesting the resources it needs and believe, historically, these requests have been met with approval. Commissioners underscored the importance of continuing to have open communication about the department's needs, ensuring that EMS has the necessary tools to carry out its responsibilities effectively.

Internally, the staff at EMS expressed a deep sense of professionalism and dedication. They see themselves as problem-solvers who are committed to ensuring that operations run smoothly, regardless of the challenges they face. However, they also acknowledged that when issues arise, it often signals a gap in resources that must be addressed. Staff understand if these challenges are not addressed, it could open the door to discussions about the future of the service, including the possibility of privatization. The concern is that if EMS does not meet its obligations to the citizens, it could lead to a shift in how services are delivered.

Additionally, there were internal concerns about the stance of County leadership and the County Commission on funding EMS. Staff expressed the belief that these entities view the cost of EMS as a significant challenge and are hesitant to allocate the necessary funding.

Privatization of Services

Privatization of EMS is a topic that often comes up for local governments, including the County, as part of the ongoing evaluation of service delivery models. County management and the Commission have acknowledged that private EMS services typically face higher costs, including the need to charge more for their services, and often struggle to offer competitive compensation for their employees. They also recognized the ongoing issue with hospitals not reimbursing the County for services provided, a challenge exacerbated by the presence of private providers. While the Commission has previously explored the possibility of privatizing certain aspects of

EMS, they emphasized the importance of maintaining a County-wide EMS transport system. Private companies, they noted, tend to prioritize routes that are financially beneficial to them, often leaving less profitable areas underserved. The challenge of managing EMS transport across the diverse needs of 19 cities and rural regions would likely prove difficult for private companies.

Internally, staff expressed the challenges they face as the sole EMS provider, particularly with the constant awareness that the County could potentially explore other service delivery models.

Perception

- Positive perception of quality of services from County management, Commission, 911, OMD. Acknowledged a good track record of professionalism and no significant claims.
- Commission hearing mainly positive things from constituents and excited where things are heading. Opposing opinion on Commission worried about morale and culture.
- Acknowledged there haven't always been positive interactions, but there has been a culture change and positive momentum/growth that can be attributed to leadership.

Call Volume

- Commissioners and internal staff noted staff frequently have to stay past their shift to get their documentation done and write narratives. Internal staff noted they don't bring lunch anymore due to time constraints.
- County management noted a 0.4 range for Unit Hour Utilization is generally acceptable to mitigate burnout and they are at 0.5 - 0.55. Even if vacancies are filled, that is only the equivalent to one more truck per shift, which won't have a significant enough impact.

- Fire and internal staff noted that call volumes aren't getting lower and it is necessary to look at adding more staff and trucks.
- Hospitals noted EMS has too many calls for their number of trucks. This puts pressure on the hospital staff so they can get back out to respond to another call. Hospitals noted impact to both employees and the system at large.
- Internal staff noted that call volume affects retention because employees have the option to go to other services with less liability and stress and get paid the same starting out.

Planning for the Future

- County management would like EMS to find fiscally responsible ways to expand coverage to the County, possibly more CRV one paramedic units.
- County management would like EMS to keep in mind themes of collaboration, functional consolidations, fiscal responsibility and other programs like core services, employee development, and wellness initiatives.
- OMD would like to continue working on other treatment modalities including blood issues, better protocols for sepsis and early antibiotics.
- Hospitals suggested it would be beneficial and would relieve the County if there were other alternatives for non-emergent transport.

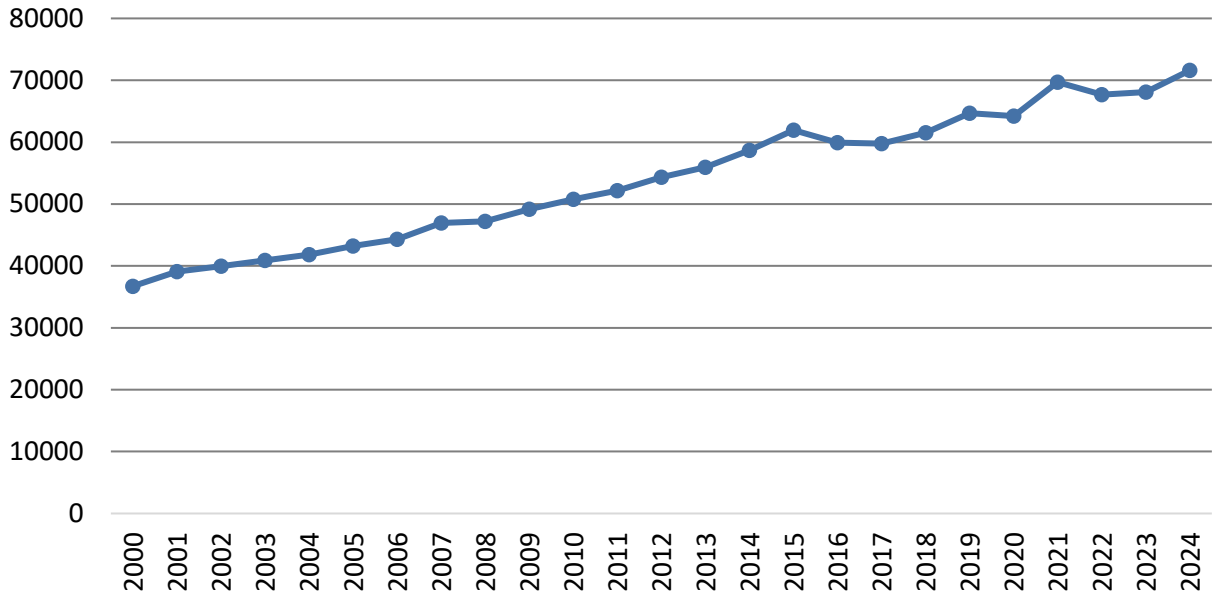
Data Analysis

Data Analysis

As part of conducting comprehensive strategic planning, it is important to consider data relevant to the future strategy of SCEMS. Various analytical information was available from a multitude of resources, however two primary sources were utilized for the purposes of this strategic plan:

- Data available from the SCEMS Dashboard
- Results from comparison of SCEMS to other similar non-fire-based EMS systems

Figure 1: SCEMS EMS Calls for Service (2000-2024)

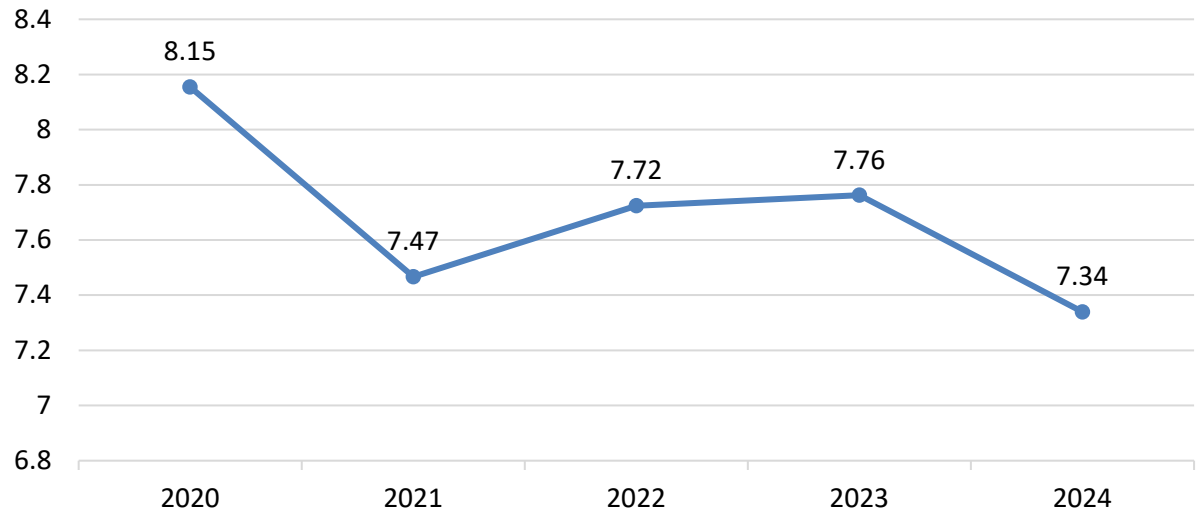


SCEMS represents a busy emergency ambulance service providing emergency medical care and transportation to a wide spectrum of population, including those located in rural and urban settings. In 2024, SCEMS handled a call volume of 71,604 emergency incidents, representing an increase of over 5 percent in total call volume from the previous year.

This also represents a 22 percent increase when compared to call volumes a decade ago. When controlling for spurious data that likely resulted from the COVID-19 pandemic and associated impacts on emergency response, the agency has seen incremental increases in call volume each year in recent history. The twenty-year average increase in call volume is 3 percent.

Similar analysis that considers the population as it relates to calls for service is shown in Figure 2. This graph shows the number of citizens it takes to generate a single call for service in the displayed years. The larger the number, the fewer the emergency calls per individual resident. As can be shown, the negative slope of the graph indicates an increasing quantity of calls across the County and its communities.

Figure 2: SCEMS Citizens Per Call (2020-2024)



The call volume for SCEMS equates to an average of just over eight responses each hour. While responses are not equally distributed throughout the day, this information can be useful in assessing overall resource availability and deployment.

Responses are broken down within the SCEMS data sets to gain insight into the number of calls that require lights and siren during response, how many are classified as emergencies and non-emergencies and how many require patient transportation to the hospital. The composition of emergency responses during the past five years is also consistent and important to integrate into strategic decision-making for the future.

Notable facts regarding the data provided by SCEMS are provided below:

- On average, calls requiring the use of lights and siren in response represent 43 percent of all responses.
- Approximately two-thirds of patient interactions result in transportation to hospital.
- Incidents classified as “non-emergency” have the greatest variability, as measured by calculating the standard deviation of the dataset. These types of calls vary from 15 percent to less than 9 percent of the total call volume.
- The busiest ambulance units are predictably Medic 34, 33 and 31 each year, with the only exception being Medic 32 breaking the threshold to be in the top three busiest units in 2020. The presence of these units in this list is expected since they are staffed 24 hours a day and are positioned in the central corridor of the County.

As can be derived from the third of patients that don’t require transportation to the hospital, the need for “lights and siren” response to all emergencies is an area that has received significant attention nationally over the past decade. SCEMS has performed significantly better than national data by only using lights and siren on 43 percent of calls, when compared to 76.5 percent nationally. The importance of this is found in crash data published by the National Emergency Medical Services Information System (NEMSIS), which shows a nearly 20 percent reduction in ambulance crashes when lights and siren are not utilized during response.

The most common reason for emergency responses in the last five years are sick cases, difficult breathing, law enforcement requests for response, hospital transfers or fall victims.

When ignoring hospital transfers and law enforcement responses from the list, each year the top three response types are consistent (2020-2024). NEMSIS reports the most common complaint types to be sick cases, falls, breathing problems, and chest pain, indicating that the response types for SCEMS are consistent with national trends.

The most time sensitive emergency that any emergency ambulance service responds to are cardiac arrests. Cardiac arrests represent the top tier of critical emergencies since patients are clinically dead and have but a small window of opportunity for interventions and therapeutics to provide resuscitative opportunity. Measurement of cardiac arrest performance is consistently done using the “Utstein Style” template, which allows for agency performance to be compared to other datasets by controlling for the variables that contribute to cardiac arrest. For the years of 2021-2023, SCEMS showed performance exceeding national datasets in the key categories of “Overall Survival”, “Bystander Witnessed” arrests and in the contributing data points of bystander CPR intervention. While SCEMS showed an average public AED use of less than the national average for the years mentioned, the data did indicate significant improvement in public AED availability during cardiac arrests, with the percentage utilization climbing from a mere 1.4 percent in 2021 to 12.5 percent in 2023.

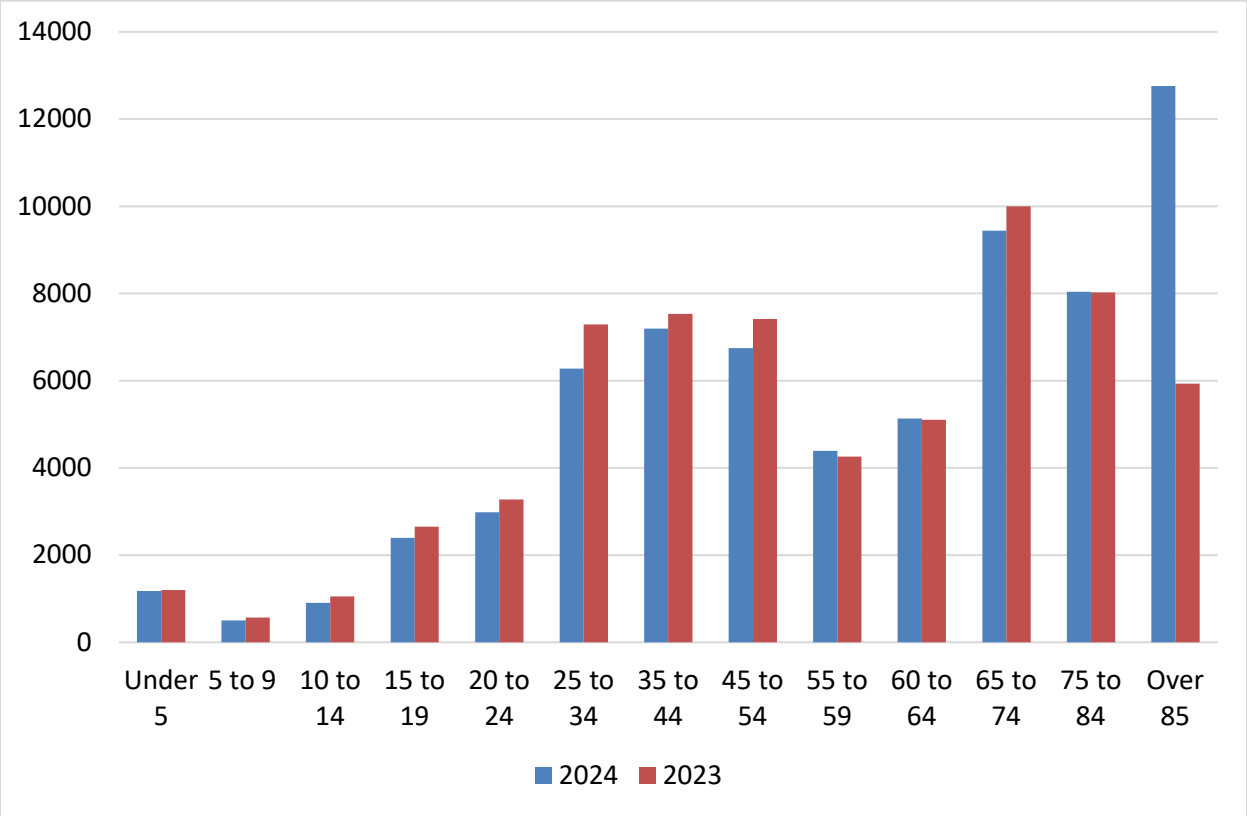
Based on information provided by the Centers for Disease Control (CDC) and its Social Vulnerability Index (SVI), it is expected that many of the population groups within the County to be more susceptible to health and other impacts. This index takes into consideration factors like socioeconomic status, composition of households, and language proficiency. These factors, while not necessarily centric to emergency medical care, do influence the ability of the persons to gain access to resources to improve their resiliency. This further emphasizes the need to ensure time sensitive and potentially life-threatening emergency medical care is prioritized in the County.

While the purpose of a strategic plan is not a granular analysis of data and analytics related to response, deployment and clinical interventions, key takeaways can support or reprioritize initiatives developed otherwise. The SCEMS serves key underserved populations and will continue to be impacted by other factors in the healthcare system. With a record-breaking number of responses in 2024, it should be expected for call volume in Sedgwick County to continue to incrementally climb. This necessitates consideration of all elements of EMS response, including dispatch and first response partners. SCEMS should continue to publish and provide transparency of key data points that allow for members of the public to understand the outputs associated with emergency medical service delivery.

Patient Demographic Data

The age of patients encountered by SCEMS varies, but is significantly skewed to older populations, with those over 60 years of age representing the majority of incidents. The patient age breakdown for 2023 and 2024 are reflected in the graph below.

Figure 3: Patients by Age Group (2023-2024)



The gender of patients is evenly split between males and females with than a 1 percent variance in the data between 2023 and 2024. Race and ethnicity shows that approximately 73 percent of patients during the most recent two years of data were white/Caucasian. Other population groups make up the remaining percentages, with African-Americans and Hispanic patients making up approximately 25 percent and Native Americans and Asians making up the small remainder.

Station Locations

The deployment of resources is coordinated throughout the County with a balance of distribution of ambulances within reasonable proximity to all locations requiring service and concentration of resources in areas that are prone to frequent calls for service. SCEMS operates from designated locations throughout the County to facilitate response and administrative coordination. Administration and the Training Department are located at 1015 Stillwell Street. Crews with ambulances (17) or CRVs (2) are stationed at 19 posts throughout Sedgwick County as listed below:

Post 1*
Post 2 – 1903 West Pawnee, Wichita
Post 3 – 3002 East Central, Wichita
Post 4 – 1100 South Clifton, Wichita
Post 5 – 698 Caddy Lane, Wichita
Post 6 – 6401 Mabel, Haysville
Post 7 – 1535 South 199th Street West, Goddard
Post 8 – 501 East 53rd Street North, Wichita
Post 9 – 1218 South Webb Road, Wichita
Post 10 – 636 North Saint Francis, Wichita
Post 11 – 1401 North Rock Road, Derby
Post 12 – 3320 North Hillside, Wichita
Post 14 – 4030 North Reed, Maize
Post 15 – 3575 North Webb Road, Wichita
Post 16 – 5055 South Oliver, Wichita
Post 18 – 319 West Ross, Clearwater (Community Response Vehicle)
Post 19 – 525 North Main, Cheney (Community Response Vehicle)
Post 20 – 1015 Stillwell, Wichita
Post 45 – 616 East 5th Street, Valley Center

*A new Post 1 is in the architecture and design phase at the time of this report.

Comparative Statistics

Comparing the deployment and operation of SCEMS to other similarly situated agencies operating ambulance services across a County provides an opportunity to comparison and benchmarking. With significant challenges in the ambulance service industry, understanding models and capabilities of other services is beneficial for planning purposes. The following chart shows the per capita subsidization in comparison to SCEMS. While these agencies vary in size and geographic proximity, the variance is per capita funding levels is notable.

Jurisdiction	Population (2020 census)	Per Capita Subsidization
Sedgwick County	523,824	10.14
Butler County	67,380	29.85
Wake County (NC)	1,129,410	36.30
Johnson County (KS)	609,863	27.89
Travis County (TX)	1,290,188	25.08

Of particular utility, in comparison is Johnson County, Kansas due to the similarities of the region and state. The following table provides a more in-depth comparison between SCEMS and Johnson County MED-ACT.

Category	Sedgwick County	Johnson County	Percentage Difference
Population (2020)	523,824	609,863	(16)%
Coverage Area	1,009	479	53%
Call Volume	71,604	55,018	23%
Transport Volume	46,437	37,958	18%
Number of Ambulances	21	19	10%
FTE's	213.55	184.87	13%
Total Budget	22,665,790	31,532,979	(39)%
Tax Subsidy	5,309,595	17,008,979	(220)%

While many observations can be made in through these comparisons, the Johnson County table is notable for the following reasons:

- While the population protected by Johnson County MED-ACT is greater, the coverage area and call volume are significantly *less.*
- While call volume and transport frequency is less than SCEMS, the number of ambulances staffed by Johnson County MED-ACT is just 10 percent less.
- The total budget for SCEMS is 39 percent less than the smaller and less utilized.

Additional Agency Comparison

One of the reoccurring themes heard during various stakeholder engagement was related to workload and resource exhaustion in the field. This and other attributes are important to be considered and integrated into the Strategic Plan, as appropriate. Agencies considered in this phase of comparison included:

- Austin-Travel County EMS (TX)
- Baton Rouge EMS (LA)
- Cleveland EMS (OH)
- New Orleans EMS (LA)
- EMSA Eastern Division – Tulsa (OK)
- Wake County EMS (NC)
- Ada County EMS – Boise (ID)

Ambulance deployment varies across different EMS systems, with some agencies prioritizing fixed stations while others utilize dynamic deployment models and system status management. Austin-Travis County EMS operates 42 ambulances each day and an additional eight units during peak times. Wake County EMS utilizes 32 full-time units and 17 peak-hour units. In contrast, Baton Rouge EMS uses 10 ambulances full-time and eight peak-hour units. Cleveland operates a more dynamic staffing model without peak volume unit to supplement standard staffing. Their model includes an average of 25 ambulances during the day and 21 at night. EMSA in Tulsa has dynamic adjustment of resources that peaks at 40 transport units during busy periods and dropping to 12 overnight. New Orleans utilizes a blended model that combines attributes of some of the other services that includes 10 ambulances during the day, three peak-hour units and just six ambulances overnight. Boise and Ada County uses a constant staffing model of just 14 ambulances.

Supervision in the field varies as greatly as the various tiers of deployment. The most intensive supervisory structure is that of Austin-Travis County which utilizes seven commanders and a division chief per shift. Other services like Baton Rouge, New Orleans and EMSA-Tulsa always use two or three supervisors in various deployment strategies. Cleveland EMS and Ada County did not have supervisory structures that were consistent or clear to the research team.

Crew scheduling and response models differ significantly and involve both 10-, 12-, and 24-hour shifts in a variety of models. Austin-Travis County uses a 24-hour on-duty and 72-hour off-duty schedule for its fulltime crews alongside 12-hour units working a rotating schedule to cover peak volume time frames. Baton Rouge, Cleveland, New Orleans and Wake County all utilized 12-hour shifts for their coverage model working a "2-2-3" rotation (two days on, two days off, three days on, followed be another two days off). Boise and Ada County use a 24-hour shift that follows a common firefighter schedule commonly referred to as a "modified Detriot". This schedule, while slightly different in its utilization in different areas, is a four shift system working one day on, one day off, one day on, one day off, followed by four days off. Tulsa's EMSA offers staggered 10- and 12-hour shifts, allowing staff to bid for schedules based on seniority.

The shifts, supervision and resources offered by these various services vary greatly to meet the needs of the local community and workforce. Nearly all of them, including SCEMS, have modified elements of their resource deployment to address emerging needs and community characteristics. For the purposes of the strategic plan, it is important for SCEMS to remain aware of industry trends in staffing and scheduling to ensure it remains an environment of best practice.

Influencing Factors

Strategic planning is not done in a vacuum and must consider the other issues that impact the organization. Influencing factors tend to often describe external variables but certainly can include internal elements as well. Much like data, these factors should be used as ingredients to support or modify strategic initiatives. For the purposes of this report, the five most prominent categories influencing SCEMS include:

- Technology
- Interagency Collaboration
- Public Health
- Workforce
- Community Perception and Relations

Technology

Technology influences in an organization can be ambiguous and hard to quantify. Technology impacts many areas of SCEMS service delivery portfolio including apparatus, management, billing, quality assurance, dispatch, clinical interventions and patient care reporting. When considering various factors that impact the organization, few have the potential to streamline processes like technology. SCEMS members have expressed a desire for more “hands on” training, that might be best facilitated through the integration of modernization opportunities into the training and education program. Other areas of potential improvement include response times, patient care, operational efficiency, electronic patient records and telemedicine capabilities. The rapid evolution of medical technology also requires the involvement and evaluation of the various products by SCEMS personnel on a regular and on-going basis.

Interagency Collaboration

The deployment model utilized by SCEMS involves a tiered response using both volunteer, combination and metropolitan fire departments serving as first response agencies. Effective interagency collaboration is crucial for seamless emergency response in medical emergencies. To nurture interagency collaboration, processes for mutual training, protocol development conflict resolution, post incident analysis and procedure alignment must exist. Communication barriers (both organizational and operational), as well as jurisdictional disputes and differences in protocols can create turbulence in cooperation and erode positive working relationships. While the focus of SCEMS leadership will always aim towards employees, it is imperative that these responders also be routinely engaged.

Ancillary agencies, such as law enforcement and specialized health personnel also are important to the future of SCEMS. High volume users of the emergency medical system, along with other intensive response types will likely require the creative deployment and utilization of other healthcare resources working in conjunction with the organization.

A partner agency in the primary goal of delivering time-sensitive medical care is the medical director and his associated staff. Besides providing off- and on-line medical control, this office and its functions interact directly with medical protocols and any changes involving rendered care and medications. Regular and predictable communication and interaction with this office, particularly involving the deployment of new protocols and medications, is encouraged to ensure seamless integration into SCEMS and adequate training of clinicians.

A theme in the operation and administration of SCEMS is the network of partners and stakeholder organizations. From various political subdivisions of government to hospital systems and area fire departments, the future of SCEMS will involve a complicated fabric of players with which communication, relationships, procedures and advancement must be coordinated. SCEMS should consider focusing on training and professional development that is inclusive of other organizations as a way to solidify working relationships and also create positive synergy within the region that helps with recruitment and retention.

Public Health

The deployment of SCEMS's Integrated Care Team (ICT-1) to manage mental health emergencies is an example of the department working to ensure appropriate resources are present for an emerging and time-consuming risk variety. In addition to mental health emergencies, the prehospital emergency medical industry is impacted by other high impact incident types including those related to the opioid crises, non-emergency medical issues, substance abuse interventions, and high-volume facilities. Formal identification of target communities and facilities is necessary to begin to develop strategies to help lessen the impact of these resource intensive users on the overall EMS model.

As can be derived from some of the statistical analysis, it is likely that a significant number of calls for service will continue to be something other than traditional prehospital emergencies. While ICT-1 and other initiatives serve a great purpose, other programs and services that target sensitive populations and those individuals summoning emergency resources for non-emergency needs might need to be considered and implemented in the timeframe of this strategic plan.

Workforce

Expressed by both SCEMS and nearly any EMS agency across the country are the impact of staffing shortages among clinicians and the high turnover rate associated with the industry. Working in EMS is high-stress and presents difficulty in managing a work-life balance. While SCEMS has made recent strides with salaries and other benefits, the industry as a whole is known for less-than-desirable wages. Both recruitment and retention will continue to challenge SCEMS, while attempts are made to satisfy needs with financial constraints associated with governmental funding. Addressing these issues requires increased funding for competitive salaries, improved mental health support, and initiatives to attract and retain qualified personnel.

During various interactions with stakeholders training and education surfaced as a leading priority for developing leadership skills within the workforce. Besides the obvious benefit of providing the training and improving the skillset of the workforce, training can be seen as a benefit and way to create connectivity to the organization in the long term. Considerations for workforce leadership development include:

- Developing tiers of leadership development for employees preparing for middle-management positions and for middle-managers preparing for executive roles.
- The development of leadership coursework may not be necessary if the organization were to utilize a third-party learning curriculum.
- Creation of this coursework could serve as a conduit to working with other agencies who likely have similar needs. Providing an opportunity for supervisors to collaborate and interact could provide synergy on emergency scenes and improve the interpersonal dynamic between SCEMS and various other agencies.

EMS Staff Survey: Executive Summary

The Sedgwick County EMS (SCEMS) employee survey, conducted as part of a comprehensive strategic planning process, provides insights into the experiences, priorities, and perspectives of the workforce. The survey intends to facilitate anonymous reconnaissance of workplace culture and other issues that might be subject of strategic initiatives as part of the overall planning process.

The survey, which achieved a 61 percent response rate, covers a wide array of themes including communication, leadership, employee relations, work-life balance, pay and compensation, and strategic direction. Key findings from the survey are summarized below:

Employee-Supervisor Relationship

- Employees express trust in direct supervisors with 70% of respondents indicating they trust their supervisors “quite a bit” or “completely”
- Supervisors were rated high in honesty, competence, and communication, but lower in recognition and transparency

Support Services

- When needing support, 73% of respondents turn to family and 60% turn to colleagues
- Only 19% of employees turn to immediate supervisors for support
- There is limited use of the Employee Assistance Program’s (EMPAC) services (28%) and Cordico Wellness App (15%)

Work-Life Balance and Workplace Culture

- 70% of respondents find their workload manageable
- 77% of respondents can take time off when needed, but only 48% feel encouraged to do so
- 98% of respondents report having positive relationships with colleagues, and 90% feel they make a difference in the community

Employee-Administration Relationship

- Administration rated high in competence but low in recognition, transparency, and fair treatment
- Communication from administration needs improvement, especially regarding decisions and changes

Compensation & Benefits

- 61% of employees feel that recent compensation adjustments have had a positive impact
- 62% do not believe their compensation is commensurate with their skills and experience
- 90% of employees feel that benefits meet their needs, and 95% find them reasonably affordable

Training

- 65% of employees rated their initial training somewhat effective.
- There is a desire for more hands-on training

Planning & Direction

- 62% feel the department's future plans have been communicated
- 74% know how their work contributes to the department's future