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# Year in Review 2022

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JANUARY 27

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**Kirkwood Fire Department**  
**Authored by: Fire Chief Jim Silvernail**



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# **The Kirkwood Fire Department**

## **2022 Year in Review: Letter from the Fire Chief**

The year 2022 was a historic year of change and evolution for the Kirkwood Fire Department. For the first time in our long and storied history, the KFD added the rank of Battalion Chief. This position functions as a shift commander, overseeing the operations of the entire shift and supervising the assigned Captains. This position also serves as the bridge between fire administration and the operational line staff. These promoted Captains to Battalion Chiefs included: Craig Hayes, Justin Janes, and Dennis Fischer. This evolution also created the need to appoint a new Fire Marshal. Captain Robert Sumpter was appointed to Fire Marshal in the Summer of 2022. The Battalion Chief implementation, in addition to the creation of the separate Fire Marshal position, concluded the restructuring initiative of the Fire Department command staff.

The year also saw the conclusion of the initial Fire Department Strategic Plan that was developed by my office. The scorecard for the plan measured various, significant achievements throughout the course of the five (5) year duration. Notably, these included: the restructuring of the command staff, the external agreements with Glendale and Des Peres, impactful public relations initiatives, training enhancements, and capital purchase replacements. The command staff is currently in the process of developing a new five (5) year strategic plan.

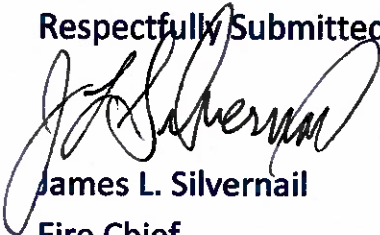
The Fire Department continued to provide exceptional service delivery and met the demands of the community. This was effectively achieved through the professional efforts of the dedicated men and women of the Kirkwood Fire Department. Call volume for 2022 totaled 5275 alarms, a very slight increase of .65% (34 calls) from 2021. Fire Department personnel completed 10,933.4 hours of training, an increase of 244.9 hours from 2021. In addition, crews also completed all assigned activities and projects, including: hose testing, hydrant inspections and flow testing, commercial inspections, public relation activities, and daily maintenance of facilities and equipment.

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2022 was also a year of major capital purchases, predominantly fleet. These purchases included a command vehicle, a rescue/pumper, an initial attack apparatus, a UTV, two ambulances, nozzles, and hose. Much of this was made possible through the certificate of participation bonds. Supply chain issues have unfortunately pushed back the receipt of these assets to future fiscal year deliveries.

As the Fire Chief, I can validate the dedication of all the members of this organization. They are proud, proficient professionals of the first responder industry who have answered all the trials of 2022, meeting all demands and expectations of the Kirkwood community.

Respectfully Submitted,



James L. Silvernail  
Fire Chief

### **2022 Highlights**

- **Implementation of the Battalion Chief Program**
- **Implementtation of the Initial Attack Pumper Concept**
- **Completion of the Initial Five Year Strategic Plan**
- **Numerous Capital Purchases/Replacements**
- **Total Property Saved: \$8,722,825.00**



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# The Kirkwood Fire Department



## 2022 Year in Review: Highlights from Operations/Suppression/Training

The Division of Operations is headed by Assistant Chief Brian Zaitz. A/C Zaitz's areas of responsibility include: all functions of fire department operations, training, equipment, and facilities. He also directly supervises the Fire Marshal.

**5275 Calls for Service**

**EMS: 3300**

**FIRE: 1975**

**Total Property Saved 2022**

**\$8,722,825.00**

**Training**

**10,933.4 HOURS**

**199 HOURS/ MEMBER (AVG)**

**Projects**

**(Refer to attached Annual Operations Report)**

- **IMPLEMENTATION OF BATTALION CHIEF**
- **ISO REVIEW COMPLETED**
- **SOFTWARE UPGRADES**
- **COMPLIANCE TESTING- PUMP TESTING, LADDER TESTING, SCBA FLOW AND FIT TESTING**
- **NUMEROUS CAPITAL IMPROVEMENT PROJECTS**

# The Kirkwood Fire Department



## 2022 Year in Review: Highlights from Emergency Medical Services

The Division of Emergency Medical Services is headed by Chief Medical Officer, Deputy Chief David Smith. Deputy Chief Smith leads and manages all functions associated with an advanced life support (ALS) transport system for the department.

### EMS Call Volume

**TOTAL RESPONSES: 3,300**

**TOTAL PATIENT CONTACTS: 3,236**

**AVERAGE RESPONSE TIME: Kirkwood Fire - 5:28 / NFPA Benchmark**

### GEMT Revenue

**NET REVENUE 2022: \$145,345**

### Glendale EMS Expansion

**ARRIVAL UNDER 9 MINS: 82% (EXCEEDING BENCHMARK OF 75%)**

**AVERAGE ROLLING RESPONSE TIME: 6:03**

**ANTICIPATED REVENUE: \$160,000**

### EMS Completed Projects

- **3 NEW LUCAS DEVICES PURCHASED**
- **2 NEW AMBULANCES PURCHASED**
- **ALL PERSONNEL CERTIFIED IN BLS & ACLS**
- **REPLACED OF ALL EMS BAGS**
- **NARCOTICS AUDIT COMPLETED BY BUREAU OF NARCOTICS AND DANGEROUS DRUGS- RECEIVED A PERFECT SCORE**



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# The Kirkwood Fire Department



## 2022 Year in Review: Community Risk Reduction and Fire Prevention

The Division of Community Risk Reduction and Fire Prevention is led by Fire Marshal Robert Sumpter, overseen by the Assistant Chief of Operations. This division delivers safety and equity to the community through life and safety permitting, inspections, and plan review. In addition, this office develops and implements risk reduction initiatives.

### 2022 Totals

**TOTAL PERMITS ISSUED: 86**

**TOTAL INSPECTIONS CONDUCTED: 198**

**PLANS REVIEWED: 115**

### Revenue Generated

**REVENUE FEES: \$24,507**

**(↑129% FROM PREVIOUS \$10,720 FROM 2021)**

### Projects

- **IMPLEMENTED A RECORD RETENTION PROGRAM UTILIZING CITY SOFTWARE TO SECURE ALL DOCUMENTS RELATED TO FIRE INVESTIGATIONS**
- **BUSINESS CONTINUITY PROGRAM AND PRESENTATIONS**
- **CONTINUED PUBLIC RELATIONS: TOURS, SAFETY TALKS, TOYS FOR TOTS**

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# The Kirkwood Fire Department

## 2022 Staffing



### Administration

Fire Chief- James Silvernail

Assistant Fire Chief (Operations and Training)- Brian Zaitz

Deputy Fire Chief (Chief Medical Officer)- David Smith

Fire Marshal (Fire Prevention and Risk Reduction)- Robert Sumpter

Administrative Associate- Bonnie Hoylman

### A Shift (17)

1 Battalion Chief- Battalion Chief Hayes

3 Fire Captains

3 Fire Engineers

10 Firefighter/Paramedics

### B Shift (17)

1 Battalion Chief- Battalion Chief Janes

3 Fire Captains

3 Fire Engineers

10 Firefighter/Paramedics

### C Shift (17)

1 Battalion Chief- Battalion Chief Fischer

3 Fire Captains

3 Fire Engineers

9 Firefighter/Paramedics

1 Firefighter EMT

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# The Kirkwood Fire Department

## 2022 Apparatus



### Station #1 (137 West Argonne Dr.)

|                 |                                   |
|-----------------|-----------------------------------|
| 1510*           | 2018 Pierce Dash Pumper           |
| 1517            | 2018 Freightliner/Osage Ambulance |
| 1590* (Reserve) | 2007 Pierce Pumper                |
| 1597 (Reserve)  | 2009 Freightliner/Osage Ambulance |

*\*1514 and 1594 were changed to 1510 and 1590 due to St. Louis County apparatus numbering changes.*

### Station #2 (11804 Big Bend Rd.)

|         |                                   |
|---------|-----------------------------------|
| 1524    | 2009 Pierce Quantum Rescue/Pumper |
| 1527    | 2016 Freightliner/Osage Ambulance |
| 15 UTV  | 2022 Polaris 4x4                  |
| 15 USAR | Heavy Rescue Trailer              |
| 1519    | 2011 Ford F250 Pickup             |

### Station #3 (1321 West Essex Ave.)

|            |                                   |
|------------|-----------------------------------|
| 1535       | 2010 100' Aerial Tower            |
| 1537       | 2015 Freightliner/Osage Ambulance |
| 1539*      | 2002 Mini-Pumper                  |
| 15 Haz Mat | 2008 Hazardous Materials Truck    |

*\*1539 will be replaced in 2023 with a "quick attack vehicle" and be re-assigned as 1531.*



# The Kirkwood Fire Department

2022 Service Area



The Kirkwood Fire Department proudly serves the cities of Kirkwood and Oakland, also providing fire department management and advanced life support (ALS) transport services for the cities of Glendale and Warson Woods.



“Saving Life and Property”

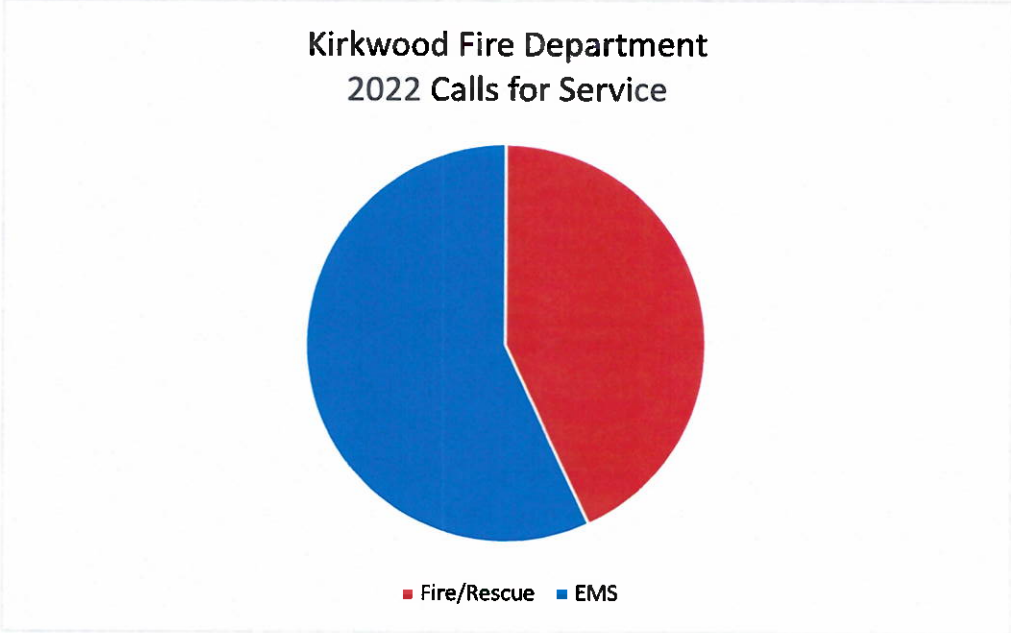


**Kirkwood Fire Department  
2022 Annual Operations Report**

2022 was an exciting year and successful year, while there were challenges there were also several key operational enhancements as well as organizational growth. 2022 saw the addition of the Battalion Chief position to the organization, a critical leadership position for the department. The department also underwent an ISO review, this involved planning and coordination with numerous other city departments to provide the relevant data sets needed to tabulate the ISO score. Challenges remained with COVID-19 as well as the addition of influenza and RSV, the “Tripledemic” as stated by the media not only increased calls for service but also the department’s ability to staff as members fell ill and were not able to work. As the department looks towards 2023, we are excited for the many additional growth opportunities that avail themselves and we will continue to provide the highest level of service possible within the fiscal constraints of the budget.

**Calls for Service**

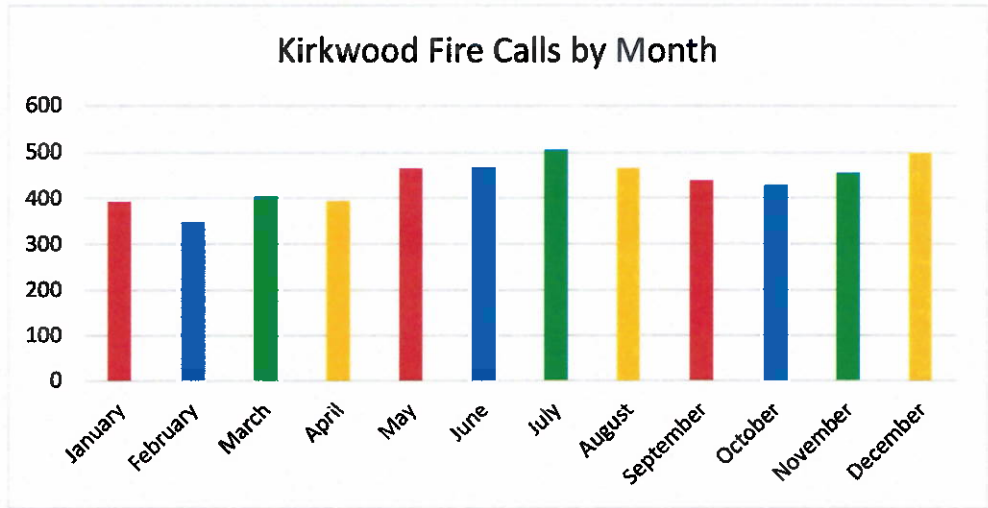
The department ran a total of 5275 calls for service in 2022, with 3003 being EMS related and 2272 being Fire/Rescue related. The following is a visual depiction of the calls for service in 2022.



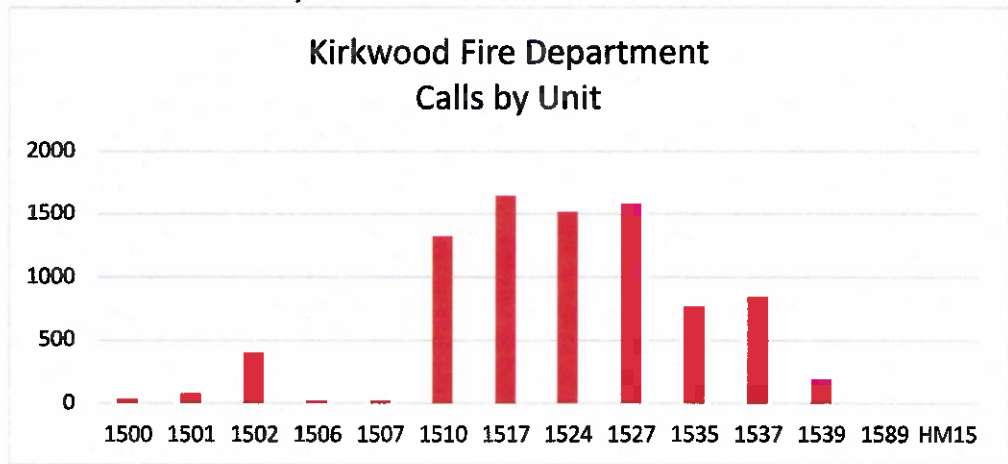
Of these 5275 calls, 88 were working fires with 27 structure fires. The department responded 7 times with HM-15 as part of the St. Louis County Haz-Mat Team.



Below is a breakdown of response by month, July was our busiest month:



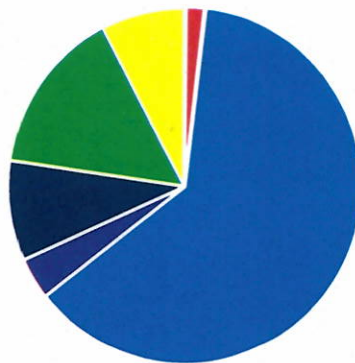
Below is a breakdown of calls by unit:



The busiest engine was Rescue-Engine 1524 and the busiest ambulance was 1517.

Below is a graphical display of the calls for service by NFIRS, National Fire Incident Reporting System codes. These codes are assigned to each incident as determined by the incident commander.

## Kirkwood Fire Department Calls by NFIRS Code



■ Fires                      ■ Rupture/Explosion    ■ Rescue/Medical  
■ Hazardous Condition   ■ Service Call            ■ Good Intent Call  
■ False Fire Alarms       ■ Severe Weather       ■ Special Incidents

While each call is significant, below are a few notable calls from 2022:

- **Alarm 22-1085** – Kirkwood units responded for person trapped in a pipe, crews successfully entered and rescued a victim from an 18” pipe, trapped 150’ into the pipe
- **Alarm 22-2084** – Kirkwood units responded for a stalled/broken carnival ride on at St. Peters Church, crews safely extricated 7 trapped victims from the ride without injury
- **Alarm 22-2259** – Kirkwood units responded to a house fire with fatality on Simmons Avenue, this marks the first fatal fire for Kirkwood in over 10 years
- **Alarm 22-2405** – Kirkwood responded as part of the St. Louis County Haz-Mat team to assist Valley Park Fire with a chemical release into the sewer system
- **Multiple Alarms** – July 26 & 28 for water rescues related to the unprecedented rain and flash flooding, Kirkwood responded to both calls for service within the city boundaries as well as mutual aid to Maplewood and Brentwood
- **Alarm 22-3022** – Kirkwood units responded as part of the Missouri State Mutual Aid System to assist Madison County Illinois with a large recycling plant fire
- **Alarm 22-4266** – Kirkwood units responded as part of the Missouri State Mutual Aid system to assist Boonville on the Wooldridge Wildland Fire, this fire called resources from across the entire state and burned over 3500 acres and 21 structures

### **Training**

Training is second only to responses as it relates to the priorities and mission of the Kirkwood Fire Department. In addition to the calls for service, department members completed 10933.40 hours of training in 2022. This confirms both the department and its membership’s commitment to providing excellent service to the community.

The department spent much of the year going “Back to the Basics” with company level training designed to hone the fundamental skills that lead to success on the fire ground. Crews were

able to conduct several scenarios both at acquired structures as well as in Kirkwood City Park providing the opportunity to truly get hands-on with equipment and apparatus.

- Crews conducted annual NFPA 1404 training at Maplewood on self-contained breathing apparatus. The training focused on interoperability with other agencies and how to make an air connection to other SCBA in the region. In addition to Kirkwood, fire departments from the area included Frontenac, Brentwood, Clayton, Maplewood, Shrewsbury, Rock Hill and Ladue FD all attended.
- Crews conducted first and second due drills at an acquired structure at 320 Quan Avenue in Kirkwood. Utilizing theatrical smoke to provide a zero-visibility environment mimicking real-world conditions, crews operated hose lines and conducted search drills as a multi-company response. The training was a multi-agency training to include Frontenac, Des Peres and Glendale.
- Crews attended a rope review course at the Brentwood Metro Link Parking garage, this was a Central Metro Rescue Task Force (CMRTF) sponsored training in which crews worked through simulated stall elevator rescues, window washer high angle rescues and use of a litter for patient extraction. Again, crews working with Maplewood, Brentwood and Clayton executed this training. Note that CMRTF is made up of Maplewood, Brentwood, Clayton and Kirkwood.
- Kirkwood FD hosted Union Pacific and their Railways Emergency course. The course provided both lecture and hands-on training on a real rail car built for first responder training. Agencies from across the St. Louis Region as well as from other states came to Kirkwood for this unique training opportunity. In addition, crews from the St. Louis County Haz-Mat Team, including members of Kirkwood FD conducted drills on the tank car simulating vapor leaks and product releases.
- Kirkwood FD participated in the annual St. Louis County Strike Team 3 Operational Readiness Exercise. Members operated at a simulated parking garage collapse, working to breach concrete and extricate trapped victims. Crews operated with companies from across the St. Louis region.
- Kirkwood FD attended the annual Tri-County NFPA 1403 live burn evolutions. This 6-day training event provided each crew the opportunity to advance a hose line on a live fire as well as operate as a second due company on a live fire event.
- Four members attend Fire Officer I through Tri-County Training. This training aligns with organizational strategic plan for officer development training and succession planning.
- Kirkwood secured grant funding from the Missouri Division of Fire Safety to host Technical Rescuer Core. This foundational course sets the baseline for all other technical rescue disciplines. Kirkwood FD was able to have seven members attend and certify in this course at no charge to the department.
- Kirkwood hosted Chief Bobby Halton for an 8-hour symposium on leadership and issues facing today's fire service, the program was held at the Kirkwood Performing Art Center with firefighters attending from Missouri, Illinois and Iowa. Funding was provided through the St. Louis County Training Officers Association.





## **Fire Department Projects**

- **Battalion Chief Position** – In 2022, the Kirkwood Fire Department added the key position of Battalion Chief to the ranks, this position was filled by Battalion Chiefs Craig Hayes, Justin Janes and Dennis Fischer. This position provides direct oversight to the shift as well as prompt and effective on-scene incident command.
- **ISO** – 2022 marked the year for the Kirkwood Fire Department to receive their Insurance Services Officer audit, members of the FD along with other city departments compiled data and presented to ISO with a grading expected later in 2023.
- **Software Upgrades** – The department implemented a new National Fire Incident Reporting Software, FirstDue, this provides data management, NFIRS and scheduling for the department. In addition, the department took a proactive approach to asset management implementing PSTrax, a new software that tracks apparatus checks and repairs and provides a two-way dialogue with our partner departments in the city (Fleet/Facilities)
- **Strategic Plan** – Under the leadership of Chief Silvernail, the entire command staff along with labor came together to work on a new 5-year strategic plan for the organization. This document will guide the department forward and direct our actions for the next 5-years.

- Pump Testing – All apparatus underwent pump testing to comply with NFPA standards, the pump test is an annual test that puts the apparatus fire pumps to maximum capacity, any failures are noted and repairs made to ensure that the pumps and apparatus are fire ground ready.
- Ladder Testing – All ground ladders and the tower ladder were tested in 2022, this annual test ensures that the ladders are both functional and safe for use.
- SCBA Flow and Fit Testing – Members had their annual mask fit testing completed as well as all SCBA flow tested for functionality.

### **Capital Improvement Projects**

- Nozzles – The department purchased and received new fixed-gallonage nozzles that will provide improved fire flows and fire ground efficiency and safety with one singular nozzle type across the organization. These new nozzles are on all fire attack lines as well as the high-rise fire kits.
- Hose – The department was able to purchase new fire attack hose to align with the new nozzles, the hose is a kink-resistant fire attack hose that is designed for high volume and low pressure, again aligning with the nozzles to create a “fire attack package.”
- Command Vehicle – A new command vehicle was purchased; this new command vehicle will be more reliable and provide enhanced capabilities for on-scene incident command and response to alarms.
- Rescue-Pumper – A new 1524 Rescue Pumper was ordered; this new unit will be a great addition to the Kirkwood FD fleet providing improved efficiency and compartmentalization for the specialized rescue equipment carried on 1524 as part of the St. Louis County USAR Strike Team.
- Initial Attack Apparatus – 1531 the new Kirkwood “Mini-Pumper” or initial attack apparatus was received, the new apparatus has a true fire pump and hose capabilities to provide for initial fire attack. The new apparatus will provide call volume relief for tower ladder 1535 as well as provide access to remote areas of the city.
- UTV – The department obtained a new Polaris Ranger with fire pump and medical transport bed. This unit will replace the current John Deere Gator, the UTV will be used for access to remote areas of the city and in parks as well as the numerous festivals held within the city.



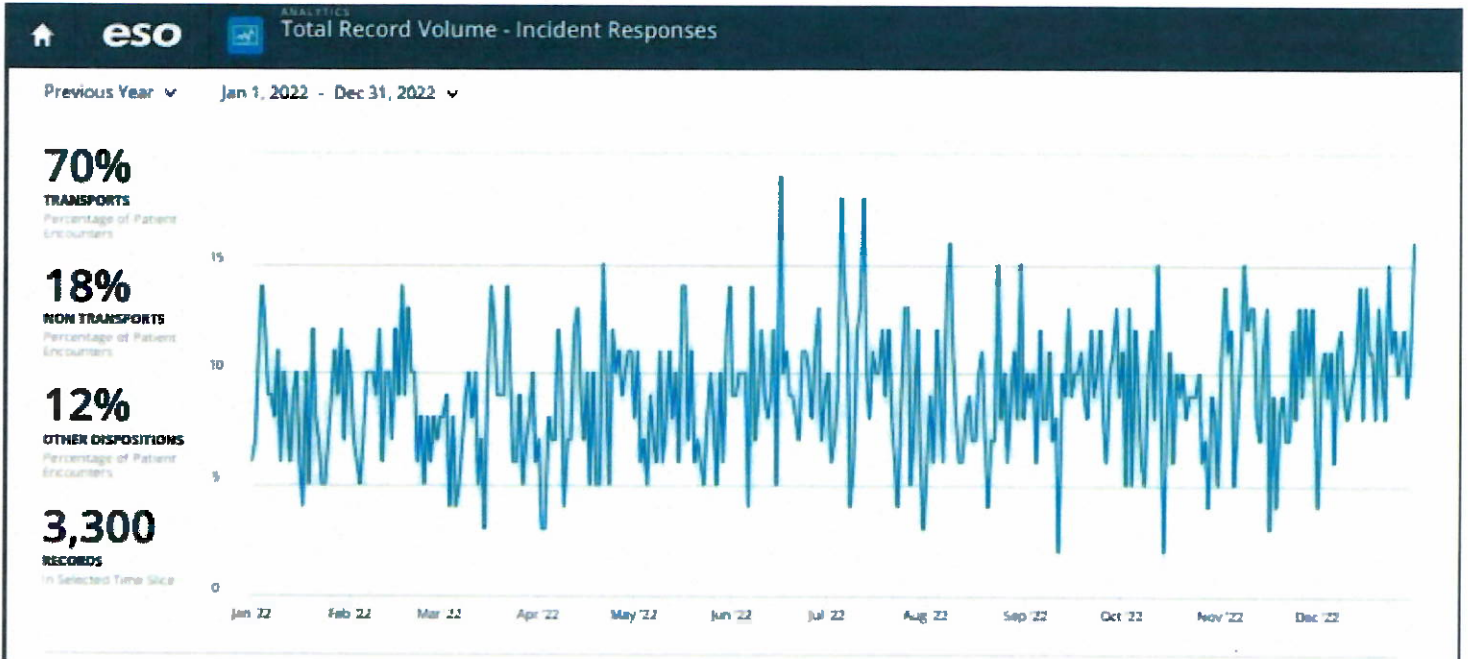




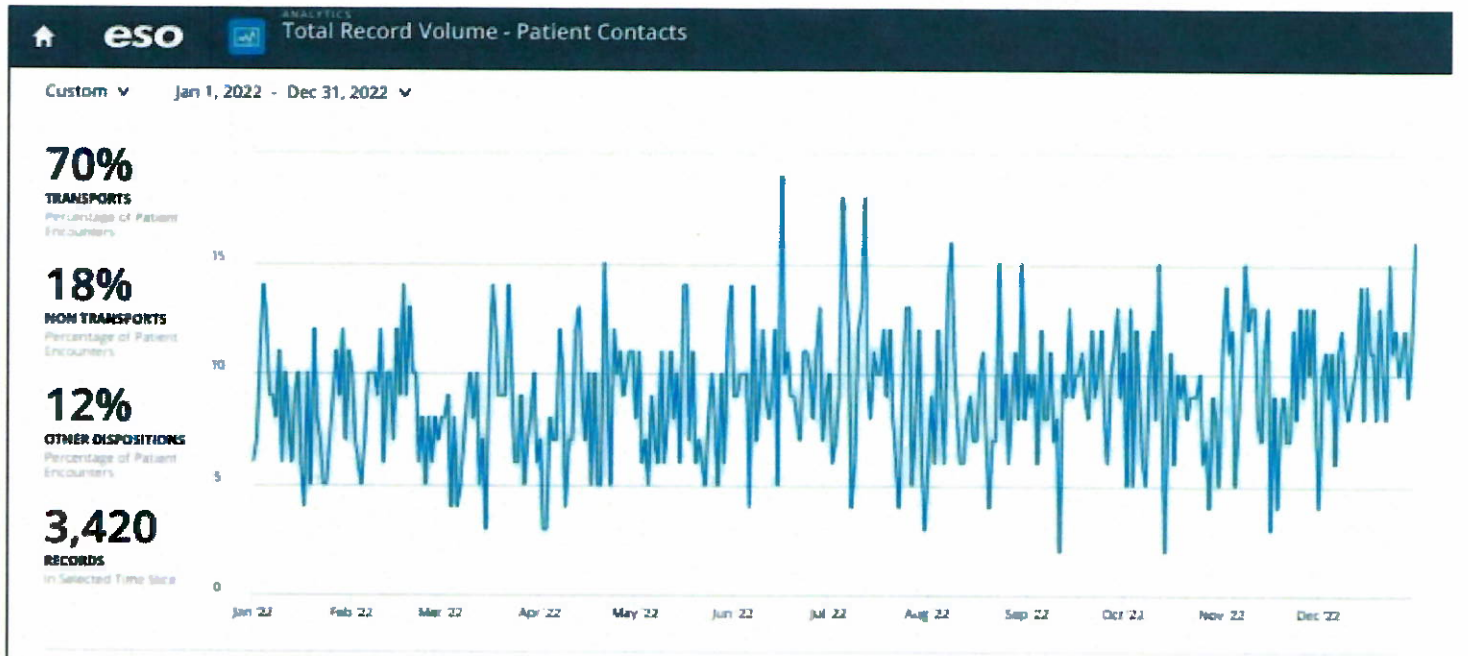
**Kirkwood Fire Department  
2022 Annual EMS Report**



# 2022 EMS Call Volume Breakdown



This chart reflects the number of “EMS Incidents” for 2022  
This is an increase of 2.7% from 2021



This chart reflects the number of “Patient Contacts” for 2022  
This is an increase of 5.7% from 2021

## Primary Impression

This report aggregates all primary impressions documented for the selected time slice. This presents information about the patient for the selected impression. Having an idea of how often, medics assign a certain impression as a primary can help identify training topics. Identifying the frequency of entities is also useful in determining the impact of clinical, protocol, or operational changes.

|  |     |
|--|-----|
| Abdominal Pain                               | 94  |
| Acute abdomen                                | 2   |
| Acute Bronchitis                             | 1   |
| Acute Respiratory Distress (Dyspnea)         | 37  |
| Alcohol dependence with withdrawal           | 3   |
| Alcohol use                                  | 27  |
| Allergic Reaction                            | 16  |
| Altered Mental Status                        | 93  |
| Anaphylaxis                                  | 1   |
| Angina pectoris                              | 1   |
| Anxiety reaction/Emotional upset             | 65  |
| Asthma                                       | 8   |
| Back Pain                                    | 76  |
| Behavioral/psychiatric episode               | 123 |
| Burn   | 4   |
| Cancer                                       | 7   |
| Cannabis related disorder                    | 1   |
| Cardiac arrest                               | 24  |
| Cardiac arrhythmia/dysrhythmia               | 31  |
| Cellulitis                                   | 25  |
| Chest Pain / Discomfort                      | 99  |
| Chest pain on breathing                      | 9   |
| Chest Pain, Other (Non-Cardiac)              | 24  |
| Chronic Obstructive Pulmonary Disease (COPD) | 7   |
| Common Cold                                  | 1   |
| Concussion with loss of consciousness        | 3   |

|  |    |
|--|----|
| Confusion/Delirium                       | 13 |
| Congestive heart failure (CHF)           | 9  |
| Constipation                             | 5  |
| Convulsions                              | 31 |
| COVID-19 - Confirmed by testing          | 16 |
| COVID-19 - Exposure to confirmed patient | 4  |
| COVID-19 - Suspected - no known exposure | 3  |
| Dehydration                              | 7  |
| Diabetic Hyperglycemia                   | 7  |
| Diabetic Hypoglycemia                    | 20 |
| Diarrhea                                 | 12 |
| Dizziness                                | 49 |
| Ear problem                              | 1  |
| Epistaxis                                | 14 |
| Eye Injury                               | 2  |
| Eye Pain                                 | 2  |
| Failure to Thrive (Adult)                | 10 |
| Fatigue                                  | 7  |
| Febrile Seizures                         | 5  |
| Fever                                    | 16 |
| Foreign Body in Larynx                   | 2  |
| Foreign Body in Pharynx                  | 1  |
| Foreign Body in Respiratory Tract        | 1  |
| Foreign Body in Trachea                  | 1  |
| Foreign Body on External Eye             | 1  |
| Gastro-esophageal reflux disease (GERD)  | 3  |

|   |     |
|---|-----|
| Gastrointestinal hemorrhage               | 13  |
| Generalized edema                         | 2   |
| Generalized Weakness                      | 260 |
| Headache                                  | 21  |
| Health hazard contact /Suspected exposure | 1   |
| Heat Exhaustion                           | 9   |
| Hematemesis                               | 2   |
| Hematoma (Non-Traumatic)                  | 1   |
| Hemorrhage                                | 21  |
| Hyperkalemia                              | 1   |
| Hypertension                              | 37  |
| Hyperventilation                          | 1   |
| Hypoglycemia (Not Diabetic)               | 3   |
| Hypotension                               | 23  |
| Hypothermia                               | 2   |
| Hypovolemia                               | 1   |
| Infectious Disease                        | 3   |
| Influenza                                 | 2   |
| Injury                                    | 175 |
| Injury of Abdomen                         | 2   |
| Injury of Ankle                           | 14  |
| Injury of Elbow                           | 15  |
| Injury of Face                            | 34  |
| Injury of Foot                            | 6   |
| Injury of Forearm                         | 8   |
| Injury of Head                            | 112 |
| Injury of Hip                             | 57  |
| Injury of Lower Back                      | 10  |
| Injury of Lower Leg                       | 39  |
| Injury of Neck                            | 22  |
| Injury of Nose                            | 2   |
| Injury of Pelvis                          | 3   |
| Injury of Shoulder or Upper Arm           | 41  |
| Injury of Thigh (Upper Leg)               | 8   |
| Injury of Thorax (Upper Chest)            | 15  |

|   |     |
|---|-----|
| Injury of Wrist, Hand, or Fingers       | 20  |
| Intestinal obstruction                  | 1   |
| Kidney stones                           | 1   |
| Laceration/Abrasion/Hematoma            | 42  |
| Laryngitis/Croup                        | 3   |
| Malaise                                 | 11  |
| Medical device failure                  | 6   |
| Metabolic disorder                      | 1   |
| Nausea                                  | 34  |
| Need for continuous medical supervision | 10  |
| Neurogenic Shock                        | 1   |
| No Complaints or Injury/Illness Noted   | 133 |
| Obvious Death                           | 11  |
| Opioid related disorders                | 2   |
| Orthostatic Hypotension                 | 3   |
| Overdose - Acetaminophen                | 1   |
| Overdose - Alcohol                      | 2   |
| Overdose - Cannabis                     | 1   |
| Overdose - Hallucinogens                | 1   |
| Overdose - Heroin                       | 2   |
| Overdose - Other opioids                | 5   |
| Overdose - Unspecified                  | 9   |
| Pain (Non-Traumatic)                    | 72  |
| Palpitations                            | 3   |
| Patient assist only                     | 200 |
| Pelvic and Perineal Pain                | 4   |
| Pitting Edema                           | 2   |
| Pneumonia                               | 2   |
| Poisoning / Drug Ingestion              | 5   |
| Pregnancy related conditions            | 5   |
| Pregnancy with contractions             | 1   |
| Preterm labor without delivery          | 1   |
| Psychogenic Shock                       | 3   |
| Pulmonary Embolism                      | 2   |
| Reduced Mobility                        | 51  |

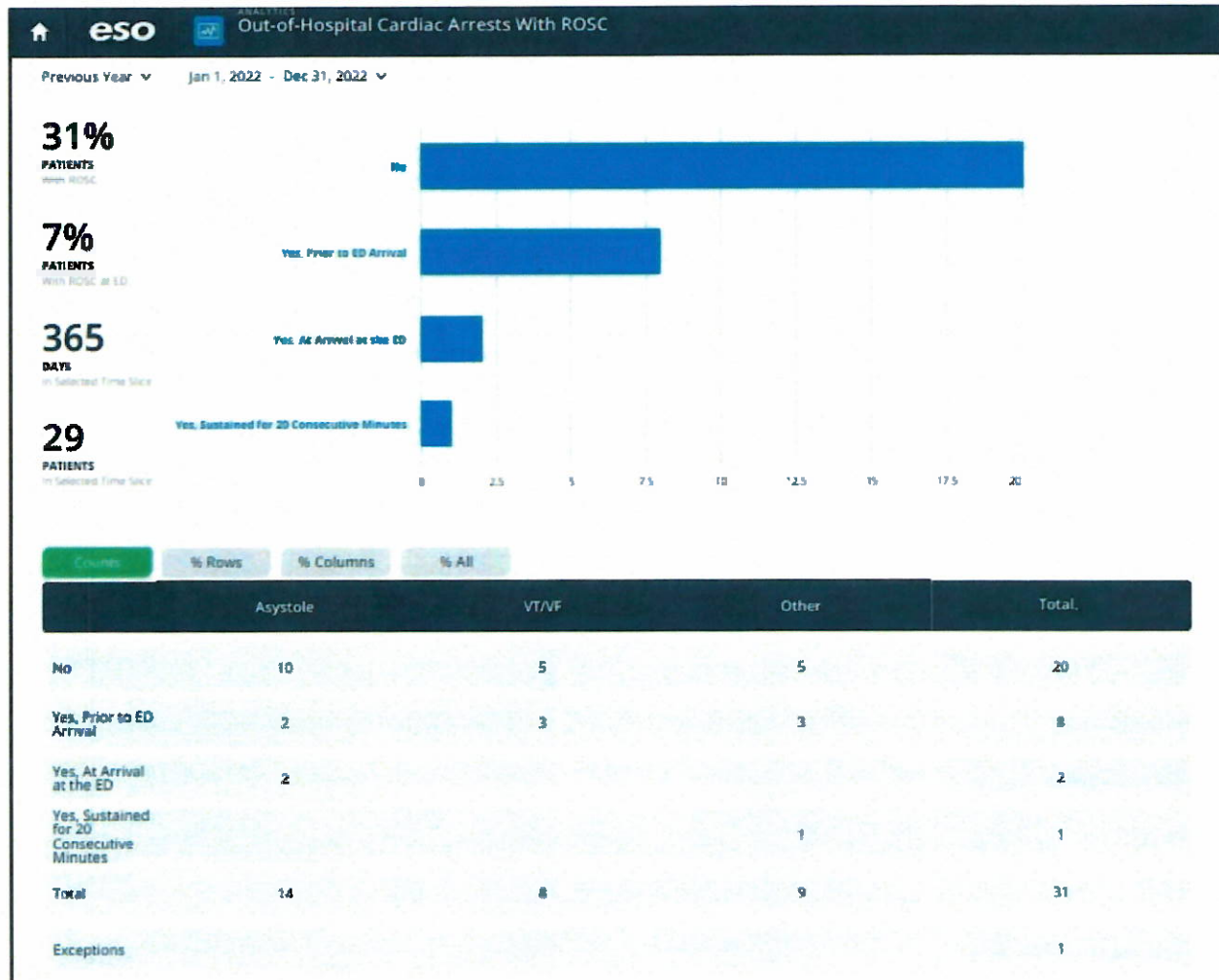
|  |     |
|--|-----|
| Renal Failure  | 1   |
| Respiratory Condition due to Chemicals                 | 1   |
| Respiratory disorder                                   | 8   |
| Respiratory Failure                                    | 3   |
| Respiratory Syncytial Virus (RSV)                      | 1   |
| Seizures with status epilepticus                       | 3   |
| Seizures without status epilepticus                    | 16  |
| Sepsis/Septicemia                                      | 4   |
| Septic Shock   | 2   |
| Shortness of breath                                    | 140 |
| Skin infection   | 7   |
| ST elevation (STEMI) myocardial infarction of anterior | 2   |

|  |     |
|--|-----|
| ST elevation (STEMI) myocardial infarction of inferior | 5   |
| Stroke   | 60  |
| Substance abuse  | 5   |
| Suicide attempt  | 3   |
| Syncope / Fainting                                     | 123 |
| Toothache  | 1   |
| Transient Cerebral Ischemic Attack (TIA)               | 5   |
| Urinary system disorder                                | 7   |
| Urinary Tract Infection (UTI)                          | 10  |
| Vaginal Hemorrhage                                     | 2   |
| Visual Disturbance                                     | 2   |
| Vomiting   | 31  |



# 2022 ROSC Evaluation

Cardiac arrest survival is a common system performance measure. The report below identifies and measures the return of spontaneous circulation from out of hospital cardiac arrest. The report shows the percentage of out of hospital cardiac arrest patients that achieve the return of spontaneous circulation at any point in the out of hospital resuscitation effort as well as the percentage of out of hospital cardiac arrest patients delivered to the hospital with a pulse.

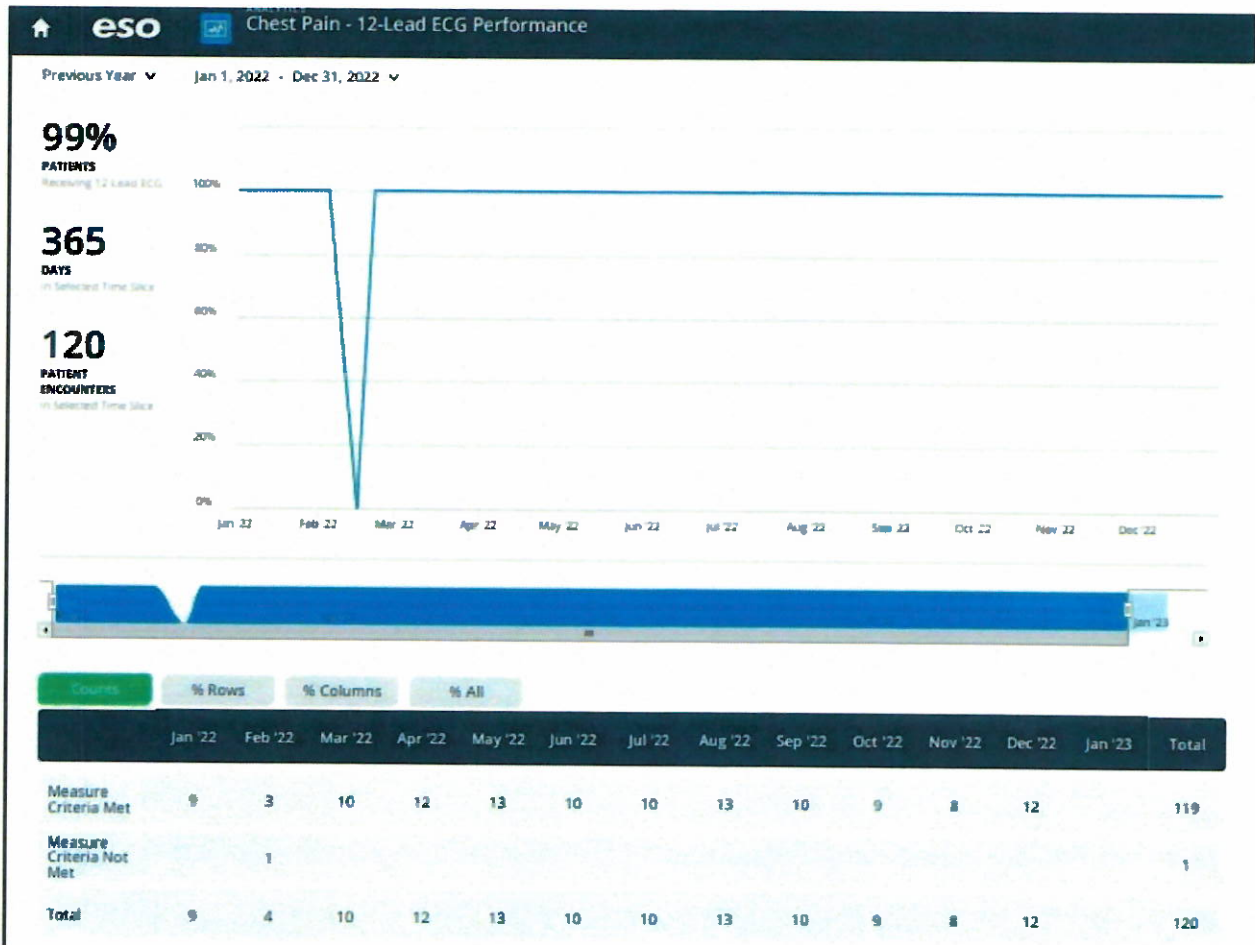


## ROSC Events Per-Shift

A Shift – 14 / B Shift – 8 / C Shift – 7

# 2022 12 Lead Performance

Early identification of STEMI in the field by 12-Lead ECG can enable timely STEMI alerts, which can activate catheterization laboratory staff particularly on nights, weekends, and holidays thereby reducing time to treatment, enabling appropriate destination hospital selection, and significantly reduce mortality rates for every 15 minutes of reduced delay. This report indicates the percentage of patients aged 35 years or older with Chest Pain who received a 12-Lead ECG.

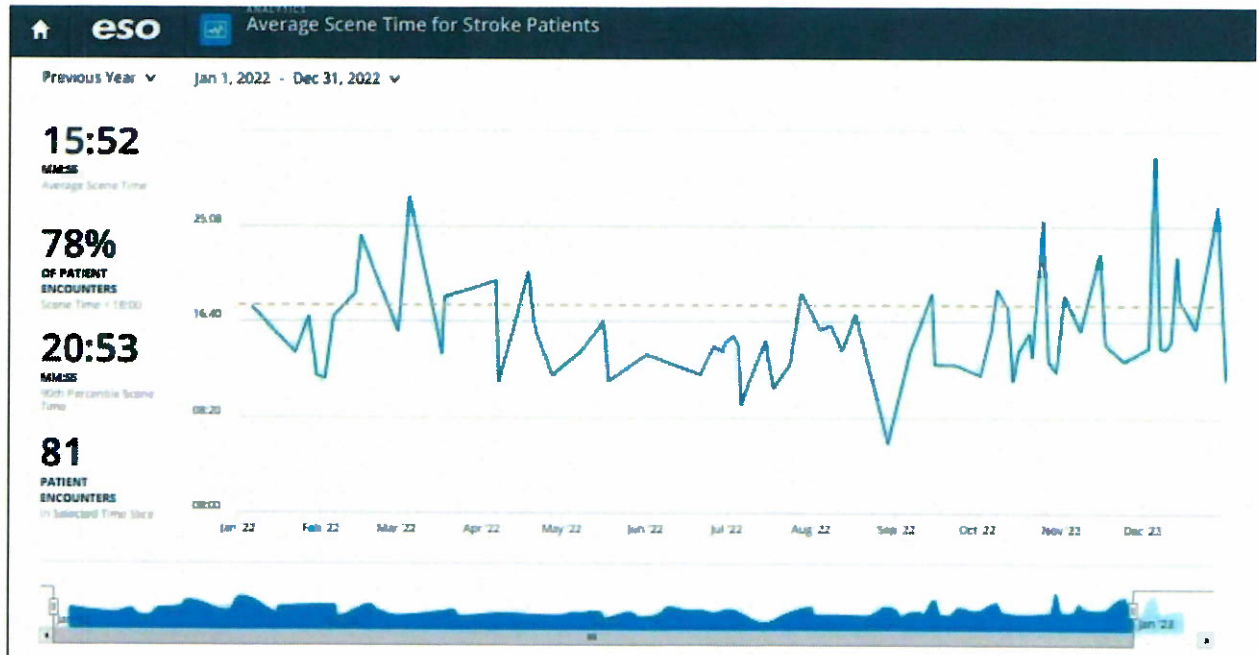






# Average Scene Time for Stroke Patients

A Stroke is a time sensitive condition requiring rapid assessment and transport to definitive care. Time from first medical contact to reperfusion should be closely monitored to improve outcomes. EMS scene time is a critical component in the overall time to treatment. The metric established by Medical Control is 18 minutes; we well exceed this metric, nice work.



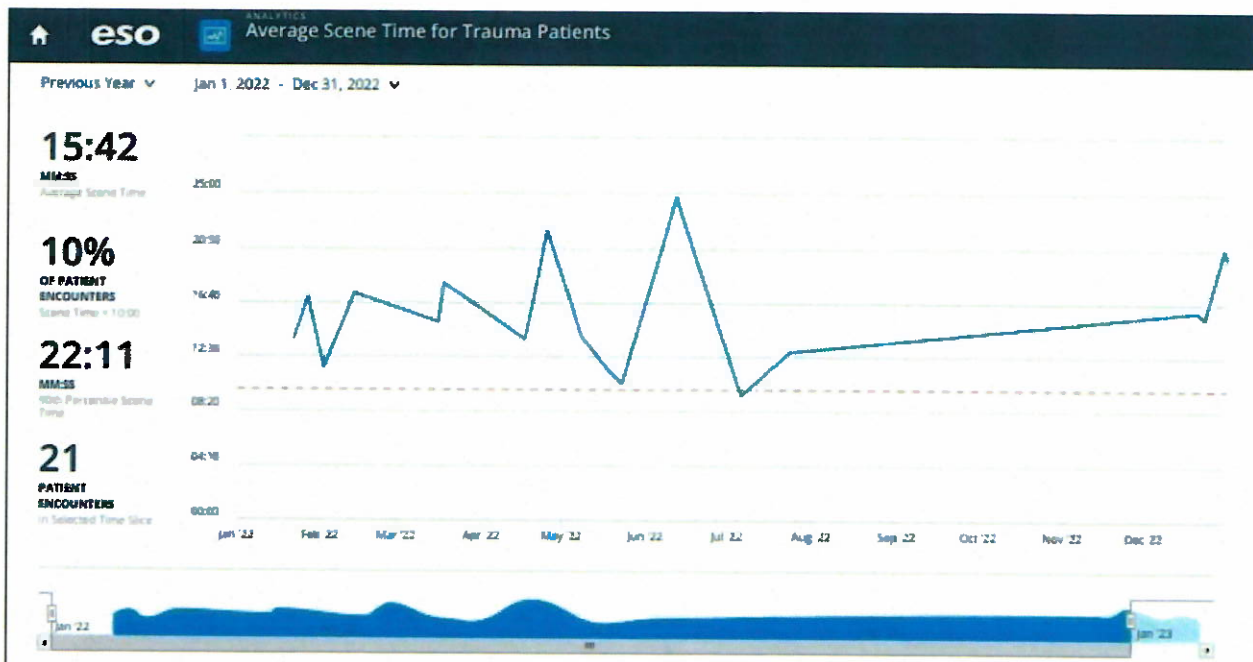
# Stroke Exam Performance

Identification of Stroke/CVA/TIA is critical for care and hospital advanced notification to enable preparation of appropriate teams and facilities. Treatment within three hours of the first symptom with thrombolytics or tPA may reduce long-term disability. This report shows over time the percentage of the patients identified that received a Stroke Exam. The following Specialty Patient Stroke Exam forms may be used: Cincinnati Stroke Scale FAST Stroke Scale LA Prehospital Stroke Scale MEND Stroke Exam. The ultimate goal is to meet this 100% of the time.



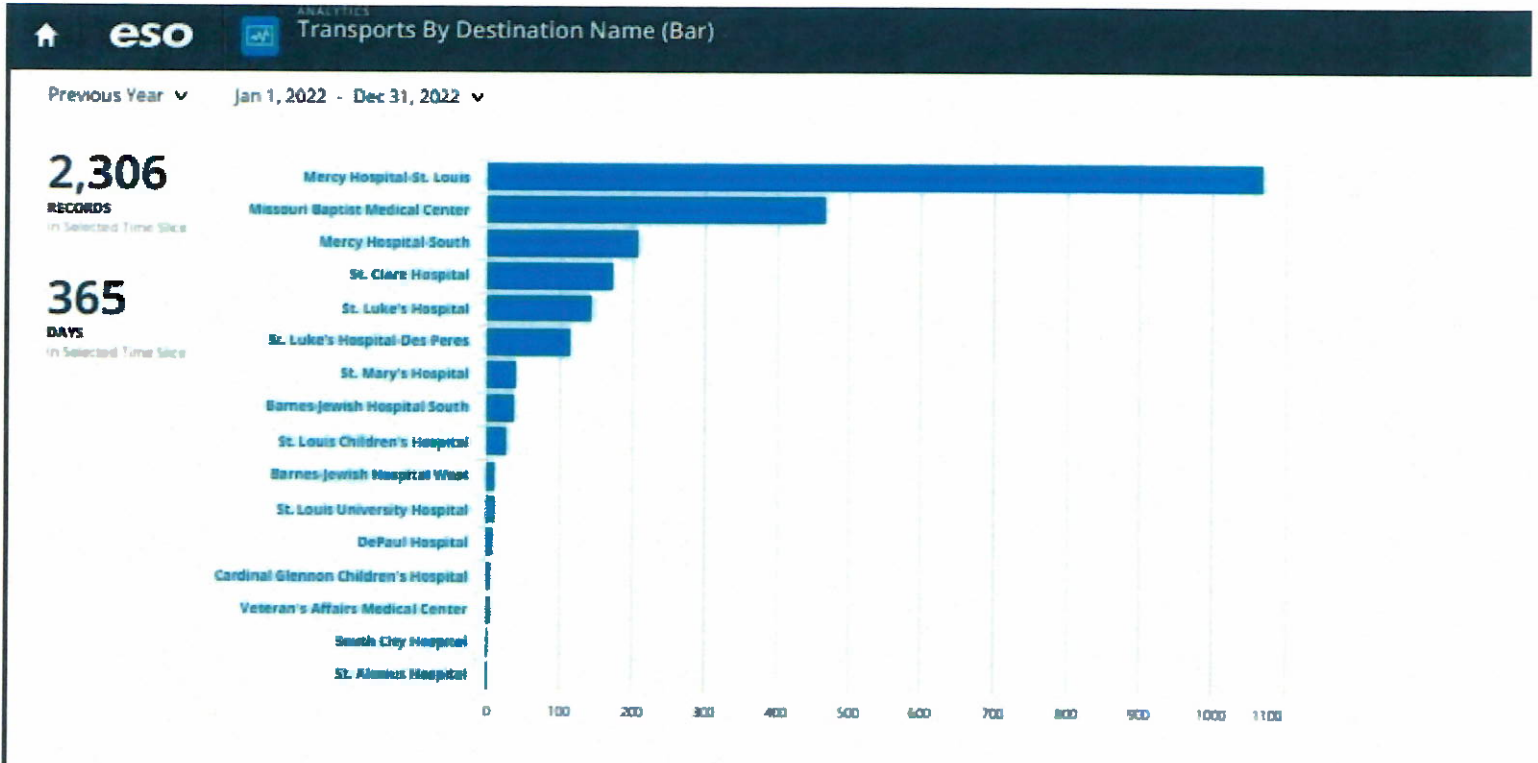
## Average Scene Time for Trauma Patients - Critical (Red)

This report monitors scene times for trauma patients. Trauma is a time sensitive condition requiring rapid assessment and intervention. Trauma systems should monitor EMS scene times as part of an ongoing quality improvement program. This report only takes into consideration Critical (Red) patients identified in the ePcr. The metric to meet is 10 minutes, this is an area for improvement and it will be a metric evaluated on a regular basis in 2023. This is improvement of almost 1 minute over 2021's time of 16:30. There is still improvement needed in this metric. Understandably, if a patient requires extrication, this will drive the time higher. The number of extricated patients in 2022 was 12 of the 21 encounters with "Critical (Red)" criteria.





# Transport Destinations

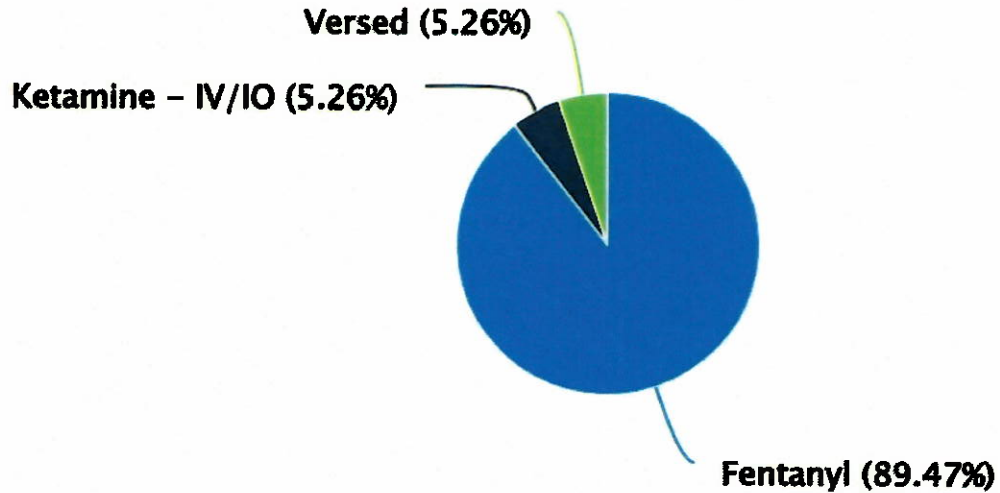


This report displays the number of patients transported in calendar year 2022. 2021 total transports were 2,253. 2022 has seen an increase of 2.5% to a total of 2306.

|                                 |      |
|---------------------------------|------|
| Mercy Hospital-St. Louis        | 1068 |
| Missouri Baptist Medical Center | 467  |
| Mercy Hospital-South            | 207  |
| St. Clare Hospital              | 170  |
| St. Luke's Hospital             | 143  |
| St. Luke's Hospital-Des Peres   | 113  |
| St. Mary's Hospital             | 38   |
| Barnes-Jewish Hospital South    | 36   |
| St. Louis Children's Hospital   | 26   |

|                                      |             |
|--------------------------------------|-------------|
| Barnes-Jewish Hospital West          | 11          |
| St. Louis University Hospital        | 8           |
| DePaul Hospital                      | 7           |
| Cardinal Glennon Children's Hospital | 6           |
| Veteran's Affairs Medical Center     | 4           |
| South City Hospital                  | 1           |
| St. Alexius Hospital                 | 1           |
| <b>Total</b>                         | <b>2306</b> |

## Narcotic Usage



Fentanyl – 97

Versed – 10

Ketamine (Pain) – 12

Ketamine (Behavioral) – 2 (Less than 2% - Does not appear on the chart)

### Narcotic Total Administered by Paramedic (Total Administrations – 121)

|                     |    |
|---------------------|----|
| Nicholas Triplett   | 18 |
| Jacob Reifschneider | 13 |
| Nicholas Harre      | 9  |
| Brendan Riley       | 7  |
| Jordan Acre         | 7  |
| Dustin LaPak        | 6  |
| Phillip Drumm       | 6  |
| Riley Haug          | 6  |
| Brendan Gorman      | 5  |
| Christopher Kuester | 5  |
| Eldin Kandzetovic   | 4  |
| Joseph Swain        | 4  |
| Ryan Dempsey        | 4  |
| Nick Ulses          | 3  |
| Bryan Kertz         | 2  |

|                   |   |
|-------------------|---|
| Chaun Williams    | 2 |
| Jeff Lofquist     | 2 |
| Justin Leadbetter | 2 |
| Nate Higginbotham | 2 |
| Timothy House     | 2 |
| Tyler Burns       | 2 |
| Zlatan Strbac     | 2 |
| Casey Wood        | 1 |
| Daniel Fischer    | 1 |
| Jeremy Palmer     | 1 |
| Larry Campbell    | 1 |
| Matt Mathes       | 1 |
| Nick Stremmlau    | 1 |
| Ryan Light        | 1 |
| Scott Sanders     | 1 |

## Supply Usage and Cost Per Engine House

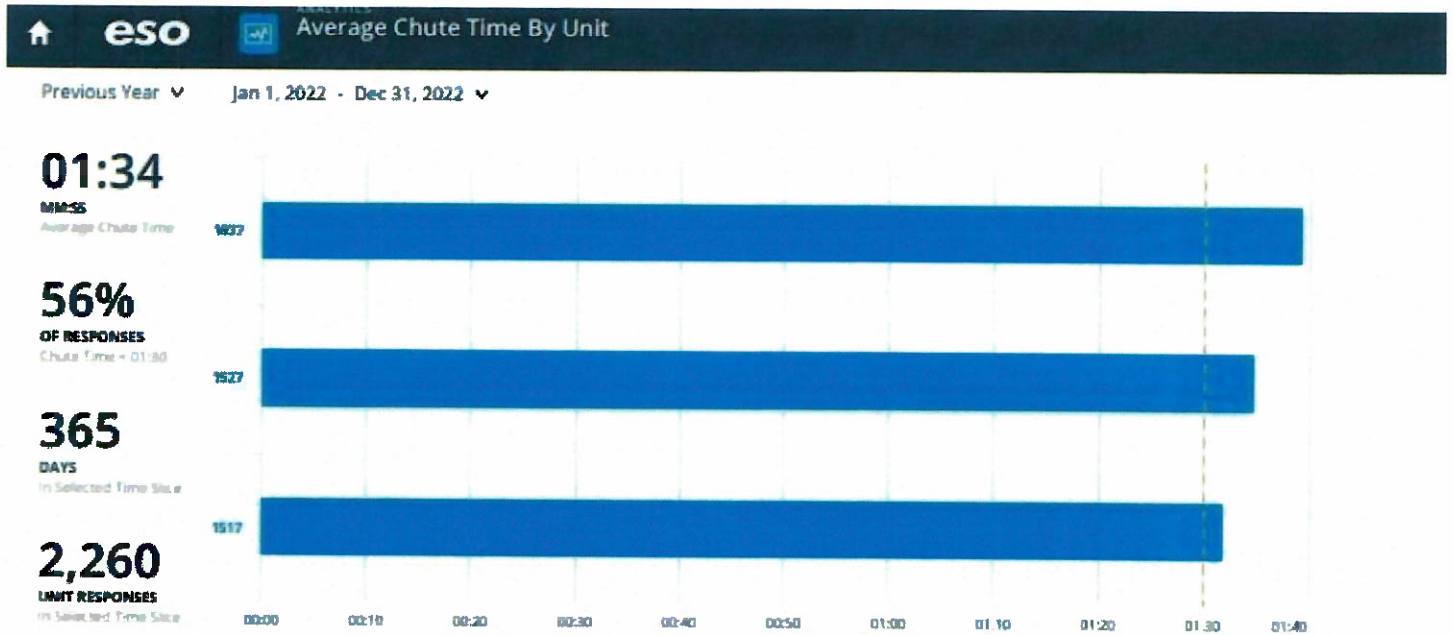
| Engine House  | Supplied Total     |
|---------------|--------------------|
| House 3 - EMS | <b>\$10,117.78</b> |
| House 2 - EMS | <b>\$22,808.25</b> |
| House 1 - EMS | <b>\$23,622.39</b> |
|               | <b>\$56,548.42</b> |

## Top 10 Expenses (Medical Supplies)

| Part Description                             | Part Number    | Part Price | Quantity Used | Supplied Amount |
|--|----------------|------------|---------------|-----------------|
| ECG ELECTRODES (4 Pack)                      | 230004         | \$142.50   | 23            | \$3,277.50      |
| IV START KIT                                 | 351200A        | \$2.37     | 1343          | \$3,182.91      |
| ZOLL - RAINBOW DCI SENSOR (3 FT) PATIENT END | 8000-000371    | \$698.61   | 4             | \$2,794.44      |
| ETCO2 - NASAL CANNULA - ADULT                | 177268         | \$8.78     | 308           | \$2,704.24      |
| GLOVES - XL                                  | 290328         | \$10.07    | 263           | \$2,649.20      |
| GLOVES - L                                   | 290327         | \$10.07    | 262           | \$2,639.13      |
| ZOLL CPR STAT-PADZ ELECTRODE - ADULT         | 8900-0400      | \$56.78    | 41            | \$2,327.93      |
| EZ IO NEEDLE - LARGE ADULT (YELLOW)          | 9079-VC-005    | \$110.00   | 20            | \$2,200.00      |
| ZOLL - RESQ-POD                              | RESQPOD ITD 10 | \$116.59   | 14            | \$1,632.26      |
| SALINE LOCK - WITH EXTENSION SET             | 1714-31081     | \$1.15     | 1293          | \$1,486.95      |

# Chute Times

This report displays the average chute by unit over a specified period to time. Chute time is the elapsed period from dispatch timestamp to the en-route timestamp. The X-axis displays time intervals in seconds. The Y-axis is the list of units. Each bar on the chart represents the average time for the identified unit. Any record with a chute time above 10 minutes is categorized as an exception and excluded.



1517 – 1:31

1527 – 1:34

1537 – 1:39



## Glendale EMS Transport Service Metrics - 2022

Responses to Glendale (EMS only) – 293 (Includes cancelled en-route)

Transports – 97% (When a Kirkwood ambulance arrives in the scene)

ALS Unit on the Scene within 9 minutes - 82% (Contract Requirement of 75%)

## Miscellaneous EMS System Statistics

Average Scene Time – 15:49

Average Transport Time – 13:35

Average Total Call Time – 51:49 (Goal of 1 Hour)

Transports with No Lights and Siren – 88%

Patients Treated for Pain with a Pain Score of 7 or Greater – 48% - **2023 goal of 75% !!!!!!!!!!!**

Advanced Airway – First Pass Success Rate– 85% (27 Attempts)

Ambulance Patient Offload Time – 13:44 (Transfer of patient care is defined as the patient being offloaded from EMS and patient care responsibility transferred to the ED.)