



Lawrence-Douglas County Fire Medical

Annual Report

2020

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1911 Stewart Avenue
Lawrence, Kansas 66047
785.830.7000
Lawrenceks.org/fire-medical

Social Media:
[Facebook.com/LawrenceKSFireMedical](https://www.facebook.com/LawrenceKSFireMedical)



Department Overview

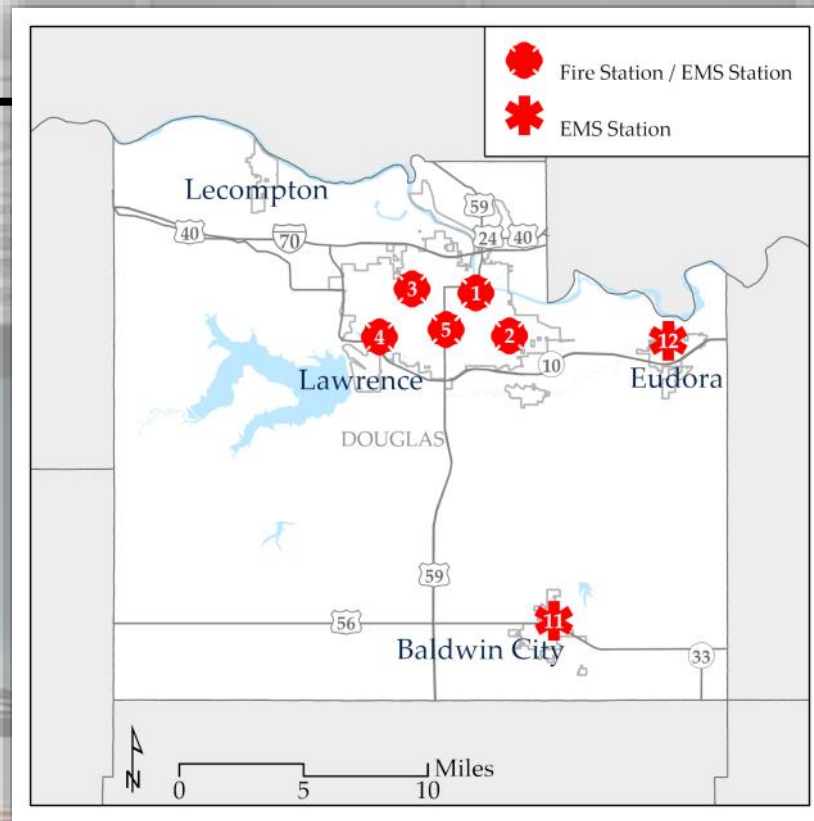
People

150

Uniformed Sworn
Members

6

Civilian Personnel



Resources

5

Fire Apparatus

1

Rescue Apparatus

7

Ambulances

4

Water Rescue Boats

LDCFM currently serves a large geographical area of 475 square miles and 134,917 people (based on planning projections). The City of Lawrence currently has a total area of 34.85 square miles. LDCFM is composed of 7 in-service ambulances and 6 in-service fire apparatus 24/7/365. Staffing these units, the department has 39 responders daily. LDCFM provides EMS coverage to the county (475 square miles). These resources provide the City of Lawrence coverage for Fire, EMS, Hazardous Materials, and Technical Rescue. The department is comprised of 5 Fire/EMS stations located in the City of Lawrence and 2 EMS stations located in Baldwin City (Station 11) and the City of Eudora (Station 12).

Professionalism

Respect

Integrity

Diversity

Excellence



“Committed to Saving and Protecting Lives and Property.”

Station Information

Administration

1911 Stewart Ave.
Lawrence, KS 66046
(785) 830-7000

Station No. 1

746 Kentucky St.
Lawrence, KS 66044
(785) 832-7610

Station No. 2

2128 Harper St.
Lawrence, KS 66046
(785) 832-7620

Station No. 3

3708 W. 6th St.
Lawrence, KS 66049
(785) 832-7630

Station No. 4

2121 Wakarusa Dr.
Lawrence, KS 66047
(785) 832-7640

Station No. 5

1911 Stewart Ave.
Lawrence, KS 66046
(785) 830-7050

Station No. 11

212 Kibbee
Baldwin City, KS 66006
(785) 594-3152

Station No. 12

City of Eudora Public
Safety Building
930 Main St.
Eudora, KS 66025
(785) 542-3653

Training Center

1941 Haskell Ave.
Lawrence, KS 66046
(785) 832-7623

Investigation Center

1839 Massachusetts St.
Lawrence, KS 66044
(785) 832-7755

Station No. 3



Station No. 1



Station No. 12



Station No. 2



Station No. 4



Station No. 5



Station No. 11



The Continuous Improvement Model

Lawrence-Douglas County Fire Medical remains on target with its accreditation commitments to the Commission on Fire Accreditation International. In March 2013, the department was unanimously awarded Re-accredited Agency Status by the Commission on Fire Accreditation International (CFAI). This provides the department with accredited status through 2020. LDCFM is one of only 284 fire departments worldwide to obtain CFAI Accredited Status. The department submits an annual compliance report every February and continues to work on re-accreditation. The accreditation process was integrated into the daily operations and culture, and is the foundation by which we continue to provide quality services to the citizens of Lawrence and Douglas County.



**Commission on
Fire Accreditation
International**

The department strives to achieve continuous organizational improvement through implementation of improvement initiatives and opportunities for further enhancements. Currently, the department is operating under the goals and objectives outlined in the 2016-2021 Strategic Plan. The standard of cover document defines the level of emergency response resources and deployment strategies that City of Lawrence and Douglas County leaders, department administration and members commit to provide, at a minimum, to all community members. The department is committed to the CFAI model and will continue to work toward those goals.

LDCFM is...

1 of 284 Accredited Agencies

1 of 101 Accredited Agencies
with an ISO 1 rating

Accredited Agencies protect
11% of the U.S. population.



Chief Fire Officer Designation

Coffey, Shaun
Fagan, Thomas
Green, Doug



Fire Officer Designation

Barnes, Earl
Crain, Brendon
Dennis, Benjamin
Gutsch, Gary
Holloman, Brandon
Morgan, Robert
Morrow, Christopher

LDCFM goes International with the International Center for Public Safety Excellence Conference 2020

Division Chief of Administration, Thomas Fagan and Fire Medical Data Analyst, McKenzi Ezell presented on the Continuous Improvement System.



Incident Breakdown

Total Incidents: 12,659

Rescue / EMS: 8,624

False Alarm: 1,173

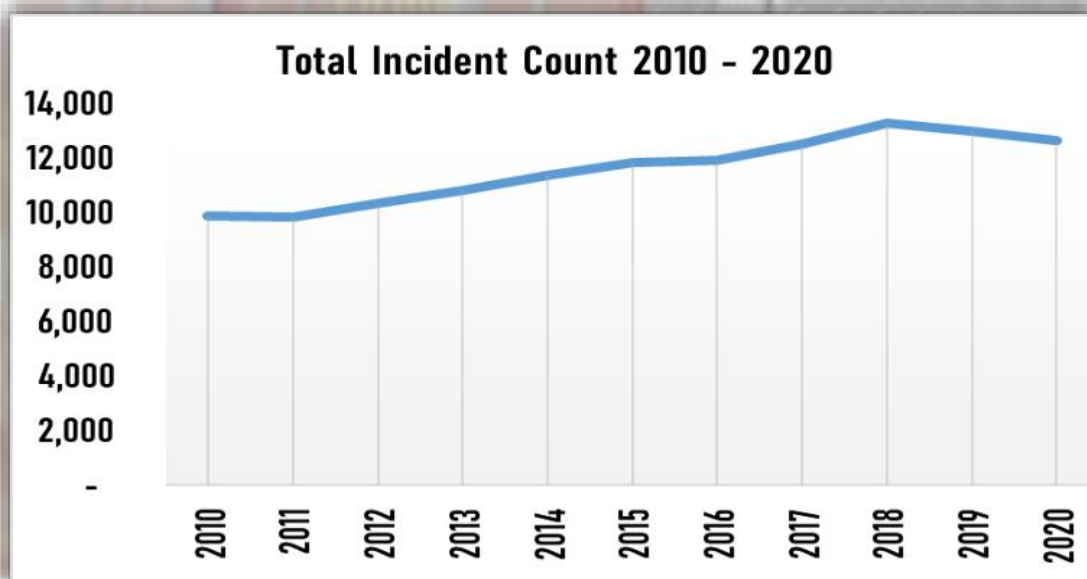
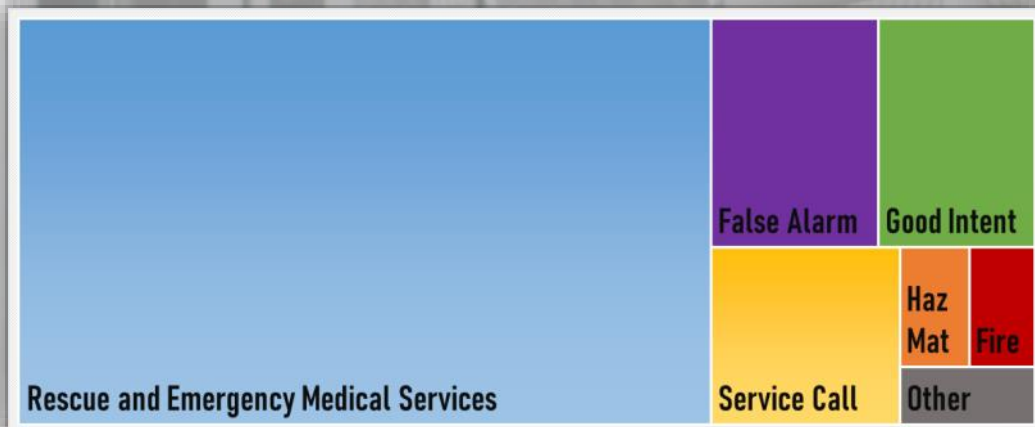
Good Intent: 1,101

Service Call: 1,026

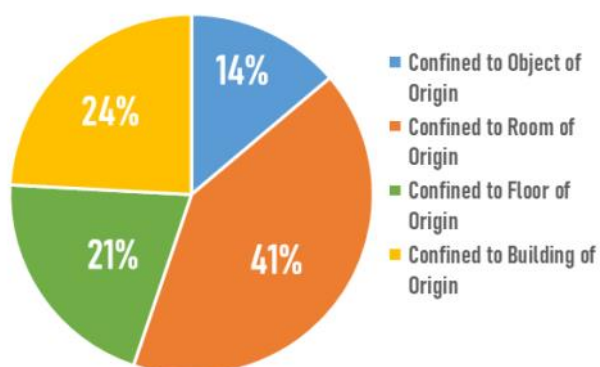
HazMat: 255

Fire: 242

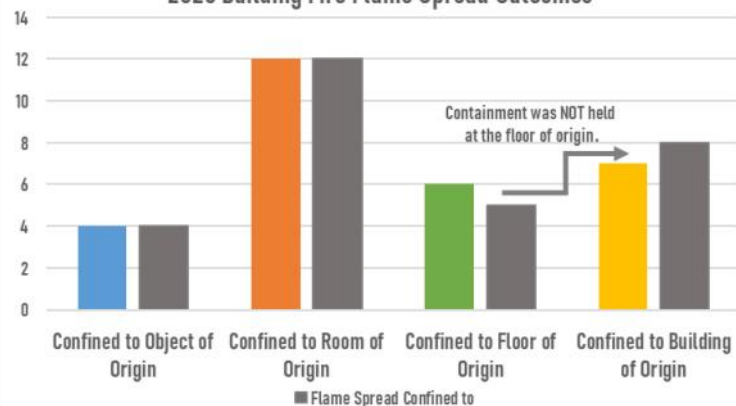
Other: 238



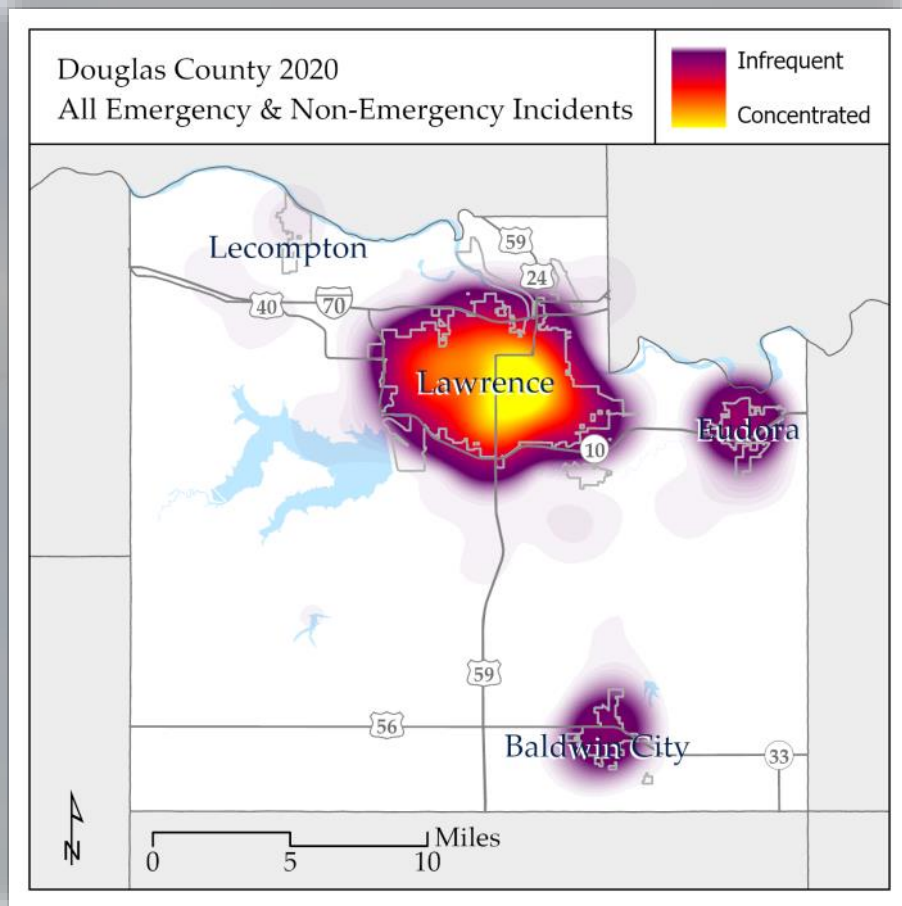
2020 Building Fire Involvement Upon Arrival



2020 Building Fire Flame Spread Outcomes



Incident Demand Maps

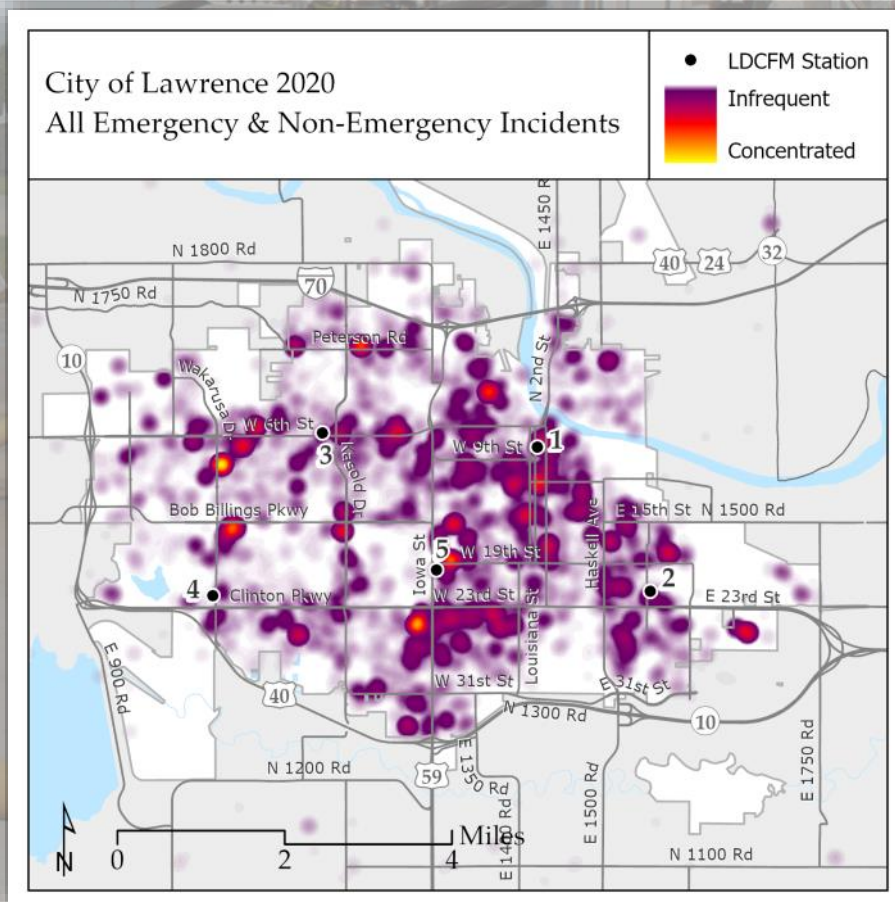


Incident Categories:

Emergency Medical Services
Fire
Technical Rescue
Hazardous Materials

Incidents have been plotted on the map to show concentration and the dispersal of incidents throughout Douglas County. There are concentrated areas, but calls do occur in distributed areas of the community.

Heat maps can be utilized to identify hot spots, or areas of high concentration.



Emergency Medical Services

The year 2020 (and beyond) brought forth many unprecedented challenges which forced change and adaptability for not only our immediate community but our pre-hospital medical responders. Nearly every week of 2020 brought new mandates and changes by Federal, State and Local oversight, continually leading to significant shifting of gears in deployment models in EMS care. EMS overcome incredible operational, physical and emotional challenges, while serving on the front lines of our healthcare system, and adapting to changes to testing, education, risk management, transport protocols and care delivery. LDCFM personnel were resilient in finding new modes of training and techniques to deliver outstanding care to our citizens during a pandemic. LDCFM crews stayed vigilant in maintaining a safe system to deliver and transport patient with enhanced disinfecting measures. And although the pandemic overshadowed most everything LDCFM does, EMS certifications, such as EMT, AEMT, and Paramedic, remained current for all personnel, which was difficult during modified educational offerings. Many additions to the EMS System created by the pandemic will stay in place going forward to enhance delivery of care.



Advanced Cardiac Resuscitation

The resuscitation techniques and efforts performed by LDCFM members during sudden cardiac arrest (SCA) incidents are considered next-level. Challenging norms and pushing new training initiatives has produced tangible and positive outcomes amongst local cardiac arrest victims within Douglas County. Hyper-focused delivery of care, driven by capnography (EtCO₂) values assist in navigation and achievement of return of spontaneous circulation (ROSC) leading to one of the highest survivability rates in the country.

LDCFM Average SCA Survivability

18.75%

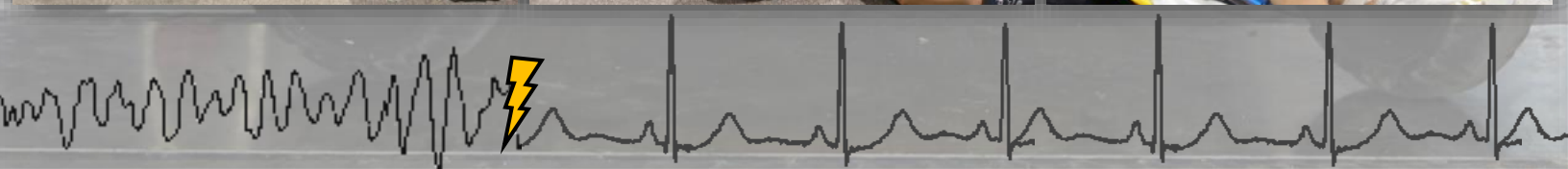
National Average SCA Survivability

5.5%

<http://www.ncbi.nlm.nih.gov/books/NBK305685/>

Data-Driven Emergency Medical Services

LDCFM's Emergency Medical Services division participated in the EMS Resuscitation Summit. Focusing on the topic "Why Data Matters: The Power of Data Driven Change", Division Chief of EMS, Kevin Joles discussed how LDCFM uses data to enhance the QI/QA program.



KEMSA Magazine Showcase

Kansas Emergency Medical Services Association (KEMSA) publishes the KEMSA Chronicle magazine, seasonally. LDCFM was showcased as the Service Spotlight department in the Summer 2020 edition. The article was limited to only a few of our outstanding personnel as we would have welcomed the opportunity to showcase all of our members! The article highlights the department's work with the Cardiac Arrest Protocol for Excellence (CAPE) and it's relation to increasing the return of spontaneous circulation (ROSC) and cardiac arrest survivability in the community.



Service Spotlight

Lawrence-Douglas County Fire Medical

By Brandon Beck
KEMSA First President

In this issue of the KEMSA Chronicle, we are spotlighting Lawrence-Douglas County Fire Medical (LDCFM). LDCFM serves the communities of Lawrence, Eudora, Leocompton, and Baldwin City. LDCFM was founded in 1997 after the merger of the City of Lawrence Fire Department and Douglas County Ambulance Service. The service is fire-based and covers EMS for all 373 square miles of Douglas County. LDCFM is led by Fire Chief Shaun Coffey who was named to the position in 2019. Providing countywide EMS coverage poses logistical challenges that LDCFM has mitigated by utilizing seven stations. Five are within the city limits of Lawrence, one station is in Eudora, and one station is in Baldwin City. LDCFM utilizes seven front line medic units with 150 sworn personnel in their department. Sworn personnel are all Kansas certified as either an AEMT or paramedic. This allows for ALS level response to approximately 123,000 residents of Douglas County. In 2019,

personnel responded to just over 13,000 calls for service, for which 68% were EMS related. LDCFM is accredited by the Commission on Fire Accreditation International and has achieved an ISO rating 1. In addition to the required continuing education requirements set forth by the Board of EMS, members of the department also receive, at a minimum, 228 hours of training related to fire suppression, HAZMAT, search and rescue, and vehicle extrication. LDCFM is under the medical direction of Dr. Caleb Trent, who is an emergency room physician and also serves on the Medical Advisory Committee for the Kansas Board of EMS. Protocols have been written with the intent to provide exceptional advanced pre-hospital care. Some of the authorized advanced procedures allowed include IO insertion, use of supraglottic airways, endotracheal intubation, 12-lead EKG capability, intraosseous pressure regulation (IPR) therapy, and mechanical CPR. In early 2018, LDCFM took an "out of the box" approach to out of hospital cardiac

Photos provided by LDCFM

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Service Spotlight

arrest and developed the Cardiac Arrest Protocol for Excellence (CAPE). LDCFM found an opportunity to increase not only return of spontaneous circulation (ROSC), but also cardiac arrest survivability in their community. This protocol emphasizes high-quality CPR, and the use of both an IPR and an impedance threshold device (ITD). Additionally, the protocol directs crews to remain on scene for the arrest while monitoring the patient's vital signs, specifically ETCO2 and the strategic timing of procedures and treatments. After the implementation of this innovative approach, field ROSC increased from 36% to 62%, and survivability rose to nearly 19% from 4% in previous years. The passion that members of LDCFM and the first responders of Douglas County have shown during the changes to enhance cardiac arrest survivability have been a true inspiration to many agencies not only across the United States, but around the globe. This passion and pride for the community carry over into other activities the department is involved in. The department has provided hands-only CPR events, as well as "Stop the Bleed" courses. The department also dedicates a considerable amount of time providing stand by coverage for events for the University of Kansas, Baker University, and Haskell Indian Nations University. Douglas County, founded in 1854, is a diverse community that is rich in history. This history shows through the members of LDCFM who spend countless hours giving back to their community in various ways. Crews strive to provide quality service, while at the same time making sure all patients are treated like they were a member of their own family.

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Service Spotlight

MEET SOME OF THEIR PERSONNEL

Dave Bova, AEMT
How long have you been in EMS? I have been in EMS since 2003.
How did you get involved in EMS? When I was about 10 years old, my younger 2-year-old brother was drowning in a pool. During the chaos, I just jumped in and pulled him out. I think that was the moment I believed that helping others was my calling.
How did you get involved in EMS? I really got involved in EMS during high school my sophomore year in 1999. I took a class called health careers, and I got to shadow health workers. I got to ride on the ambulance for a couple months, and I loved it. Getting to go help others on their worst day was intriguing and gratifying to make it better than it was 10 minutes before we got there.
What has kept you in EMS? What has kept me in EMS is really the people I work with. They can lift you up and help you during the times where you see terrible things and bring you back to life.
What type of rewards do you get from the job? Challenges? I believe the most rewarding thing about the job is absolutely the people you get to meet. Getting to see people on their worst day is still the best part of the job. Every once in a while you get to see them again, out in public and know that you had some part in helping them continue their daily lives. The job becomes challenging when you see those family and friends effected by the ones we lose. Seeing their faces and sadness truly is the most challenging part of the job for me.
What does the future look like to you? The future of EMS gets more intriguing by the day. New medical procedures such as CAPE are brought in and to see the improvement in cardiac arrest outcomes is extremely promising. Getting to work with new and upcoming medics and EMTs and help them learn without a doubt something that I take pride in. The future is bright.
What is something someone might not know about you? One thing that someone may not know about me is my love for the national parks. I love taking my family on three week trips and getting lost in the beauty and the vastness of the parks. Being in nature brings you down to earth and shows you what is really important in life.

Vincent Davis, Paramedic
How long have you been in EMS? Since 2011.
How did you get involved in EMS? I was a police officer and decided to switch and become a fire fighter. I was told if I was serious about the career, I would need to attend paramedic school, so I did. My motivation, which most people don't know, is that my oldest daughter was born with a congenital heart condition (Hypoplastic Left Heart Syndrome). She nearly didn't make it, but at this point she is a healthy 23-year-old young woman. I felt helpless when she was diagnosed and decided I will never have that feeling again.
What has kept you in EMS? I enjoy the work. Helping people is a great feeling. The people I work with are amazing and make coming to work a joy daily. I also like not having a set routine daily, as you never know what you're going to encounter with each call.
What type of rewards do you get from the job? Challenges? Hearing someone say thank you for helping them is a great feeling. To be honest, I don't do this for the rewards. I truly enjoy helping people and the challenge of what comes next. A big challenge would be staying current on what's new in the field, which defers complacent work ethic. On a daily basis, I review and table talk scenarios.
What does the future look like to you? My future in EMS is twofold. I would enjoy teaching at some point, but not right now. I have an aspiration of becoming an EMS Chief as I think effecting policy and scope of practice would challenge me in the future.

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Service Spotlight

MEET SOME OF THEIR PERSONNEL

What is something someone might not know about you? I'm a home body. I enjoy sitting at home reading. This does not happen too often though since my children have several extracurricular activities that I support wholeheartedly.

Dustin Deathe, Paramedic
How long have you been in EMS? I have been in EMS since 2009 and became a paramedic in 2010.
How did you get involved in EMS? I grew up in a family with a strong history in public service. My grandfather and my father were both in law enforcement. Growing up in that environment opened my eyes for a career that was more than just a paycheck. I wanted something that made me feel that I was giving back to my community. Out of high school, however, I wanted to be a teacher. My brother-in-law at the time had recently been hired as a fireman and influenced me to join the fire department. At that time, I didn't know if I wanted to do EMS. I decided to take a first responder class, which was the first class that intrigued me and made me want to learn more.
What has kept you in EMS? I love the idea that every day is different. There are the difficult days and good days, but it's something that's always made me push myself to be better each day.
What type of rewards do you get from the job? Probably most would say it's when someone who truly needs help calls, and you're there for them during their worst times. But my biggest reward is that people respect what the job is. It's kids love seeing you, and look up to your profession due to the guys before us who have made this reputation for this job. Challenges? I think everyone who does this job knows that you are going to see things and experience things that you won't get to forget or unsee. These experiences can be truly challenging because some of them will relate close to home.

Jen Persons, AEMT
How long have you been in EMS? 10 years.
How did you get involved in EMS? In 1996, I was involved in a bad car accident when local fire, EMS, and police responded. Three of the first responders were female. Back then I was unaware that females could work for fire-medical. Ever since my accident, I didn't know I wanted to pursue a career in fire and EMS.
What has kept you in EMS? Having a career in public service has been one of the most rewarding jobs I have ever experienced. Every day I am faced with new challenges and experiences. I honestly feel that working in the fire and medical field is the best job in the world.
What type of rewards do you get from the job? I feel as though serving our community in itself is very rewarding. I love working with people and helping when I can. There is no better feeling than when someone approaches you off duty and tells you, you helped or even saved their life.
What does the future look like to you? Training and continually bettering myself so that when the time to promote is right, I will be ready. Eventually I would love to be an officer in our training division.
What is something someone might not know about you? I currently serve on the Lawrence Police Department as a tactical medic.

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Welcome, Recruit Class #25

Graduates

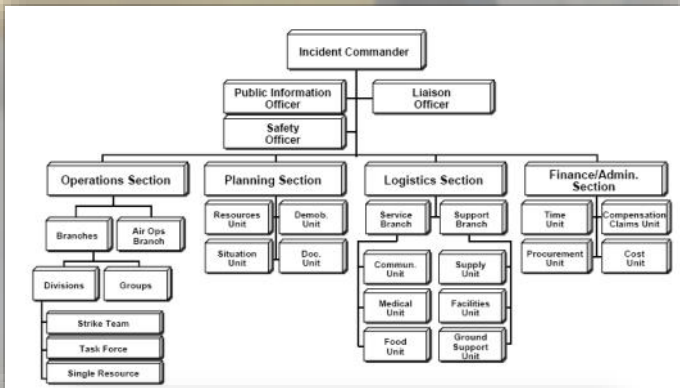
Brown, Alisha
Cole, Rodney Jr.
Cox, Shad
Foulk, Jesse
Goodwin, Sam
Heinen, Nathen
Nehl, Dakota
Parker, Nolan
Ploeger, Matt
Schmidt, Crosbi
Shrewsbury, Jessica
Shelton, Trevor
Solis-Perez, Gerson



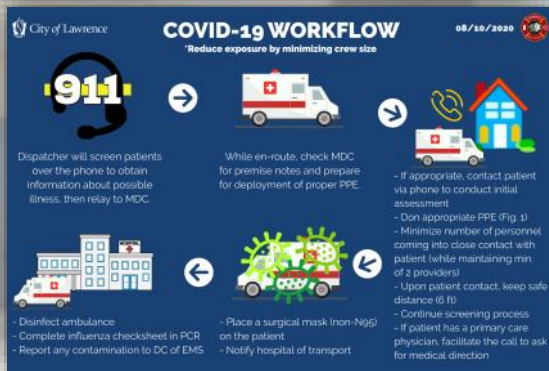
COVID-19 Response

Incident Command System

The City of Lawrence and Douglas County both stood up Incident Command Systems to combat the challenges that were associated with COVID-19. Many members of LDCFM played key roles within the systems. The some of the objectives for the system included:



- Provide for the safety, health, welfare, security of city employees and maintain an adequate workforce during current operational period.
- Provide for the safety, health, welfare, and security of the public by ensuring the continuation of critical city services during the current operational period.
- Restore, control and maintain access to vital infrastructure and utilities provided by the city during the current operational period.
- Ensure compliance with the Agency Administrators priorities through effective cost containment based upon political considerations and other limitations/expectations.
- Exhibit compassion and empathy through leadership throughout the duration of this response by regularly checking in with staff (including those working remotely) to ensure they have supports they need
- Begin formulating thoughts on possible plans for long term recovery related to personnel, equipment, operations and budget.
- Ensure federal public assistance and other grant opportunities are identified and pursued.



LDCFM's Response to COVID-19

Through the State of Kansas CARES Act Funding, Lawrence-Douglas County Fire Medical was able to procure the following supplies for COVID-19 response:

Personal Protective Equipment

N95 Masks: 1,995
N95 Mask Fit Testing Kits: 2
KN95 Masks: 10,000
Face Masks: 10,000
Disposable Gowns: 2,000
Re-Usable / Washable Gowns: 1,500
Gloves: 92,000
Safety Glasses: 750 Pairs

Powered Air Purifying Respirators (PAPR): 30

Ventilators: 8

EMS Cot Shields: 12

Decontamination Sprayers: 1

UV Decontamination Cleaning Systems: 2



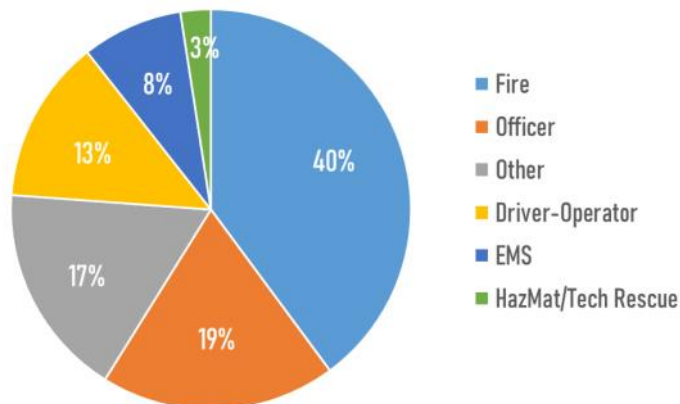
Training



Some of the highlighted training that took place in 2020 included Fire Officer I, Fire Instructor I, and Fire Inspector I, all University of Kansas Fire & Rescue Training Institute classes that were delivered via video conferencing, some of those classes were delivered for the first time via video conferencing. An officer academy was delivered to prepare Engineers for taking on the role of the Acting Officer. Once the class was completed, an assessment center was provided and new Acting Officers were identified.

The Training Division also assisted with the creation of videos that were provided to school age children on fire safety. Those videos were distributed by the school district to the students to work on projects with their parents at home. With so many children staying at home for extended periods of time, delivering in home training materials related to fire safety makes the parents and the children more aware of the dangers that exist in

2020 Training Hour Breakdown



Total Department Training Hours Provided: 56,239



The LDCFM Training Division assisted the Lawrence Police department and the Douglas County Sheriff's department with Stop the Bleed training. LDCFM's Training Division provided instruction to the Lawrence Police department recruit academy on the use of a tourniquet for self or partner survival skills.



Training Tower



Types of Training Conducted Using the Training Tower / Center:

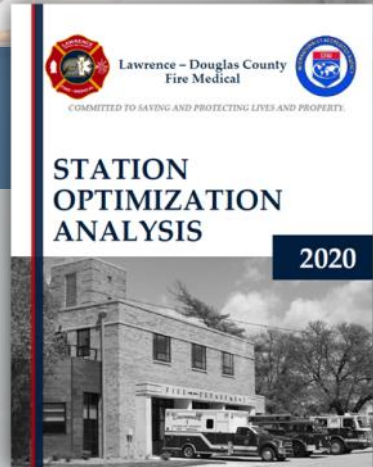
- Confined Space
- Driving Simulator
- Forcible Entry
- Grain Entrapment
- High-Angle Rope Rescue
- Hose Deployment
- Hose Testing
- Live Fire
- Roof Operations
- Search and Rescue
- Self-Contained Breathing Apparatus
- Trench Rescue
- Vehicle Extrication

Looking Forward

Station Optimization Analysis

Publish Date: 2021

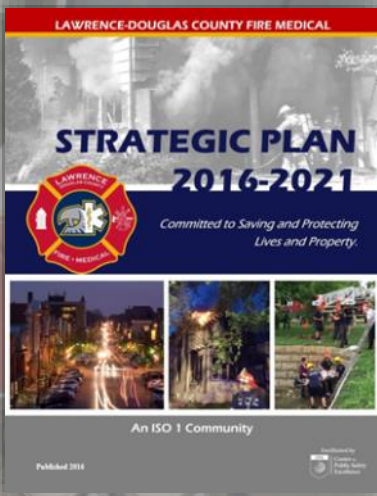
This report focuses on LDCFM's response model and presents a recommendation on resource reliability and response coverage within the City of Lawrence. To provide more efficient and effective services to a broader community associated with disadvantaged populations, population density, property value, and requests for emergency services, LDCFM has composed this station optimization analysis report to more align with industry best-practice standards.



Community-Driven Strategic Plan

Projected Date: 2021

LDCFM's current Community-Driven Strategic Plan is set to sunset in 2022. The Center for Public Safety Excellence's Technical Advisor Program will be working with LDCFM early Fall to facilitate a community-driven approach to crafting the new edition. The publication will be finalized by the end of 2021.



PulsePoint County-Wide Implementation

Projected In-Service Date: 2021

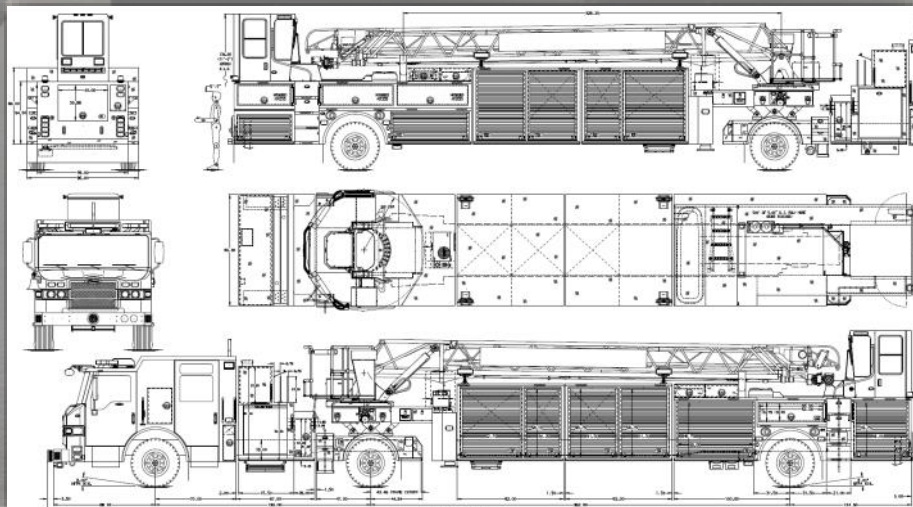
PulsePoint is a 911-connected app that can immediately inform subscribers of emergencies occurring in the community and can request bystander help when CPR is needed nearby.



Rescue Tiller Design

Projected In-Service Date: 2022

The department has conducted an analysis of Station 5's current deployment model. It was recommended to replace the Rescue Engine with a Rescue Tiller which has fire suppression capabilities.



Promotions and Retirements

Promotions

Extraboard Firefighters to Full-Time Firefighters

Jose Rodriquez

Dustin Shull

Hannah Somers

Firefighter to Firefighter Paramedic

Eric Lynch

Firefighter to Engineers

Josh Brouhard

Paul Davis

Paramedic Firefighters to Engineers

Redell Frazier

Cody Hoagland

Eric Lynch

Brian Murdock

Dustin Walthall

Engineers to Lieutenants

David Bova

Blake Elder

Alex Wolfe

Lieutenant to Captain

Jeffrey Holland

Acting Officers

Engineer Dustin Deathe

Engineer Redell Frazier

Engineer Brent Luedeke

Engineer Eric Lynch

Engineer Jennifer Persons

Engineer Tim Reazin

Engineer Alex Thomas

Engineer James Welch

Incentives

Firefighter Aaron Davenport -
Coroner's Scene Investigator

Engineer Brian Murdock -
Technology Specialist

Engineer Jennifer Persons -
Public Education

Retirements

Captain Pete Easterwood – 37 years

Engineer Leo Leiker – 29 years

Division Chief Doug Green – 26 years

Lieutenant Darren Thomas – 25 years

Engineer Sean Humphrey – 23 years

Lieutenant Rob Leach – 21 years

Engineer Chad Gunderson – 19 years

Engineer Jim Thornton – 18 years

Firefighter / Paramedic Cole Broockerd – 3 years