



HOT TOPICS

Oshkosh Fire Department



CHIEF'S CORNER



Valentine's Day is right around the corner; wherever we look there are hearts. Heart shaped candies, decorations, greeting cards, and countless other examples are everywhere.

All of these hearts may remind us to give a token of our affection to a special someone. They also should remind us to take care of our own heart. Heart disease was still the leading cause for death in the U.S. in 2020.

The general public, as well as firefighters, are susceptible to sudden death from a cardiac event. While cardiac conditions can be inherited, there are many preventable factors that can contribute to heart disease. Some of those factors are smoking, inactivity, obesity, and high cholesterol.

This month, give those that you love the most meaningful gift of all. Give them you. You living a long, happy, and healthy life. Talk to your doctor about quitting smoking. Start watching what you eat. Get moving and go for a walk. Find healthy ways to reduce your stress. Small steps can add up to big changes. Happy Valentine's Day and American Heart Month. Make sure that the beat goes on!

--Chief Mike Stanley

AMERICAN HEART MONTH

by Chuck Hable, Battalion Chief EMS

February is American Heart Month. The American Heart Association represents so many important topics in which EMS plays an important role in patient outcomes. Chest pain, heart problems like arrhythmias and palpitations, cardiac arrest and stroke-like symptoms are common calls for service for any EMS agency. In 2020, these calls made up over 12% of all calls to which the Oshkosh Fire Department (OFD) responded.

In the 'worst case scenarios' of these calls, time is of the essence. In calls like myocardial infarctions and strokes, the sooner the patient is delivered to a hospital the better they do. Arrhythmias like ventricular tachycardia or bradyarrhythmias can be life threatening and care provided at the scene can correct these issues. Cardiac arrest is the ultimate case in which early CPR and early de-fibrillation can make the difference between life or death. These calls become routine to veteran EMS providers, but the care provided can be very impactful. Recognition of unique patient presentations can also be life-saving. Atrial fibrillation is a common cardiac rhythm and it's usually benign in the immediate setting.

(continue on p. 10)

EVERYONE GOES HOME

by Lieutenant Drew Jaeger

Life Safety Initiative 9 deals with line of duty near miss and fatality incidents. The underlying premise of this is an attempt to preserve the memory of those lost by investigating, studying, and most importantly sharing the story of incidents that have had tragic outcomes. Many of the changes to standards, training, equipment, operational tactics and policies in the fire service have come from either individual cases, or patterns such as flow path behavior that were noted as common factors in multiple events.

Do you know the story of these fire service fatality cases?

- Kingman, Arizona
- Bricelyn Street Fire, Pittsburg
- Bret Tarver, Phoenix FD
- St. Anna, Wisconsin Dumpster Fire

On the surface, they were fatal events. There were National Institute of Occupational Safety & Health (NIOSH) investigations; findings and recommendations were shared. Maybe you have read them, or parts of them. Did you know these cases by name when I cited them, or did you have to look them up? Have you spent a few minutes imagining what it must have felt like to those people? What were they thinking just before the tragedy; during the initial chaotic phases of the fire events? They were likely hustling, working hard, trying to solve a problem that they initially thought they understood. They were following their training, their department SOP's, and working in teams of committed warriors. And then we lost them.

The Bricelyn Street Fire has many interesting facets. One that has remained in my personal list of "watch out" reminders is that 12 of the 17 firefighters at the incident were not working at their normal assigned station or position. Be vigilant. Take extra time with a map review, and equipment check when working on a different assignment.

This past month NIOSH and the Appleton Fire Department (AFD) released the line of duty death report of brother Mitch Lundgaard. OFD leadership has contacted AFD; we are committed to working with the OFD safety committee and our allies from the police department to implement an updated EMS care practices and related scene control practices. To read the Executive Summary or the full 30-page report visit:

<https://www.cdc.gov/niosh/fire/reports/face201913.html>



Unfortunately, despite the stated intention in the National Fallen Firefighter Website, the mural in the training room at Station 15, and the title of this column, not EVERYONE does get to go home. We can honor the memories of our fallen brothers and sisters in many ways. To infer that their deaths were "mistakes" would disrespect their memories in a way that I absolutely do not intend. But there are lessons to be learned and shared. We best honor them by learning. But not only by learning in theory, but also by taking actions in our departments to prevent this from happening here.

TABLE TOP TRAINING

by Lt. Instructor Greg Stelter

Your facepiece lens is the last piece of your protective ensemble that you want to fail in a fire. Prevent failure by being aware of its limits. Here are some key points from National Fire Protection Association (NFPA) and National Institute of Standards & Technology (NIST). I know this information is technical, but you should know the performance range of the lens that keep your face from melting in a fire.



- NFPA 1981, Standard on Open Circuit SCBA, was revised in 2013 to create new standards for face piece integrity, including testing at 500 °F for 5 minutes, and for 10 seconds of direct flame contact. This is followed by a drop test.
- SCBA face piece lens material can begin to deform at 293 °F and melt at 614 °F
- Heat flux (heat transfer) can damage lenses as badly as high temperatures. Heat flux can occur from exposure to intense radiant heat even though the ambient atmospheric temperature is low. It is measured in kilowatts per square meter. The NFPA 1981 test standard is 5 minutes of heat flux exposure at 15 kW/m², which is the heat flux expected to be present at flashover. Damage can also

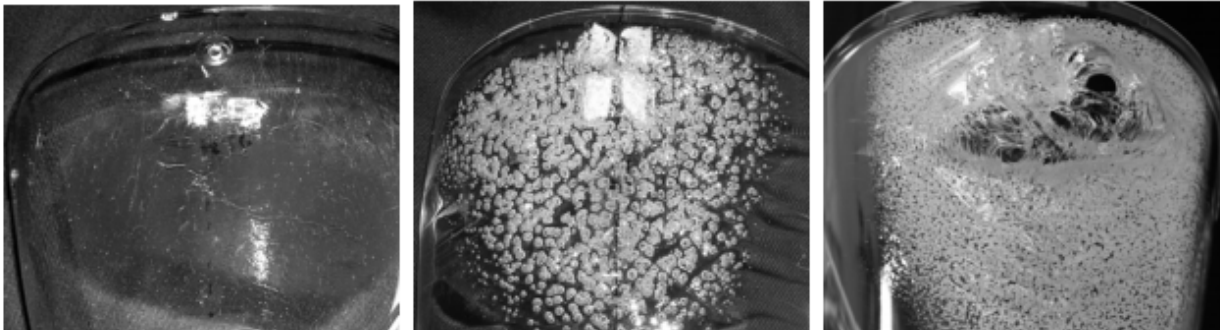


Figure 2 – Photos showing examples of crazing (left), bubbling (center), and deformation from softening and bubbling (right) of facepiece lenses.

Damage can be seen as crazing, cracking, bubbling or deformity. If you suspect any change in facepiece integrity during firefighting, stay low and exit with your crew immediately. Never use a facepiece with suspected lens damage. If lens damage occurs, remove the facepiece from service and contact your Battalion Chief.

References:

"New NIST Test for Firefighter Breathing Equipment Goes into Effect Sept. 1.", June 25, 2013.

<https://www.nist.gov/news-events/news/2013/06/new-nist-test-firefighter-breathing-equipment-goes-effect-sept-1>

Mensch, A., Braga G., Bryner, N. "Fire Exposures of Fire Fighter Self-Contained Breathing Apparatus Firepiece Lenses." NIST Technical Note 1724;

https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=909917

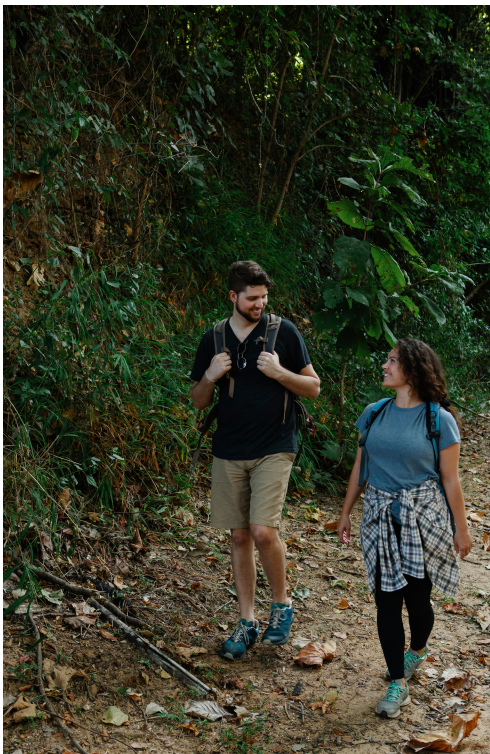
PREVENT, PREPARE, PRACTICE KEEP YOUR HEART HEALTHY

by John Holland, Public Information

Being physically active is a major step toward good heart health. It's one of your most effective tools for strengthening the heart muscle, keeping your weight under control and warding off the artery damage from high cholesterol, high blood sugar and high blood pressure that can all lead to heart attack or stroke. According to John Hopkins Medicine exercise physiologist Kerry Stewart, both aerobic exercise and strength training are necessary for a healthy heart. Aerobic exercise (brisk walking, running, biking, swimming, etc.) improves circulation resulting in lower blood pressure and heart rate. In addition, it increases your overall aerobic fitness, helping your heart pump more efficiently. The American College of Sports Medicine recommends at least 30 minutes a day for five days a week of aerobic exercise.



Strength training (free weights, weight machines, resistance bands, etc.) has a more specific effect on body composition, Stewart says. For people carrying a lot of body fat (including a big belly, which is a risk factor for heart disease) it can help reduce fat and create leaner muscle mass. You don't need equipment to strength train; body weight exercises (pushups, squats, etc.) work as well. Again, according to the American College of Sports Medicine, at least 2 nonconsecutive days per week of strength training is a good rule of thumb.



Research has shown that a combination of aerobic and strength training may help raise HDL (good) cholesterol and lower LDL (bad) cholesterol. A good place to start (or continue) your exercise routine would be to utilize the multiple trails we have in the area. Right here in Oshkosh we are lucky enough to have The River Walk, The Wiouwash Trail, Menominee Park, and Rusch Park just to name a few. The City of Oshkosh Recreational Trail Guide is available [here](#).

It's up to you to keep your heart healthy. A sedentary lifestyle is very bad for your heart. Get off that chair and move! Moving (even just a little) improves your heart health.



MEDICAL DIRECTOR MINUTE

by Dr. Kerry Ahrens

It is another glorious day working at station 17 and the radio goes off. "Chest pain - Adam. 39 year old female with chest pain and light headedness." You respond and discover your patient has been pulled over by OPD for reckless driving and developed chest pain shortly after being given the news that she has an outstanding warrant for her arrest. How seriously do you take this 'chest pain'? Is this simply anxiety or could this be the 'big one' for this 39 year old woman?

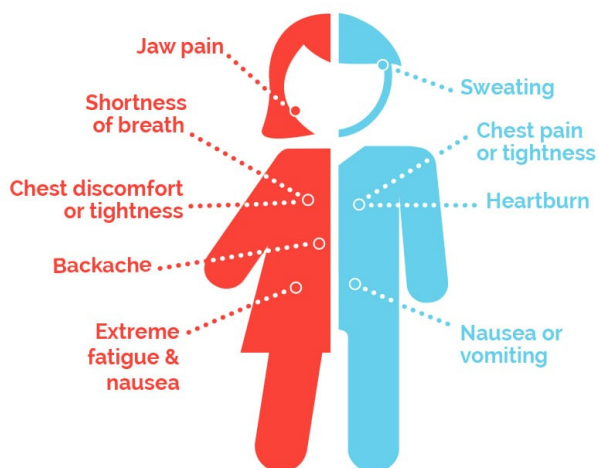


In this day and age of COVID-19 leading all headlines, the number one killer of men and women remains heart disease. A heart attack strikes an American every 34 seconds. Though the average age of heart attack is 64.5 for men and 70.3 for women, nearly 20% of those who die of heart disease are younger than 65.

Most people (men or women) having a heart attack DO present with chest pain; however many suffer from what are called 'atypical symptoms'. These folks are at risk for incorrect or delayed diagnosis, less aggressive treatment and high in-hospital mortality. Women, in particular tend to present with a greater number of non-chest pain symptoms than men; particularly epigastric symptoms such as indigestion, nausea, stomach pain, (burning, pressure, or discomfort), discomfort in jaw, neck, arms, or between the shoulder blades. Furthermore, among people who suffered STEMI, women were significantly more likely than men to have epigastric symptoms (67.7% women vs 53.1% in men) and jaw/neck/arms/shoulder pain 67.7% in women vs 58.6% in men.

Know the difference

Warning signs differ between men and women.



Women symptoms include chest discomfort which radiates up to the throat, jaw and through to the back and shoulder blades, extreme fatigue, shortness of breath, heart fluttering, light-headedness and nausea.



So back to our question...how seriously do you take this 39 year old female's chest pain? Well Doc, "She's young, is having a bad day, and is probably anxious about going to jail."

Towfighi et al found that MI hospitalization rates increased for women age 35-44 years. In addition, younger women also continued to have higher mortality rates than younger men as they tend to have less aggressive treatment given their atypical chest pain.

Don't let the age of your patient with chest pain bias how you would approach the usual chest pain management. Also, look at her risk factors ...is she obese? Ask her history. Does she have a history of diabetes, underlying COPD or prior heart failure? All of these underlying diseases are high risk for AMI and often present with atypical symptoms.

Continued on page 10

WHAT'S NEW

Administrative Assistant Carol Poklasny has retired after 22 years of service. Carol started here on November 28, 1998. Over the years, Carol has been a great resource for all and was always willing to drop whatever she was doing to offer assistance. We'll miss her expertise and her wicked sense of humor.

Thank you Carol for your dedication and service to our department and to the City of Oshkosh. Here's to a long and healthy retirement.



We are sad to see you leave Captain Mike Bell. Mike recently retired after 36 years in the fire service. Mike started with the OFD in January 1995. Although many things in the fire service have changed over the years, Mike strongly supported the changes toward our safety and well being. He said, "Everything you do to protect yourself now will have an impact on your life forever. Take care of yourself and check your equipment, your vehicles, the station. If it's dirty, clean it. Don't wait for someone else to do what you can do."



If You Don't Feel Well, Don't Make It Your Farewell

Every day we take care of people in our community. Too often as paramedics we blow off the signs that something is wrong. According to the National Fire Protection Association (NFPA), 41% of firefighter deaths in 2018 were attributed to sudden cardiac death. If you do not feel well or know a co-worker that does not feel well, feel empowered to say something immediately. Don't make it your farewell. Watch this [powerful video](#).

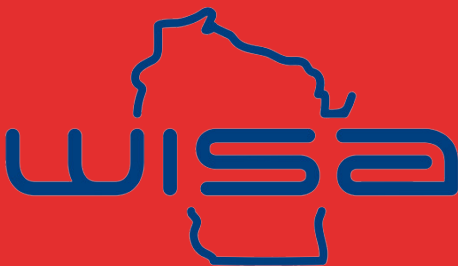
Our Mission

The mission of the City of Oshkosh Fire Department is to prevent, respond to, and to minimize harmful situations to the people we serve.





Chief Mike Stanley, EMS Coordinator Ryan Homman, & City Manager Mark Rohloff (left to right)



WHAT'S NEW

Outstanding Service Award - Employee of the Quarter

EMS Shift Coordinator Ryan Homman was recently selected as "Employee of the Quarter" and received the "Outstanding Service Award" as a result of being nominated by his colleague, Eric Shea. In his nomination form, Eric wrote, " Ryan has gone above and beyond his normal role as a paramedic and EMS Coordinator." In addition to being well respected by his peers, he helped the department improve work processes by implementing electronic signatures for reports. Chief Stanley refers to Ryan as our "resident ImageTrend expert".



Please join us in welcoming our new Administrative Assistant, Kim Wallmuller. She most recently was an Executive Assistant at Integrity Insurance and has over 15 years of admin experience. Kim has an associate degree in Applied Science with specialties in software & communications. She also has a Bachelor's Degree in Management from the University of Wisconsin Stout.

In her free time she enjoys camping, hiking, walking, home improvements, movies, reading, music, gardening, cooking, baking and spending time with her family and friends.



Scholarship Opportunity - Wisconsin Security Association (WISA)

WISA is pleased to announce that once again, they will be awarding one \$1500 scholarship award to a deserving son or daughter of an active-duty police department member and one \$1500 scholarship award to a son or daughter of an active-duty fire department member. Since 2010, WISA has awarded \$31,000 in scholarships.

All applications will be accepted online. Winners will be announced in March and an award ceremony will be held in May to honor them. **Deadline to apply is Friday, March 5th. For more information visit:**

<https://wiesa.org/about/youth-scholarship-information/>

WHATS NEW

Effective February 14, Mike Johnson will move to his new position of Captain. He has been with the OFD since January 1995.



Keith Kramer will be moving to his new role as Lieutenant effective February 14. He has been with OFD since August 2000.



Lt. Greg Stelter has moved into his new role as Interim Lt. Instructor position as of February 1, 2021. He will be our Training Officer for the next regional fire academy and is also a regular contributor to *Hot Topics*. He began his employment with the OFD in March 1997.



Andrew Knoll has moved into a new role as EMS Coordinator effective January 2021. He has been with the OFD since March 2016.



Effective February 14, Dave Koller will be promoted to his new role as equipment operator. He has been with OFD since May 29, 2005.



FOOD & TOY DRIVE A SUCCESS

by Eric Shea, EMS Shift Coordinator

The 21st Annual Food and Toy Drive was a huge success again this year even though we were not able to walk our traditional routes.

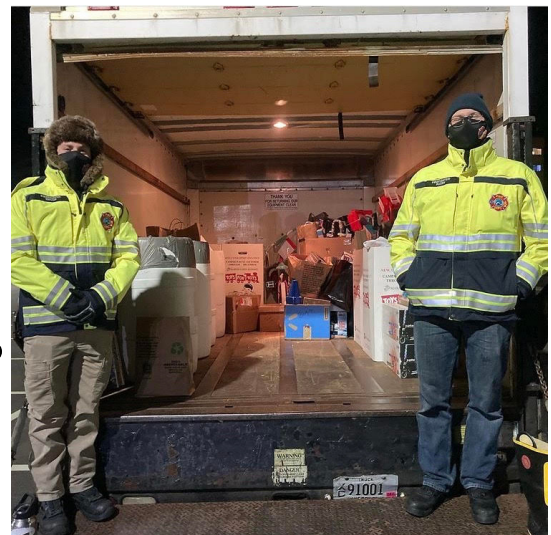
In 2019, 450 families were assisted through the Salvation Army Toy Shop compared to over 700 families in 2020. This past year, many families in Winnebago County struggled to pay rent and put food on their tables due to the pandemic. Job loss or reduction in hours forced many to rely on the generosity of food pantries and other non-profits as unemployment benefits ran out.

This year, nearly 2,000 children received toys! Our donations made a huge difference in how many families were able to be served through this program. Although food and money donations were down compared to last year, we made up for it in toys! The retail value of the toys was up \$10,000 from last year!

Totals for December 2020

- 4,828 pounds of food
- 2,620 toys valued at \$36,179
- \$1,965 cash

Since 2010, we have collected nearly 50,000 pounds of food, 31,150 toys, and over \$25,000 in cash! As in the past, the money will be used to fund the Gary Kassube Scholarship for high school seniors enrolling in either a firefighting or law enforcement program. Students can apply through Oshkosh North or Oshkosh West. Information will be posted in the near future on the Fox River Scholarship Center.



This year was unlike any other and the success we had would not be possible without every single one of you! We are grateful for the response we received from the community, especially during this very difficult year. Oshkosh really stepped up in a great time of need.



Thanks to our wonderful volunteers:

- The staff and students from Oshkosh North;
- Oshkosh Fire and Police Equipment for providing the antique fire engine;
- The staff and volunteers at the Salvation Army; and
- The OFD team who collected and loaded all of the food and toys!

Watch for detail later this year on the 2021 Food and Toy Drive. We sincerely hope we can get back on the streets blasting Christmas music and collecting donations door to door.

AMERICAN HEART MONTH

Continued from page 1

There are instances in which patients become symptomatic from a rapid rate, and we treat the patients. Or do we?

Paramedics are taught how to treat tachycardic rhythms, especially when the patient is critically ill. They are also taught the dangers of 'correcting' atrial fibrillation into a sinus rhythm because of the concerns of emboli moving throughout the body and causing strokes, pulmonary emboli, bowel infarctions, etc.

Critical thinking is important in these situations. Having the tools to correct an underlying problem, but the knowledge of understanding the fix might be worse than the condition, at least temporarily, is one of the challenges all medical providers face.

Collaborations with hospitals play an important role in patient care. Their willingness to work with us, in trusting our assessments, keeping lines of communications open, providing feedback on patients and including us in the Quality Improvement process all help the entire medical system provide exceptional care to patients requiring immediate intervention. We are thankful for their guidance, especially in care planning for stroke and cardiac patients, which allows us to have a positive impact in these time-sensitive areas.

As a reminder, February is American Heart Month so be kind to your heart!



MEDICAL DIRECTOR MINUTE

Continued from page 5

Lastly, you weigh in the anxiety component. Three words: **don't dismiss anxiety!** Women experiencing AMI more frequently present with anxiety. Ultimately, you put her on a 12 lead, see some atypical ST depression and she agrees to transport to the hospital where she is admitted for NSTEMI management.

References

van Oosterhout et al. Sex Differences in Symptom Presentation in Acute Coronary Syndromes: A Systematic Review and Meta-analysis. J American Heart Association. 2020; 9(5).

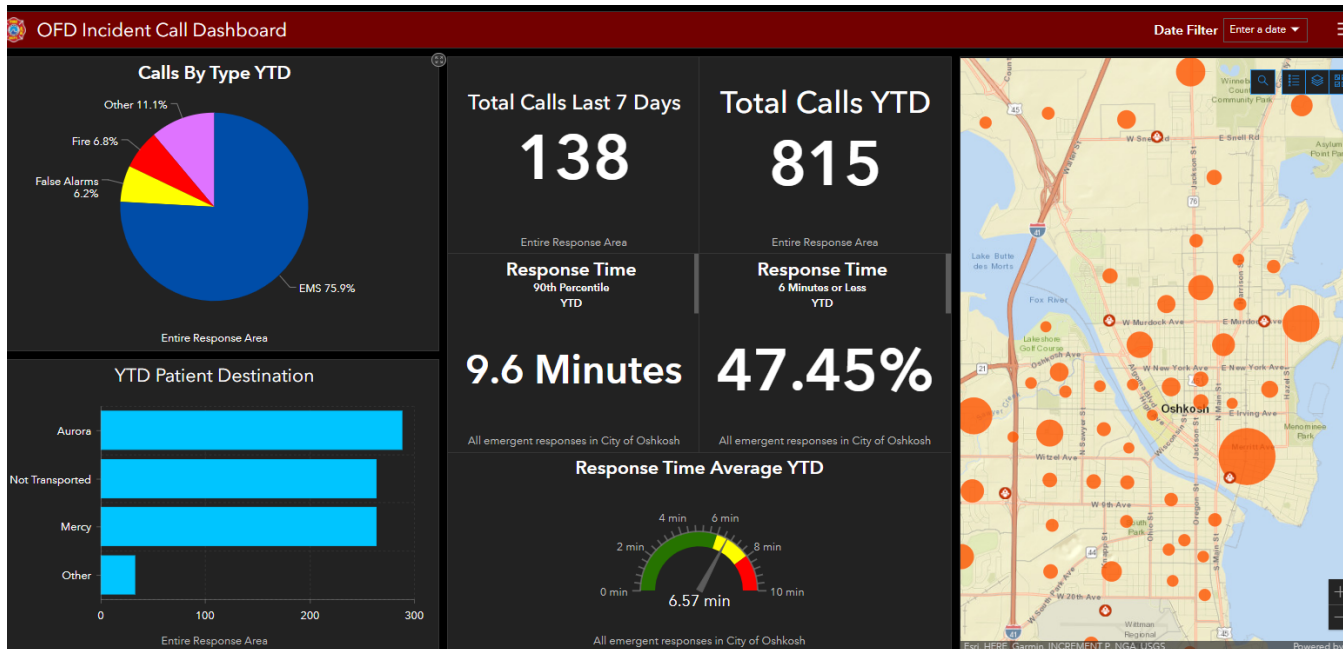
Twofighiet al. National gender-specific trends in myocardial infarction hospitalizations rates among patients aged 35 to 64 years. Am J Cardiol. 2011; 108(8):1102-1107.



METRICS MATTER

by MaryJo VanGompel, Management Analyst

Over the past few months I've been hinting at a project that I have been working on. Next week the first component of the project will "Go Live". You'll be able to see it in the hallway at Station 15. We refer to it as the "Hallway Dashboard". Original huh?



The dashboard is broken into 8 segments. Let's review beginning on the left top and move clockwise.

- **Calls by Type YTD (year-to-date)** Pie-chart; this includes all incidents for the entire response area. Our total response area includes the communities of: Algoma, Black Wolf, Nekimi, City & Town of Omro, Poygan, Rushford, Utica, Village & Town of Winneconne. As you can see, EMS makes up nearly 76% of our calls, while fires are only 6.8%
- **Total Calls last 7 days** includes the number of calls for the entire response area.
- **Total Calls YTD** is for the entire response area
- This **heatmap** is a visualization of emergent incidents within the City of Oshkosh. We break the City into segments that we refer to as 'beats'. The incidents are aggregated per beat; the higher the number of incidents in a beat, the larger the indicator.
- **Gauge:** Response Time Average YTD for Oshkosh emergent calls. According to the National Fire Protection (NFPA) response time is measured from the receipt of the alarm to when the first emergency response unit is initiating action or intervening to control the incident (NFPA 1710). Green = 0 to 6 minutes; Yellow is 6 to 8 minutes; Red is +8 minutes (Average)
- **Horizontal Bar Chart:** YTD Patient Destinations; this includes all calls for the entire coverage area and indicates where a patient was transported to (i.e., Mercy, Aurora, other) or not transported.
- In the middle of the dashboard are 2 important metrics related to **response time**. The two response metrics that we chose to display are:
 - **90% percentile for Oshkosh emergent calls.** This response time lets us know that on 90% of the calls, we are responding to an incident within 9.6 minutes. As a homeowner or patient I want to see someone as quickly as possible in the case of an emergency. (NFPA1710)
 - **Under 6 six minutes for Oshkosh emergent** calls. What percentage of our emergent calls in Oshkosh can we arrive in 6 minutes or less. In 2019 we were at 80.3% compared to 74.5% in 2020.

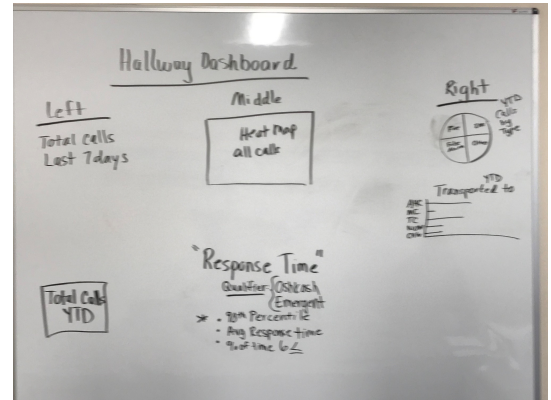
DASHBOARD (Continued from p 11)

The data for the hallway dashboard is coming from ImageTrend and updates on a daily basis.

Why dashboards? Understanding data is difficult at best if you are looking at a page full of numbers. Most people would agree that the numbers are meaningless. But when you translate the numbers to a picture that you can review over time, one can identify patterns, trends, problems or outliers. By reviewing the data on a regular basis, an organization can focus on continuous improvement.

Future Dashboards to come:

- Command Staff Dashboard
- EMS Dashboard
- Fire Incident Dashboard
- Falls Dashboard
- Overdose Dashboard
- Cardiac Dashboard



I'd like to thank my partners in this project. I couldn't have done this without you and your insights.

- To Matt Lenox GIS Administrator, for translating this white board photo into reality.
- To Chuck Hable, EMS Battalion Chief, for envisioning other dashboards that are relevant to you the readers.

JANUARY 2021



633



77



199

If you can not measure it, you can not improve it.

-- Lord Kelvin, British mathematical physicist & engineer

LET'S CONNECT

