COUNTY OF DANE
EMERGENCY MEDICAL SERVICES COMMISSION

Adam Plotkin, Chair

December 3, 2020

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Attached, please find the 2020 Annual Report on Dane County Emergency Medical Services. The Dane County Emergency Medical Services Commission offers this report to highlight the past and current work of the EMS Office and municipal EMS services throughout Dane County. It also offers recommendations and goals for the future.

The EMS Commission wishes to highlight and thank the tremendous work done in 2020 by Emergency Medical Service providers, the Hospitals, the EMS Office, and Dane County Emergency Management in the midst of the pandemic and social protests.

We look forward to working with policymakers and the public to continuously improve on emergency medical response in Dane County.

Thank you,

Adam Plotkin
Chair, Dane County Emergency Medical Services Commission

Role of the Commission and EMS Office

The Emergency Medical Services (EMS) Commission was created by Dane County ordinance to make recommendations and advise the Dane County Board of Supervisors on matters pertaining to a county-wide pre-hospital emergency medical services and public safety communications system. To facilitate that mission, the Commission offers this annual report to provide background on the work of the EMS Commission and EMS Office within the Department of Emergency Management. The Commission wishes to thank Director Charles Tubbs and EMS Coordinator Carrie Meier and her staff for their dedication and hard work, as well as Dane County Executive Joe Parisi for support in creating a Data Analyst position within the EMS Office.

Past Successes

The focus of EMS coordination in Dane county has always been improving the care provided to patients through coordination with agencies in and around the county. One of the most notable successes of this collaboration is the Auto ALS (Advanced Life Support) process, developed to dispatch Paramedic services in addition to municipal EMS staff based on the 911 call severity. This process has been shown to save an average of 9 minutes when connecting critically ill patients with paramedic-level providers. EMS agencies within Dane County were the first in the State to acquire and transmit 12-Lead EKGs (cardiac data) directly to the hospitals from the field. This cardiac imaging provides EMS a pathway directly to the catheterization lab to relieve blocked arteries for patients experiencing a major cardiac event. In bypassing the Emergency Department, EMS saves patients time and heart muscle. We have implemented an "all-call", which places a notice over the radio system to all public safety responders monitoring Dane County radio traffic when there is a cardiac arrest in Dane County. This process drops jurisdictional borders to prioritize reducing time to CPR and defibrillation to patients experiencing sudden cardiac arrest. In addition to our support and collaboration with public safety, the EMS office has cultivated close relationships with the 911 center and hospitals to assure we have consistency of care throughout Dane County.

- Advanced life support coordination
- Early transmission of cardiac data to hospital
- County coordination between EMS & Hospitals

Current Work

EMS providers throughout Dane County have faced significant challenges in 2020 in continuing to provide emergency response in the context of the coronavirus pandemic. The EMS Office began coordinating the receipt and distribution of personal protective equipment and other necessary supplies countywide, which continues to date. EMS providers were also involved in providing care to protestors and law enforcement, during civil unrest over the course of the summer. The EMS Office continues to be engaged with our partners in the City of Madison to support EMS care in the context of civil unrest. The EMS Office coordinates emergency services with hospitals in Dane County, providing not only well-coordinated planning, but a countywide approach that takes into account patient care and reduces the planning burden for smaller EMS providers. An example of this effort is our work coordinating a common messaging practice between EMS, public health, and hospitals when decisions are made that impact prehospital care. Many EMS agencies do not have the capacity to

- Coronavirus & civil protests
- County coordination with Hospitals & EMS

engage in constant communication with the healthcare systems, and the EMS Office has made it a priority to convene EMS, public health, and hospital leadership to develop and maintain communication practices to ensure each EMS agency in Dane County has accurate and up-to-date information regardless of their agency size or call volume. In addition, the hospitals have partnered with Dane County to support initiatives including PulsePoint (an app that notifies someone if they are near a sudden cardiac arrest in a public setting to assist with CPR) and the sponsorship of our Annual Cardiac Arrest Survivor Breakfast. This event is an opportunity to bring together our survivors from the past year to celebrate their recovery and the responders that assisted in their care.

- Coronavirus & civil protests
- County coordination with Hospitals & EMS

Future Goals and Recommendations

As the EMS Commission looks toward the future, here are goals and recommendations for the County Board to consider:

Staffing - the recruitment and retention of EMTs is one of the issues most frequently cited as a challenge for all services, particularly those staffed by volunteers. Related issues include licensure, testing, training, and scheduling of coverage.
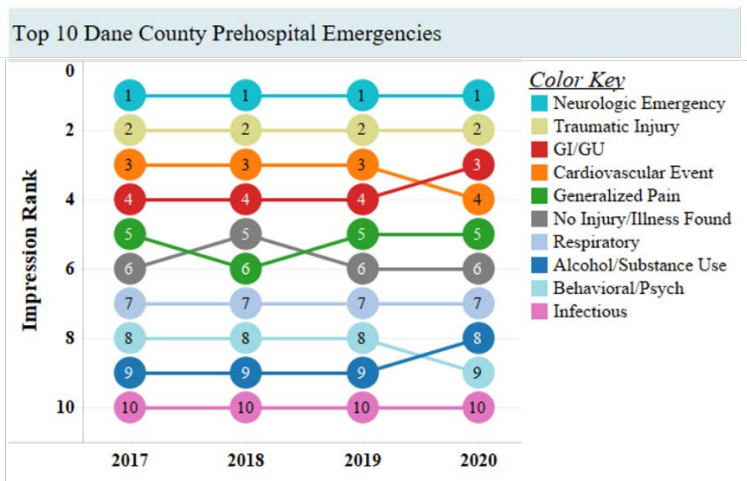
- Staffing
- Service sharing

Municipal Service Sharing - Dane County, through projects like Auto ALS, is a leader in Wisconsin coordinating EMS services countywide. As the county continues to grow and issues like staffing persist, finding additional ways to coordinate shared services such as bulk purchasing at a county level and service coordination between municipalities is vital to ensuring that Dane County provides continuity of high-level care across all types of municipal EMS services.

Chief's Survey

A recent survey of EMS Chiefs in Dane County was returned by more than 75% of services. It collected data on equipment, supplies, services, and levels of care. Chiefs indicated that new skills or services they plan to add in the near future include increasing the level of certification of service and adding mechanical chest compression equipment. Suggestions for the EMS Office included centralized services that are better coordinated at the county level such as data management systems and creating a regional hiring system.

Call Types

Despite the COVID-19 pandemic, Dane County EMS agencies continue to provide emergency medical care to those in need, responding to just over 35,000 calls for service between January 1 and October 31, 2020. The ten most common emergencies seen by EMS agencies in Dane County remain fairly consistent over time, with some variability in 2018 and 2020 as seen here.

Top 10 Dane County Prehospital Emergencies

Color Key
- Neurologic Emergency
- Traumatic Injury
- GI/GU
- Cardiovascular Event
- Generalized Pain
- No Injury/Illness Found
- Respiratory
- Alcohol/Substance Use
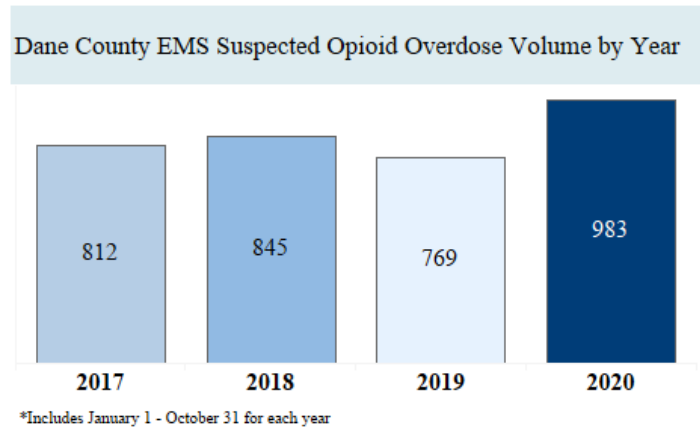- Behavioral/Psych
- Infectious

Respiratory & Infectious Events

Since the onset of COVID-19, EMS agencies in Dane County have seen a 9% increase in respiratory and infectious disease calls compared to the same timeframe in 2019. Early into the COVID-19 response, the EMS Office was able to expand surveillance capacity regarding EMS response to these events to better monitor location hotspots, call frequency, and patient population. The

EMS Office has been disseminating agency-level data reports to each EMS service in Dane County on a regular basis to highlight trends in response types and detailed updates on their agency's respiratory and infectious disease response statistics.

Alcohol & Substance Abuse

In addition to the increasing frequency of respiratory and infectious disease emergencies in 2020, EMS crews in Dane County are responding to record high call volumes for alcohol and substance abuse. Between January 1 and October 31, 2020, responses for suspected opioid overdoses alone saw a 29% increase compared to the same time in 2019 (see graphic). Additionally, 2020 has had a monthly average of 100 EMS calls for suspected opioid overdoses, while 2019 had a monthly average volume of 77 such calls. The EMS Office is engaged in providing opioid-specific data to support partners including the Dane County Overdose Steering Committee and Public Health Madison and Dane County.

Dane County EMS Suspected Opioid Overdose Volume by Year

| 2017 | 2018 | 2019 | 2020 |
| 812 | 845 | 769 | 983 |

*Includes January 1 - October 31 for each year

Cardiac Arrest

Despite accounting for just 1.6% of EMS call volume in Dane County, cardiac arrest events test every aspect of the emergency response system. The EMS Office has expanded efforts to make Dane County a leader in prehospital cardiac arrest care through the use of objective and measurable data to develop and disseminate cardiac arrest performance summaries. These summaries visualize AED and defibrillator data from cardiac arrest events to provide actionable feedback to our partners in 911 dispatch, law enforcement, fire, and EMS in support of further education and training. In addition to the EMS

In the City of Madison, an average of **five** devices registered through PulsePoint are alerted for each sudden cardiac arrest that occurs in a public setting.

Outside of the City of Madison, an average of **three** devices registered through PulsePoint are alerted for each sudden cardiac arrest that occurs in a public setting.

response for cardiac arrest care, the value of community engagement cannot be forgotten. In 2020, 584 devices throughout Dane County have been alerted to a nearby cardiac arrest in a public setting through PulsePoint (see graphic).

Conclusion

The EMS Commission and the EMS Office are committed to continuously improving care for Dane County residents. Dane County EMS benefits from strong coordination between the county and municipal EMS services. This is a significant advantage toward coordinated patient care and support to municipal services. A sentiment expressed by several EMS Chiefs was best summarized in one specific comment - "Communication and outreach [by the EMS Office] has been on point even before the pandemic began." We look forward to providing the Dane County Board with annual updates on the work and future goals for EMS in Dane County.