Dane County Emergency Management
EMS Division 2025 Budget Proposal

For Run Reporting Software to Advance County-Wide Documentation and Informatics

Background

The EMS Division of the Office of Emergency Management (DCEMS) is proposing increasing our budget item for data capture, informatics, and longevity. Dane County EMS agencies collect data on every emergency response using an electronic data system. While most services use the county-provided ImageTrend software, others use either a third party vendor or the software offered by their billing company. Additionally, our data system is currently funded primarily through historical grant dollars, which are finite in nature. The Dane County EMS system historically receives over 45,000 patient care reports each year, which serves as an invaluable dataset to inform public safety, local healthcare systems, community trends, and patient care improvements. A central county-sponsored data collection system for EMS would enhance the Dane County EMS office's ability to rapidly assess and act on trends in our community while providing much-needed financial relief to local public safety agencies. Thank you for your consideration of this proposal and for your continued support of public safety in Dane County.

Cost Proposal

- **2024 - $35,000**
  - o This allowed for relief for local EMS agencies and prolonged the pool of available grant dollars to sustain county EMS analytics.

- **2025 –$100,000 sustained funding moving forward**
  - o Allows for sustained support and financial relief to local agencies while ensuring future opportunities to improve our data quality and access.

Cost Savings for Local EMS Departments

Pricing for most EMS reporting software is based on the department's run volume along with separate implementation and education fees. Though it is difficult to quantify the exact cost savings for each individual agency, one EMS agency in Dane County currently pays $9,000 for a third-party data reporting software for their agency alone. This equates to roughly $7 per call for this agency, one of eighteen located in Dane County. While not a direct one-to-one comparison, such call-based pricing for a system of 50,000 incidents translates to roughly $350,000 potentially incurred by local agencies before onboarding and education fees. This price point for a single agency contains the same capabilities our proposed $100,000 would afford us at no cost to our local EMS departments. Examples of such options beyond standard data collection capabilities include connection to our 911 CAD interface, enhanced performance-based reporting through ImageTrend's Continuum platform, public-facing aggregate data visuals, and bi-directional data exchange with local hospitals to receive patient outcomes directly back to EMS providers. The proposed $100,000 budget item is a unique opportunity to capitalize on our office's long-standing relationship with our EMS data systems vendor. The offloading of financial burden to our local EMS agencies allows their budgets to focus on essential deliverables including ambulance staffing, purchase of advanced medical equipment, and recruitment/retention efforts.

Additional Cost Savings and Operational Benefits

- Reduced staff time to obtain, extract, and consolidate data files from numerous data systems.
- Address inconsistencies in how data fields are labeled leading to better data quality and less staff time needed performing data QA and QI initiatives.
- Centralized data housing and purchasing power through the County, allowing local partners to focus on data quality and operational success.

- Better quality data for local EMS agencies to benchmark against and in turn improve their patient care.
- System-wide monitoring capacity in a single source, allowing for near real-time analytics and surveillance.
- Significant cost-savings for local fire and EMS agencies, whose budgets vary greatly based on transport reimbursement.
- Enhanced ability to monitor real-time trends at the county level, as well as improved access to analytics for the individual agencies.

How is Dane County's EMS Data Being Used?

In addition to individual agency run reporting, day-to-day case review, billing, operations support, etc. Here are a few notable projects and publications leveraging Dane County EMS data.

- Data submission to the Cardiac Arrest Registry to Enhance Survival
- Provides evidence to support updates, maintenance, and review of Dane County EMS Patient Care Protocols.
- Informs AED placement and CPR training based on historical cardiac arrest location and known AED availability.
- UW Substance Misuse Research Project – ongoing.
- Extracorporeal Cardiopulmonary Resuscitation: A Narrative Review and Establishment of a Sustainable Program – publication.
- Falls-prevention and outreach initiatives.
- Informing provider education and engagement through local trends via our monthly newsletter.
- PHMDC Overdose Spike Alerts.
- Dane County EMS 2022 Cardiac Arrest Outcomes: https://em.countyofdane.com/documents/pdf/newsletters/2023/Updated-5.17.2023---2022-CARES-Registry-Highlights---Dane-County-EMS.pdf
- Feature of DCEMS Efforts to Improve Cardiac Arrest Survival in National CARES Report: https://mycares.net/sitepages/uploads/2023/2022_flipbook/index.html

Examples of current projects that would benefit with a single EMS data system:

- **Opioid Overdose Tracking and Intervention** – Dane County's EMS data has informed groups including the overdose steering committee, Safe Communities, PHMDC, and local public safety partners in targeting interventions and monitoring trends in opioid-specific emergencies. Examples of specific projects include the upcoming county-wide "Leave-a-Dose" program led DCEM's Opiate Prevention Specialist. The Opiate Prevention Specialist will also use EMS data to inform discussion with local partners on how to most effectively and equitably address the ongoing opioid crisis. DCEMS data has been frequently used to provide hot-spot focused geospatial analysis of suspected opiate overdoses**.** A central data collection system would strengthen our ability to target community messaging and mitigate the burden of overdose in Dane County by reducing time needed to combine data files and access separate data systems while providing local partners the analytical reporting tools they need.

- **Cardiac Arrest** – The EMS office participates in the Cardiac Arrest Registry to Enhance Survival (CARES) program. Using the EMS data submitted to CARES, we have the ability to evaluate agency and community level information on how to continue our pursuit of excellence in sudden cardiac arrest survival. As a testament to the potential we can achieve with a central EMS data system, EMS agencies in Dane County achieved historically high survival rates and neurologically intact patient outcomes for victims of sudden cardiac arrest in 2022. Targeted data and performance improvement initiatives have driven our system to achieve two historically high years of saves in the past three years alone. Our prehospital cardiac arrest data informs local CPR training outreach, AED placement, and invaluable collaborative opportunities with our partners at the Dane County Public Safety Communications Center. We continue to make strides in becoming a leader in pre-hospital cardiac arrest, and a centralized data system would provide Dane County with timely, accurate, and powerful data to further this mission.

- **Disease Monitoring During Pandemic** – throughout the COVID-19 pandemic, the DCEMS office leveraged our EMS data software to monitor local trends in respiratory and infectious disease in near real-time. EMS data overall proved a reliable indicator for local trends in pandemic surveillance. This data remains a vital early indicator to emerging trends in respiratory and infectious disease cases in our community. EMS data also informs PPE distribution, targeted staffing model discussions, protocol revisions, and messaging to EMS agencies to keep our providers safe to continue their life saving work during respiratory and infectious disease responses.