

Annual Report



DEMSOC

**Delaware Emergency Medical Services
Oversight Council**

2024

**The Honorable Matthew S. Meyer,
Governor**



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DELAWARE EMERGENCY MEDICAL SERVICES OVERSIGHT COUNCIL



To the Citizens of Delaware:

On behalf of Governor Matt Meyer, and my colleagues on the Delaware Emergency Medical Services Oversight Council (DEMSOC), I am pleased to present the 2024 DEMSOC Annual Report.

The Delaware Emergency Medical Services Oversight Council (DEMSOC) was established under the Delaware Emergency Medical System Improvement Act of 1999 and conducts oversight of the State's Emergency Medical Services (EMS) system. Its mission is to enhance the quality of life for Delaware's residents and visitors by decreasing morbidity and mortality rates. DEMSOC's overarching priority is the continuous development and improvement of the EMS system. In pursuit of this important goal, the council draws its strength and expertise from a wide range of EMS provider agencies, supportive partners, hospital representatives, and knowledgeable private citizens involved in EMS care delivery.

This annual report is designed to inform, educate, and heighten awareness about Delaware's Emergency Medical Services (EMS) system, while also highlighting the most important issues related to the delivery of EMS service and the quality of EMS patient care.

Despite challenges, there were many notable achievements in 2024. Thanks to strong interagency partnerships - including paramedic agencies in all counties, the Blood Bank of Delmarva, Delaware Emergency Management Agency, and the Delaware State Police - we became the first state to have every primary prehospital paramedic service carrying whole blood. Delaware is now the leader in the use of whole blood to treat critically injured patients. To combat the opioid crisis, New Castle County EMS continued providing Narcan leave-behind kits to help citizens respond when needed. It also expanded the use of point-of-care ultrasound, infusion pumps, and software to aid in more accurate medication dosing. Kent County continued critical education programs such as high-quality staff refreshers and CPR training for the public. It also held its 2nd Annual Cardiac Arrest Survivors Reunion. Sussex EMS embarked on a "zero waste" initiative to return unused blood to protect this lifesaving resource. Delaware State Police acquired two new Bell 429 helicopters to support its statewide medivac services. Delaware Technical Community College continued work to secure initial accreditation and expand its 12-month certificate program to meet an ever-increasing need for paramedics.

As you examine this year's annual report, I invite you to recognize the crucial role of Delaware's EMS system in our state. Your ongoing support for the dedicated individuals and organizations committed to maintaining the excellence of our EMS system is greatly appreciated.

Joshua Bushweller, Chair
Cabinet Secretary,
Delaware Department of Safety and Homeland Security

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Introduction

The Delaware Emergency Medical Services Oversight Council (DEMSOC) annual report represents an overview of the available information regarding the progress and state of Delaware's EMS system. The inaugural report, published in 2000, enabled DEMSOC to establish a baseline from which to measure the impact of changes and growth in Delaware's EMS system. DEMSOC presents this annual report in accordance with Title 16, Chapter 97, §9703 of the Delaware Code.

It is DEMSOC's vision that Delaware's EMS system represents true excellence in out-of-hospital health care.

As you read the 2024 Annual Report, we are confident that you too will be proud of the State of Delaware's Emergency Medical Services current capabilities, and marvel at the progress that has been made in the previous years. The DEMSOC members are encouraged by the system's successes, optimistic about the future and are looking forward to continuing enhancements to the EMS services provided to the State in the years to come.

What EMS Does

The goal of Delaware's Emergency Medical Services (EMS) system is to provide the right level of care at the right place at the right time and transport to the appropriate care facility. This is accomplished through a well-coordinated tiered system of response that includes many agencies. Each agency has an integral role in providing the highest level of prehospital medical care to the citizens and visitors of the State.

EMS in Delaware includes:

- Public safety dispatch centers
- Ground and air ambulance services
- Fire services
- County paramedic services
- Law enforcement agencies
- Local and State EMS agencies
- Hospitals and specialty care centers
- Training institutions and organizations
- Citizen, professional, and technical advisory groups
- Other governmental and voluntary organizations

Who We Are:

- 1,345 Certified First Responders
- 2,046 EMT-Basics
- 361 Paramedics
- 107 Dispatchers
- 8 Medical Directors

EMS services provided to the State of Delaware include:

There are 58 Basic Life Support (BLS) ambulance agencies comprised of a combination of paid and volunteer EMS providers. Paramedic Advanced Life Support (ALS) services are provided state-wide by the three counties while the Delaware State Police Aviation Division is the primary provider of 911 air services with one private air medical service providing backup response. Additionally, the state is serviced by 11 BLS inter-facility medical transport services, eight ALS inter-facility medical transport services and two specialty hospital transport services. The units that respond to 911 calls for service receive their directions from certified dispatch centers located throughout the state.

- 174 BLS ambulances providing 911 services
- 99 BLS ambulances providing non-emergency services
- 24 Full Time & 3 Part Time ALS units providing 911 services
- 7 ALS Supervisor units
- 4 Air Medical helicopters providing 911 services
- 5 ALS agencies providing non-emergency services
- 2 Specialty hospital transport services

The majority of 911, emergency patient transportation is provided by the volunteer/career BLS fire-based ambulance services and the Delaware State Aviation Division. ALS services are provided through a system of chase or intercept paramedic units operated by the three counties. These ALS units respond in conjunction with the BLS transport units. In 2024, the EMS system in Delaware responded to the following incidents: *(information based on EMS patient care reports)*

- 273,580 Statewide Total Run Reports
- 166,474 Non-Trauma incidents
- 40,913 Trauma Incidents
- 186,781 Basic Life Support Incidents
- 86,799 Paramedic Incidents
- 10,861 Pediatric Incidents (0-17yrs)
- 3,336 ALS Cardiovascular Incidents
- 517 Air Medical Transports

Emergency Medical Services – Statewide Whole Blood

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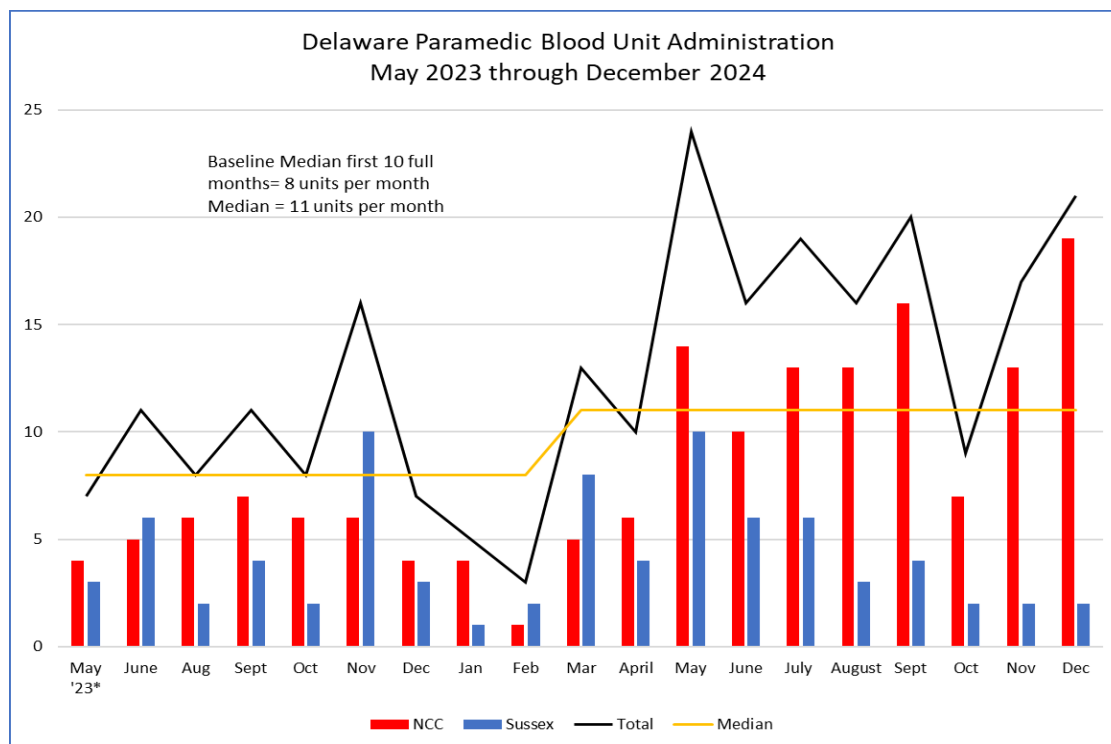
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Whole Blood

Paramedic agencies in Sussex and New Castle counties have established paramedic administration of whole blood as a regular treatment to patients with major hemorrhage leading to shock. Delaware began this pilot protocol in 2023 for patients with traumatic injuries and nearly 300 patients were treated through December 2024. Kent County paramedics added whole blood when the pilot status was upgraded to a statewide standing order based on the success of the pilot portion of the program.

Delaware is the only state in the country that has every primary prehospital paramedic service carrying whole blood. With less than 10% of paramedic agencies in the United States utilizing blood in any capacity, Delaware paramedics are leaders in the use of whole blood for treatment of critically injured patients. The value of whole blood is being demonstrated with survival of many critically injured patients who would have lower expectations of survival previously. Delaware's successful initiation of a statewide whole blood program will now be featured in the international medical journal, "Transfusion," in an article describing how other systems could emulate the work done developing this program and apply the process utilized in Delaware to enhance patient care in their EMS systems. The article was authored by the Office of EMS, paramedic agencies, and partners at the Blood Bank of Delmarva and is available online at <https://onlinelibrary.wiley.com/doi/10.1111/trf.18160> with print publication in the March 2025 edition.

The monthly utilization of whole blood by paramedic agency is shown in the figure below.



The partnership with the Blood Bank of Delmarva has been critical to the success of the program. This partnership focused on increasing the rate of utilization without waste of blood products and led to a successful arrangement to allow units to be cycled back from EMS agencies to the Blood Bank of Delmarva and for the blood to then be processed into components for administration. The safe, reliable handling of whole blood by paramedic agencies made this exchange program possible and is further demonstration of the commitment of the agencies to successful implementation and system performance in the use of whole blood. Further expansion in 2024 is planned to allow blood administration to pediatric patients and to add some non-traumatic causes of hemorrhage which could also benefit from whole blood administration. This will add further opportunities for blood administration and patient benefit.

Delaware EMS System Oversight

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Delaware Emergency Medical Services Oversight Council (DEMSOC)

The Delaware Emergency Medical Services Oversight Council (DEMSOC) was formed pursuant to the Delaware Emergency Medical Services Improvement ACT of 1999 (HB332). The council is charged with monitoring Delaware's EMS system to ensure that all elements of the system are functioning in a coordinated, effective, and efficient manner to reduce morbidity and mortality rates for the citizens of Delaware. It is also charged with ensuring the quality of EMS services in Delaware.

DEMSOC consists of 23 members appointed by the Governor. The Secretary of The Department of Safety and Homeland Security, also serving on the council is the Secretary of Delaware Health and Social Services. DEMSOC includes representatives from the following agencies: the Governor's Office, each county government, the Delaware Emergency Management Agency, the Delaware State Fire Prevention Commission, the Delaware Volunteer Fireman's Association and its Ambulance Committee, the Delaware Healthcare Association, the Delaware Association of Chiefs of Police, the Delaware Chapter of the American College of Emergency Physicians, the State Trauma System Committee, the State Stroke System Committee, the Medical Society of Delaware, the Delaware State Police Aviation Section, the EMSC Advisory Committee and the State EMS Medical Director. There is a representative for practicing field paramedics and three at large appointments for interested citizens, one from each county. The Office of Emergency Medical Services is assigned to Delaware Health and Social Services Division of Public Health and is the regulatory authority for the paramedic system and provides medical oversight to the state's EMS system.



Joshua Bushweller



Romain Alexander



AJ Schall



Mark Logemann



Ted Stipa



Robert Murray



Kevin Sipple



Robert Rosenbaum



Dana Bowerson



Megan McNamara Williams



Sean Elwell



Derrick Harvey



Maria Carmen G. Diaz



William Kelly



Douglas Butler



Oliver Kocher



Tom DiCristofaro



Michael S. Bundeck



Keith Kuhfahl

Not Pictured: Josette Manning, Kate Groner, Usman Shehzad, Jay Meyers

Delaware EMS System Oversight

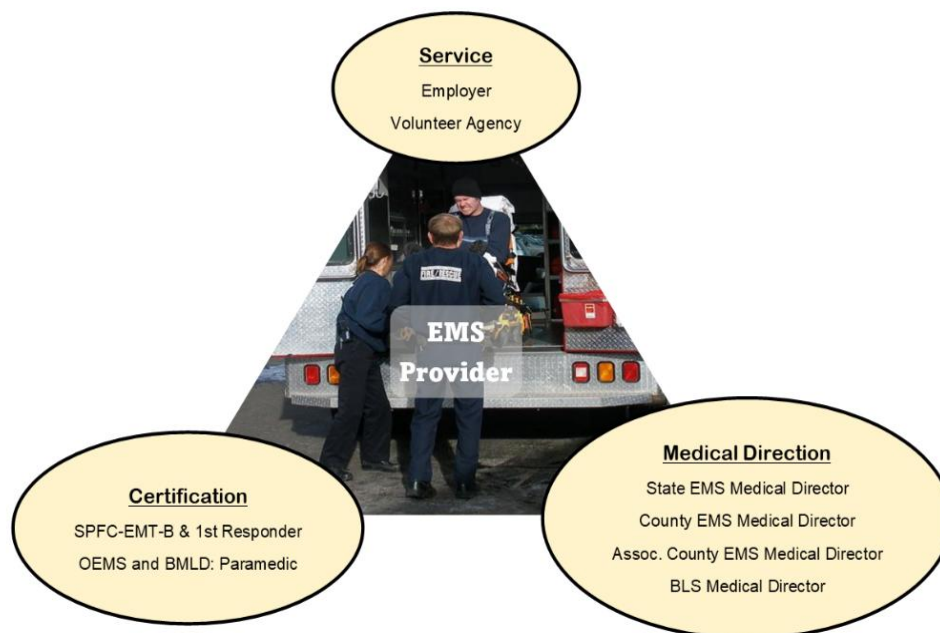
Delaware is a frontline leader in prehospital emergency care through comprehensive coordination, development, and evaluation of the statewide emergency medical services system. The Delaware EMS system is a two-tiered EMS delivery system with shared oversight of Basic Life Support services and personnel by the State Fire Prevention Commission and Advanced Life Support services and personnel by the Office of EMS within the Emergency Medical Services and Preparedness Section of the Division of Public Health within the Department of Health and Social Services.

The Office of Emergency Medical Services (OEMS) ensures the quality of emergency care services, including trauma and prehospital advanced life support capabilities, through the coordination and evaluation of the emergency medical services system. The Office of Emergency Medical Services is part of the Emergency Medical Services and Preparedness Section.

EMS Medical Direction is provided by emergency medical physicians that are employed by the Office of EMS. They provide medical direction to both Advanced Life Support (ALS) and Basic Life Support (BLS) services.

The Delaware State Fire Prevention Commission (SFPC) oversees Basic Life Support (BLS) services through the Ambulance Service Regulations. The BLS regulations address administrative, operational and provider requirements. This includes emergency as well as non-emergency ambulance services.

Delaware EMS Oversight Triangle



Office of Emergency Medical Services

The mission of the Office of Emergency Medical Services (OEMS) is to assure a comprehensive, effective, and efficient statewide emergency medical care delivery system to reduce morbidity and mortality. OEMS will accomplish this by:

- Building partnerships with pre-hospital providers and health care systems
- Utilizing evidence-based treatments
- Evaluating the emergency medical services system through comprehensive data review on the effectiveness of patient care and system performance.

16 *Del. Code* Chapter 97 states: “The Office shall be responsible for ensuring the effective coordination and evaluation of the emergency medical services system in Delaware which includes providing assistance and advice for activities related toward the planning, development, improvement and expansion of emergency medical services.”

OEMS is based within the Delaware Department of Health and Social Services (DHSS), Division of Public Health (DPH), Emergency Medical Services and Preparedness Section (EMSPS).



OEMS Programs and Activities

Advanced Life Support Services (ALS)

OEMS ensures highly trained paramedics are providing quality emergency care to the citizens and visitors of Delaware. OEMS is responsible for coordination of training, certification, financing, and oversight of the state’s paramedic system.

Prehospital Patient Care Reports

The Delaware Emergency Medical Reporting System (DEMRS) is a comprehensive web-based EMS data collection and reporting system that provides convenient access to field providers and to the receiving facilities.

EMS Medical Direction

This program is responsible for providing medical oversight of the statewide EMS system (Advanced/Basic Life Support and Emergency Medical Dispatch), review and modification of the statewide standard treatment protocols, oversight of medical command facilities, and conducting research and oversight of the statewide EMS quality assurance program.

EMS Training

OEMS monitors EMS training levels to provide information on the availability of training programs for all levels of EMS personnel. In addition, the OEMS ensures that EMS training agencies in Delaware are aware of regional and national standards.

EMS Transportation

In conjunction with appropriate EMS providers in Delaware, OEMS monitors and evaluates emergency medical transportation services in Delaware to ensure that patients in the EMS system

have access to effective and efficient transportation to appropriate treatment facilities. OEMS monitors and evaluates activities of all EMS organizations to ensure that no person is denied emergency treatment or transportation services.

Statewide Trauma System

The role of the trauma system is to organize resources and assure their immediate availability to the injured and in all geographic areas of the system.

Stroke System of Care

The Stroke System of Care assists in oversight of the inclusive statewide stroke care system and is responsible for coordination of hospitals and provider agencies to ensure optimal care for stroke patients.

Overdose System of Care (OSOC)

The Overdose System of Care is focused on reducing overdose deaths as well as the negative impacts of substance use disorder (SUD) by connecting people with treatment, providing support for those affected by SUD, and implementing prevention strategies.

Emergency Medical Services for Children (EMSC)

The goal of this program is to improve emergency care for children in Delaware through specialized activities. Safe Kids Delaware is one of the programs within EMSC.

First State, First Shock Early Defibrillation Program

The First State First Shock AED Program has completed spending for the year of 2024. This year the program was allocated \$59,000.00 to purchase AEDs for public distribution. As of December 06, 2024, the program has purchased **40** Defibtech/Lifeline AEDs and equipped them with an extra set of adult pads, one set of pediatric pads and a prep and response kit. These supplies make the AED ready for use by the organization that receives it.

The organizations that have received an AED had to apply to the program. Once an application is received, it is checked for accuracy, and our database is reviewed to confirm that the organization has never previously received an AED from our program. After confirming the organization has never received an AED from our program, the application is approved, and the organization is placed on our wait list. When our program receives funding from the State of Delaware Health fund, we contact our vendors and purchase as many AEDs as possible with the available funds.

This year, the program provided the medical directors in the Office of Emergency Medical Services with five new AEDs, replacing outdated units from 2012 that were no longer serviceable. The FY 2025 budget request has been submitted, with the First State First Shock AED Program requesting increased funding due to rising AED costs and the need for more publicly accessible AEDs that could save the lives of Delawareans and visitors.

EMS Infectious Disease Exposure Monitoring

The need for an effective infection control program has always been an essential and integral part of the prehospital practice in Delaware because there is both the risk of health care providers acquiring infections and to pass infections to patients. Preventive and proactive measures offer the best protection for individuals and organizations at an elevated risk of exposure to infectious diseases.

Delaware Drug Monitoring Initiative (DMI) Report

The DMI report is a collaborative effort between the Delaware Department of Safety and Homeland Security, Delaware State Police, Delaware Information and Analysis Center (DIAC) and the Division of Forensic Sciences (DFS); and two DHSS divisions, DPH, EMSPS, OEMS and the Division of Substance Abuse and Mental Health (DSAMH). The purpose of the report is to share consistent, actionable information to address issues related to the drug epidemic affecting Delaware. The data are designed to aid agencies across the state to identify the needs of those affected by or at risk for addiction.

DIAC provides statewide law enforcement data on drug-related incidents to analyze the impact of legal and illegal drugs. DFS compiles aggregate data on fatal overdoses. OEMS provides aggregate data on suspected non-fatal overdose incidents. DSAMH tracks aggregate data on individuals who have entered treatment.

The mission of the DMI Report is “To address the addiction epidemic in Delaware by establishing a sustainable infrastructure to coordinate interdisciplinary data collection, sharing and analysis in real-time within the state and region to target strategies and accelerate action”.



State Regulations promulgated through OEMS

Delaware Trauma System Regulation

The State Trauma System regulations were first promulgated in 1997 to add detail to the Trauma System enabling the legislation of 1996. Subsequent revisions were enacted in 1999, 2001 and 2013. The regulations include sections on the Trauma Center Designation Process, Trauma Center Standards, Triage, Transport and Transfer of Patients, and the Trauma System Quality Management Plan.

Air Medical Ambulance Service Regulation

The purpose of this regulation is to provide minimum standards for the operation of Air Medical Ambulance Services in the state. These regulations intend to ensure that patients are quickly and safely served with a high standard of care and in a cost-effective manner. These regulations were first promulgated in 1993 and were revised in 2001 and 2002.

Early Defibrillation Provider Regulation

The purpose of this regulation is to establish the criteria for training and the right for emergency responders to administer automatic external cardiac defibrillation in an out-of-hospital environment.

Advanced Life Support Interfacility Regulation

The purpose of this regulation is to permit the use of paramedics, under the oversight of the Division of Public Health, to manage patients while in transit between medical facilities or within a health care system. It includes approval of an organization to provide service using paramedics, as well as defining their scope of practice and medical oversight.

Organ and Tissue Donor Awareness Board (OTDAB)

OEMS provides staff support and represents Delaware Health and Social Services on the Delaware Organ and Tissue Donor Awareness Board. Created by 16 *Del. Code* Chapter 97 Anatomical, Gifts and Studies, §2730, this Governor-appointed board has the responsibility of promoting and developing organ and tissue donor awareness programs in Delaware. These programs include, but are not limited to, various types of public education initiatives aimed at educating residents about the need for organ and tissue donation and encouraging them to become designated organ and tissue donors through the Delaware organ and tissue donation registry.

Delaware Medical Orders for Scope of Treatment (DMOST) Act: The purpose of House Bill 64

This Act authorizes the use of Medical Orders for Scope of Treatment in Delaware. This document, a “DMOST form,” will allow Delawareans to plan for health care decisions, express their wishes in writing, and both enable and obligate health care professionals to act in accordance with a patient’s expressed preferences. The statute authorizes a medical order which is transportable, standardized, and implements a patient's end-of-life care preferences.

In addition to the roles listed in the Delaware Code, OEMS is responsible for the Hospital Preparedness Grant funded through the Assistant Secretary for Preparedness and Response (ASPR). Activities under this grant program include:

Alternate Care Site (ACS)

OEMS is continuing the development of the Alternate Care Site (ACS) Plan. It is a component of Delaware’s Medical Surge Framework which comprises all aspects of the health care delivery system. The purpose of the ACS is to remove/reduce the burden on the health care system; add surge capacity and capability by moving resources to delay the need for an ACS; cohort patients and plan for a triage/treatment and/or testing site; and provide the framework for an ACS that serves as an outlet for hospital patients.

Crisis Standards of Care

OEMS is continuing the development of the Crisis Standards of Care Guidelines for Healthcare Facilities to establish a framework for responding to a public health emergency. This requires adapted standards of care and allocation of scarce resources to provide effective care to the greatest number of people.

Emerging Infectious Diseases

OEMS manages the Hospital Preparedness Program (HPP) Preparedness and Response Activities with grant efforts. These efforts play an integral part in the planning and response for a potential infectious diseases patient (s) should they present in Delaware. OEMS is the lead Delaware agency for the Region III Emerging Infectious Disease planning efforts. This has expanded to include planning for other High Consequence Infectious Disease. OEMS’ role is predominately to ensure the safety and health of emergency responders. Through the Healthcare Preparedness Coalition, OEMS has worked with the acute care hospitals, EMS agencies, U.S. Department of Homeland Security, U.S. Department of Defense (National Guard and Dover Air Force Base), and regional partners to ensure the most appropriate response, and care for the patient and ensuring the safety of the providers.

EMSPS staff and partners finalized the High Consequence Infectious Disease Surveillance and Response Plan and distributed it to the Delaware Healthcare Preparedness Coalition (DHPC), Delaware Healthcare-Associated Infections Advisory Committee (HAIAC), and Association for Professionals in Infection Control and Epidemiology (APIC). The HCID Communication Flow Chart was distributed to any personnel responsible for screening patients within the hospital.

High Consequence Infectious Disease Surveillance and Response Annex

OEMS completed the High Consequence Infectious Disease Surveillance and Response Annex, which provides guidance for containing a disease outbreak caused by a high consequence infectious organism, biological toxin, or other infectious disease emergency. DPH developed the Annex to minimize serious illness or death, limit societal disruption and economic losses, and facilitate effective coordination with responses at the local, state, regional, national, and global levels. Other purposes are to outline roles and responsibilities for DPH and support partners, and to identify specific containment measures and make recommendations for various high consequence infectious diseases (HCIDs) with respect to modes of transmission, clinical signs, and other characteristics.

Infectious Disease Response for First Responders

The Infectious Disease Preparedness for First Responders is a toolbox that increases the knowledge and capability of first responders for protection from infectious disease exposures.

Medical Response and Surge Exercise

OEMS manages the Hospital Preparedness Program (HPP) and oversees the Medical Response and Surge Exercise (MRSE), which plays an integral part in the planning and response for a sudden health care crisis in Delaware. MRSE uses a scenario to help health care coalitions and other stakeholders assess how well their members can work together. The exercise is designed to test a coalition's functional surge capacity and to identify gaps in surge planning. This helps the planning for the Medical Surge Plan (including Pediatric Surge, Burn Surge, and Interfacility Transport) to ensure that all representatives from trauma, emergency departments, and paramedic agencies are working toward the same goals. The plan helps guide and coordinate statewide efforts for the care of ill or injured patients during a natural or human-caused disaster incident or public health emergency that exceeds the normal medical capabilities with the state of Delaware.

Stop the Bleed

Beginning in October 2017, OEMS implemented the "*Stop the Bleed*" program education initiative as part of a national campaign through the Department of Safety and Homeland Security. OEMS staff trained 70 RespondDE volunteers and DEMA personnel to provide training in the community and health care system. Trainees used Trauma Trainer Legs, Training Tourniquets, and QuikClot® Combat Gauze Moulage. OEMS has partnered with RespondDE, DEMA, hospital staff, school nurses, Health Occupations Students of America (HOSA), Parent Teacher Organization (PTO), first responders, and as of December 2024 OEMS has trained 9472 people (6220 adults and 3252 youth from the age of 18). OEMS plans to continue coordinating training for the "*Stop the Bleed*" program with its community partners.

Office of Preparedness

Mission

The Office of Preparedness takes the lead and collaborates with others to develop, implement and maintain a comprehensive program to prepare for, mitigate against, respond to, and recover from public health threats and emergencies.



Jillian D.C. Austin

*Director, Office of Preparedness
DPH/ EMSPS*

In October 2024, Jillian Austin was appointed Director of the Office of Preparedness. Throughout the COVID-19 pandemic, she showcased her leadership within the Medical Director's Office where she served as the Chief of Staff/Deputy for the Vaccine Coordination Unit and Point of Dispensing (POD) manager for state and federal vaccination sites. In 2021, Jillian took on the role of the Director of the Office of Infectious Disease Epidemiology, where she coordinated the Mpox response, including vaccination distribution among community-based organizations and Division of Public Health (DPH) clinics. In her current position, she acts as the DPH liaison to Delaware Department of Agriculture during the state's H5N1 Highly Pathogenic Avian Influenza (HPAI) outbreak, which affects wildlife birds, commercial poultry farms, and backyard flocks.

Incident Response Activity, State Health Operations Center (SHOC)

- January 2024: Measles exposure at Nemours (SHOC level 1)
- April to May 2024: Overdose Spike response (SHOC level 2)
- Summer 2024: Heat and Air Quality Surveillance; personal protective equipment distributed to state workers who were at higher risk of exposure to poor air quality
- October to December 2024: Travel monitoring for travelers coming to our jurisdiction from Rwanda due to Marburg Virus Disease outbreak
- December 2024: Highly pathogenic avian influenza (HPAI) A(H5N1) virus confirmed in snow geese in Sussex County; DPH was notified on December 27, 2024, regarding human exposures. Individuals exposed were monitored. No confirmed cases of H5N1 resulted from the exposure. (SHOC Level 1)

Education and Evaluation Branch (Training)

The Education and Evaluation Branch (Training) provides training, outreach, and exercise opportunities for Department of Health and Social Services (DHSS) employees and Delaware's communities. The 2024 trainings included: SHOC 101 updates, Shelter Manager, Shelter Overview, Shelter Tech, 2024 Nurse Training in Emergency, Family Emergency Preparedness,

RespondDE Volunteer Orientation Training, FAST or Functional Assessment Service Teams Training, Assistive Technology Kits Training (used at PODS and shelters), and new Onboarding Training for Emergency Medical Services and Preparedness Section (EMSPS) staff. The 2025 Multi-Year Integrated Preparedness Program (MYIPP; formerly the MYTEP) is utilized as a formal document to the Centers for Disease Control and Prevention (CDC) to report training, exercise and plan activities with the Public Health Emergency Preparedness and Hospital Preparedness Program federal grants due annually by June 30. All trainings can be accessed through the DE TRAIN learning management system. The DE TRAIN managed by this branch completed an annual report stating that there is a total of 10,982 user accounts with over 30+ trainings (in-person and online) provided by DPH. That is an increase of 5,642 new learners in the DE TRAIN LMS since 2020. This branch also oversees outreach events for Emergency Preparedness with staff participating in 18 events engaging over 6,600 participants at various outreach events throughout Delaware.

Exercises

The Office of Preparedness held a State Recovery Center Workshop on March 13, 2024. A State Recovery Center serves as a centralized location where citizens can access a wide variety of disaster recovery and assistance services provided by local, state, and federal government agencies and many private sector organizations. The plenary session provided an overview of Delaware's Recovery Center Planning and how a Federal Disaster Declaration fits into the recovery process. Office of Preparedness staff participated in the Keystone 6 National Mass Care Exercise held in Shippensburg, PA from May 21 to May 24, 2024. The Delaware DHSS Disaster Coordinator led the Household Pets Task Force, charged with the management of pets of potential evacuees and



Laura Strmel, DPH EMSPS Vulnerable Populations Planner (second from right) pictured with Keystone 6 National Mass Care Exercise Disability Integration Task Force. Photo courtesy of Rosemary McDonnell, Washington DC Homeland Security, Resilience Division.

shelter residents. The EMSPS Vulnerable Populations Planner participated as member and co-lead of the Disability Integration Task Force assigned with the development of inclusive strategies and recommendations to all work groups engaged in this exercise. Federal Emergency Management Agency (FEMA) personnel served as evaluators for purposes of an After-Action Report to be released in 2025.

2024 DHSS and DPH Preparedness Symposium/Exercise



DPH/EMSPS Section Chief Diane Hainsworth invites Trina Cale-Rosario, DPH/EMSPS Training Administrator, to speak at 2024 DHSS and DPH Preparedness Symposium. Photo by Donna Doyle, DPH/ EMSPS Paramedic Administrator

On October 21, 2024, the DPH Office of Preparedness held the annual Preparedness Symposium for DHSS and DPH employees. DHSS Deputy Cabinet Secretary Dava Newnam kicked off the symposium. The 2024 theme was DHSS and DPH Response with an emphasis on internal communications and guidance of our role within the Delaware Emergency Operations Plan (DEOP). The keynote speaker was Director A.J. Schall, Delaware Emergency Management Agency's (DEMA) Director, who reviewed all the tasks DHSS must complete during a disaster or emergency. With 149 people registered for the 2024 Symposium, attendees included stakeholders from DEMA, DHSS leadership including directors and deputy directors, and all supervisors from DPH. The symposium concluded in the afternoon with a tabletop exercise for each partner to work through a hurricane scenario based on DHSS and partnership roles and responsibilities in response.

Extreme Heat Workshop

EMSPS conducted an Extreme Heat Planning Workshop for DPH and its key preparedness partners on December 4, 2024. The workshop invited representatives from select Delaware state agencies, various DHSS sections and offices, local emergency management agencies, utility companies, and the Delaware Healthcare Preparedness Coalition. Participants contributed their expertise and innovative ideas through presentations and discussions aimed at developing a comprehensive DPH Extreme Heat Plan, set to be implemented prior to the 2025 summer season. The development of the plan will focus on mitigating the public health impacts of extreme heat on vulnerable populations, such as the elderly, children, individuals with preexisting conditions, and those without access to adequate cooling.

Disaster and Recovery Coordination Branch

Two Preparedness Team members were awarded the Disaster Recovery Institute's (DRI) Certified Business Continuity Professional designation in February 2024. On August 13 and 14, EMSPS staff attended the Crim-Epi workshop jointly conducted by the FBI and CDC. The purpose of this training was to bring together law enforcement and public health entities to work together during a possible infectious disease outbreak of criminal origin.

Access and Functional Needs (AFN) Vulnerable Populations

The AFN/ Vulnerable Populations team participated in ten community events during the 2024 reporting period, reaching over 1,300 Delawareans with critical preparedness information and resources developed for individuals with disabilities or access and functional needs. The Delaware Access and Functional Needs Stakeholders Quarterly meetings for 2024 noted ongoing collaborative projects to include best practices developed with focus populations to inform, prepare, and respond to a potential radiological event with public health impact. The Children in Disasters Committee continued quarterly meetings with planned activities based on outlined goals established in facilitated 2020 multidisciplinary workshop. Educational and interactive presentations from subject matter experts were provided by the Division of Visually Impaired, addressing physical access in shelter settings and the Department of Education Licensed Clinical Social Worker discussing the trauma experiences of our migrant children. The group developed a customizable check list for essential employees during emergency disaster situations, including options for a plan of care for employees' children. Planned continuation of work outputs for 2025 will address access to pediatric medications and formula and input from experts in the pediatric deaf and deaf-blind community.

Preparedness Development and Implementation Branch (Planning)

Radiological and Hazardous Materials (HAZMAT)

On March 26, May 23, August 13, and December 10, staff from DEMA, DPH, EMSPS, and the Office of Preparedness participated in the DEMA Radiological Emergency Preparedness (REP) exercises. During these exercises, DPH staff in the Technical Assessment Center provided protective action recommendations for the Incident Command Team. The exercise, conducted on May 21, simulated a hostile action at the Salem Hope Creek Nuclear Generating Station in New Jersey, resulting in a radiological release. This scenario was evaluated for the 10-mile Emergency Planning Zone surrounding the Salem and Hope Creek Generating Stations by the U.S. Department of Homeland Security and the FEMA, Region 3. In addition, DEMA and DPH distributed free potassium iodide tablets to residents living within a 10-mile radius of the Salem and Hope Creek Nuclear Generating Stations. The tablets were made available for free on April 4, 2024, in Middletown, and on October 24 in Townsend.

Volunteers



(Left) Patrick Hirthler, State RespondDE MRC Volunteer Coordinator, (second to left) Mindy Christine, RespondDE MRC Program Administrator pictured with RespondDE MRC Volunteers at Wilmington Blue Rocks Healthcare Worker Appreciation Night. Photo Courtesy of RespondDE MRC.

RespondDE Medical Reserve Corps (MRC) continued to provide volunteer support by participating at events that promote community preparedness, healthy living, and other educational programs in local communities. RespondDE MRC has participated in activities and events during this reporting period, including, Food Bank of Delaware

– Emergency Medical Support, Wilmington Police Department’s Monthly Community Resource Fairs – Community Outreach, The Annual Diabetes Expo – Event Support, Delaware City Fire Company’s Open House – Community Outreach, La Red Goes Purple Recovery Fair – Community Outreach, Breast Cancer Awareness Health & Resource Fair – Community Outreach, Stop the Bleed - Volunteer Training Event, Family Emergency Preparedness Day Community Outreach, Masons of Delaware Community Day – Community Outreach, YWCA Community Health Fair – Community Outreach, Brandywine Mega Adoption Event – Event Support, Healthcare Worker Appreciation Night at the Wilmington Blue Rocks – Community Outreach, Disaster Preparedness Autism First Responder Training – Volunteer Training, Narcan Kit Assembly -Partner Support, Food Bank of Delaware Spring Senior Health Fair – Community Outreach, DPH’s Community Organization Preparedness Engagement Workshop (COPE) – Community Outreach, Family Assistance Center Exercise – Volunteer Training, CPR Training – Volunteer Training, CRASE (Active Shooter) Training Course – Volunteer Training, and Odessa Reception Center – Medical Support.

COPE (Community Organization Preparedness Engagement)

As part of ongoing efforts to identify Delaware’s capability and capacity to respond to and support its communities and citizens during emergencies and disasters; a continuation of community organizational engagement planning projects from previous reporting year culminated in county-specific workshops held in May. The goal of the 2024 COPE workshops was to better understand the purpose, services, and resources provided by community nonprofits and faith-based organizations, and how these support elements might be accessed when emergency assistance is necessary. Work products from the COPE Workshops yielded a searchable community-based disaster resource matrix accessible to local emergency management offices and DEMA. DPH/EMSPS partnered with Delaware Alliance for Nonprofit Advancement to market workshops to Delaware nonprofit and faith-based leaders and stakeholders.

DPH Annex to the DHSS Mass Care Plan

DPH/EMSPS began development of the DPH Annex (“the Annex”) to the DHSS Mass Care plan, also under revision. The Annex provides the medical component response to a mass care emergency in Delaware requiring the activation of emergency community shelters with shelter medical stations (SMS). Many offices within DPH have roles and responsibilities for the conduct of a SMS. These offices include EMSPS, the Health Systems Protection office, the Office of Animal Welfare, the DPH Laboratory, the Office of Infectious Disease Epidemiology, and the Office of Communications, as well as coordination with DEMA and the Delaware National Guard. In 2025, the Annex will near its completion in conjunction with the DHSS mass Care plan revision.

Delaware State Fire Prevention Commission (SFPC)

Submitted by the Delaware State Fire Commission



The State Fire Prevention Commission is charged with the protection of life and property from fire for the people of Delaware and to oversee the operation of the Delaware State Fire Marshal's Office and the Delaware State Fire School. The Commission has always been truly dedicated to the health and well-being of every man, woman and child in Delaware. And have done so, since 1955, with no compensation except for the knowledge that we have played a small part in making Delaware a safe and wonderful place to live.

The Statutory responsibilities of the Delaware Fire Prevention Commission are to promulgate, amend, and repeal regulations for the safeguarding of life and property from hazards of fire and explosion. The Statutory responsibilities of the State Fire Prevention Commission may be found in Title 16, Chapter 66 & 67 of the Delaware Code and are summarized as follows but not limited to:

- The Commission consists of seven persons appointed by the Governor.
- They have the power to promulgate, amend and repeal regulations for the safeguarding of life and property from hazards of fire and explosion.
- Prior to promulgation, they shall hold at least one public hearing on each regulation, amendment or repealer and shall have the power to summon witnesses, documents and administer oaths for the purpose of giving testimony.
- They shall appoint their Executive Director, State Fire Marshal and State Fire School Director.
- The Commission shall have power to authorize new fire companies or substations; resolve boundary and other disputes; prohibit cessation of necessary fire protection services.
- Investigate injuries to firefighters incurred in the line of duty, to issue subpoenas in furtherance of such investigations, and to issue reports of its findings and conclusions with respect to such investigations.
- The Commission is empowered to enforce its orders in the Court of Chancery.

Volunteer Ambulance Company Fund

The 147th General Assembly amended Title 11 section 4101; this amended Title established the Volunteer Ambulance Company Fund. Furthermore, the "State Fire Prevention Commission" (SFPC) was tasked with providing these funds to Volunteer ambulance companies on a proportionate basis across the state and this number being based on approved dispatched ambulance runs.

The SFPC developed the methodology and disbursement plan. Reports are pulled to show the ambulance runs per agency and statewide from the Delaware Emergency Medical Reporting System (DEMRS).

The DEMRS data shows all run types to include BLS Transport, Cancellation, Patient Refusal, Public Service, Standby Only, Agency/Assist, DOPA/DOA, Unable to Locate patients/scene, Termination of Resuscitation and Transfer of Care. In order to assure the validity of the information a Quality Assurance/Quality Improvement validation score of 85 percent is used as the minimum validity accepted as accurate reports. The reports mentioned above are entered by the providers who operate within the BLS system.

-Ronald Marvel, Chairman Delaware State Fire Prevention Commission

2024 Investigator II/Compliance Officer Statistics

Complaints Received.....	450
Investigations on Existing Cases.....	37
New Ambulances.....	87
Ambulance Inspections.....	184
Ambulance Inspection Deficiency Notices.....	98
Credential Checks.....	211

2024 EMT Certification and Ambulance Licensing Statistics

Fire Company Audit Received.....	63
Civil Penalty.....	\$11,100.00
EMT (Initial) Certification.....	250
EMT Recertification.....	845
EMT Reciprocity.....	82
EMT Background Checks.....	295
Ambulance Licensing/Renewals.....	84

Delaware State Fire School (DSFS)



Introduction

Delaware Code, Title 16, Chapter 66, §6613-6618, mandates the Delaware State Fire School to: (1) provide firefighters with needful professional instruction and training at a minimum cost to them and their employers; (2) develop new methods and practices of firefighting; (3) provide facilities for testing firefighting equipment; (4) disseminate the information relative to fires, techniques of firefighting, and other related subjects to all interested agencies and individuals throughout the state; and (5) undertake any project and engage in any activity which, in the opinion of the State Fire Prevention Commission, will serve to improve public safety.



The agency EMS objectives established to achieve the EMS goal are:

- To prepare basic life support personnel to certify as Nationally Registered (NREMT) and State of Delaware Emergency Medical Technicians (EMT).
- To provide BLS training to the first responders and citizens of Delaware.

2024 Accomplishments

Agency conducted EMS training in 2024:

Emergency Medical Technician – 10 classes – 219 students. Achieved an 94% pass rate for our Accelerated EMT classes and a 76% pass rate for our night/weekend EMT classes for an overall pass rate of 81%, Increased Delaware's national ranking of 48th in first time pass rates in 2023 to 11th 2024

Emergency Medical Technician Refresher – 21 classes – 480 students

Delaware Emergency Medical Technician Reciprocity – 13 classes – 180 students

Emergency Medical Responder (EMR) – 10 classes – 127 students

Emergency Medical Responder Refresher – 12 classes – 100 students

Conducted training for Active Shooter response for 19 students

Conducted 121 American Heart Association classes reaching 1090 students.

Conducted 28 EMT Continuing Education classes reaching 1909 students.

Conducted 25 National Association of EMT's classes reaching 137 students.

Developed the Draw Up Epinephrine class to assist EMS providers to bring operational costs down.

Revised all EMS Continuing Education programs.

Worked with the Commission to develop the new Field Training Officer program.

2025 Goals

To review, update, and develop DSFS EMS Programs.

To update the EMT Refresher to meet the new National Registry standard.

To work with the statewide committee to hold Active Assailant classes.

Develop EMS Quality Assurance Officer course to standardize and instruct new supervisory staff in reviewing DEMRS reports.

Roll out updated EMR course and refresher.

Enhance & promote psychomotor skills practice in all EMS Courses.

Enhance our partnerships with outside agencies for coordinated training opportunities.

Summary

To continue the Delaware State Fire School's vision for the EMS programs by providing quality education to willing individuals, creating partnerships among the various agencies and to always offer the most progressive EMS training available.



John W. Rudd - Delaware State Fire Marshal

The Delaware Office of the State Fire Marshal provides investigation, enforcement and technical service support to the citizens and visitors of Delaware. The agency operates three divisional offices located in New Castle, Dover, and Georgetown. The agency employed 52 fulltime State employees in 2024.

In 2025, the agency will move forward with our Mission statement *to provide a fire safe environment for our citizens and visitors* by conducting thorough fire investigations and completing rigid Life Safety inspections of commercial, educational, and residential structures throughout the State of Delaware. Last year, staff inspected 1340 Places of Assembly, 202 Educational facilities, and several other types of occupancy totaling 2077 inspections.

The Technical Services staff reviews and approves new or renovated structures to ensure compliance with the current State Fire Prevention Regulations and national fire codes. In fiscal year 2024, staff conducted 3,247 final inspections, 869 progress inspections, 75 health care inspections, and 300 daycare inspections.

Deputy fire marshals investigated 65 causalities involving a nonfatal, fire related injuries in 2024. 16 people died because of fires in 2024. A total of 489 investigations were conducted in 2024.

The Delaware State Fire Marshal and staff will continue to provide a fire safe environment for all citizens and visitors of Delaware by providing expertise in investigations, code enforcement, and technical services.

Join us at www.statefiremarshal.delaware.gov or email us at Fire.Marshall@delaware.gov

EMS Medical Direction

The Delaware Emergency Medical Services (EMS) Medical Directors worked with providers to advance EMS care in Delaware in 2024. The most recent updates of EMS standing orders went into effect in November 2024. The process of development of Basic Life Support (BLS) and Advanced Life Support (ALS) standing orders uses an evidence-based approach and collaborative work that spans six months. Efforts of prehospital care providers, medical directors and other subject matter experts identify areas to adapt or add that will maintain Delaware as a leader in EMS care.

The Delaware state EMS system delivers cutting-edge care and is also committed to quality improvement and monitoring the effectiveness of the care being delivered. The past year saw multiple achievements including:

- Expanded use of the whole blood with the addition of EMS transfusion in patients with non-traumatic bleeding, obstetrical complications, and pediatric patients over the age of 5.
 - Details on the statewide EMS whole blood initiative is featured in the Highlights section (see page 11) and published in the medical journal Transfusion <https://onlinelibrary.wiley.com/doi/10.1111/trf.18160>
- Improved assistance for patients with opioid use disorder by offering buprenorphine and working to improve linkage of EMS patients with ongoing treatment.
- Developing a systematic BLS Quality Improvement process working with the Delaware Volunteer Fire Commission and BLS agency leaders.
- Enhancing the system-wide stroke evaluation and transport decisions leading to improved care and outcomes for patients with Large Vessel Occlusion (LVO) strokes.
- Ongoing EMS Fellowship expansion and educational improvements to utilize the Delaware Office of EMS program in collaboration with Christiana Care providing post-residency education to selected emergency medicine physicians desiring to sub-specialize and prepare to become EMS medical directors.
- Presentation and publication of Delaware innovations in EMS care to highlight the knowledge and experience that Delaware EMS can add to national and international care.

Buprenorphine for Opioid Use Disorder (OUD)

Delaware became the first state to offer buprenorphine treatment from paramedics on a statewide basis. The protocol became operational in April 2023 and advanced Delaware EMS nationally to the forefront of delivery of prehospital care in addressing the public health crisis of OUD. Paramedics continue to offer buprenorphine to patients who required resuscitation with naloxone after an opioid overdose. There is an ongoing focus to further improve patient opportunities to receive treatment working with the Overdose System of Care, Emergency Department and medically assisted treatment providers. County paramedic agencies are working to maximize the number of patients with whom they discuss buprenorphine as an option. Additionally, Kent County paramedics are participating in a pilot project allowing the Division of Substance Abuse and Mental Health to follow up with patients who may not accept treatment at the time they encounter EMS but, would be willing to consider options at a later time.

Quality Improvement System for Basic Life Support (BLS)

Quality improvement (QI) is an essential element of high-quality EMS care. State Regulation 710 requires Basic Life Support (BLS) agencies to establish a QI program. The Office of EMS, the Delaware State Fire Prevention Commission, and a dedicated group of BLS providers from all three counties collaborated to identify improvement opportunities and methods to elevate BLS QI statewide. Initially, in May 2024, 19 of 75 BLS agencies identified a QI Officer. There was improvement over eight months to 64 of 75 agencies identifying a specific individual for QI. These agencies account for over 95% of all BLS prehospital incidents.

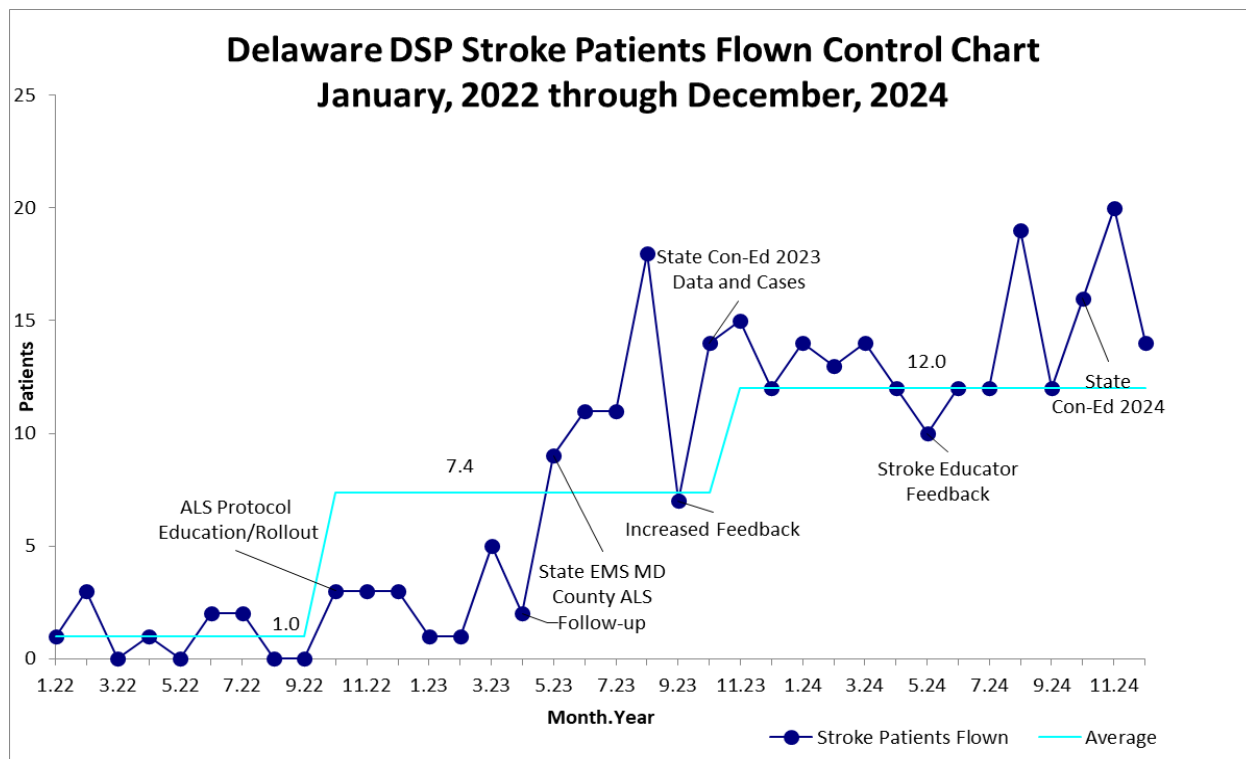
Specific QI metrics for improvement from the National EMS Quality Alliance (NEMSQA) were chosen to provide validated, benchmarked elements which could benefit patients and improve care. Areas addressing vital signs, oxygen application, and head injury evaluation had baseline data reviewed and initiatives for improvement. The Improvement Committee set goals and developed ideas for change. Targeted areas have shown significant improvement, meeting goals within desired timeframes. The committee continues to monitor these areas to ensure ongoing high performance and is now looking at additional NEMSQA measures for further quality improvement.

Stroke Care

Stroke care throughout Delaware continues to offer the best opportunity for recovery by early actions of EMS providers. The Office of EMS and EMS agencies working within the Stroke System of Care identified the value of direct transport of patients with Large Vessel Occlusion (LVO) strokes to Delaware's one Comprehensive Stroke Center. These strokes cause severe deficits in patient functions of movement, speech and vision and need rapid treatment. Clot from the effected large vessel, and restoration of blood flow to the area of the brain, is the best treatment to limit or prevent permanent effects. Delaware State Police aviation, working with ground EMS agencies, rapidly transport patients in southern Delaware to the Comprehensive Stroke Center in Newark. This eliminates delays that are encountered to arrange transfers.

The utilization and outcomes by EMS continue to exceed expectations for both identification of patients potentially experiencing an LVO stroke and the decision making to fly patients directly from the scene. EMS patients with this suspected diagnosis are receiving interventional treatment at a rate higher than patients who are having their strokes identified when they present to a hospital and are first seen by a physician. Outcome benefits have demonstrated many patients with severe deficits having complete reversal of their symptoms and a return to their normal activities when they would previously have been expected to have life-long deficits possibly requiring assistance for even the most basic activities or self-care. The cooperative effort of the Office of EMS, the Stroke System of Care Quality Committee, and the receiving Comprehensive Stroke Center to evaluate the entire course of treatment for every LVO stroke patient has allowed reporting on the value of this excellent advancement in care at the International Stroke Conference of the American Heart Association. This approach and the outcomes being produced are serving as a model for other agencies across the country.

The chart below shows the increasing utilization of Delaware State Police aviation for LVO stroke patient transport. Prior to the initiation of this protocol, flight numbers began at one per month in 2022 for patients with stroke symptoms. This increased to four per month on initiation of the new transport protocol. Ongoing education, feedback to paramedic crews, and enhancements of the new protocol allowed further improvements in recognition and utilization choices with even further increases and flights now averaging over 12 per month.



The utilization of a Delaware State Police helicopter for suspected LVO stroke continues to be one of the most significant improvements in EMS care over the past five years showing:

- Higher than predicted patients with identified stroke symptoms having a confirmed stroke
- Higher than predicted intervention rates for LVO stroke with interventional therapy
- No missed opportunity for thrombolytic (“clot buster”) therapy if stroke was not from LVO.

Point of Care Ultrasound by Paramedics

New Castle County EMS uses portable point of care ultrasound units (POCUS) to assist in the diagnosis and treatment of patients in selected cases. The agency expanded availability from supervisor units only to all field units now carrying POCUS devices. The primary indication is evaluation of patients in cardiac arrest. Paramedics are using carotid artery doppler ultrasound during cardiac arrest pulse checks to assist in identifying blood flow from a pulse that may be too weak to feel. Additionally, paramedics look for motion of the heart to evaluate if the heart may be contracting but not able to create enough force to generate a pulse. These findings lead to specific treatments which can address this type of cardiac arrest and provide the opportunity for improved survival. Ultrasound use is expected to expand in New Castle County with additional applications in trauma and respiratory cases. The success of the pilot applications so far will lead to discussion of the opportunity for statewide utilization in the future.

EMS Fellowship

The Delaware EMS Fellowship is a combined academic effort between the Division of Public Health/Office of EMS and ChristianaCare post graduate medical education. Doctors who have completed a residency in emergency medicine can apply to have an additional year of training specific to work as an EMS physician and medical director. This program, one of 80 accredited programs in the United States, graduated its first EMS fellow in Fall of 2024 and welcomed the

program's second fellow who is in training through June 2025. Over the past year, EMS fellows have played a crucial role in multiple statewide EMS initiatives including disaster drills, statewide EMS education, and the quality assurance committee. The program has shown strong commitment toward advancing prehospital care with active research in multiple areas including prehospital blood, stroke care, and prehospital ultrasound. This research activity has resulted in multiple national presentations and publications. The program looks forward to welcoming two additional fellows in the summer of 2025.

Publications and Presentations

A focus for the EMS medical directors and an expectation of the EMS Fellowship is presentation and publication of improvements in EMS care or the results of new innovations. Delaware has always been a leader in developing ideas to benefit patients. Communicating our ideas and experiences with greater impact and the opportunity to influence care in other systems will be a priority going forward. The initiative to drive this forward was demonstrated over the past year with presentations at prestigious conferences including the American Heart Association's (AHA) International Stroke Conference, The National Association of EMS Physicians' (NAEMSP) and the College on Problems of Drug Dependence International Conference. Beyond stroke care and whole blood utilization, presentations included improvement in telecommunicator assisted CPR, development and utilization of a buprenorphine treatment program by EMS providers and changes in rates of EMS utilization related to the COVID-19 pandemic.

Medical Director Personnel

EMS Medical Direction had a significant change with the departure of Dr. Kevin Bristowe after 25 years as a physician leader in Sussex County including two decades as the Office of EMS Medical Director for the County. His commitment to Sussex County EMS will be missed and all of Delaware was fortunate to have him as a strong voice and advocate for patient care and the EMS system.

The Office of EMS was fortunate to have Dr. Jonathan Hilton as the selection to fill the vacancy in Sussex County and become the Associate EMS Medical Director for Sussex County. Dr. Hilton is an emergency physician with Beebe Hospital and a graduate of the ChristianaCare Emergency Medicine residency program with extensive military experience before pursuing his career in medicine. He will work with Sussex County EMS Medical Director Dr. Paul Cowan and is quickly becoming established in his new role.

Summary and Next Steps

Ongoing enhancements in EMS with updates to Delaware's Standing orders in 2024 are expected to add to the already excellent prehospital care delivered by ALS and BLS providers throughout the state. EMS medical directors and the data team at the Office of EMS will continue tracking the impact of additions and changes in practice. The data from the use and effectiveness of these changes will allow continuing improvement and identification of new opportunities to expand further. Moving into 2024 and beyond, expected enhancements include more detailed statewide telecommunicator-CPR metrics and process improvement, connecting the 9-1-1 and 9-8-8 systems for patients with mental health crises, enhancing the links for patients with OUD into treatment and beginning development of Mobile Integrated Health processes. The EMS medical directors continue to have a commitment to work with Delaware EMS providers at all levels to offer the highest level of care in the prehospital environment.

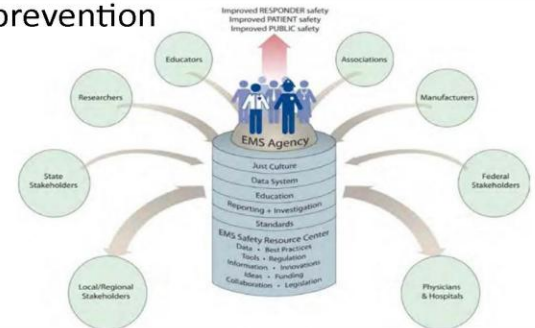


Most of all, watch out for each other. If you see your partner struggling, point them to help. You are valuable as a person, and as a provider. Stay safe!

<https://www.ems.gov/assets/Strategy-for-a-National-EMS-Culture-of-Safety-10-03-13.pdf>

Six Core Elements - EMS Culture of Safety

1. A Just Culture that categorizes incidents & focuses on prevention
2. Coordination support & resources
3. A national data base
4. EMS education initiatives
5. EMS safety standards
6. Requirements for reporting and investigation



Who is at Risk?

Risk of harm to EMS personnel

- Work under difficult, unpredictable, and rapidly changing environments
- Work long hours, often in harsh conditions, with limited information and assistance
- Exposed to illness, infectious diseases, emotional stress, fatigue, and injury
- May encounter physical violence and personal liability
- More than 2.5 times likelier to be killed on the job

Risk of harm to patients

- Preventable adverse medical events
- Safeguards often not in place
- Medication errors
- Unsafe procedures
- Diagnostic errors
- Negligent or incompetent providers



Three Key Elements of a Safety Culture

Ownership & Management Buy-In

Management must commit to making safety a strategic imperative across the organization. Otherwise, safety and health will compete against core business operations and may receive insufficient attention.

Employee Engagement

The strongest and most effective safety cultures are those where safety is a shared responsibility between management and providers. Provider engagement has a direct relationship to the success of an organization's safety program.

Environment of Continuous Improvement

Providers will be more supportive of safety programs and processes if they have a shared role in their development. An environment of continuous improvement will encourage providers to report hazards and continually seek ways to improve the safety culture.

EMS System Evaluation

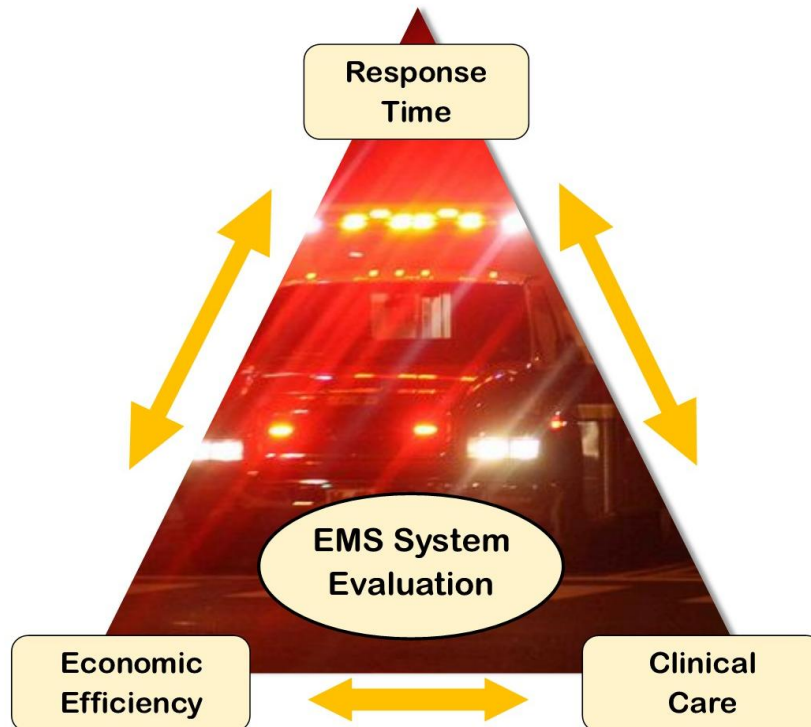
EMS System Evaluation	39
EMS Patient Care Report	40
Clinical Performance	41-45
Response Time Performance	46-49
EMS System Cost	50-52

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System Evaluation

Evaluation is the essential process of assessing the quality and effects of EMS, so that strategies for continuous improvement can be designed and implemented. (National Highway Traffic Safety Administration)

The National Association of Emergency Medical Services Physicians (NAEMSP) has identified three related variables for measuring EMS system performance: clinical care, response time and economic efficiency. These variables are interdependent for overall system success. Focusing many resources on any one variable is done at the expense of performance potential in the other variables. For example, extreme cost cutting measures will have a detrimental impact on clinical care and response time. Also, if a system places all its efforts on response time, there will be a significant increase in costs as well as a decrease in clinical care.



Prehospital Patient Care Report

In Delaware, data from the Delaware Emergency Medical Reporting System (DEMRS) is a comprehensive electronic patient care report (ePCR) producing data system which provides convenient access to the field providers for input of pertinent patient data in a timely fashion while concurrently standardizing EMS service provider data into a statewide data collection and reporting system. DEMRS provides services to all private/public/volunteer EMS/ALS/BLS services including but not limited to ALS providers, BLS providers, first responders, Trooper medics, A.I. duPont Hospital for Children, Wilmington Hospital, St Francis Hospital, Christiana Hospital, Beebe Healthcare, TidalHealth Hospital, Milford Hospital, BayHealth, billing companies and inter-facility transport services. This allows DEMSOC a continued review of operational and clinical data for the ALS and BLS providers during emergency and non-emergency transports.

The current requirements for patient care report completion are that every attempt shall be made to complete the ePCR prior to leaving the receiving facility. In the absence of extraordinary circumstances, an ePCR should be submitted to the receiving facility within four (4) hours of patient disposition. EMS providers must complete and submit an ePCR to the receiving facility prior to going off duty.

Enhancements to our system:

The Delaware Emergency Medical Reporting System (DEMRS) transitioned to an updated operating system called Elite in January 2018. This upgrade to Elite made us NEMSIS 3.4 compliant and offers enhancements for the patient care providers while entering patient care reports.



We updated to NEMSIS 3.5 in January 2024.

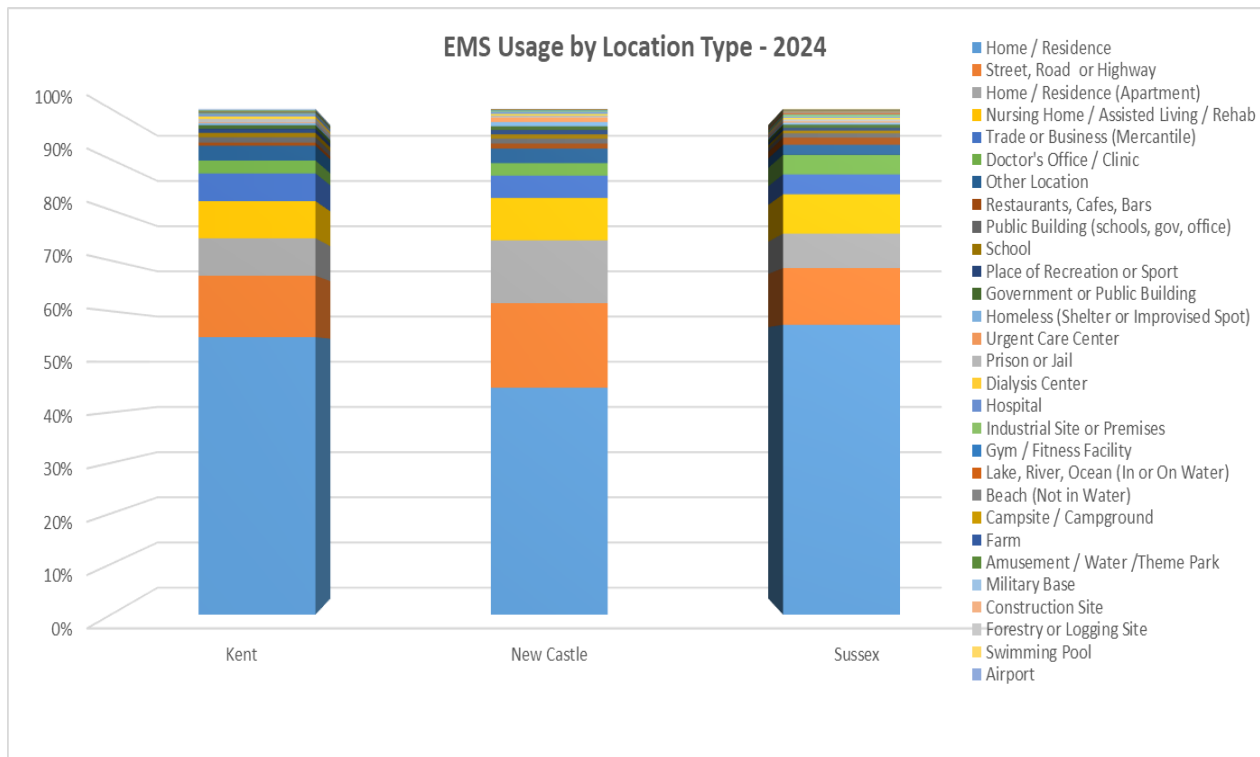


Clinical Performance

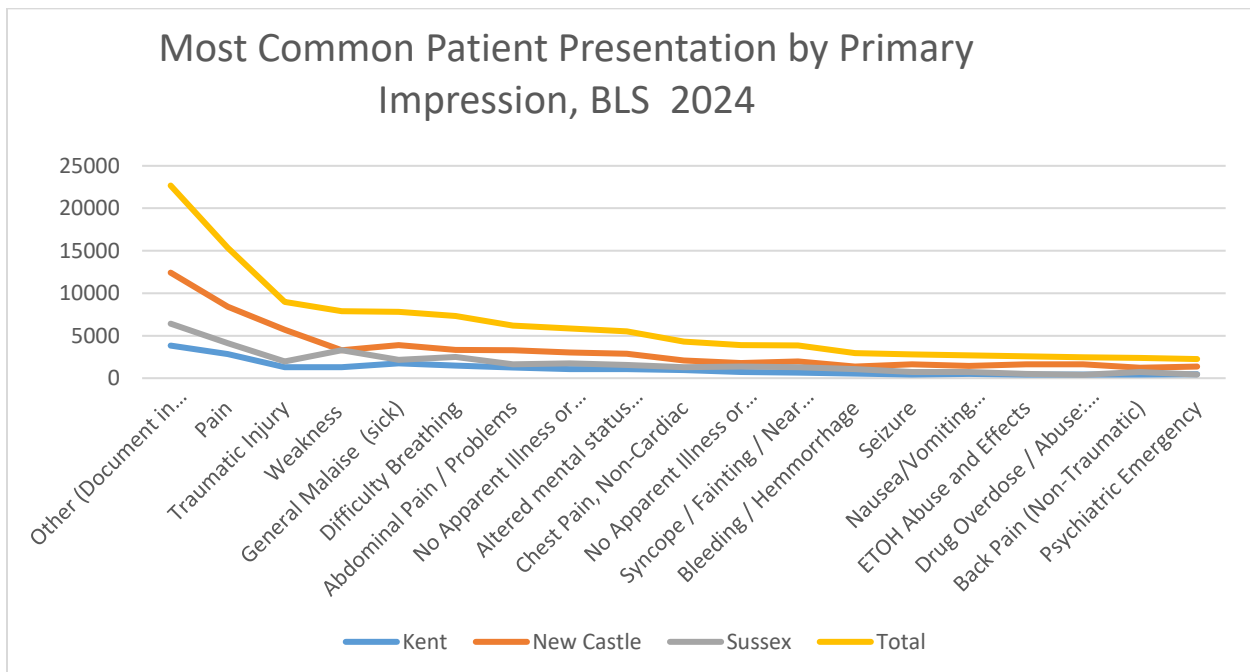
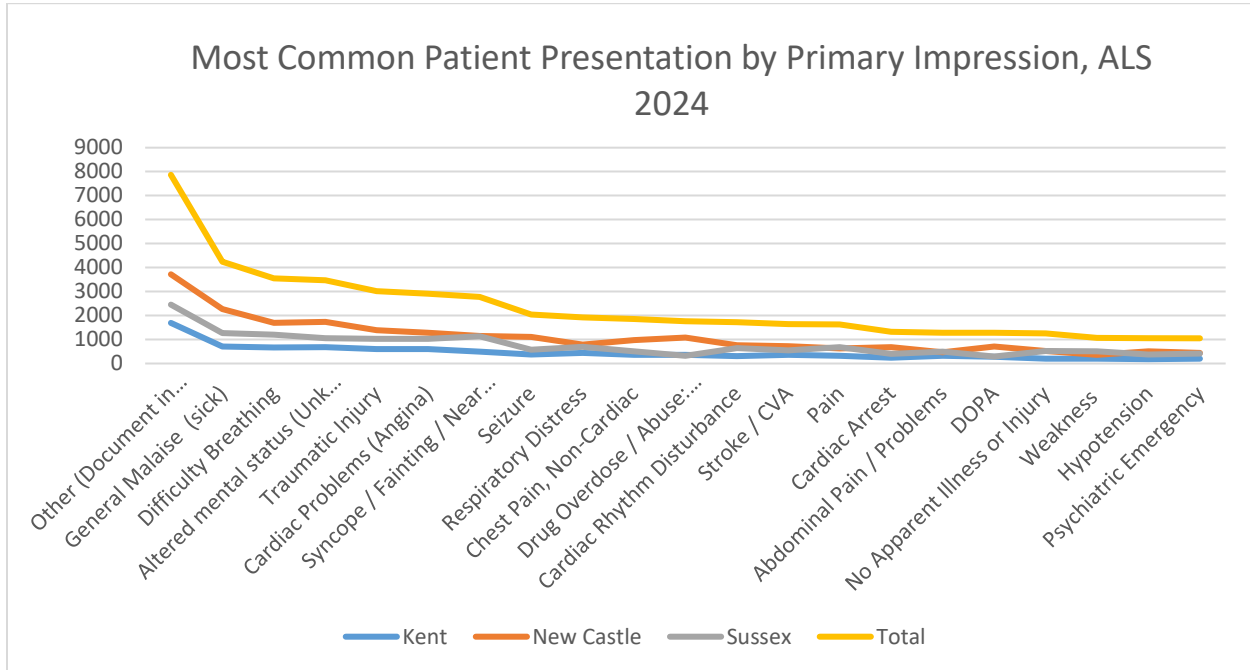
EMS systems were originally developed to reduce fatalities from traumatic injuries, especially from motor vehicle crashes. It was noticed during military conflicts that patients had better outcomes when injuries were quickly stabilized in the field and the patient was then transported to a care center. The original EMS system mimicked this with most of the emphases placed on traumatic injuries. As the science and practices of prehospital care progressed over the years, so did the scope of the EMS provider. The evolution of evidence-based practices with cutting edge technologies work in tandem to improve the clinical outcome for all types of patients. The EMS system is inclusive of many different disciplines; trauma, cardiac care, medical care, pediatric care, medical transportation, public health, and domestic preparedness just to highlight a few.

EMS provides care for those with perceived emergency needs and, when indicated, provides transportation to, from, and between health care facilities. Mobility and immediate availability to the entire population distinguish EMS from other components of the health care system (National Highway Traffic Safety Administration).

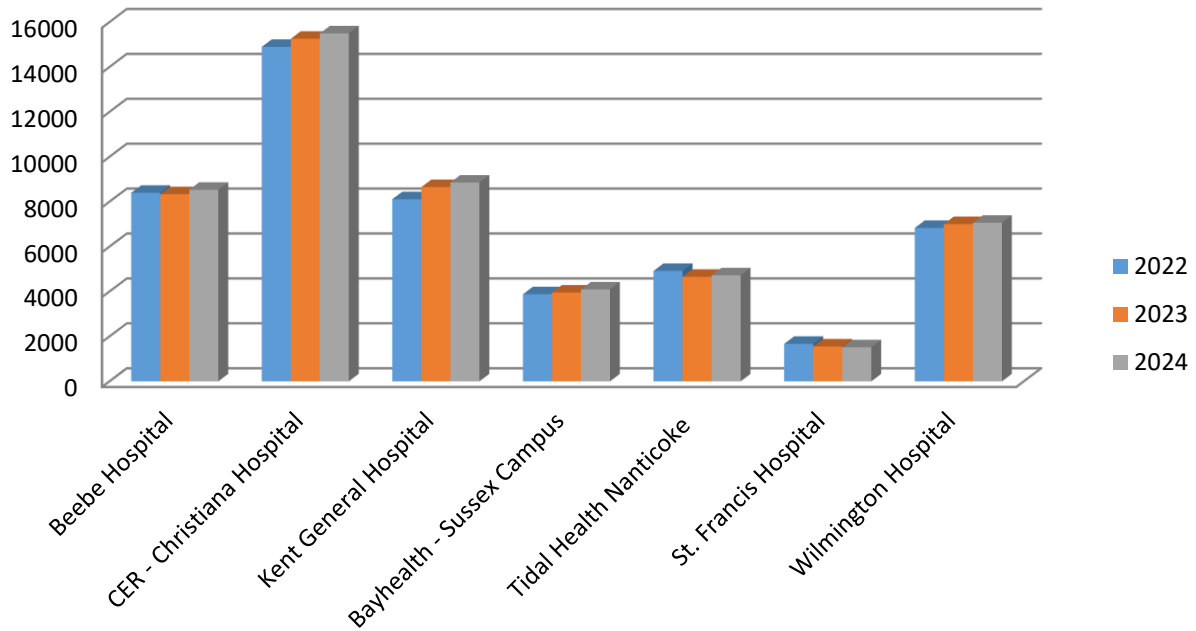
(All data used for this section and throughout the report were, unless noted otherwise, extrapolated from the Delaware Emergency Medical Reporting System (DEMRS). Please note for this report, Advanced Life Support (ALS) and BLS data are reported separately. While reading this report please do not combine the ALS and BLS data. Doing so would lead to inaccurate totals.)



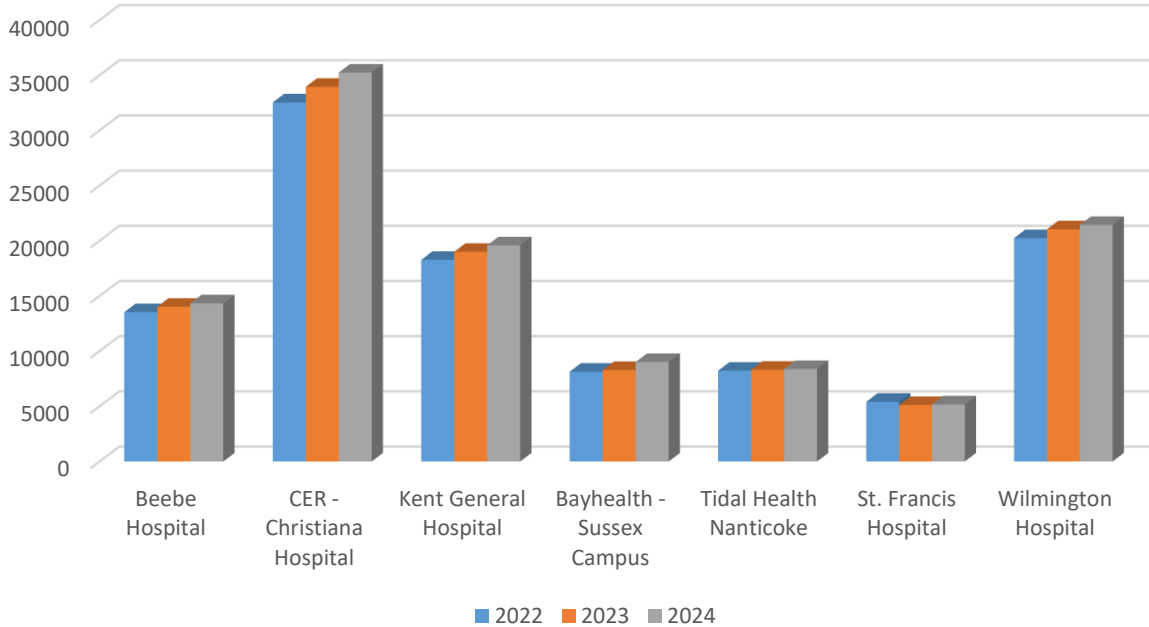
Primary Impression is the EMS provider's evaluation of the patient based on signs, symptoms, patient's chief complaint and other factors. These graphs do not consider the type of patient (medical, trauma). The primary impression of other is defined in the patient narrative and not able to query.



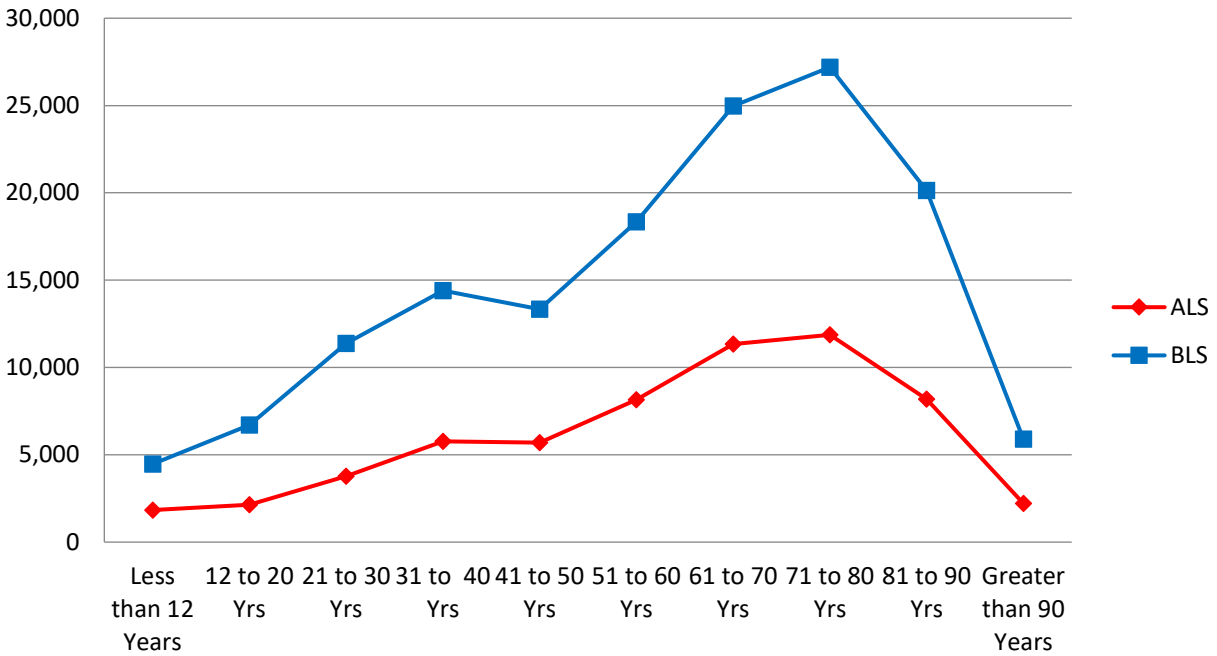
ALS Receiving Hospital Comparisons 2022-2024



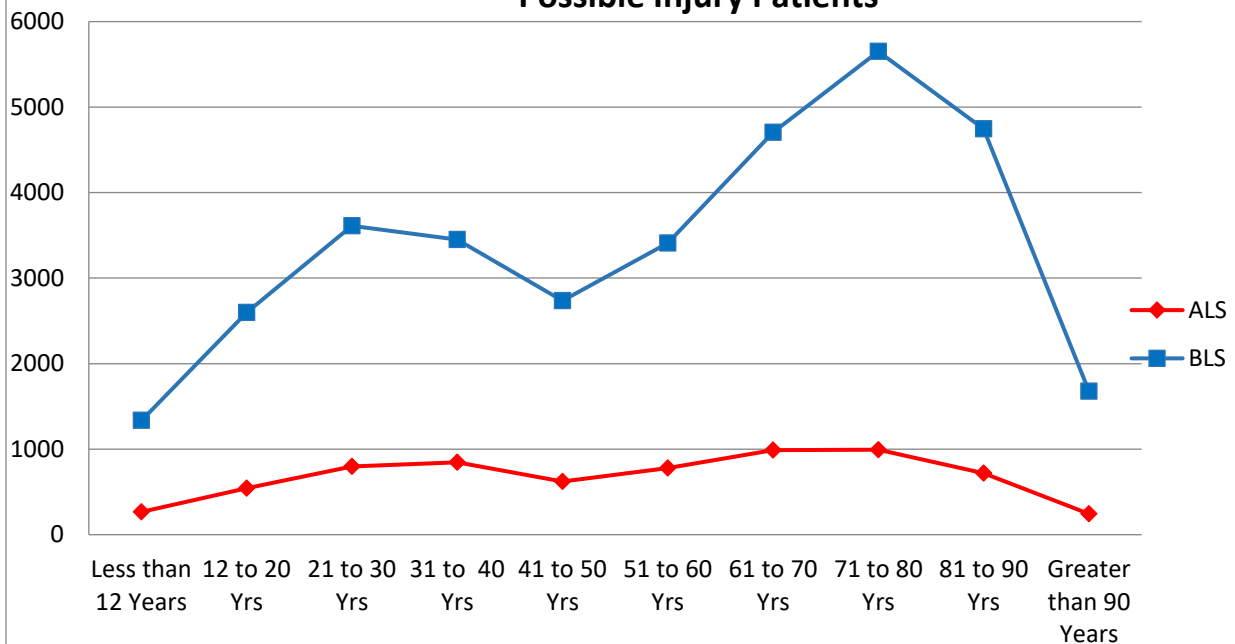
BLS Receiving Hospital Comparisons 2022-2024



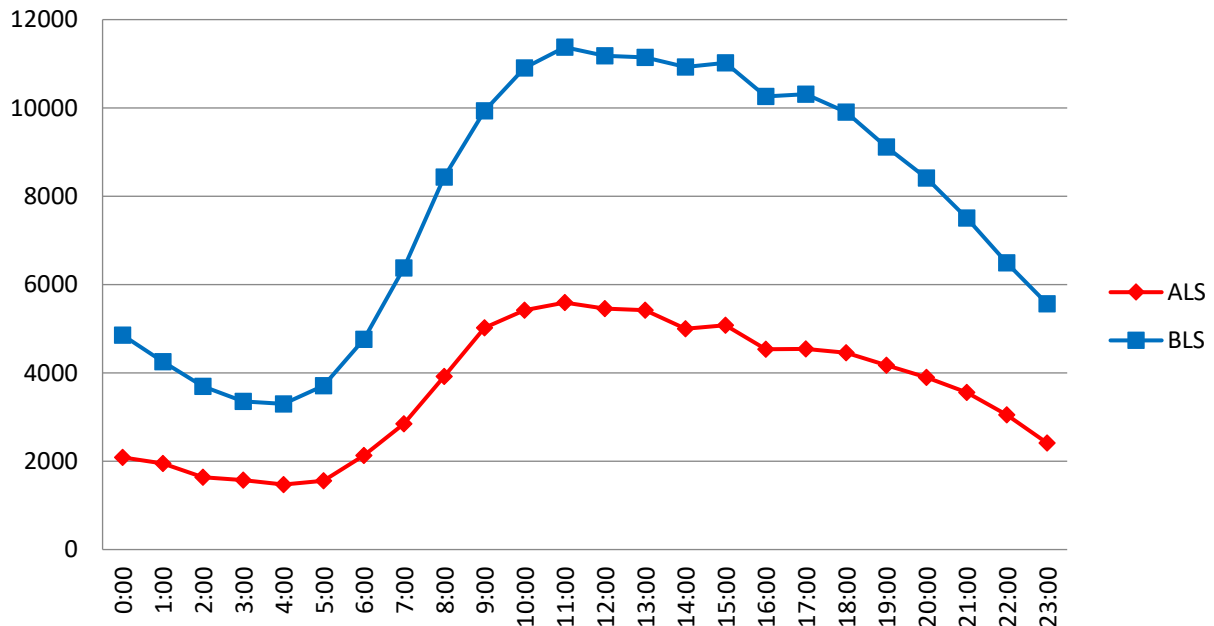
ALS and BLS Patient Age Comparison - 2024



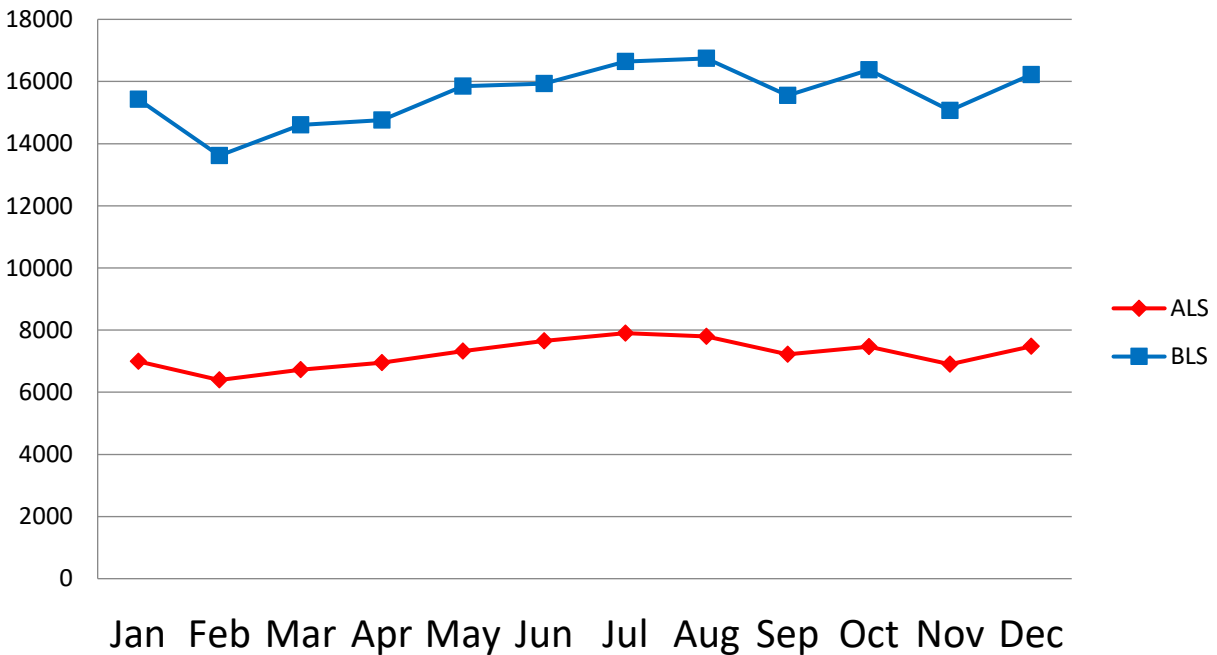
ALS and BLS Patient Age Comparison - 2024 Possible Injury Patients



Time of Day When EMS Incidents Occur - 2024



ALS/BLS Incidents by Month - 2024



Response Time Performance

The Delaware EMS system measures response time performance in fractiles. Fractile response refers to how the response time is measured against an established performance goal. For example, if a response goal is 8 minutes, the fractile response time is a percentage of the responses within that 8-minute goal. A 90% fractile response indicates that 90% of the time the response time was within 8 minutes or less. Numerous factors affect response time performance including geography, baseline resource availability, and call volume and deployment strategies.

The response time goals for the Delaware EMS system adopted by the EMS Improvement Committee are based on cardiac arrest survival research. These response goals are nationally recognized and cited by both NFPA (1710) and the American Ambulance Association guidelines. It is recognized that these are ideal goals. Response time performance measure is one of several performance goals and is not a single predictor of the health or success of an EMS system.

The performance goals for Delaware's EMS System recognizes that not all emergencies are life threatening and do not require maximum resource response. The Emergency Medical Dispatch system is a systematic approach (protocol) that assists dispatchers in identifying which 911 calls require maximum response, and identifies calls as:

Alpha – Requires a BLS response. Example is a minor burn.

Bravo – Requires a BLS response. Example is with unknown patient status.

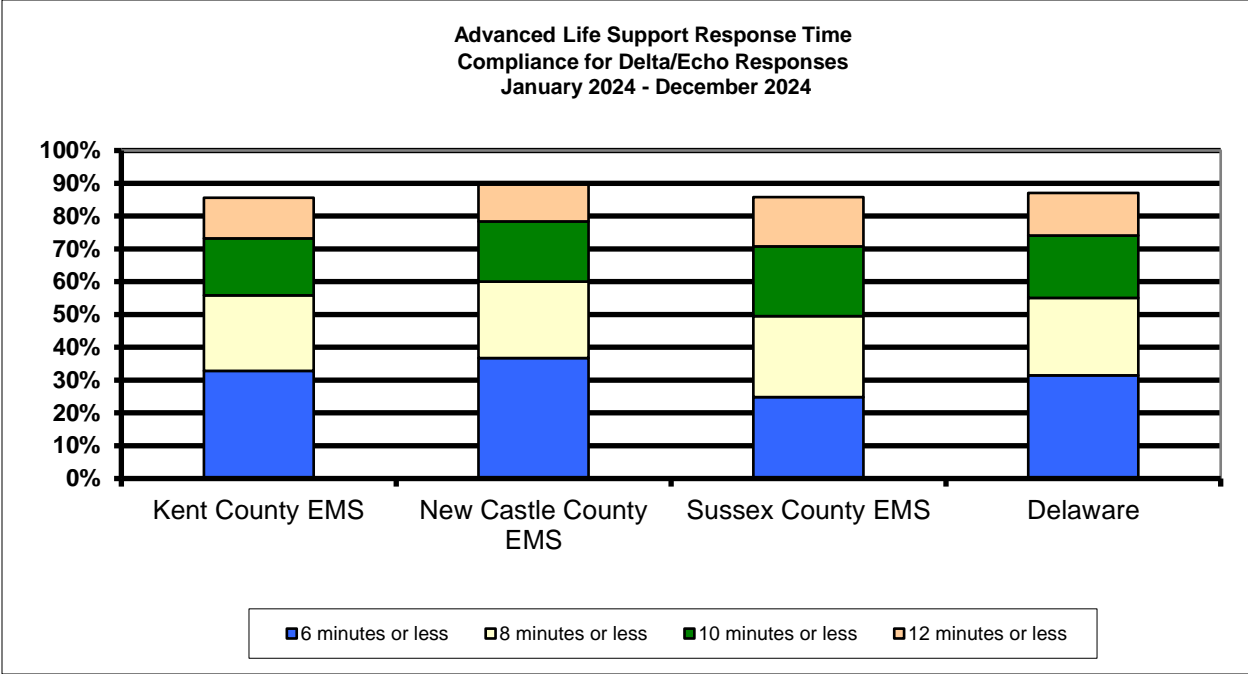
Charlie – Requires ALS and BLS response. Example is burns with difficulty breathing.

Delta – Requires ALS and BLS response. Example is an unconscious burn victim.

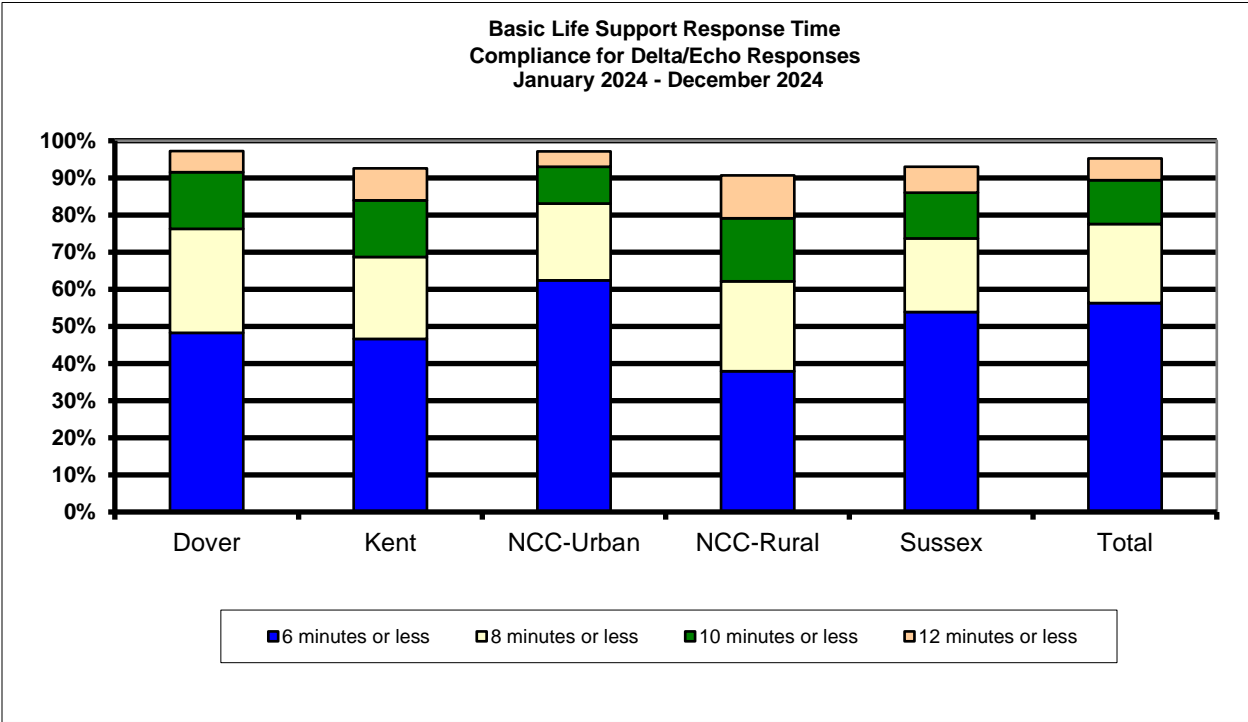
Echo – Response type not addressed in the legislated response time goals, but it requires a maximum response to include available first responders. Example would be a cardiac arrest.

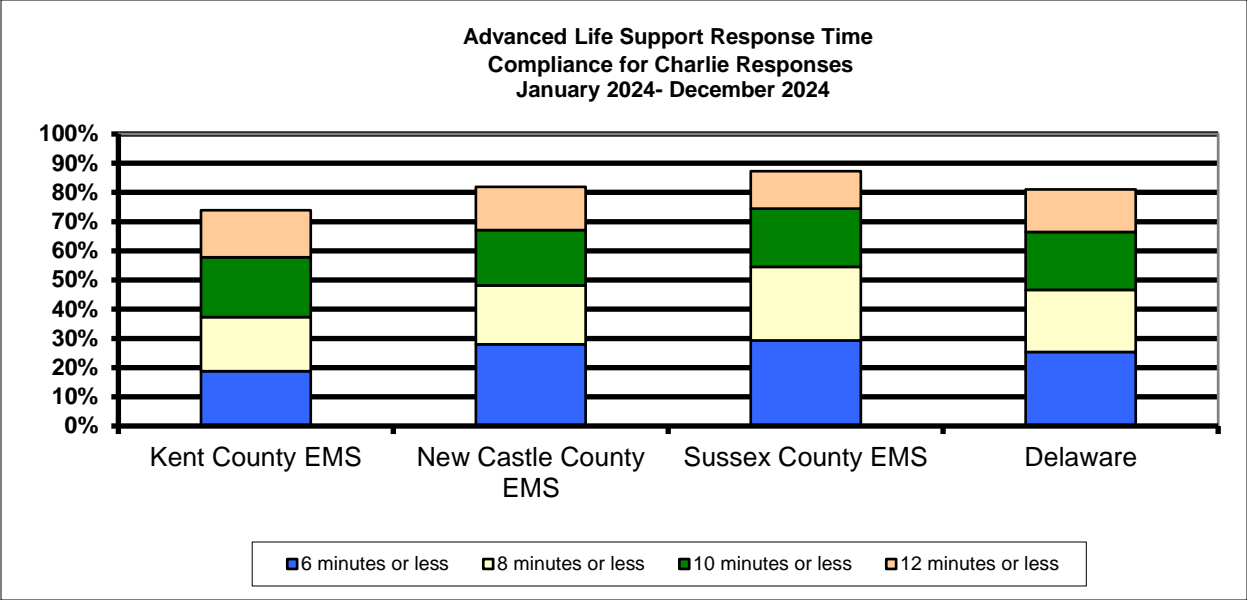
Omega – Response type not addressed in the legislated response time goals. An example of an Omega response is a dispatcher, while remaining online with the caller, connects to a poison control center for instructions.



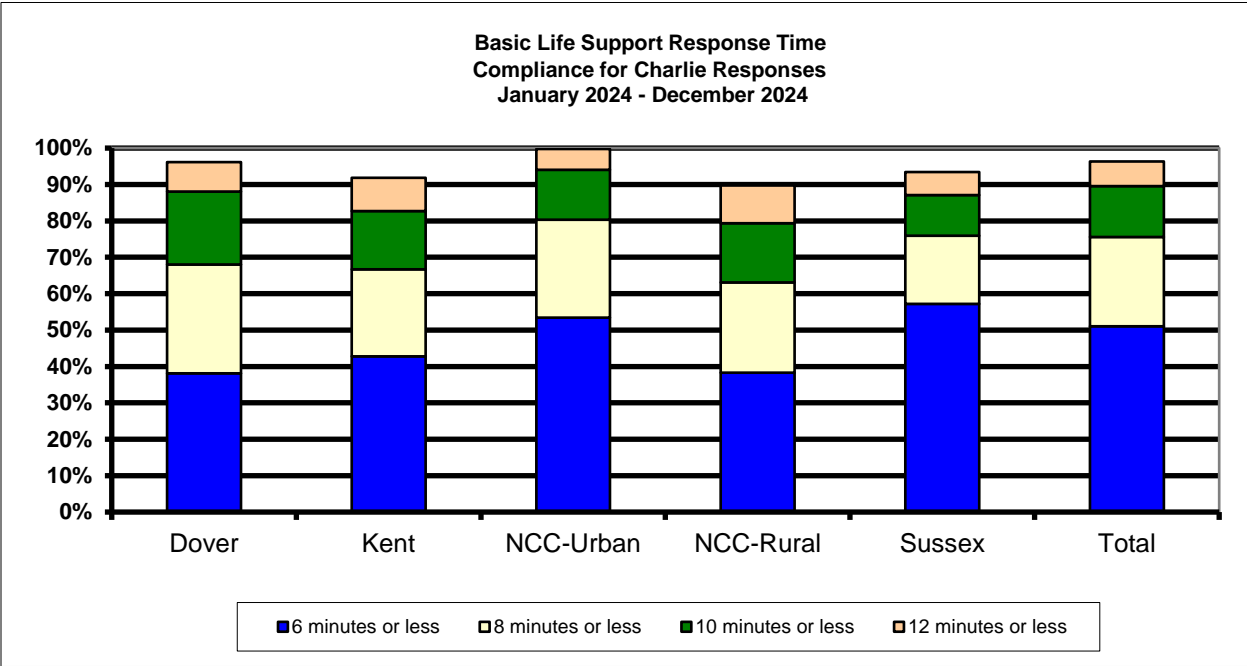


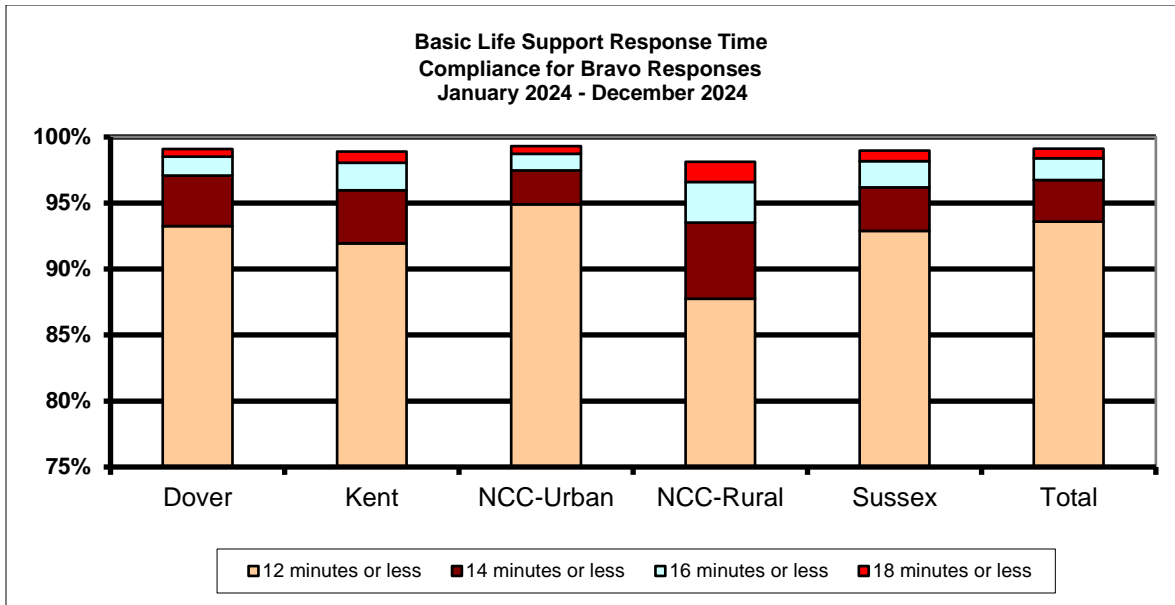
Goal: *Each Advanced Life Support (ALS) paramedic agency within the Delaware EMS system provide an ALS paramedic unit, as defined by recognized state standard, on the scene within 8 minutes of the receipt of Delta calls on at least 90% of the time. BLS ambulance unit on scene within 10 minutes of the receipt of Delta calls on at least 90% of the times in urban areas and 70% of the times in rural areas.*



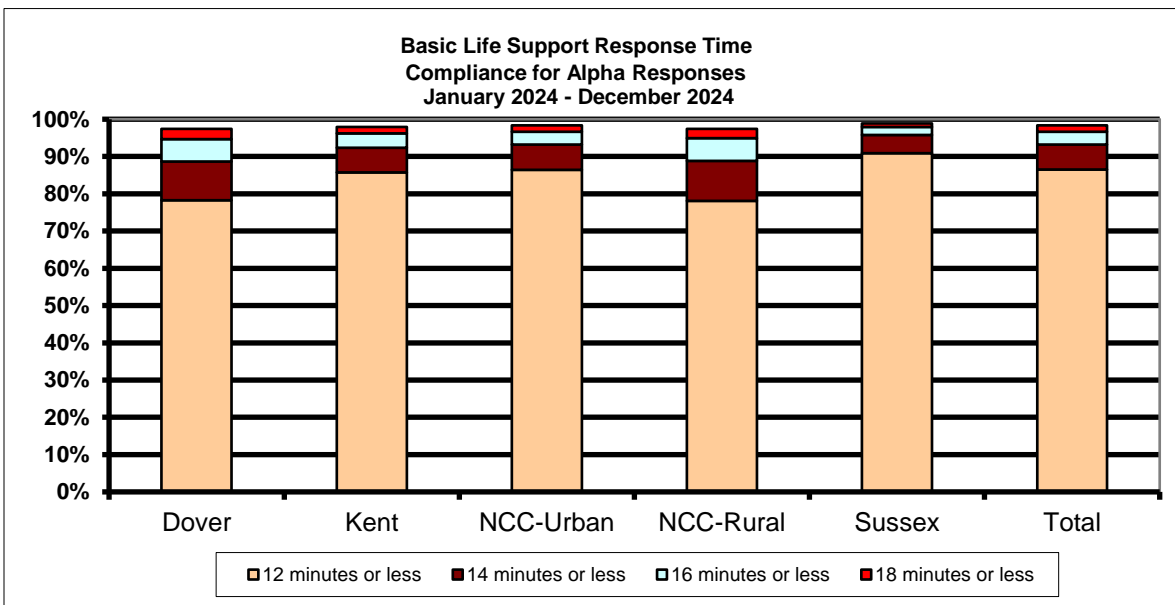


Goal: Each Advanced Life Support (ALS) paramedic agency within the Delaware EMS system provide an ALS paramedic unit, as defined by recognized state standard, on the scene within 8 minutes of the receipt of Charlie calls on at least 90% of the time. BLS ambulance unit on scene within 12 minutes of the receipt of Charlie calls on at least 90% of the times in urban areas and 70% of the times in rural areas.



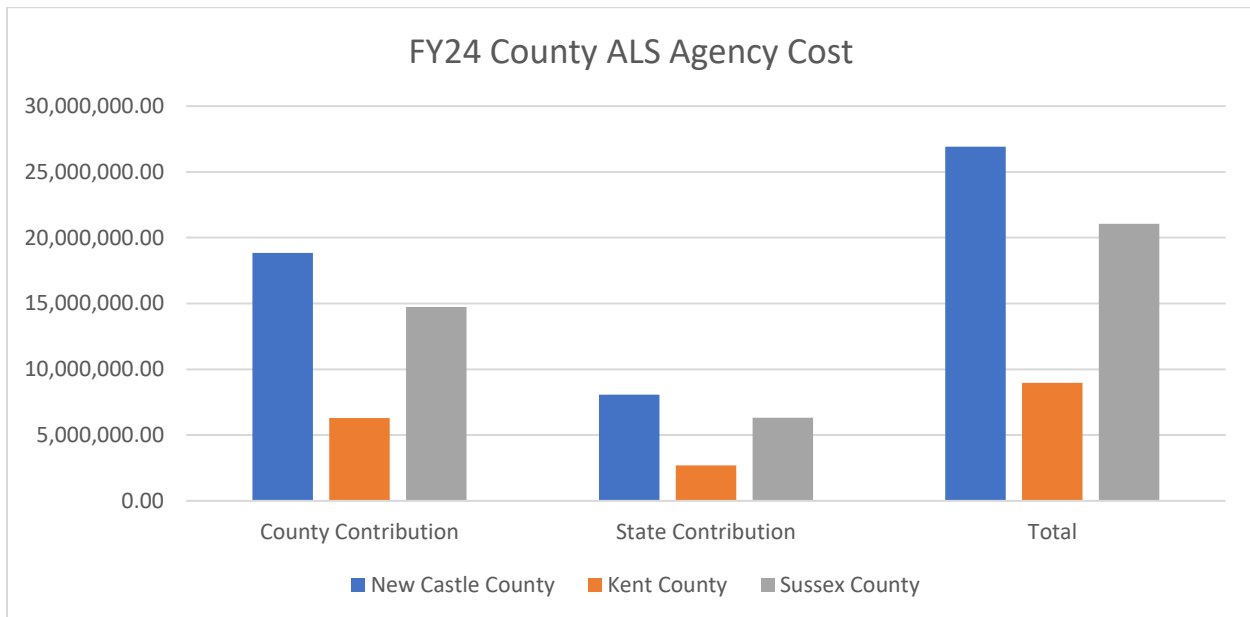


Goal: BLS ambulance unit on scene within 12 minutes of the receipt of Bravo calls on at least 90% of the times in urban areas and 70% of the times in rural areas.



Estimate of EMS System Cost

The Statewide Paramedic Services Act of 1990 was adopted to establish a framework for the creation of an effective and efficient means for the provision of advanced life support services to the citizens of the State regardless of their economic status, who require such services without prior inquiry as to the patient’s ability to pay. The statewide paramedic funding program was established for the purpose of state participation with the counties in the financing of the statewide paramedic program. The counties are reimbursed through the State’s Grant in Aid funds for portions of their expenditures for delivery of paramedic services. By law, the State of Delaware is obligated to reimburse the three counties to operate paramedic services. The law stipulates that these costs must have been incurred by the county for the direct costs to operate paramedic services. Upon inception of the Paramedic Services Act of 1990, the reimbursement level to the counties was 60 percent and has been gradually reduced to the current level of 30 percent in Fiscal year 2024.



PGIA 2024	New Castle County	Kent County	Sussex County
County Contribution	18,842,833.00	6,284,992.00	14,741,035.00
State Contribution	8,075,500.00	2,693,568.00	6,317,586.00
Total	26,918,333.00	8,978,560.00	21,058,621.00

House Bill 332 outlines the requirement for EMS agencies to report cost. “All components of the EMS system should report revenues and expenses so that the system can be continually evaluated for its cost effectiveness. Members of the General Assembly, the Governor, the public and other policy makers should know the costs of Delaware’s EMS system to measure its effectiveness”.

New Castle County Paid Personnel by Agency

<u>Agency Name</u>	<u>Phone Number</u>	<u>Total Paid Personnel</u>	<u>Shifts Covered</u>
Aetna Hose Hook & Ladder	(302) 454-3309	20 FT - 56 PT	24-hour coverage
*Belvedere Fire Co. 30	(302) 998-8021	1 FT - 15 PT	12H
Brandywine Hundred Fire Co. 11	(302) 764-4901	13 FT - 12 PT	24/7
Christiana Fire Co. 12	(302) 737-2433	31 FT - 44 PT	24/7
*Claymont Fire Co. 13	(302) 798-6858	9 FT - 28PT	24/72
Cranston Heights Fire Co. 14	(302) 998-3140	8 FT - 52 PT	24/7
Delaware City Fire Co. 15	(302) 834-9336	13 FT - 28 PT	24 On ~ 72 Off
Elsmere Fire Co. 16	(302) 999-0183	9 FT - 35 PT	24/7
Five Points Fire Co. 17	(302) 994-2245	5 FT - 50 PT	24/7
Goodwill Fire Company	(302) 328-2211	10 FT - 29 PT	24/7
*Hockessin Fire Co. 19	(302) 239-7159	13 FT - 16 PT	24/7
*Holloway Terrace Fire Company	(302) 654-2817	15PT	24/7
MillCreek Fire Co. 21	(302) 998-8911	31 FT - 16 PT	24/7
Minquadale Fire Co. 22	(302) 652-0986	9 FT - 30 PT	24/72
Minquas Fire Co. 23	(302) 998-3474	7 FT - 30 PT	24/7
Odessa Fire Co. 24	(302) 378-8929	8 FT-7 PT	24/7
Port Penn Vol. Fire Co. 29	(302) 834-7483	3 FT - 25 PT	24/7
*Talleyville Fire Company	(302) 478-1110	10 FT - 42 PT	24/7
Townsend Fire Co. 26	(302) 378-8111	6 FT - 12 PT	10H
Volunteer Hose Company	(302) 378-7799	14 FT - 7 PT	24/7
*Wilmington Fire Department 100	(302) 576-3150	151	24/72
Wilmington Manor Fire Company	(302) 328-3209	22 FT - 13 PT	24/7
<i>*Based on the 2023 Report</i>			

Kent County Paid Personnel by Agency

<u>Agency Name</u>	<u>Phone Number</u>	<u>Total Paid Personnel</u>	<u>Shifts Covered</u>
Bowers Fire Co. 40	(302) 335-5966	0 FT - 25 PT	12H
Camden-Wyoming Fire Co. 41	(302) 697-3201	14 FT - 6 PT	24/72
Carlisle Fire Co. 42	(302) 422-8001	8 FT - 19 PT	24/7
Cheswold Fire Co. 43	(302) 736-1516	5 FT - 10 PT	24/7
*Clayton Fire Co. 6	(302) 653-7317	60VOL	0
Felton Community Fire Co. 48	(302) 284-4800	8 FT - 10 PT	24/72
Frederica Vol. Fire Co. 49	(302) 335-3235	0 FT - 20 PT	24/7
Harrington Fire Co. 50	(302) 398-8931	9 FT- 10 PT	24/7
*Hartly Fire Co. 51	(302) 492-3677	0FT - 25PT	8H
Leipscic Fire Co. 53	(302) 674-0829	25 PT	12H
Magnolia Vol. Fire Dept. 55	(302) 335-3260	0 FT - 18 PT	24/7
Marydel Fire Co. 56	(302) 492-9917	1 FT - 15 PT	24/7
Smyrna American Legion 64	(302) 653-6465	15FT - 27PT	12H
*South Bowers Fire Company	(302) 335-4666	60 VOL	
<i>*Based on 2023 report</i>			

Sussex County Paid Personnel by Agency

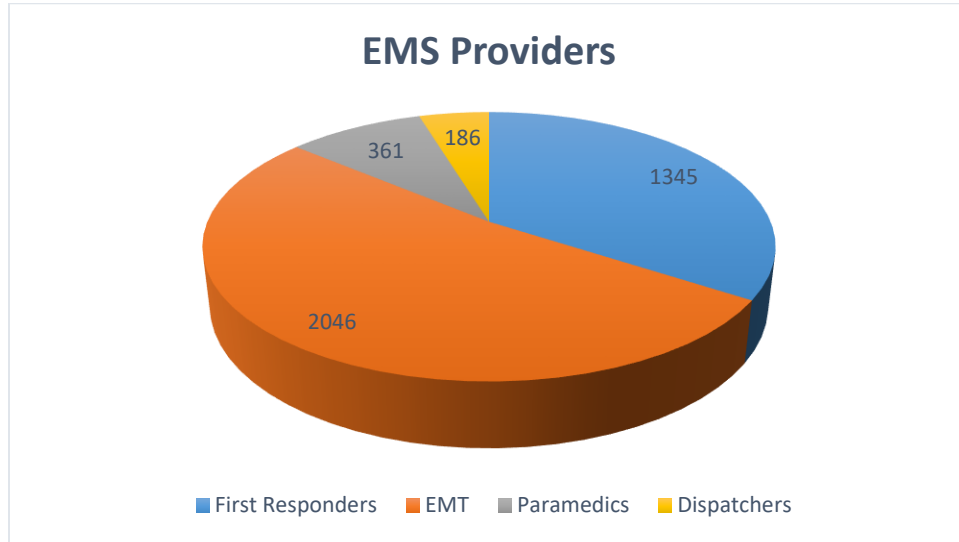
<u>Agency Name</u>	<u>Phone Number</u>	<u>Total Paid personnel</u>	<u>Shifts covered</u>
Blades Fire Company	(302) 629-4896	8 FT - 14 PT	24/7
Bridgeville Fire Co. 72	(302) 337-3000	4 FT - 15 PT	24/7
Dagsboro Fire Co. 73	(302) 732-6151	5 FT - 15 PT	24/7
Delmar Fire Company	(302) 846-2530	11 FT - 18 PT	24/7
Ellendale Fire Co. 75	(302) 422-7711	8 FT - 15 PT	24/7
Frankford Fire Co. 76	(302) 732-6662	9 FT - 9 PT	24/7
*Greenwood Fire Co. 78	(302) 349-4529	7 FT - 10 PT	24/72
Gumboro Vol. Fire Co. 79	(302) 238-7411	8 FT - 15 PT	12H
Laurel Fire Dept. 81	(302) 875-3081	10 FT - 12 PT	24/7
Lewes Fire Dept. 82	(302) 645-6556	25 FT - 15 PT	24/72
*Memorial Fire Co. 89	(302) 422-8888	3FT - 7PT	24/7
Mid Sussex Rescue Squad Inc.	(302) 945-2680	14 FT - 10 PT	24/7
Millsboro Fire Co. 83	(302) 934-8359	19 FT - 18 PT	24/72
Millville Vol Fire Co. 84	(302) 539-7557	16 FT - 24 PT	24/72
Milton Fire Co. 85	(302) 684-8500	9 FT - 17 PT	24/7
Rehoboth Beach Vol. Fire Co. 86	(302) 227-8400	15 FT - 11 PT	24/7
*Roxana Vol. Fire Co. 90	(302) 436-2300	8FT - 30 PT	24/72
Seaford Vol Fire Co. 87	(302) 629-3112	17 FT - 31 PT	24/7
*Selbyville Fire Co. 88	(302) 436-8802	4 FT - 3 PT	
<i>*Based on 2023 report</i>			

EMS System Resources

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Human Resources and Workforce Development



Above is a graph that shows the percentage of prehospital providers. These are the individuals that are responsible for “taking the calls”. In addition to the prehospital providers, Medical Control Physicians are an integral part of the system. The medical control physicians give “on-line” medical direction to the providers and are the receiving physicians within the emergency rooms of the state.

Work continued in 2024 on recruitment and retention of EMS providers. There is a national shortage of EMS providers. Although Delaware is also affected by a shortage of EMS providers, the agencies across the state have worked hard to improve recruitment and retention, compensation, work conditions, training, and diversity. The demand for EMS services is also expected to increase as the state’s population ages. The Delaware Population Consortium projects that from 2010 and 2050, Delaware’s population will increase approximately 24%. Sussex County is expected to see the largest percent increase in population by 45%. Kent County's population is projected to reach 213,833 by 2050, an increase of 24%. New Castle County is expected to grow by approximately 9% over the same period, adding 53,402 to reach a 2050 population of 592,561.

While the aging population is increasing, the volunteer population is beginning to decrease. Information from the National Registry of Emergency Medical Technicians shows that most EMS responders nationwide are between the ages of 20-45. Many people within this age range are finding it more difficult to volunteer their time with the increases in dual income and single parent families, and the fact that many people are working longer hours.

DEMSOC created a workforce diversity subcommittee in 2006 to address issues with the recruiting and retention of a more diverse EMS workforce. As part of this effort, the Office of Emergency Medical Services is working with technical high schools throughout the state to develop the EMS program to increase the availability of training and allow students to transition to the Delaware Tech program upon graduation.

Education and Training

Delaware recognizes three levels of Emergency Medical Services training. They are First Responder, Emergency Medical Technician, and Paramedic. Registration through the National Registry of Emergency Medical Technicians (NREMT) is offered for each of these levels.



Emergency Medical Responder

Personnel certified at the First Responder level are regulated by the Delaware State Fire Prevention Commission. The Delaware State Fire Prevention Commission does not require NREMT certification at this level, however it is highly encouraged. The lead agency for First Responder education is the Delaware State Fire School.



Emergency Medical Technician

Personnel certified at the Emergency Medical Technician level are regulated by the Delaware State Fire Prevention Commission. NREMT certification is required to obtain initial Delaware EMT-B certification. All EMT's must maintain their NREMT certification to maintain a Delaware EMT Certification. The lead agency for Emergency Medical Technician education is the Delaware State Fire School.



Nationally Registered Paramedic

Personnel certified at the Paramedic level are regulated by the Delaware Office of Emergency Medical Services. The lead agency for initial paramedic education is Delaware Technical and Community College, Terry Campus. National certification is required to obtain and maintain certification by the OEMS and licensure by the Delaware Board of Medical Licensure and Discipline. Each Advanced Life Support (ALS) agency is responsible for the continuing education and transition education of their paramedics with oversight from the OEMS.

National Continued Competency Program (NCCP)

The State Fire Prevention Commission adopted the National Registry of EMTs National Core Curriculum Program for EMTs and EMRs in the State of Delaware. This program changes requirements for recertification at both levels. This streamlines the recertification process into three categories consisting of National, Local and Individual.

Paramedic Education

Submitted by Chris Hainsworth

Introduction

Delaware Technical Community College offers paramedic education as part of either a two-year Associate of Applied Sciences degree or a one-year certificate. Each offering is structured to produce paramedic graduates that will help to meet the staffing needs of the Delaware paramedic system. The curricula follow the National Paramedic EMS Education Standards. The certificate program consists of one thousand, one hundred and seventy hours of classroom, simulation lab, clinical and field internship experiences. The degree program consists of one thousand seven hundred hours of instruction.

The Delaware Tech paramedic associates degree program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). This program has been accredited since 1995 when it was run by Christiana Care. The accreditation transferred when the program was moved to Delaware Tech in 1999. The certificate program received a Letter of Review from CoAEMSP in December 2023. This is not an accreditation status. The initial accreditation process for this program will begin in 2025 with the conclusion of its first graduating class.

2024 Accomplishments

In 2024, Delaware Tech continued the practice of starting two cohorts of students annually to help meet the staffing needs of the Delaware Paramedic System. The certificate program was one of the two cohorts run in 2024. The certificate cohort started in January and the degree cohort followed in May. The first certificate class was the result of work started in 2023 to revise the existing program to be delivered in approximately twelve months. The priority of admission for this class are students sponsored by any of the four Delaware paramedic agencies. The inaugural class had twelve students, six students sponsored by Sussex County, four sponsored by Kent County and two college students.

There were eleven paramedic graduates from Delaware Tech in 2024, four degree seeking students and seven from the certificate class. Ten of the eleven graduates passed the National Registry Paramedic certification exam, this included all four graduates from the degree program and six from the certificate program. The degree program continues to have a one hundred percent pass rate since its inception.

The program's other significant accomplishment of 2024 was the completion of a reaccreditation site visit of the degree program in September. The site visit was conducted by the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). This comprehensive review of the program involved a two-day virtual visit, during which the site visit team interviewed students, faculty, graduates, advisory committee members, employers and community partners. At the conclusion of their visit, the site visit team reported that they found zero potential standards violations in the program. The site visit report will be used by CoAEMSP for making a recommendation for the program to be reaccredited by CAAHEP. We expect the program to be presented to the CAAHEP board for a decision in July 2025.

2025 Challenges/Goals

The Delaware Tech paramedic program has three goals for 2025: starting the initial accreditation process for the certificate program, expanding the certificate program with a satellite location at the George Campus in Wilmington and increasing enrollment. The certificate program must be accredited separately from our long-established degree program because the curriculum is substantially shorter. The initial accreditation process of the certificate program begins with the completion of the first cohort. A self-study report will be submitted to CoAEMSP in the spring of 2025. This will be reviewed and followed up by a site visit, that will take place in the middle of 2026. We expect to receive a decision from CAAHEP on this program's initial accreditation status in 2027. While moving through this process, we will continue to admit and educate students under the Letter of Review.

The second goal of 2025 is to expand the certificate program to Wilmington in August 2025. This will be a satellite of the Dover program, and it will be housed in the newly renovated Southeast Building on the George Campus. This new facility includes classroom space and a state-of-the-art paramedic simulation lab. This new space was opened in December 2024. Once the satellite expansion is approved, faculty from Dover will be transferred to staff the satellite location. The priority of admission for the program will continue to be students sponsored by a paramedic service, followed by college students. The opening of this site will provide three opportunities a year for Delaware residents, to complete paramedic training in order to enter the workforce.

The final program goal for 2025 is increasing enrollment. The enrollment decline post-pandemic seems to be subsiding throughout the college. We have admitted twelve students in our certificate class that started in January and plan to admit another twelve into our degree cohort that will start in May. The plan will be to admit another twelve students into the satellite location once it opens. The challenge for the program will continue to be having enough available resources throughout the state, in the form of paramedic units, for the paramedic students in all three cohorts to be able to complete their required field rotations.

Summary

The Delaware Technical Community College remains committed to help meet the staffing needs of the Delaware paramedic system. The paramedic program is changing to better meet the needs of the system. Our graduates continue to be well prepared to obtain their paramedic certification and enter the Delaware workforce.

Delaware Health Care Preparedness through the Hospital Preparedness Program Grant

The Hospital Preparedness Program (HPP) grant is funded by the Administration for Strategic Preparedness and Response (ASPR) and is managed by the Office of Emergency Medical Services that is located within the Delaware Department of Health and Social Services, Division of Public Health. “ASPR leads the nation’s medical and public health preparedness for, response to, and recovery from disasters and public health emergencies.” The state is in the first year of a five-year grant cycle.

Delaware Healthcare Preparedness Coalition (DHPC)

The Delaware Healthcare Preparedness Coalition (DHPC) is co-chaired by representatives from the Delaware Healthcare Association and the Office of Emergency Medical Services. DHPC meets monthly to promote communication, information sharing, resource coordination, and coordinated operational response and recovery, should an event occur. DHPC has a preparedness plan that includes information collected on hazard vulnerabilities and risks, resources, gaps, needs, and legal and regulatory considerations. Planning priorities are based on statewide needs, gaps, and federal grant guidance. DHPC continues to work on restructuring the coalition by adding subcommittees, such as Long-Term Care Facilities (LTCF). The LTCF subcommittee meets separately and sends a representative from their working group to the core DHPC meetings to share best practices with members.

Budget Period 5 (FY2023-2024) Objectives Met

- Engaged clinician participation in the monthly DHPC meetings.
- Continued to enhance health care preparedness through partner engagement and building the health care preparedness coalition.
- Conducted a Medical Response and Surge Exercise (MRSE) with a focus on chemical surge.
- Updated the medical surge plan to include radiological and chemical surge annexes.
- Updated patient and resource tracking system (DE-Trac) education to communicate essential elements of information for day-to-day information exchange, exercises, drills, and real-world events.
- DHPC updated DE-Trac bed availability status, completed surveys, and obtained information through the document hub.
- Held the annual DHPC symposium to engage stakeholders, businesses, community organizations, health care systems, and state and local partners in health care system activities through an annual symposium, training, exercises, and drills.
- Worked with the Trauma System Committee coordinator and Emergency Medical Services for Children coordinator on surge planning.
- DHPC finalized the Emergency Operations Coordination Standard Operating Guideline/Response Plan.
- HPP worked with the Office of Communication to ensure communication with health care providers and coordinated relevant messaging to the public during a public health emergency.

- DHPC worked with Basic Life Support agencies through the Delaware State Fire Prevention Commission to address health care worker resilience and implement the mental health resiliency officer program for first responders.
- DHPC continued to work on the medical surge plan to include a chemical incident patient surge plan/annex. The plan was validated via a tabletop/discussion.

Budget Period 1 (FY2024-2025) Priorities

- Submit Healthcare Coalition (HCC) Governance Document.
- Submit Jurisdiction Information.
- Work on the following assessments: Hazard Vulnerability Assessment, Readiness Assessment, Supply Chain Integrity Assessment, Workforce Assessment, Cybersecurity Assessment, and Extended Downtime Health Care Delivery Impact Assessment.
- DHPC will review, submit, and implement the Strategic Plan for fiscal years 2024 to 2028.
- Update material for the Readiness Plan, Training and Exercise Plan, Response Plan, Information-Sharing Plan, Resource Management Plan, Workforce Readiness/Resilience Plan, Medical Surge Support Plan, Patient Movement Plan, Allocation of Scarce Resources Plan, and Continuity of Operations Plan.
- DHPC will conduct an annual Medical Response and Surge Exercise.

Summary

The overall strategy of the Hospital Preparedness Program with the Office of Emergency Medical Services is to maintain and further develop the ability of the health care system to respond to emergencies through collaborative planning, exercises, and preparedness activities. Delaware has achieved much during the previous years; moving forward our intent is to continue to sustain and improve our response capabilities as outlined by the Administration for Strategic Preparedness and Response.

Recent incidents have shown the nation the importance of preparing the health care system to respond to and rapidly recover from these threats.

EMS Interfacility Transport

Interfacility transport services are an important part of any well-designed EMS system. The EMS system is often thought of as the 911 emergency response service, but the 911 emergency response service is just one part of the whole EMS transport system. The 911 transport system is not staffed to provide transport services for the non-emergent patients and remains available for emergencies as they arise. Interfacility transport services fill the important role of non-emergent patient transport allowing the 911 emergency response units to remain available for emergent request for service.

There are three types of ground Interfacility transport ambulances in Delaware:

- **Basic Life Support (BLS):**
 - Ambulances are staffed with Emergency Medical Technicians (EMTs). EMTs provide basic care and patient monitoring including oxygen therapy, bandaging, and splinting, etc.
 - Interfacility transport EMTs have the same scope of practice as 911 EMTs and utilize the same statewide treatment protocols.
 - Delaware has 16 Basic Life Support Interfacility agencies with a total of 74 BLS Interfacility ambulances and 174 - 911 ambulances licensed and operating in Delaware:
 - AEC Medical Transport
 - Alpha Ambulance
 - Ambulnz
 - ChristianaCare
 - Delaware Park
 - Event Medical Staffing Solutions
 - GEM
 - Keystone Ambulance
 - LifeStar
 - MedLink
 - Metro Medics
 - Nemours Children's Health
 - St. Favour
 - TBM Ambulance Service
 - Unique Care
 - Wheels to go
- **Advanced Life Support (ALS):**
 - Ambulances are staffed with at least one Paramedic and one EMT. Paramedics provide advanced life support care and monitoring including ACLS. The EMT provides support to the Paramedic.
 - Interfacility transport paramedics have the same scope of practice as 911 paramedics and utilize the same statewide treatment protocols.
 - Delaware has 8 licensed paramedic Interfacility agencies:

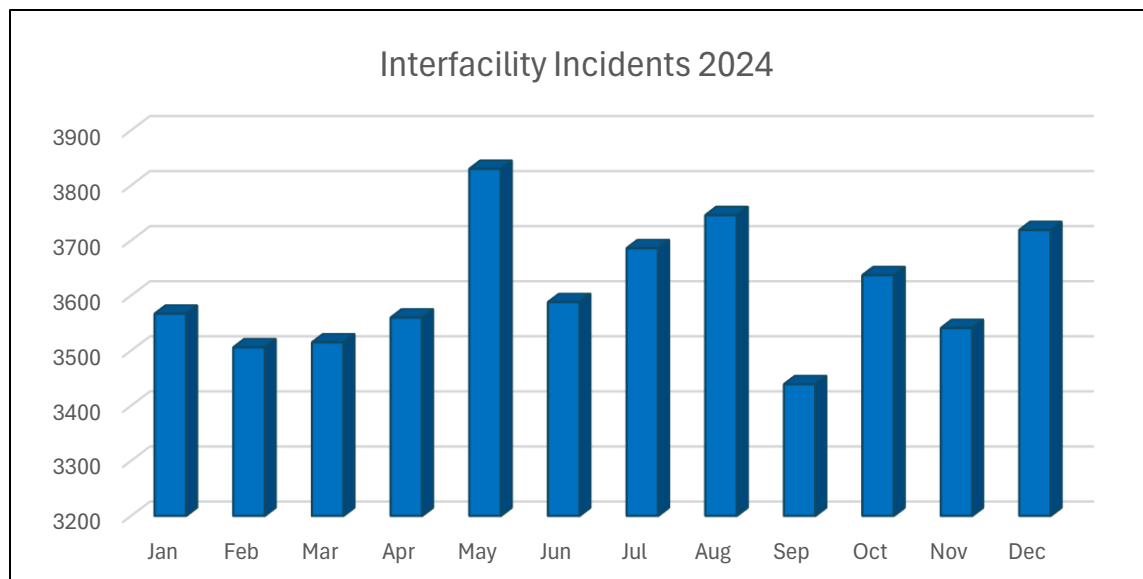
- AEC
- Ambulnz
- ChristianaCare; Life Net
- GEM
- LifeStar
- Nemours
- St. Francis
- JeffStat

- **Hospital Based Transport Team:**

- Ambulances are staffed with transport team personnel and at least one EMT from the transport service. The transport team personnel are staffed with specialty care personnel typically representing at least one Registered Nurse, one Respiratory Therapist, and may include a Physician.
- The transport team can perform procedures and assessments authorized by a prescribing practitioner and overseen by the medical facility. The EMT provides support to the transport team.
- Delaware has three hospital-based transport teams:
 - ChristianaCare Specialty Care Transport Unit
 - Nemours Children’s Hospital
 - St. Francis

Interfacility ambulance services can be used for the following types of patients:

- Facilities requesting non-emergency patient transportation.
- Skilled Nursing Facilities
- Physician Offices
- Clinics
- Acute Care Hospitals
- Home/Hospice Care Facilities Board and Care Facilities
- Urgent Care Centers
- Custodial Care Centers with a prescribing practitioner including jails, rehabilitation centers, etc.



Speciality Care

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Delaware Systems of Care

Submitted by Delaware Systems of Care

What is a System of Care?

A System of Care is an **inclusive**, statewide structure that incorporates **all** patients, **all** providers, and **all** facilities into an **all-encompassing** continuum of care. Each System implements evidence-based and data-supported standards to continuously improve this continuum.

Benefits of a System of Care

- Improved communication and collaboration among stakeholders.
- An organized approach to patient management throughout the continuum of care statewide.
- Patients receiving the same quality of care no matter where in the state they enter the system.
- Coordination of care, prehospital transport, and inter-facility transfer.
- System data to document incidence, availability of resources, and assure quality.
- A data-driven public education program targeted to high-risk populations.
- Improved patient outcomes.

Overarching Goals

- Reduce morbidity and mortality.
- Match resources with the needs of the patients.
- Get each patient to the right facility in the right amount of time.
- Preserve lives and livelihoods.
- Save healthcare dollars.

Systems of Care are Legislated

Delaware has four Systems of Care that are created and defined by Delaware State Code, Title 16, Part X, Chapter 97.

- Trauma System of Care – Enabling legislation: 1996
- Pediatric System of Care – Enabling legislation: 2012
- Stroke System of Care – Enabling legislation: 2016
- Overdose System of Care – Enabling legislation: 2018

Per legislation, the Division of Public Health Office of Emergency Medical Services, is responsible for the development, implementation, and maintenance of the Systems of Care.

Systems of Care Programs

- Trauma System of Care
- Stroke System of Care
- Overdose System of Care
- Safe Kids Delaware
- Delaware Coalition for Injury Prevention
- Governor's Organ and Tissue Donation Awareness Board

Requirements for Each System

- **Oversight Committee:** Membership to reflect phases of care from prevention through rehabilitation.
- **Quality Evaluation Committee:** Identify areas for improvement and suggest changes to make those improvements.
- **Facility Designation Process/Committee:** Process to become designated by the state of Delaware and to advertise as a Delaware designated facility
- **Specific System of Care Rules and Regulations:** Make up the specific system's plan

Regulation Requirements per Legislation

- Prevention/Public Education
- Prehospital Care
- Hospital Care
- Rehabilitative Care
- Continuing Education/Training for Personnel/Providers
- System Evaluation

What it Means to Delawareans

Wherever an injury, stroke or overdose occurs to adults or children in Delaware, the Systems of Care provides timely access to a system that ensures optimal, equitable and accessible care throughout the entire continuum of care, from the time a patient enters the system, through their treatment and through their rehabilitation and recovery. ***The right patient to the right facility in the right amount of time.***



The Delaware Trauma System of Care

Submitted by Trauma System Committee

With the guidance of OEMS and the dedication of many individuals statewide, Delaware has developed one of the nation's few truly **inclusive** statewide Trauma Systems, in which every acute care hospital **voluntarily** participates in the Trauma System and has met the standards for American College of Surgeons

Committee on Trauma (ACS COT) verification and state designation as a Trauma Center. Most importantly, this means that no matter where in the state people are injured, they enter a system of care that follows the same guidelines, regulations, and standards and makes sure they are cared for in the facility best able to manage their injuries.

Current Delaware Trauma Center designations are:

REGIONAL LEVEL 1 TRAUMA CENTER – ChristianaCare-Newark

PEDIATRIC REGIONAL LEVEL 1 TRAUMA CENTER - Nemours Children's Health

COMMUNITY LEVEL 3 TRAUMA CENTERS - Bayhealth Hospital, Kent Campus; Bayhealth Hospital, Sussex Campus; Beebe Healthcare; ChristianaCare - Wilmington Hospital; Tidal Healthcare - Nanticoke; Peninsula Regional Medical Center (Salisbury Maryland) via reciprocity.

PARTICIPATING HOSPITAL LEVEL 4 TRAUMA CENTER (PROVISIONAL): Saint Francis Healthcare is operating as a Provisional Level IV designated trauma center while they prepare for their site re-evaluation by the American College of Surgeons for their Level III ACS verification.

Accomplishments

Trauma System of Care Committees and subcommittees are continuing to meet and are well attended. All legislated positions have been filled.

The Quality and Evaluation Committee is very active with review of trauma data and case studies at the quarterly meetings. One of the quality improvement projects from this committee is the review of interfacility transfer data. A workgroup has been formed under Dr. Robert Rosenbaum's guidance, and the data is being broken down to determine if there are interfacility delays and if so, what are the potential causes.

With the inevitable sunset of the current trauma patient registry, a group of trauma system leaders and OEMS staff are looking at the options available to the state in purchasing and contracting for a new patient registry. There will be a considerable cost increase for this, and OEMS staff are looking into possible grants to offset the costs.

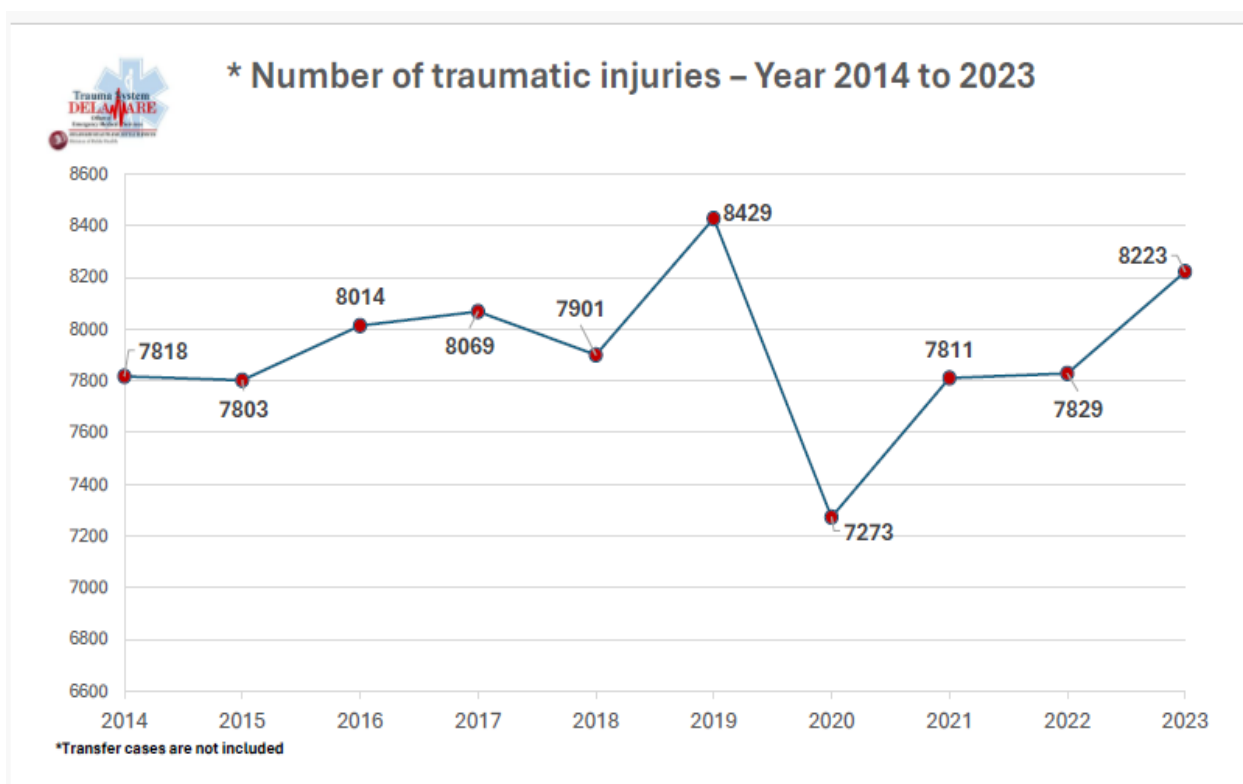
Trauma System and Regulations (Administrative Code 4305) have been approved and published.

Trauma System Committee Leadership, led by the Trauma System’s Medical Advisor Dr. Kevin Bradley, has begun to advocate for public Stop the Bleed initiatives across the state.

Challenges

Trauma funding continues to be a major concern within the Trauma System. It is very difficult to determine the cost of trauma in Delaware. The Centers for Disease Control estimate that in 2019, the nationwide cost of trauma was \$4.2 trillion, with \$327 billion in medical care alone.¹ By comparing the number of 2019 trauma patients nationwide to the number of trauma patients in Delaware, this translates to an estimated cost of \$8.7 million for medical care alone. This does not include the costs of physical assets, personnel, lost wages, extended care, etc.

Interfacility transports, which is a key component of getting patients from one facility to a facility that provides a higher level of care, is facing several challenges of timely and appropriate transfers. This problem is being addressed through the Office of EMS and the Trauma System of Care.

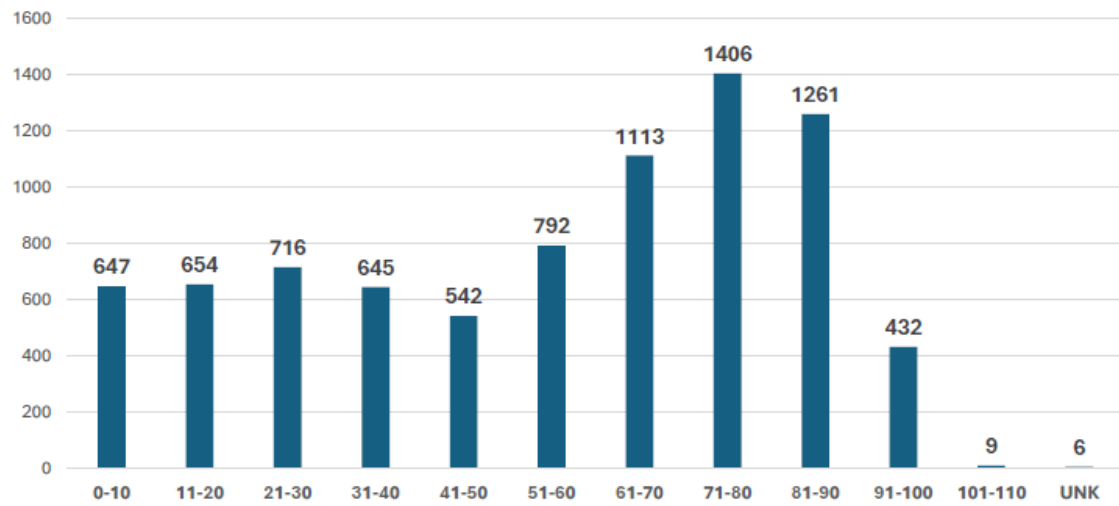


Delaware Trauma Registry – 2023 Data (latest year with complete data)

¹ CDC MMWR Economic Cost of Injury – United States, 2019



* Number of traumatic injuries by age groups - 2023



* Transfer cases are not included

Delaware Trauma Registry – 2023 Data (latest year with complete data)



The Delaware Stroke System of Care

Submitted by Stroke System Committee

The Delaware Stroke System of Care was created through enabling legislation passed in June 2016 (Title 16 Chapter 97). The Stroke System of Care has experienced significant growth. In addition to the Stroke System of Care Committee, there are several subcommittees and workgroups, including the Stroke

System Quality Evaluation Subcommittee, Public Education Subcommittee.

The Delaware Vital Statistics Annual Report 2022 (Table F-7) lists Cerebrovascular Disease as the 4th leading cause of death in the state, with 780 deaths in 2022, or 7.1% of all Delawarean deaths.

TABLE F-30. FIVE-YEAR AGE-ADJUSTED MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY COUNTY, DELAWARE, 2018-2022

LEADING CAUSES OF DEATH	AREA				NON-HISPANIC	
	DE	Kent	NCC	Sussex	White	Black
Malignant neoplasms	151.8	167.6	152.3	145.1	153.3	178.8
Diseases of the heart	146.2	176.2	144.4	134.0	146.7	166.5
Chronic lower respiratory diseases	33.7	45.1	32.8	29.9	36.9	27.7
Cerebrovascular diseases	47.7	48.0	57.9	33.6	45.1	65.5
Dementia	27.4	22.4	36.1	18.4	27.5	32.4
Accidents (unintentional injuries)	73.5	73.7	72.8	78.3	83.2	75.6

Notes:

1. Rates per 100,000, adjusted to U.S. 2000 population.

2. See Appendix E for ICD-10 cause of death codes.

3. "NA" indicates rate does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.

The non-Hispanic black stroke mortality rate of 65.5 deaths per 100,000 population is 51.3 percent higher than the non-Hispanic white rate of 43.3 deaths per 100,000 population. Addressing these disparate rates is part of the mission of the Delaware Stroke System of Care.

Stroke is also a leading cause of death nationwide. The Center for Disease Control's National Center for Health Statistics (NCHS) Data Brief, December 2022, page 4, lists stroke as the fifth leading cause of death nationwide at 41.1 per 100,000 population.

The Stroke System of Care Quality Evaluation Committee has formed a workgroup to investigate stroke mortality rates and are using staff from the Office of Health Statistics and the American Heart Association to try to identify areas for better public awareness and education about stroke.

The time of onset of symptoms to the time of treatment have a significant impact on the outcome of the stroke patient. Both Advanced Life Support and Basic Life Support agencies have implemented a stroke score to identify large vessel occlusion (LVO - a major type of stroke), to provide timely and direct transport to a stroke center with the resources to handle an LVO. This

has resulted in several cases where a stroke patient, after being flown to ChristianaCare, has made a full recovery due to the timely administration of brain tissue saving treatment!

Delaware Stroke Centers are certified through The Joint Commission on Accreditation of Healthcare Organizations (TJC). Site visits occur every two years, with review of the entire hospital system for stroke care, including policies and protocols, medical resources, performance improvement program with stroke registry, and professional and public education programs. Per Delaware Code, any hospital that receives accreditation through The Joint Commission as a stroke center are automatically designated as a Delaware Stroke Center. This differs from how Trauma Centers are designated.

COMPREHENSIVE STROKE CENTER - ChristianaCare – Newark Campus

PRIMARY STROKE CENTERS - Bayhealth Kent Campus, Bayhealth Sussex Campus, Beebe Healthcare, ChristianaCare - Wilmington Hospital, Saint Francis Healthcare, and Tidal Health – Nanticoke.

ACUTE STROKE READY HOSPITAL – ChristianaCare – Middletown Campus

Accomplishments

All Stroke Centers in Delaware have been recognized by the American Heart Association and have the highest available AHA Stroke awards (Gold Plus Achievement). [The Road to a Healthy Heart Starts Here \(usnewsbrandfuse.com\)](https://www.usnewsbrandfuse.com).

Working with the Stroke Public Education Subcommittee, OEMS staff and OCOMM, a new Stroke System of Care webpage has been designed and parts of it are up and available. We are looking forward to getting the links for public education and stroke patient resources completed soon. [StrokeSystemOfCare - Delaware Health and Social Services - State of Delaware](#)

Challenges

Interfacility transports, which is a key component of getting patients from one facility to a facility that provides a higher level of care, is facing several challenges of timely and appropriate transfers.

The Quality Evaluation Subcommittee is working to get data for Delawarean stroke patients who have been transported outside of the state.

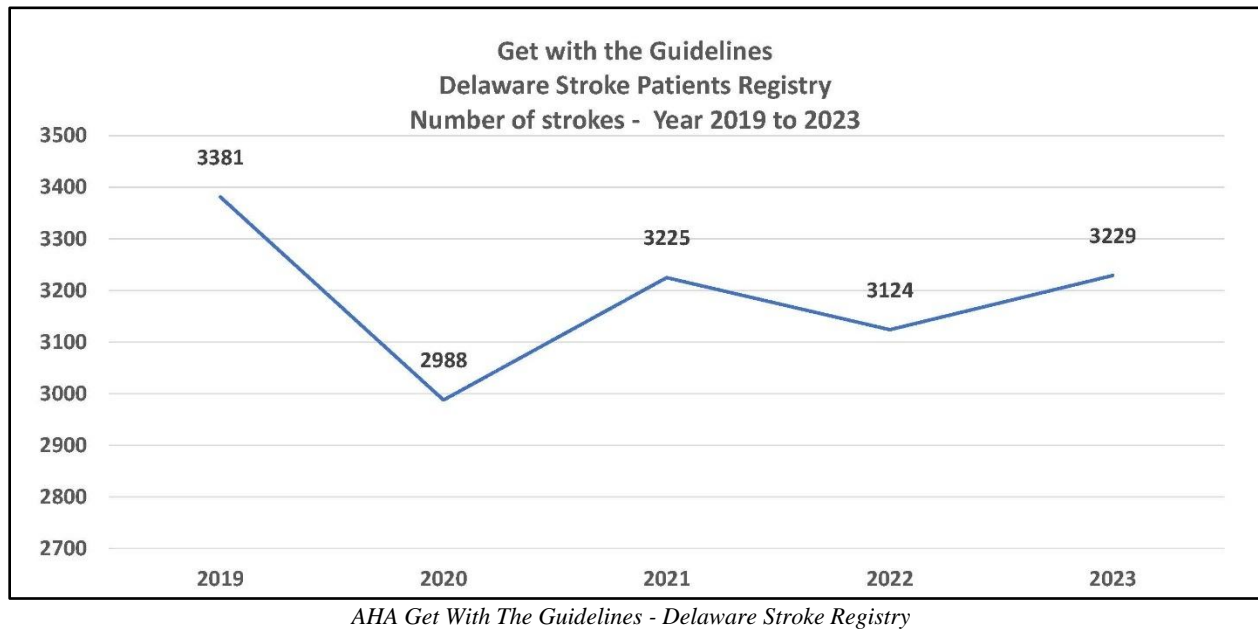
Stroke Numbers:

In 2023, there were 3229 patients entered into the Get with The Guidelines Delaware Stroke Patient Registry.

Age: 67% > 66 years old

Sex: 48% male, 52% female

Race: 67.6% White, 25.9% Black, 3.1% Hispanic





Delaware Overdose System of Care

Submitted by Overdose System Committee

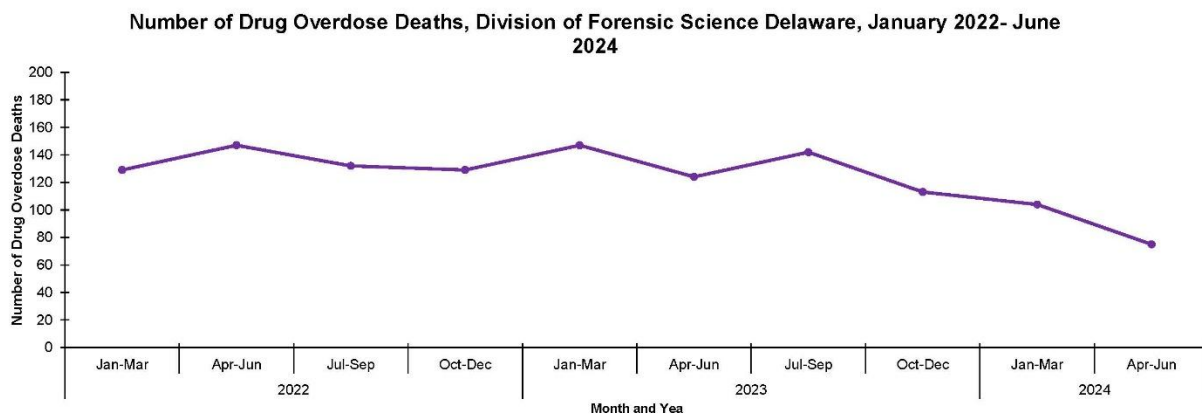
The Overdose System of Care (OSOC) was established in 2018 by [Delaware Legislation](#) to coordinate the treatment and care provided to individuals who have experienced or are at risk of experiencing an opioid overdose. The legislation called for an OSOC Committee with specific representation to be established under the leadership of the Division of Public Health (DPH) and the Division of Substance Abuse and Mental

Health (DSAMH). The OSOC Committee is supported by three Subcommittees: The Acute Opioid Use Disorder (OUD) Stabilization Subcommittee, the Naloxone Subcommittee, and the Data and Quality Subcommittee.

While death rates in Delaware remain high, there was a slight reduction for 2023 and expect another reduction to be announced by the Delaware Department of Safety and Homeland Security, Division of Forensic Science. Fentanyl is the leading cause of overdose deaths, being present in 85% of all overdose deaths, per the Division of Forensic Science.²

Delaware overdose deaths are continuing to exceed the national average. The data obtained from the CDC's State Unintentional Drug Overdose Reporting System (SUDORS)³ show that the 2023 national death rate per 100,000 population is 33.5. Delaware's death rate per 100,000 population is 53.8. Nationwide, Washington and West Virginia are the only states with higher death rates per 100,000 population.

Division of Forensic Science (DFS) Overdose Deaths



Data source: Delaware Department of Safety and Homeland Security, Division of Forensic Science. Notes: Drug overdose deaths are provided by DFS after toxicology results are received. **Confirmed****: Report or identification in the absence of another known cause/diagnosis and no immediate or delayed fatal outcome from the overdose event is identified. A diagnosis of an opioid overdose with confirmatory laboratory evidence; a clinically compatible presentation or chief complaint indicating opioid overdose with confirmatory laboratory evidence; Naloxone administration (by a first responder, a healthcare professional, or a person who is neither a first responder nor a healthcare professional) and indication of reversal with confirmatory laboratory evidence. (CSTE, Nonfatal Opioid Overdose Standardized Surveillance Case Definition, 2024).



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Overdose System of Care

² Delaware Drug Monitoring Initiative Annual 2023 Report

³ [SUDORS Dashboard: Fatal Drug Overdose Data | Overdose Prevention | CDC](#)

Accomplishments

2024 was a year of transition and significant progress for OSOC. At the end of 2023, each OSOC Subcommittee developed goals for 2024. These goals were then turned into workplans that guided the work of the Subcommittees throughout the year. Some of the accomplishments seen in 2024 include:

- Established referral pathways to treatment providers and provided those pathways to EMS and Emergency Departments to assist an overdose patient in contacting a provider for medications for opioid use disorder (MOUD) if they desire.
- Delaware is the first state in the union for all ALS EMS agencies having the ability to administer buprenorphine (an MOUD) to patients that have experienced an overdose and have been resuscitated with naloxone and wish to start MOUD treatment.
- ODMAP, a mapping tool that shows close to real-time locations of overdoses, is fully integrated state-wide. The data for this program comes from real-time data received from police, prehospital and forensic reports. ODMAP allows specific response partners to identify hot spots or areas of a sudden increase in overdoses to allow for rapid deployment of resources.
- Prehospital administration of Naloxone is down 35%⁴, but further investigation needs to be conducted due to the fact naloxone is easily accessible to the public, and the patients may be receiving the naloxone doses from bystanders.

Challenges

One of OSOC's biggest challenges is to determine if actions that are being taken to curb overdose deaths is making a difference. The data is hard to compile due to privacy and multiple data sources that are required to gather the data.

Another big challenge is getting the patient to agree to the buprenorphine initial dose in the prehospital setting, and then following up with an MOUD provider to continue to the treatment. Work is on-going between EMS and the Division of Substance Abuse and Mental Health to identify methods for teams to follow-up with the patient.

The Overdose System of Care remains committed to abatement and response efforts, to further reduce overdoses and overdose deaths in Delaware.

⁴ Delaware Drug Monitoring Initiative Annual 2023 Report



Emergency Medical Services for Children

Introduction

Each year, approximately 30 million children are evaluated in emergency departments (EDs) in the United States. Children account for approximately 10% of all Emergency Medical Services (EMS) transports. Since the needs of children treated in the prehospital setting are different from those of adults, prehospital care providers must have appropriate equipment and training, along with safe and effective protocols to treat children (Foltin, G. L., Dayan, P., Tunik, et al. 2010. Priorities for pediatric prehospital research. *Pediatric emergency care*, 26(10), 773-777).

Children account for nearly 25% of ED patients, and the vast majority are not seen in children's hospitals (Institute of Medicine Committee on the Future of Emergency Care in the US Health System. 2006. Hospital-based emergency care: at the breaking point). While as many as 50% of U.S. hospitals see fewer than 10 pediatric patients per day, all hospitals can and should be pediatric ready (Remick, K., Snow, S., & Gausche-Hill, M. 2013. Emergency department readiness for pediatric illness and injury. *Pediatric emergency medicine practice*, 10(12), 1-13).

The Delaware Emergency Medical Services for Children (EMSC) program supports a high-quality emergency care system that provides optimal care for ill and injured children. It implements and evaluates the EMSC Performance Measures as directed by the U.S. Department of Health Resources and Services Administration (HRSA). Delaware was awarded its first EMSC grant in 1997 from HRSA's Maternal and Child Health Bureau and has been granted in five-year increments since its inception.

The Delaware EMSC Advisory Committee is chaired by a pediatrician who advises on program development and represents the EMSC program on the Delaware Emergency Medical Services Oversight Council (DEMSOC). EMSC promotes the medical home concept and encourages cultural diversity and cultural competency in the health care workforce. In addition, EMSC plans methods of integration of EMSC priorities into statutes, regulations, and everyday health care practice.

2024 Accomplishments

In 2024, the EMSC Program focused specifically on the following EMSC metrics and surveyed 100% of all EMS agencies in partnership with the EMSC Data Center:

EMSC metric 02: A PECC (PEDIATRIC EMERGENCY CARE COORDINATOR): The percentage of EMS agencies in the state or territory that have a designated individual who coordinates pediatric emergency care.

The survey data for this metric increased significantly, from 60% in 2022 to 85.7% in 2023. The 2024 results are pending and will be available at the state level soon. Delaware currently has 100% PECC reps for all agencies.

EMSC metric 03: The percentage of EMS agencies in the state or territory that have a process that requires EMS providers to physically demonstrate the correct use of pediatric-specific equipment. The EMSC has educated the agencies of the importance of a PECC representative and pediatric equipment training.

The survey data for this metric increased significantly, from 26.5% in 2022 to 47.6% in 2023. The Fire School offers annual pediatric training to enhance provider education as needed. The EMSC also partners with Nemours for state-of-the-art pediatric specific hands-on training.

Delaware has added another facility to the Pediatric Recognition program. In August 2024, Bayhealth Milton Campus in Milton, Delaware was added to the program as a Level IV. Delaware maintains 100% participation in the pediatric recognition program with all 12 hospital facilities in Delaware maintaining or receiving pediatric recognition status. The EMSC program has resumed in-person simulation Pediatric skills trainings with Nemours Children's Hospital to aid in meeting metric EMSC 03.

The EMSC Quality Program has collected pediatric quality indicator data from the hospitals, including ED documentation. Along with the assigned hospital providing the case study, EMS providers' perspectives were included to document patient transport details. Prehospital services are included at the quality indicator meetings.

A Prehospital Pediatric Readiness Recognition program has been established. A subcommittee, including the EMSC manager, advisory chair, and each county PECC, held meetings in early 2024 to establish standards, guidance, and applications for the program.

2025 Challenges and Goals

The goals of the Delaware EMSC program are to ensure continuous improvement of the state EMS System by integrating EMSC priorities into all aspects of that system. The program's goals are to:

1. Provide pediatric specific training of pre-hospital and ED hospital employees
2. Ensure ED's and ambulances have essential pediatric equipment
3. Monitor the timely and safe transport and transfer of pediatric patients within the pediatric system.

It is vital to maintain a system that is prepared to provide optimal care for pediatric patients statewide. Through continued partnership and coalition-building, the Delaware EMSC Program will achieve and sustain its goal of assuring optimal emergency care for all children in the state. The program will continue implementing Metrics 1.0 to 3.0 per the National Pediatric Readiness Project this year, and to have all agencies complete EMSC data center surveys.

The Delaware EMSC's goal is to fully implement a prehospital pediatric readiness recognition program with a minimum target of 25% of Delaware's EMS agencies to be recognized in 2025. This is to meet HRSA's EMSC metric 2.1: 25% of prehospital EMS agencies recognized through

a statewide, territorial, or regional standardized program that can stabilize and/or manage pediatric emergencies.

Summary

Despite a high turnover in pediatric emergency care coordinators at most of the facilities that impacted all areas, the hospital leadership supported the EMSC Program. Although EMSC has made great progress over the years, much remains to be done to ensure children consistently receive optimal emergency care. Through its programs and projects, the EMSC program will continue to aid in reducing death and disability of children in Delaware.



Delaware Organ and Tissue Donor Awareness Board (OTDAB)

Submitted by OTDAB members

Created by Delaware Code, Title 16, Chapter 27, Anatomical, Gifts and Studies, Section 2730, this Governor-appointed Board has the responsibility of promoting and developing organ and tissue donor awareness educational programs in Delaware. These programs include various types of public education initiatives aimed at educating residents about the need for organ and tissue donation and encouraging them to become designated organ donors through the state driver's license or identification card program.

Accomplishments

Since 2019, the Delaware Organ and Tissue Donor Awareness Board has established a program to encourage high school students to create videos promoting organ donor awareness. OTDAB arranges program promotion including for the videos to be collected, viewed, and judged. Up to \$5000.00 are awarded each year, with a minimum of one winner per county.

As of December 2024, there are 432,725 (48.83%) Delawareans with organ donor designation currently registered through the DMV in Delaware.

2024 Registered Organ Donors per DMV

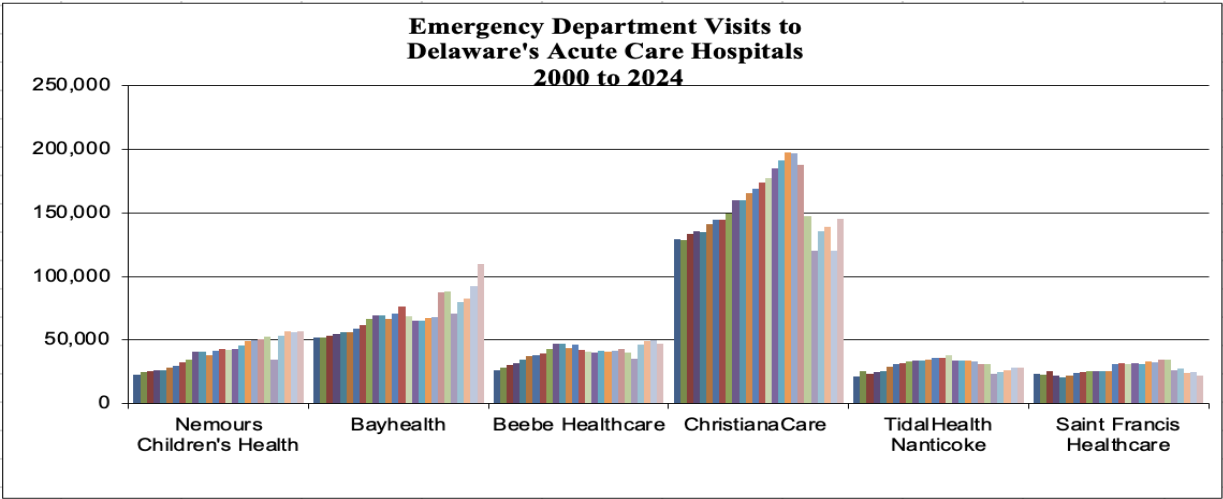
County	Total	Donor Designations	Percentage (%)
New Castle	483,310	228,951	47.37
Sussex	247,307	132,612	53.62
Kent	155,658	71,162	45.72
Total DL/ID	886,275	432,725	48.83

Delaware Division of Motor Vehicles, Office of Driver and Vehicle Services

Delaware Healthcare Association

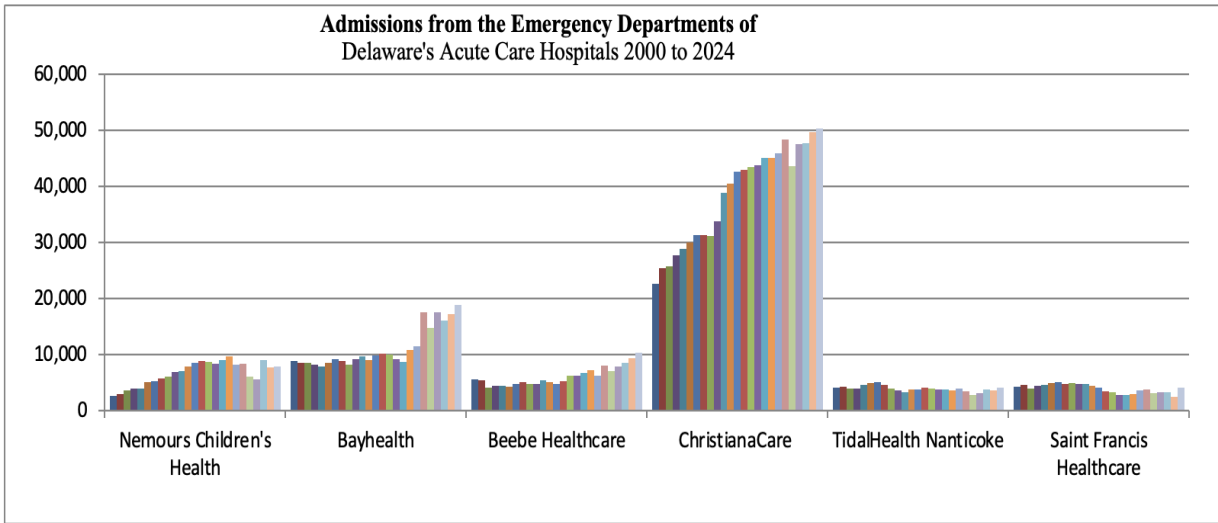
As Submitted by Megan McNamara Williams

Information provided by the Delaware Healthcare Association indicates there were 409,538 visits to the Delaware acute care hospital emergency departments in 2024, which is an increase of 7,543 (1.84%) hospital emergency department visits statewide from the same period in 2019.



Of note, there was an increase of 10.17% in visits to our Delaware hospital emergency departments from 2023 to 2024 (371,743 vs 409,538).

In addition, there were 95,477 patient admissions from the emergency department for 2024, an increase of 6,012 (6.30%) from the same period in 2019.



Of note, there was an increase of 6.15% in admissions from our Delaware hospital emergency departments from 2023 to 2024 (89,943 vs 95,477).

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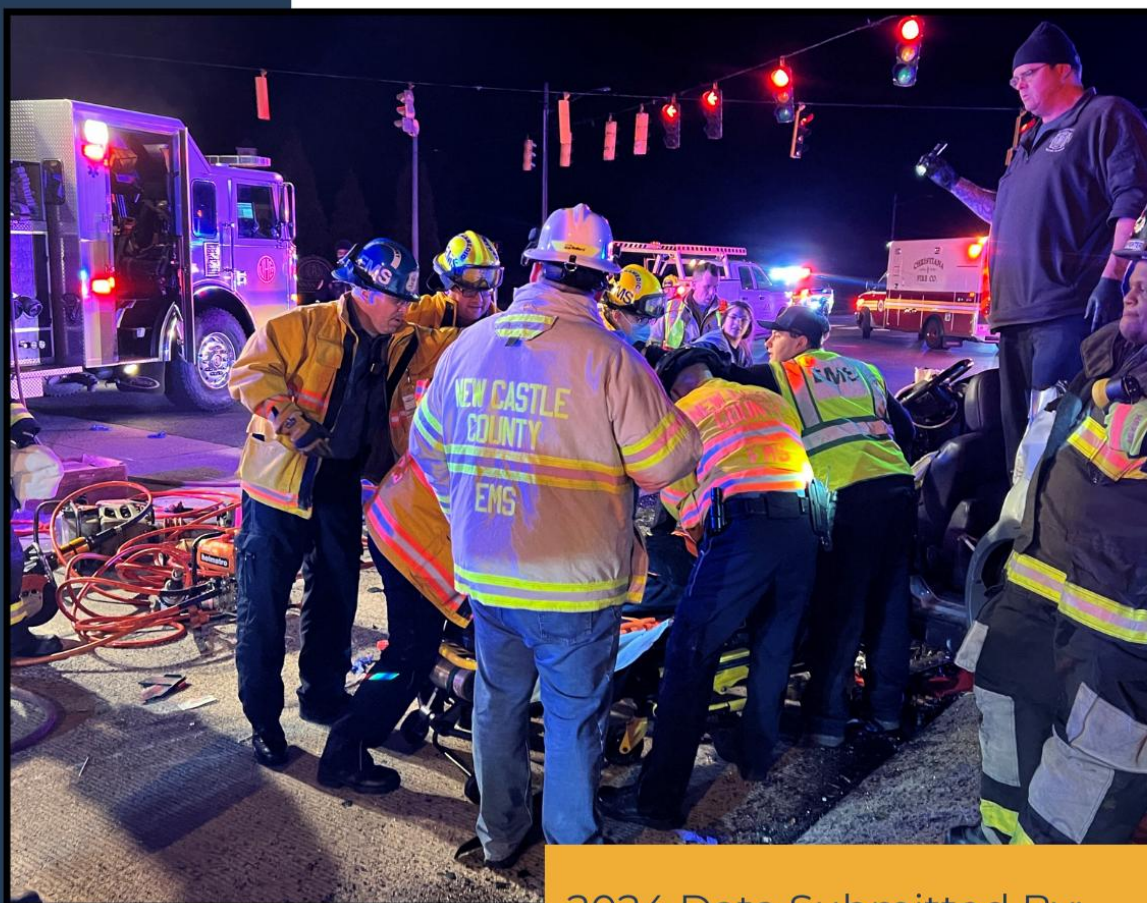


2024

NEW CASTLE COUNTY EMERGENCY MEDICAL SERVICES

ANNUAL REPORT

"Our Mission is Your Life"



2024 Data Submitted By:

CHIEF MARK R. LOGEMANN



OVERVIEW

The mission of the New Castle County Emergency Medical Services Division, as an essential component of the New Castle County Government, is to provide efficient, compassionate, and high-quality emergency medical care to the visitors and residents within New Castle County. Our delivery of paramedic service directly impacts the quality of life for all who reside, visit, and work in New Castle County.



The New Castle County Emergency Medical Services Division is a county municipal “third service” paramedic agency within the County Department of Public Safety. New Castle County EMS has the distinction of being the “First Paramedic Service in the First State” to be nationally accredited by the Commission on Accreditation of Ambulance Services (CAAS).

New Castle County EMS operates in a “tiered response” or advanced life support-intercept configuration and responds with basic life support (BLS) ambulances from the volunteer fire service, career fire departments, private ambulance service providers, and specialized BLS providers, such as the University of Delaware Emergency Care Unit, a student operated ambulance.

In 2024, New Castle County EMS deployed nine (9) full-time paramedic units during its high call volume period during the day and eight (8) full-time paramedic units during non-peak operating hours at night. The EMS Division field supervision includes two (2) Paramedic Sergeants on a 24-hour basis. An EMS Lieutenant serves as the shift commander on a 24-hour basis. Both Paramedic Sergeants and the on-duty EMS Lieutenant are equipped as advanced life support responders. No part-time personnel were utilized in 2024.

Our personnel strive to demonstrate their commitment to our motto “*Excellence in Service*” each and every day, because “*Our Mission is Your Life.*”

Further information regarding the New Castle County Paramedics is available on our web site at: ems.newcastlede.gov, or follow us on [Facebook](#) (@NCC.Paramedics) and [Instagram](#).

ORGANIZATION

The EMS Division is a component of the New Castle County department of Public Safety with the Chief of Emergency Medical Services reporting to the Director of Public Safety, who is appointed by the County Executive. The service is divided into an Operations and Administration/Special Operations Branch; each commanded by an Assistant Chief. The Operations Branch is responsible for the delivery of pre-hospital care. The Administration/Special Operations Branch is primarily responsible for the support services component of the agency, including Recruitment and Applicant Processing, System Improvement, Training/Continuing Education, Fiscal Management, Logistical Support and Procurement.

EMERGENCY MEDICAL SERVICES DIVISION STAFF



Chief Mark R. Logemann
Chief of Emergency Medical Services Division



Assistant Chief Christopher A. Johnson
Commander, Administration/Special Operations



Assistant Chief Kelli A. Starr-Leach
Commander, EMS Field Operations



Captain David B. Aber
Office of the Chief



Lieutenant Jeffrey R. Russell
Commander, EMS Platoon 1



Lieutenant Isaac J. Hankins
Commander, EMS Platoon 2



Senior Lieutenant Michel A. McColley
Commander, EMS Platoon 3



Senior Lieutenant Joseph J. Dudley
Commander, EMS Platoon 4



Lieutenant Matthew W. Watson
Office of Training & Continuing Education



Lieutenant Peter T. Small
Office of System Improvement



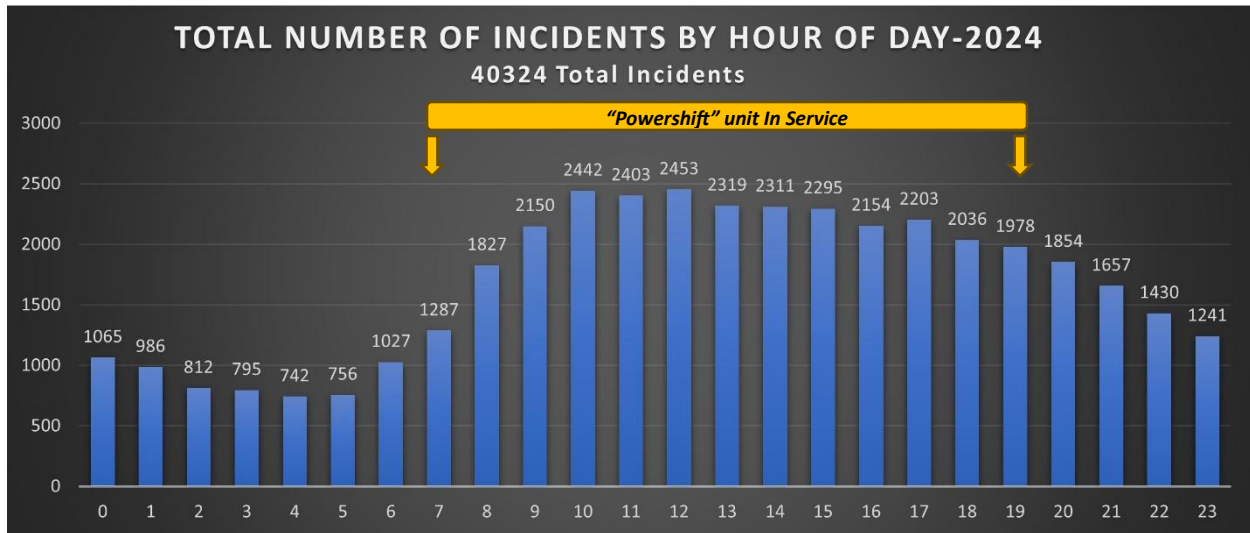
Lieutenant Abigail E. Haas
Recruitment, Applicant Processing, Academy



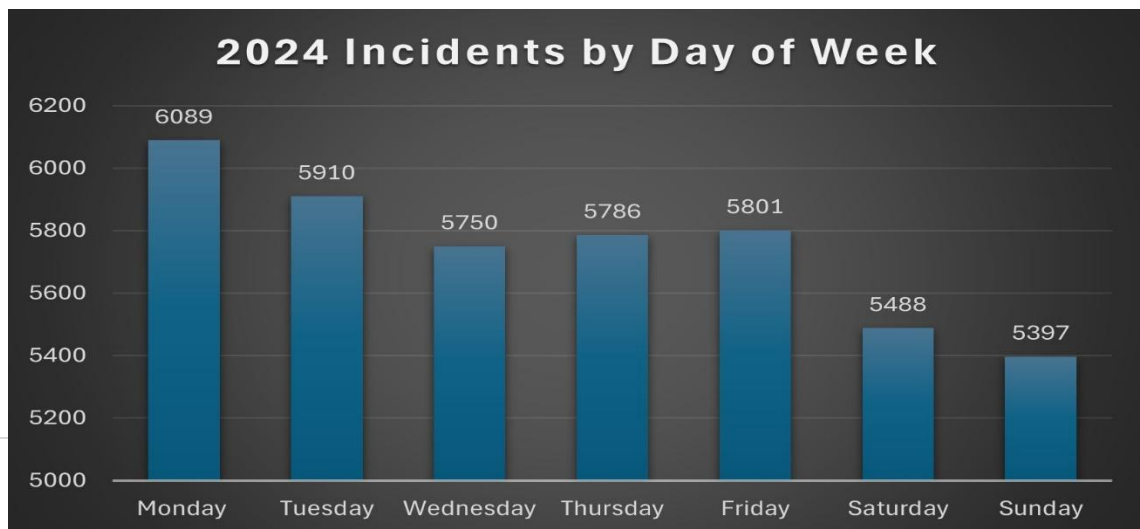
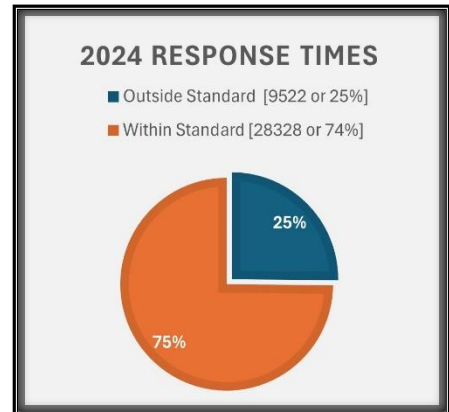
Senior Lieutenant Michael R. Nichols
Office of Support Services

OPERATIONS

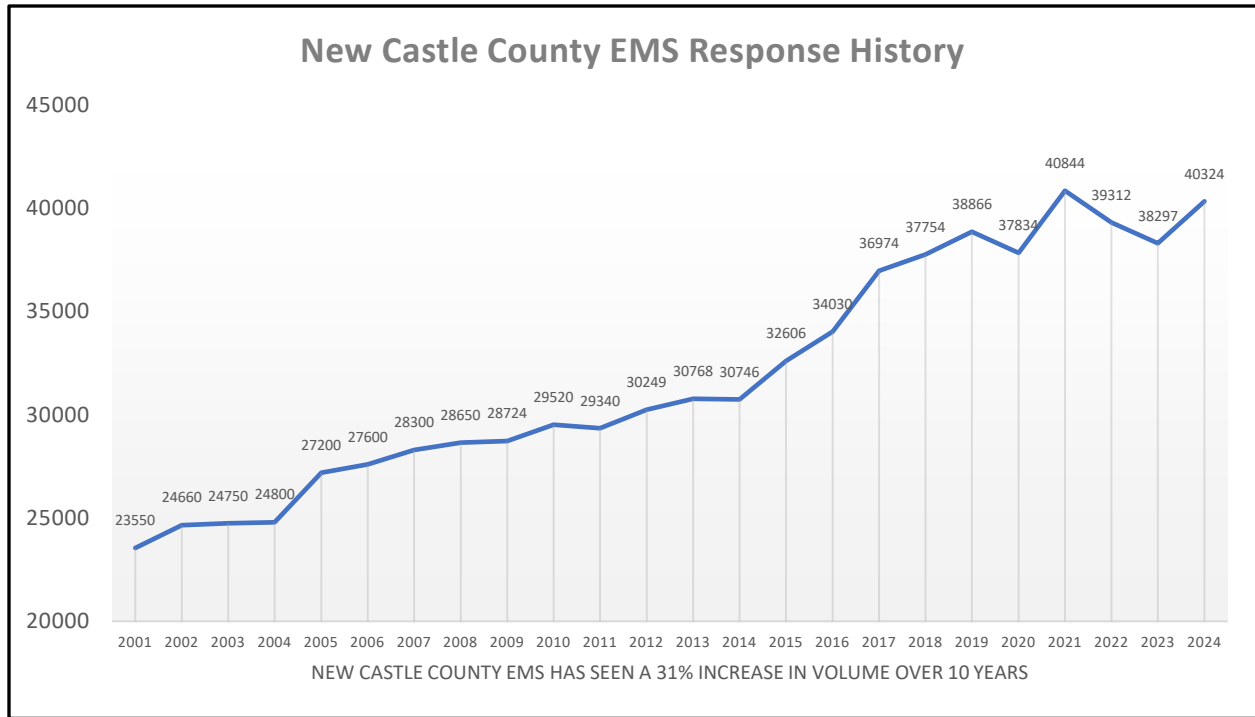
New Castle County EMS has a clearly defined call volume pattern that begins to increase at approximately 0600 hours each day, plateaus at 0900 hours through 1900 hours, then steadily declines until 0600 hours. Utilization of “power shift” units, such as Medic 9, provides an opportunity to increase paramedic staffing during high call volume times each day. Additional paramedic units have been placed in service for special circumstances, available personnel during daytime hours, inclement weather conditions, and other events that potentially impact service delivery in New Castle County.



The New Castle County Paramedics responded to **40,324** total incidents during calendar year 2024 with a paramedic unit arriving on scene 74% of the time in 8:59 or less, regardless of the incident priority. This is a marked improvement over 2023 which saw units meeting this mark only 60.8% of the time. Many of the incidents involved a response by more than one New Castle County paramedic unit due to multiple patients or complicated circumstances. There were **57,912** paramedic unit responses in 2024. “Responses” are higher than “incidents” due to multiple paramedic units responding to one single incident at times of significant incidents.



2024 INCIDENTS

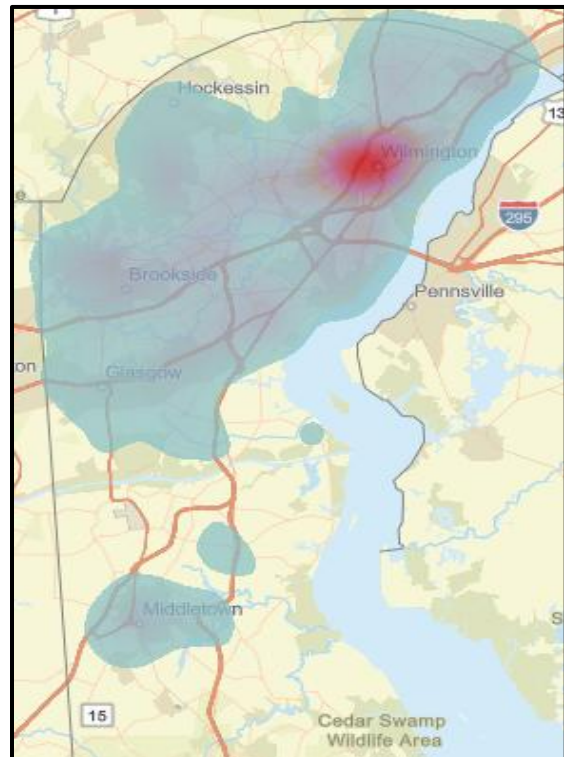


2024 TOTALS:

Incidents	40,324
Responses	57,912
Transports	19,597

Over the past year, New Castle County EMS has seen a **5.3% increase in call volume**. Over the past ten years, the paramedic call volume in New Castle County has increased 31%. The decrease in volume in 2022 and 2023 are attributed to changes in PMD response resulting in a “BLS only” response to certain identified “Charlie” and “Delta” level calls which had few advanced life support transports.

New Castle County EMS continues to see more incidents occurring within densely populated areas of the county to include the City of Wilmington, Newark, Bear and the Middletown areas. Paramedic unit deployment and station location identification have been focused on these highly populated areas and locations of increased paramedic responses.



2024 PARAMEDIC UNIT RESPONSES

NCC*EMS Division Responses (January 1 to December 31, 2024)

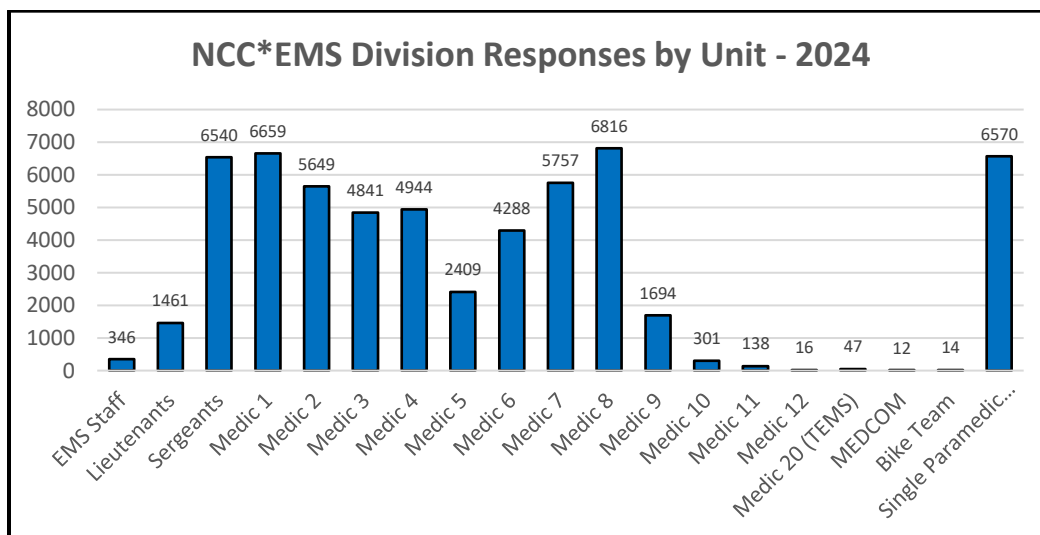
EMS Senior Staff	346
EMS Lieutenants	1461
EMS Sergeants	6540
Medic 1 (Wilmington)	6659
Medic 2 (New Castle)	5649
Medic 3 (Newark)	4841
Medic 4 (North Wilmington)	4911
Medic 5 (Middletown)	2409
Medic 6 (Glasgow)	4288
Medic 7 (Prices Corner)	5757
Medic 8 (Wilmington)	6816
Medic 9 (12 hour/day unit)	1694
Medic 10 (as staffing permits)	301
Medic 11 (Special Duty)	138
Medic 12 (Special Duty)	16
Medic 20 (Tactical EMS Team)	47
MEDCOM	14
Bike Team	12
Single Paramedic Responses	6570
TOTAL RESPONSES	57912

A number of paramedic units may make a paramedic response to any incident, stand-by, or special request for paramedic service.

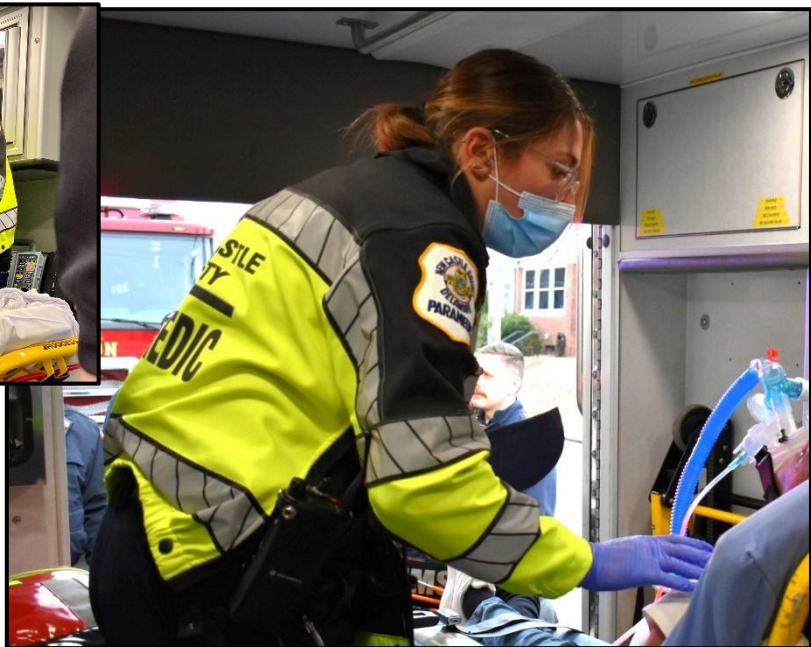
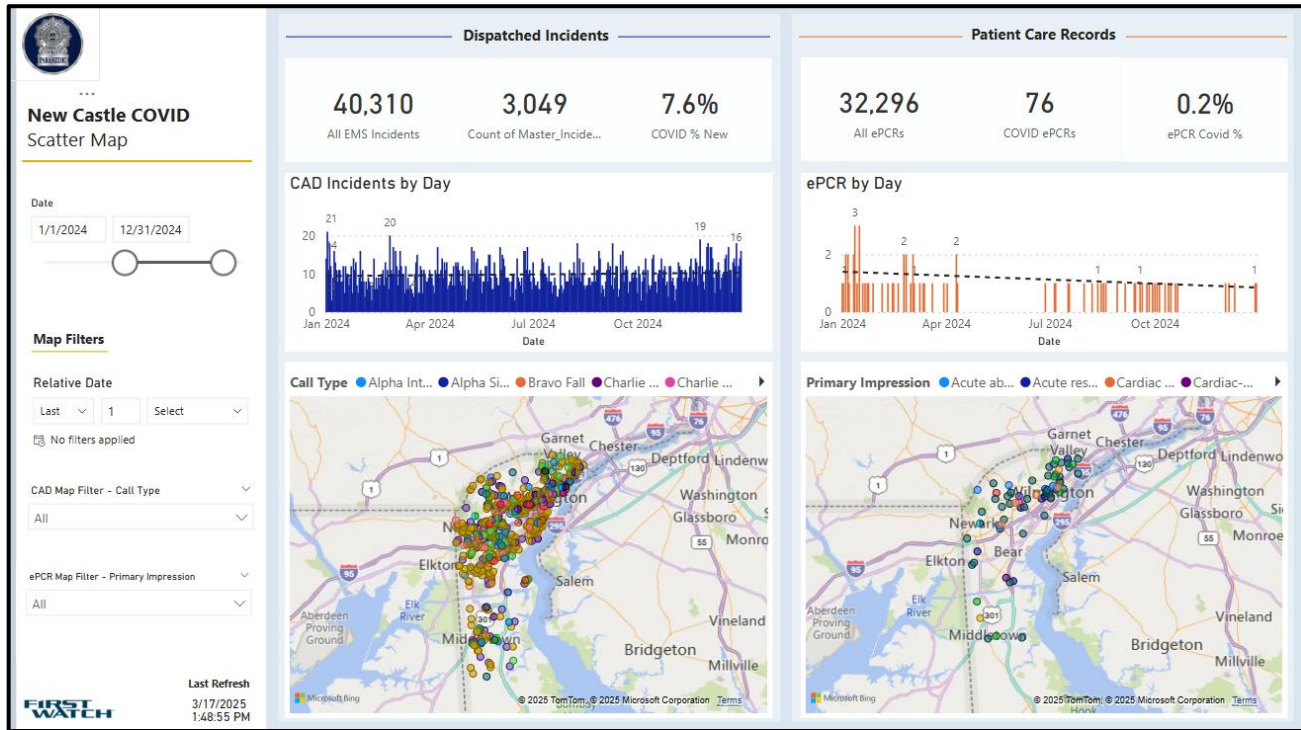
EMS Senior Staff consists of the senior leadership of the organization to include Chief, Assistant Chief and Captain. Sergeants and Lieutenants serve at the shift supervisors and oversee all field paramedic units in daily operations. Medic 10 is a supplemental operational unit that is placed in service when staffing permits.

Medics 11 & 12 include special events. Medic 20 is staffed with TEMS certified paramedics and supplements the New Castle County SWAT Team on missions. MEDCOM is a medical and communications unit that is staffed on large scale incidents or special events. The Bike Team also covers special events when necessary.

Single paramedic responders are used when the paramedic partner is transporting to a hospital or when additional staffing permits.

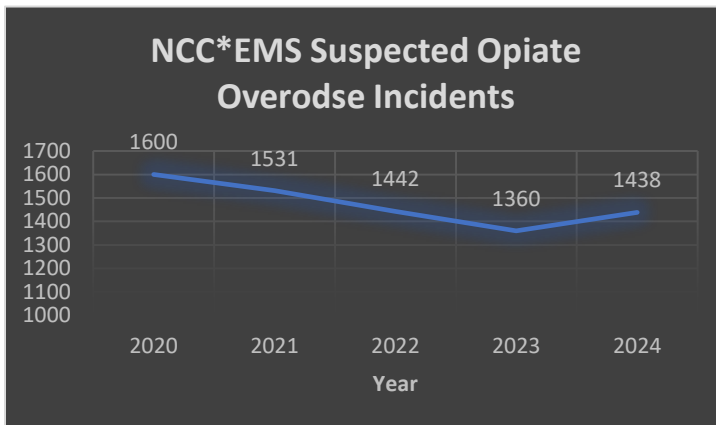
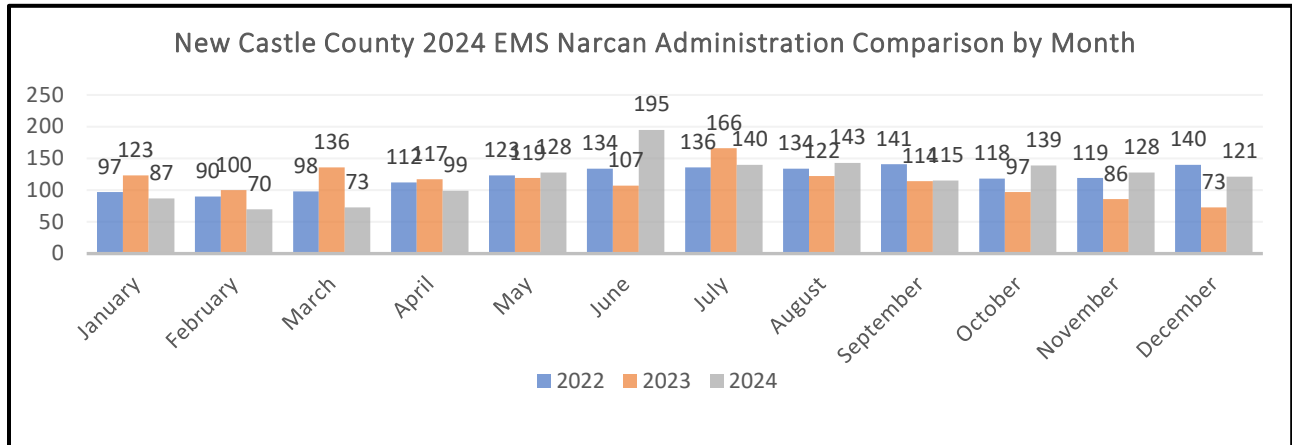


2024 COVID-19 RESPONSES IN NEW CASTLE COUNTY



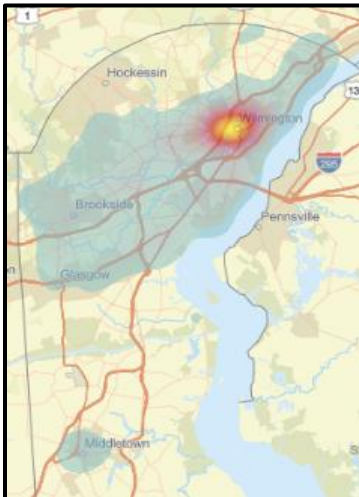
The above charts represent a comparison between number of incidents dispatched with COVID precautions, as compared to patient care records that the paramedic indicated signs and/or symptoms of suspected COVID or positive diagnosis. New Castle County Paramedics continue to maintain airborne droplet precautions during patient contacts with suspected airborne disease. Of the 3,049 incidents in 2024 for which suspected COVID-19 was a dispatch concern, only 76 of those incidents (2.5%) were found by paramedic responders to be related to a COVID-19 diagnosis.

2024 USE OF NARCAN AND SUSPECTED OPIATE OVERDOSE



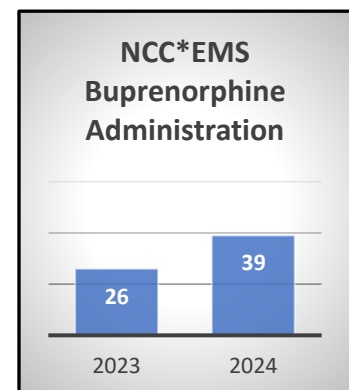
The administration of Naloxone (Narcan) is used by New Castle County EMS as an indicator for possible opiate overdose call type. New Castle County Paramedics responded to 1,438 incidents in 2024 of suspected opiate overdose as compared to 1,360 incidents in 2023. There was a 5% increase in suspected opiate overdose incidents in 2024. Overall, we have seen a 10% decrease in Narcan administration in New Castle County since 2020. Heat maps show Narcan administration and suspected

opiate overdose are highest in the City of Wilmington, along the Interstate 95 corridor, and urban areas of New Castle County.

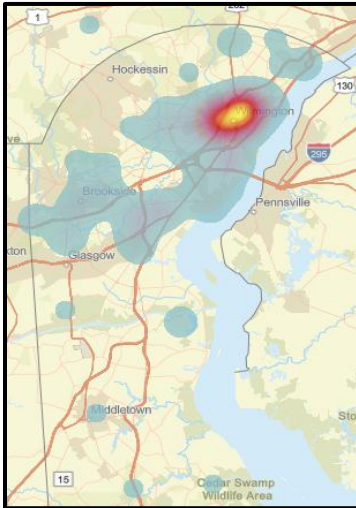
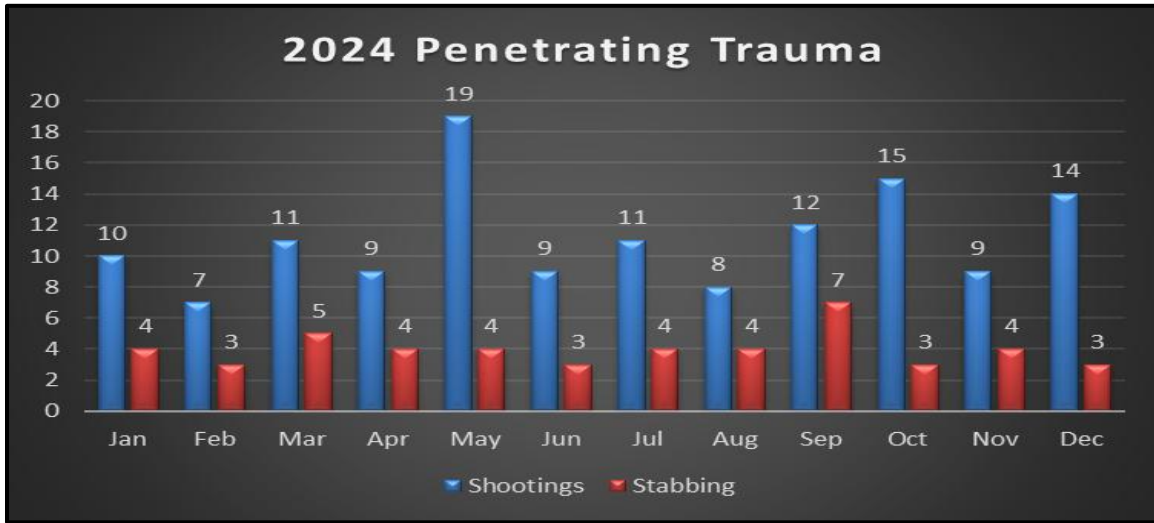


Pre-Hospital Buprenorphine: On April 28, 2023, New Castle County EMS began a pilot program modeled after Camden, County, New Jersey where patients are given an option of receiving the opioid use disorder medication, buprenorphine, in addition being entered into treatment. Through a partnership with the Delaware Division of Public

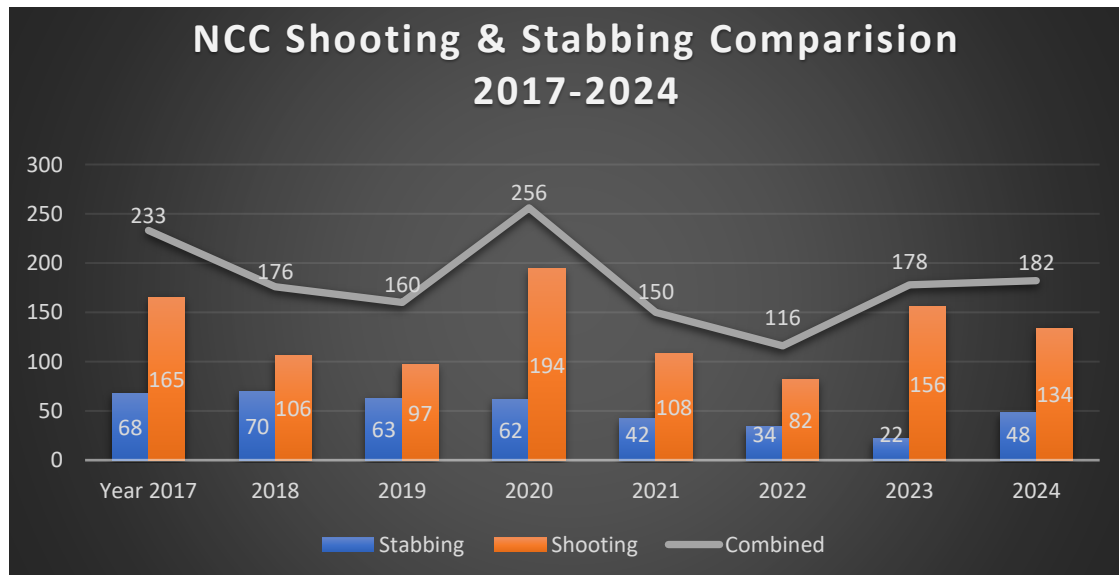
Health, Office of Emergency Medical Services, Brandywine Counseling, and CORAS (Championing Optimal Recovery Advancing Self-Sufficiency), patients are given an “open door” to follow-up treatment within twenty-four hours. In 2024 the administration of Buprenorphine and ability to immediately get patients into treatment increased 50% from the previous year.



2024 PENETRATING TRAUMA INCIDENTS



Penetrating trauma continues to be a significant subset of the total number of trauma patients treated by paramedics in New Castle County. The total number of penetrating trauma patients treated by New Castle County EMS in 2024 increased only 2% from the previous year. The number of shooting incidents decreased 14% while the number of stabbing incidents increased 118% as compared to the same incident types in 2023. Heat maps show the concentration of penetrating trauma victims from the City of Wilmington, Bear, western Newark areas, New Castle, and the Pike Creek areas. Due to these increasing numbers of patients injured by penetrating trauma, education initiatives are being created. The New Castle County EMS Community Outreach Team are beginning an effort in 2025 to expand its mission and education by including “Stop the Bleed” in its cadre of outreach programs.



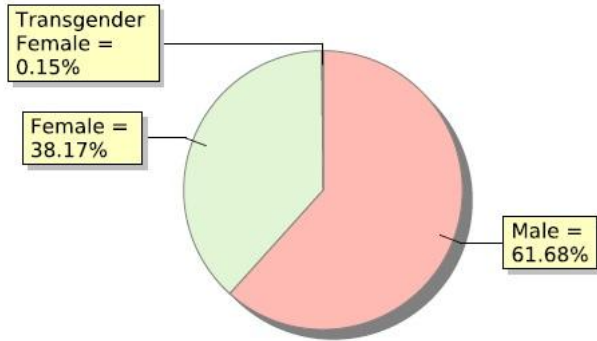
CARDIAC ARREST DEMOGRAPHICS / 2024 CARES DATA

Demographics

New Castle County EMS

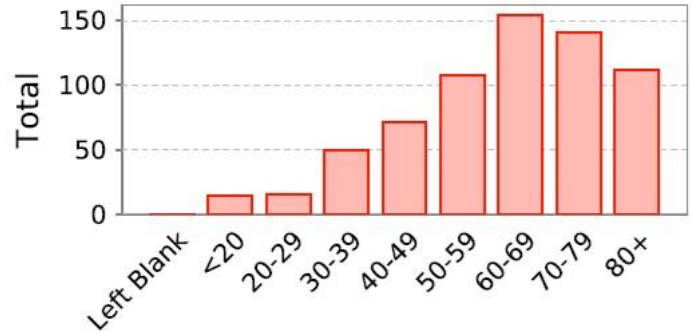
Presumed Cardiac Arrest Etiology: Presumed Cardiac Etiology, Respiratory/Asphyxia, Drowning/Submersion, Electrocution, Other, Drug Overdose, Exsanguination/Hemorrhage | Date of Arrest: 01/01/24-12/31/24 | Resuscitation Attempted by 911 Responder: Yes | End of the Event: Pronounced in the Field, Pronounced in the ED, Ongoing Resuscitation in ED

Sex



Male = 412 Female = 255 Transgender Female = 1

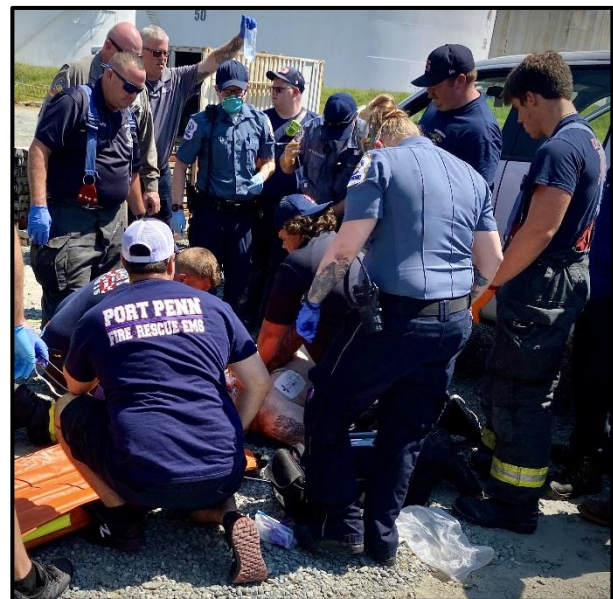
Age



Age Range

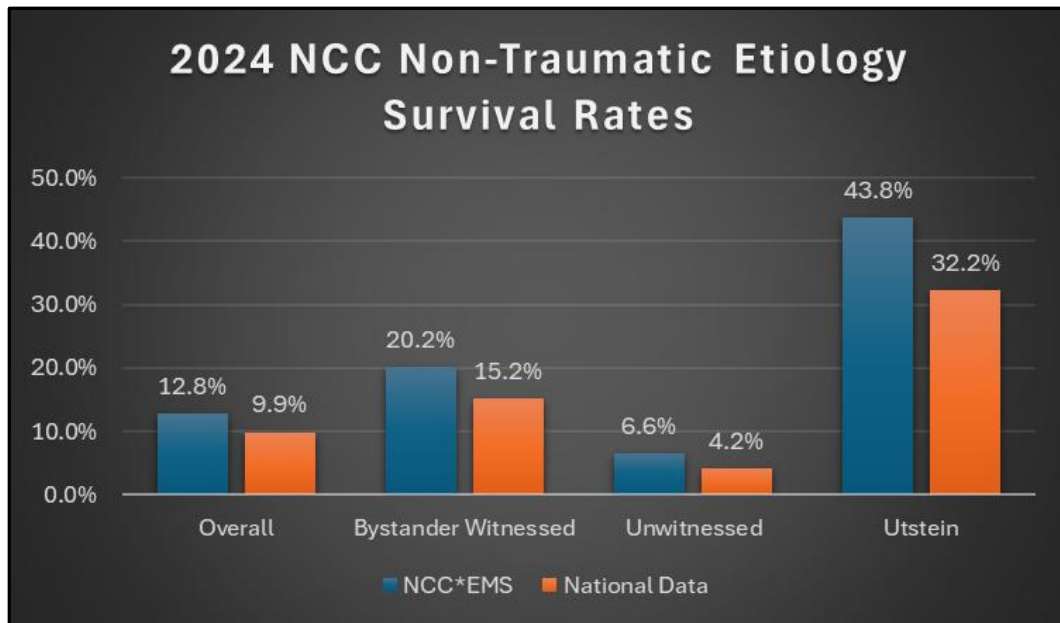
Mean Age: 61

Location Type	Count
Home/Residence	431 - 73.8%
Nursing Home	50 - 8.6%
Public/Commercial Building	46 - 7.9%
Street/Hwy	34 - 5.8%
Healthcare Facility	15 - 2.6%
Place of Recreation	5 - .9%
Industrial Place	3 - .5%



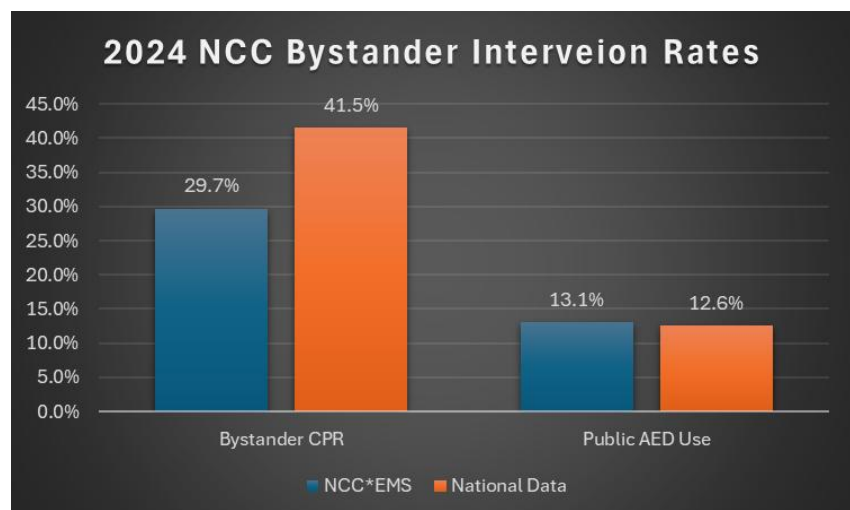
SUDDEN CARDIAC ARREST SURVIVABILITY

High Sudden Cardiac Arrest Survivability: New Castle County EMS continues to see a high percentage of sudden cardiac arrest survival with positive outcomes. New Castle County continues to well exceed the national Cardiac Arrest Registry to Enhance Survival (CARES) data average in all areas that are measured. Overall survivability from sudden cardiac arrest is above the national average. If a bystander witnesses sudden cardiac arrest, New Castle County sees a 5% higher survivability rate than the national average. Higher numbers when a bystander witnesses the arrest can be attributed to the robust community outreach CPR program of the New Castle County EMS Division and call taker assisted chest compressions with instructions given by our Communications Division partners.



Bystander Intervention Rates:

The rate at which a bystander chooses to act and provide life-saving chest compressions continues to be below the national average. This problem was named one of the goals of the New Castle County EMS Division for 2025. The EMS Division has hired a part-time community outreach coordinator and instituted a robust community outreach and hands-only CPR program to increase the awareness,



number of programs, outreach, and public participation with hands-only CPR programs and public AED use. The increased awareness of the PulsePoint app and dispatcher assisted CPR are additional areas identified to assist with improving the bystander intervention rates in New Castle County.

Hands-Only CPR Programs: New Castle County employs a part-time community outreach coordinator. This individual coordinates all community outreach initiatives. These initiatives include Hands-Only CPR programs, AED education, Vial of L.I.F.E. programs, community awareness, and recruitment. This individual works with an internal group of “Hands-Only” CPR instructors who travel throughout the county teaching non-certification programs to those in our communities to increase awareness and knowledge of this life-saving skill. In 2024 the EMS Division taught 35 hands-only CPR and 19 American Heart Association CPR programs.

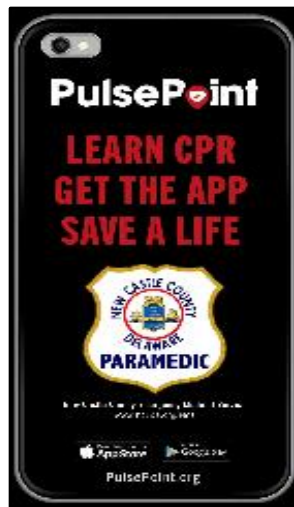


Sudden Cardiac Arrest Survivor Reunion: New Castle County EMS held its 12th annual Sudden Cardiac Arrest Survivor Reunion on June 5, 2024, at the Cab Calloway School of the Arts in Wilmington. This annual event brings together sudden cardiac arrest survivors with the first responders who participated in their resuscitation.

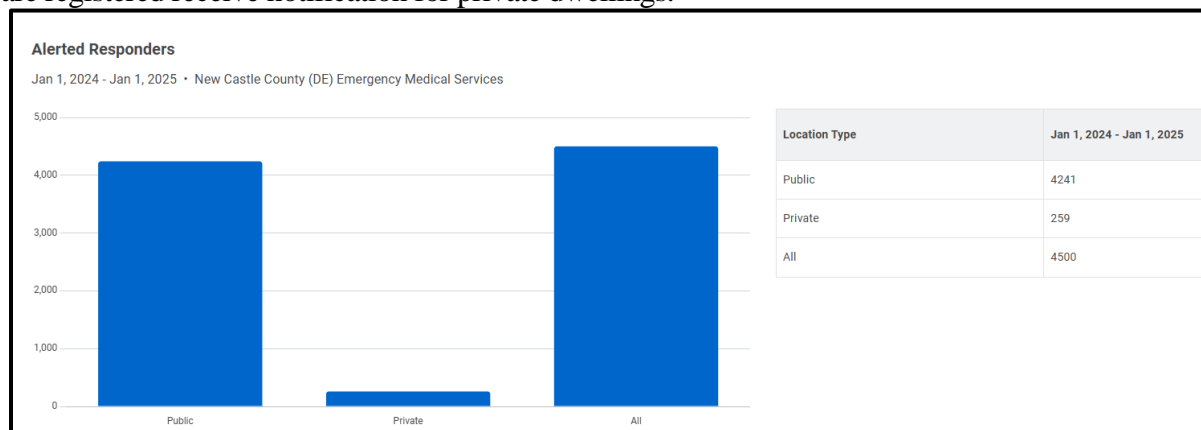


Bystanders, 911 call takers, police, firefighters, EMTs and Paramedics

who assisted in their care and successful resuscitation are all recognized and awarded with citations. Forty (40) cases where a patient received a cerebral perfusion score of “1” (no neurologic deficit and no rehab required) after suffering a sudden cardiac arrest were recognized. In 2024, forty (40) patients literally walked out of a hospital following their cardiac arrest due to the efforts of the first responders recognized. The event recognized 186 firefighters and EMTs, 63 paramedics, 3 communications personnel, 25 police officers, and 29 civilians.



PulsePoint App: New Castle County EMS continues to provide funding for the PulsePoint app in an effort to increase bystander intervention rates to those in sudden cardiac arrest. New Castle County has the PulsePoint Foundation app available for free. Pulse Point will alert those nearby in the event of a sudden cardiac arrest in a public setting. The Pulse Point app will also direct bystanders to the nearest AED. There are currently 13,810 users of the PulsePoint app in New Castle County. Over 20 cases of sudden cardiac arrest in 2024 saw a PulsePoint responder first on scene due to being alerted by PulsPoint app. Bystander intervention continues to be an area of needed improvement. A goal identified by NCC*EMS for 2025 is to increase access to the app to first responders throughout the county. Download the app today and help save a life! A total of 4500 cardiac arrest notifications were sent in 2024 through the PulsePoint application. 4241 activations were in public locations while 259 were in private residences. Only those paramedics who are registered receive notification for private dwellings.



Mission Lifeline: New Castle County EMS received the 2024 Mission Lifeline Gold Recognition and Target Heart Attack Award. This achievement is presented through the American Heart Association and given to agencies that demonstrate strict adherence to clinical guidelines to support better outcomes for all cardiac patients. 1% of EMS agencies in the country are awarded this level of recognition. Agencies with Gold level of recognition adhere to stroke pre-hospital notification, stroke documentation, stroke assessment, 12-lead ECG assessment, timely aspirin administration for heart attack, and pre-arrival STEMI notification. Target Heart Attack recognition is given to agencies in which patients receive percutaneous coronary intervention (PCI) within 90 minutes of paramedic arrival at a patient and door to thrombolytic therapy in less than 30 minutes for patients with STEMI. We thank our partners at Christiana Care and Saint Francis Hospitals for their support and partnership in achieving these benchmarks.



Cardiac Arrest Survivor Meet and Greet: Paramedics continue to meet with patients and their



families following successful cases. In November of 2024 paramedics visited with the Suarez family. Brian Suarez suffered a sudden cardiac arrest while driving his vehicle on June 9, 2024. A near-by Fire Marshall immediately initiated chest compressions while awaiting other first responders. Mr. Suarez was resuscitated by paramedics and walked out of the hospital with no neurologic deficit. Mr. Suarez and his family was reunited with the Fire Marshall, EMTs and Paramedics to thank them for saving his life.

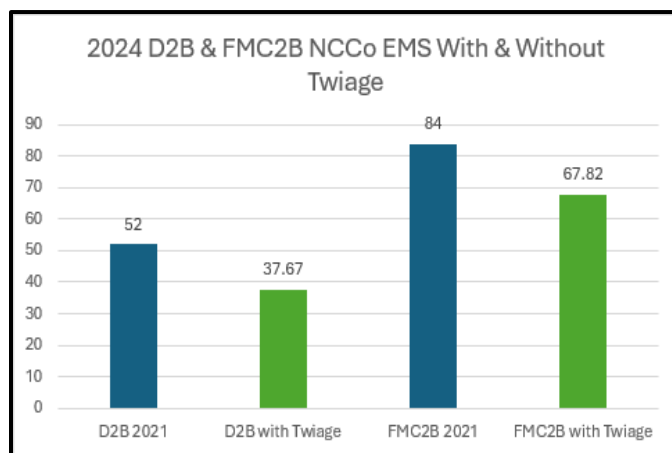


The Delaware Resuscitation Academy: In March of 2024, three New Castle County Paramedics traveled to Seattle, Washington, to take part in a Resuscitation Academy (RA) Development program. This program helps to further develop established RA's and network with them in anticipation of being named a "Lighthouse R.A. Community". NCCEMS has committed to host and coordinate the Delaware Resuscitation Academy on an

annual basis. The Resuscitation Academy's mission is to improve survival from cardiac arrest through a fellowship program designed specifically for EMS Providers, Managers, Directors and EMS Medical Directors. The Delaware Resuscitation Academy models itself after the Seattle Resuscitation Academy. Lecture modules and hands-on skill stations with feedback mannequins make for a stimulating learning environment. Participants will gain an understanding of the science behind high-performance CPR, performance measures, and the knowledge, skills, and abilities to increase survival.



Use of Twiage in Partnership with Christiana Care: By use of a mobile application (Twiage) and in partnership with the Christiana Care Health System, cardiac patients are seeing significant decreases in "door to balloon" times and "first medical contact" to balloon times, then compared to 2021, when Twiage was not in use. In 2024, patients transported to Christiana Care saw an average "door to balloon" time of only 37.67 minutes and an average "first medical contact" to balloon time of 67.82 minutes; both well below the national average.



PARAMEDIC ACADEMY TRAINING

5th New Castle County Paramedic Academy: The 5th New Castle County Paramedic Academy was hired in March of 2023, and underwent a 13-month paramedic program at the Good Fellowship Ambulance and EMS Training Institute in West Chester, Pennsylvania. A graduation event was held on April 8, 2024, at an event held on the University of Delaware's STAR Campus. The academy was supervised by two New Castle County paramedics: Paramedic Supervisor Sergeant Laura E. Hill and Paramedic Academy Coordinator Corporal William J. Doan. 350 applicants applied for the paramedic academy applicant and 19 were selected for the program. Sixteen recruits successfully completed the paramedic program and obtained National Registry Paramedic certification. Thirteen completed field training and obtained Delaware Paramedic licensure, working on paramedic units.



6th New Castle County Paramedic Academy: The 6th New Castle County Paramedic Academy was hired on May 6, 2024, and underwent a 13-month paramedic program. The academy was supervised by two New Castle County paramedics; Paramedic Supervisor Sergeant Larua Hill and Paramedic Academy Coordinator Corporal William Doan. 369 applicants applied for the paramedic academy applicant and 13 were selected for the program. Nine paramedic recruits are currently in the paramedic academy program working toward National Registry

Paramedic certification. The paramedic program is held at the Good Fellow EMS and Training Institute in West Chester, Pennsylvania. A graduation ceremony is set for Summer 2025. Recruits will then participate in field training to obtain Delaware Paramedic licensure to become State of Delaware paramedics.

7th New Castle County Paramedic Academy: The recruitment process for the 7th New Castle County Paramedic Academy began in September of 2024 and continued into 2025. A total of 419 applications were received for the 7th New Castle County Paramedic Academy which is set to begin in July of 2025. The 7th Paramedic Academy will be supervised by Sergeant William Doan and Corporal Ernest Garcia. Recruits will again undergo a 13-month academy at the Good Fellowship Ambulance and EMS Training Institute in West Chester, PA.



RECRUITMENT INITIATIVES

Recruitment Events: The EMS Division's application process and recruitment office remained busy throughout 2024. The EMS Division has field providers who also serve as "Assistant Recruiters". These individuals are responsible for recruiting applications for the NCC*EMS Paramedic Academy in addition to pre-certified applicants. Recruitment initiatives throughout 2024 included a continued partnership with both the Saint George's Technical High School and Appoquinimink School Districts where students shadow paramedics. Additional recruitment events included Wilmington Police Community Resource Fairs, visits to local high school medical technology programs, National Night Out, Delaware State Fair, CODE EMS Conference, Annual Maryland Firemen's Convention in Ocean City, MD, New Castle County events, multiple First Responder Appreciation events and multiple paramedic program visits throughout the east coast. Billboards were used for advertising and advertisements were placed in fire service news publications throughout the east coast.



7th New Castle County Paramedic Academy: The recruitment and hiring process for the 7th New Castle County Paramedic Academy took place from September 2023 through February of 2024. Virtual information sessions, fitness testing, writing testing, and oral board interviews were held throughout the fall, winter and spring months. Throughout the recruitment, just under 500 applications were submitted for the 7th New Castle County Paramedic Academy Class. New Castle County EMS anticipates twenty-five paramedic academy recruit applicants to be given tentative offers of employment to begin the 7th in July of 2025.



COMMUNITY OUTREACH

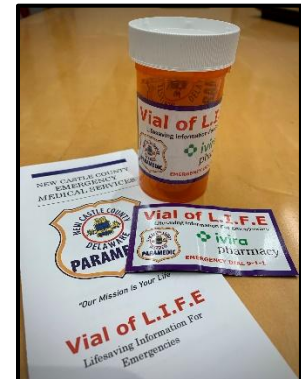


Community Outreach Team: New Castle County EMS has a Community Outreach team comprised of a dedicated part-time Community Outreach Coordinator who works with a work-group of dedicated paramedic field providers. These individuals work together to oversee all of the division's community outreach efforts. Currently, programs include EMS awareness, the NCC*EMS Vial of L.I.F.E. program, Paramedic Assist for BLS, Hands Only Community CPR, PulsePoint, Smart911, youth education, and many more.

Community Outreach & Recruitment Vehicle: In September of 2024, New Castle County EMS placed in service a Community Outreach and Recruiting vehicle to better serve our communities. This retired paramedic response vehicle was re-purposed and is now assigned to the Community Outreach Team assisting with programs. It will also purpose of recruitment. The temperature controlled vehicle will store a large supply of CPR mannequins, AED trainers, and training material for our "Hands-Only" CPR programs. In addition, it will store recruiting material used when visiting paramedics throughout the east coast. Just another example of repurposing current equipment to enhance the mission of our agency.



Vial of L.I.F.E. Program (Lifesaving Information For Emergencies) is a free program offered by New Castle County Paramedics and available to all residents. This program provides an avenue for critical and potentially life saving information to be available for first responders in the event a patient is unable to communicate. A medication vial containing vital important medical information is stored inside your refrigerator. A magnet is placed on the outside of your refrigerator alerting first responders they are enrolled in the program. Information can then be obtained by first responders. Vials can be found at all NCC Libraries, NCC Government Center or the NCC Public Safety Building. Residents can also call 302-395-8184 or email vialoflife@newcastlede.gov to obtain a Vial of L.I.F.E.



Police & Paramedic Summer Youth Program: New Castle County Paramedics have partnered with the New Castle County Police to offer a Summer Youth Program which completed its fourth program in 2024. During the two-week program, youths 13-17 years of age are introduced to all aspects of public safety.

Topics include introductions to K-9, patrol procedures, SWAT operations, "Stop the Bleed" training, team building exercises, drill and ceremony procedures, CPR training, physical fitness, tours of NCC Public Safety, introduction to the 911 center, evidence detection, virtual reality training, and much more. In addition to paramedic and police careers, program participants are given job interview skills, resume building, and mentorship.

Community Outreach Events: In 2024, New Castle County EMS participated in multiple community outreach events educating and promoting programs. These programs included NCC Police Youth Academy, Hands Only CPR, BLS Education Outreach Programs, hosting blood drives, BLS Paramedic Assist Programs, Community Resource Fairs, Elementary School Book Readings, National Night Out Events, and Police and Paramedic Summer Youth Camp, Thanksgiving food basket assemblies.



New Castle County Public Safety “TurkeyThon”: Monday, November 25, 2024, New Castle County Paramedics joined other divisions of Public Safety to coordinate the annual TurkeyThon to benefit the Ministry of Caring in the City of Wilmington. Paramedics collected turkeys and non-perishable food items in the Brandywine Commons Shopping Center from 8am-5pm. Members

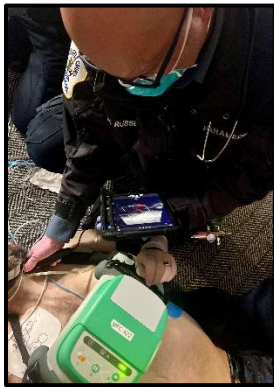


from Paramedics, Police, Emergency Management, and the 911 Center worked together to collect turkeys and food. During the evening, paramedics and their families sorted over 300 food baskets at the Ministry of Caring for those in need.



CLINICAL INITIATIVES

Narcan Leave-Behind Kits: In 2024 New Castle County EMS continued carrying opioid rescue kits on each paramedic response vehicle. The State of Delaware Office of Emergency Medical Services provided the kits as part of an outreach program to target those at risk of death secondary to opioid overdose. The goal is to leave a rescue kit in the hands of a patient, friends, or family members who may be with a person at their time of crisis. Over **60 Narcan Leave-Behind kits** have been left behind with a patient, family, or friends in 2024 with the same number trained in their use.



Butterfly Point-Of-Care Ultrasound (POCUS):

New Castle County EMS has expanded its use of Point of Care Ultrasound (POCUS). In addition to confirming the absence or presence of heart muscle movement, the use of POCUS has expanded to include assessment for carotid artery perfusion. This technology is currently utilized by only 4% of EMS systems in the country. All New Castle County Paramedics were re-trained to utilize POCUS throughout the recertification cycle due to expanding its use. Treatment with POCUS is a massive step forward for the pre-hospital service and one that will prove to greatly enhance critical decisions made, leading to improved patient outcomes. New Castle County has recently purchased new iQ3 POCUS devices to place on supervisor vehicles. This new technology offers advanced features such as AI advanced imaging tools, user-centric ergonomics, and improved scan times.



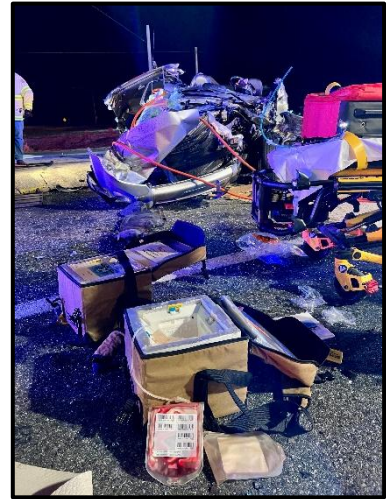
Infusion Pumps: NCC*EMS placed into service 4 Sapphire IV infusion pumps in early 2024. Infusion pumps are being added to the equipment carried by paramedics to ensure a safer and more effective delivery of intravenous or interosseous medications. Patient safety and decreasing medication errors remains a top priority in the delivery of patient care in New Castle County. In early 2024, all paramedics received training and education to ensure a safe and effective roll out of the new devices that will be carried on supervisor vehicles.



Handtevy: In 2024, NCC*EMS begun the process of researching and obtaining funding for purchase of the Handtevy Software system. This application-based software will equip paramedics with rapid access to lifesaving medication dosing, equipment, and drip information, all while facilitating real-time documentation. Features such as CPR timers, comprehensive protocols, and checklists empower high-quality care and contribute to enhanced patient outcomes.

PRE-HOSPITAL WHOLE BLOOD

Whole Blood Initiative: New Castle County began its pre-hospital whole blood program in May of 2023. This state-wide treatment initiative continues to be a collaborative effort with New Castle County EMS, the Blood Bank Delmarva, State Office of EMS, the State of Delaware EMS Medical Director, New Castle County Medical Directors, New Castle County Executive's Office, and the Board of Medical Licensure and Discipline. In the fall of 2024, the use of pre-hospital whole blood expanded from trauma to medical patients who suffer from hemorrhagic shock from maternal hemorrhage or suspected internal bleeding. Since the beginning of the program, **188 patients** have received whole blood in the pre-hospital setting with **189 whole blood administrations** given in the field. **122 units** of whole blood were given by New Castle County Paramedics in 2024.



Blood Bank of Delmarva Partnership: New Castle County Paramedics continue to be a strong partner with the Blood Bank of Delmarva well beyond the clinical partnership. In 2024, Paramedics attended Blood Donor Month initiatives encouraging donation. New Castle County Paramedics continue to support various blood drives throughout the county and have worked with the administration in New Castle County to hold blood drives for county employees. On April 11, 2024, multiple New Castle County Paramedics donated blood as part of the New Castle County Blood Drive initiative. In September of 2024, Paramedics participated in the ribbon cutting ceremony opening the Middletown, Delaware blood donation center.

Whole Blood Program Publication: In September of 2024, New Castle County EMS began a collaborative effort with the State Office of EMS, Blood Bank of Delmarva, and Sussex County EMS to draft a publication highlighting the implantation of a state-wide prehospital whole blood program for trauma patients suffering hemorrhagic shock. The paper began its way through the review process in late 2024 with hopes of a publication in early 2025.

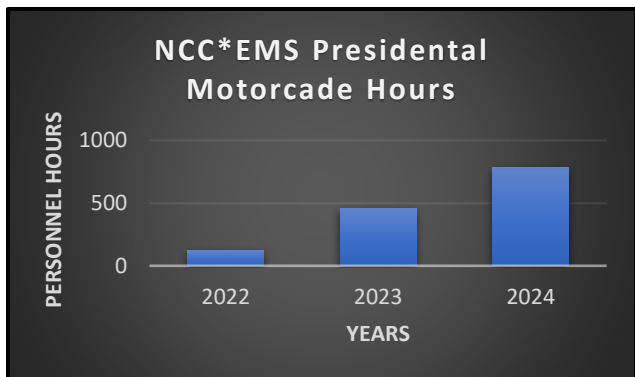


Whole Blood Program Assistance: On December 11 2024, Chief Officers of the Allentown Fire Department EMS Division traveled to New Castle County to meet with leadership, front line supervisors, and medical direction on the process and pitfalls of initiating a whole blood program. New Castle County EMS strives to be a beacon for those agencies looking to initiate such programs in their own systems. While in New Castle County, these Allentown Fire Department staff also participated in ride alongs seeing firsthand trauma incidents throughout the county.

SPECIAL EVENTS

Throughout 2024, New Castle County Paramedics provided medical support and stand-by coverage to multiple New Castle County events, community programs and mass gatherings. New Castle County EMS provided paramedic coverage to **63 special events** in 2024.

Presidential Motorcade Details: The 46th President of the United State of America, Joseph R. Biden Jr. has primary residence in New Castle County, Delaware. The United States Secret Service works hand-in-hand with New Castle County EMS to assure paramedic and EMS coverage is provided with all presidential motorcade movements when the president travels to and from his primary residence. In addition, there are multiple off the record movements in which New Castle County EMS provides Presidential detail protection. On September 21, 2024, President Joseph R. Biden, Jr. hosted Prime Minister Anthony Albanese of Australia, Prime Minister Kishida Fumio of Japan, and Prime Minister Narendra Modi of India in Wilmington, Delaware, for the fourth Quad Leaders' Summit. This event was held over two days at Archmere Academy in Claymont, Delaware. Paramedics assisted the United States Secret Service with medical coverage of foreign leaders during their visit. **A total of 67 presidential** motorcades saw New Castle County Paramedic coverage in 2024. The number of personnel hours dedicated to presidential detail coverage increased from 124 in 2022, to 460 in 2023, and a record 782 in 2024.



Delaware Running Festival: The Running Festival by Corrigan Sports is an annual running event held in New Castle County. Runners can opt to participate in a 5K, half-marathon, or full marathon. Runners in the full marathon traverse the City of Wilmington, Wilmington Riverfront, and Markel Trail into the City of New Castle. The medical coverage for this event is coordinated by the New Castle County EMS Division. Medical support is a combined effort with local fire departments, Saint Francis EMS and the Wilmington Fire Department.

New Castle County Spring Festival: New Castle County Government hosted a Spring Festival at the New Castle Count Southern Park on May 4, 2024. This day-long event included children's games, bounce houses, food trucks, and events. Paramedics provided a bike team and paramedic unit for medical support throughout this community festival.



University of Delaware Commencement and Convocation Ceremonies: May 25, 2024, New Castle County paramedics assisted the University of Delaware Emergency Care Unit and Aetna Hose, Hook & Ladder Company with medical coverage for the UD Commencement and Convocation ceremonies held at Delaware Stadium, the Bob Carpenter Center, and throughout campus. Due to weather conditions, multiple medical emergencies were handled on site, with only two patients transported to local hospitals.



City of New Castle Separation Day Event: On June 8, 2024, the New Castle County EMS Bike Team assisted the Goodwill Fire Company of New Castle with medical coverage for the annual Separation Day Event. This event is held throughout the City of New Castle and Battery Park areas and spans day and nighttime hours concluding with a fireworks celebration over the Delaware River. The NCC*EMS Bike Team provided ALS level coverage throughout the day.

Reggae In the Park Festival: On June 15, 2024, the New Castle County EMS assisted New Castle County Police, Delaware State Police, Christiana Fire Company, and the Delaware City Fire Companies with providing medical coverage for the annual Reggae In the Park event held on the grounds of the Glasgow Park in the Glasgow area. Thousands of attendees enjoyed a day of food, music, and fun celebrating the history and sounds of reggae.



9/11 Waste Management Memorial Bike Ride Trail Stop: On June 28, 2024, New Castle County Paramedics joined the Minquadales Fire Company to provide medical support for the annual 9/11 Memorial Bike Ride which made its way through New Castle County, Delaware. Riders make their way from Ground Zero in New York, to Shanksville, Pennsylvania, then finally Washington, D.C. and ride in remembrance of those who lost their lives in the tragic events on September 11, 2001.

Old Fashion Rockwood Ice Cream Festival: On June 29, 2024, New Castle County hosted its annual “Old Fashion Ice Cream Festival” at the Rockwood Mansion and Park in North Wilmington. Paramedics worked with our partner EMS agencies to provide planning and medical operations during the event. Thousands of visitors to the North Wilmington area were cared for by paramedics, EMTs and firefighters. Due to the time of year and weather, this event continues to see a large number of attendees needing medical attention.



Kent and Sussex County Paramedic Coverage: On July 3, 2025, New Castle County Paramedics provided coverage for Kent County EMS while members of the Kent County Department of Public Safety attended funeral and memorial services for one of their Public Safety employees. On August 22, 2024, paramedics also traveled to Sussex County to provide paramedic coverage for Medic 104 serving the Rehoboth, Lewes, and Dewey Beach areas. New Castle County stood by for our brothers and sisters from Sussex County while they attended funeral services honoring a Sussex County EMS employee who was killed in the line of duty at the scene of a motor vehicle collision. Providing paramedic service for our neighboring counties permitted employees and families to be present at all services honoring their fallen co-workers. It continues to be an honor to assist our neighboring departments in their time of need.



Middletown Old Tyme Peach Festival: On August 17, 2024, New Castle County EMS joined with the Volunteer Hose Company of Middletown, Odessa Fire Company, Townsend Fire Company, New Castle County 911, Emergency Management, and Middletown Police to provide medical support for the annual Middletown Old Tyme Peach Festival. EMS personnel on gators and bikes provided medical support for the parade and festivities throughout the day in the downtown Middletown area.

New Castle County Sleep Under the Stars: In October of 2024, New Castle County hosted its annual “Sleep Under the Stars” event at the Carousel Park in Pike Creek. Paramedics provided planning and medical operations during the event. Hundreds of visitors to the park were watched overnight as families participated in community camping. Paramedics joined County Police, Office of Emergency Management, and 911 Center personnel in providing medical support for the event which saw approximately a thousand attendees to the park.



Delaware Blue Coats: The Delaware Blue Coats are the “G” League Affiliate of the Philadelphia 76ers. The Delaware Blue Coats play and practice at the Chase Field House on Garashes Lane in Wilmington. Due to its location, New Castle County Paramedics are contracted to provide medical support to the team and its players during games and highly publicized practice events. New Castle County Paramedic staff work directly with the training staff and medical staff of the 76ers and Delaware Blue Coats throughout the year with training and event coverage.

SPECIAL OPERATIONS

Tactical EMS Team (TEMS): The New Castle County EMS Tactical EMS Team (TEMS) is comprised of eight tactical paramedics who provide tactical medical support primarily to the New Castle County Police Special Weapons and Tactics (SWAT) team. In 2024, this team also provided support to the Delaware State Police, Federal Bureau of Investigation (FBI), Drug Enforcement Agency (DEA), Wilmington Police Department, and United States Secret Service. The TEMS team trains twice a month and has 2025 goals of sending two additional TEMS paramedics to COTOMS training in Arlington, Virginia. The TEMS team was placed into service **74 times** in 2024 with **47 SWAT missions** and 27 training missions.



Technical Rescue Team: New Castle County EMS partners with the NCC Fire Service Collapse & Trench Rescue Team. Tech Rescue Paramedics train monthly with the Wilmington Fire Department in Special Operations. One supervisor and one paramedic from each operational platoon is currently assigned to the team. Tech Rescue Paramedics are pro board certified in collapse rescue, high angle rescue, ropes and confined space rescue. In May of 2024 two Tech Rescue Medics attended the 11th Annual FDNY Search & Rescue Field Medicine Symposium in New York. In 2025 the tech rescue team looks to expand its scope to become more integrated with the NCC Fire Service special operations teams.

Bike Team: The New Castle County EMS Bike Team participated in 8 events in 2024 and multiple training days. Three members are currently certified as International Police Mountain Bike Association (IPMBA) instructors and assisted with three IPMBA classes that were held in conjunction with the New Castle County Police Department. The two programs held were opened to all ALS agencies and fire service throughout Delaware. The team looks to continue holding two IPMBA certification classes a year taught by the three New Castle County EMS IPMBA instructors.



Honor Guard: The New Castle County EMS Honor Guard participated in eleven events throughout the year including the National EMS Memorial held in Arlington, Virginia. These specially trained men and women present colors at all special events and dignified details throughout the year. The team also trains and practices on a regular basis and is constantly adding additional team members.

EMPLOYEE RECOGNITION

New Castle County Jefferson Award Winner: On May 8, 2024, New Castle County Paramedic William J. Doan was honored with a prestigious Jefferson Award. Jefferson Awards honor those who put others first. Those receiving Jefferson Awards are empowered to do more, while their stories of extraordinary public service inspire others to action. Corporal Doan was honored for being a dedicated paramedic, and community advocate, by making an incredible impact on the lives of many which extends far beyond his professional career. Through his work as a coach for Special Olympics, his volunteer work as an EMT-B at the



volunteer fire company, and coaching the Middletown High School Baseball team, Willie has left a lasting impression on his community. Despite facing personal challenges, Willie's resilience and commitment to recovery has inspired others as he shares his journey of sobriety openly and advocates for the resources to support those in need and provide much needed support to their families.

Semi-Annual Awards Ceremony: New Castle County Department of Public Safety holds semi-annual awards ceremonies to honor and recognize personnel for significant and critical events throughout the first and second half of the year. In 2024, two such award ceremonies were held recognizing 41 paramedics for their participation in extraordinary events that included both operational and clinical challenges. Awards were received for exemplary performing in clinical procedure, large scale incidents, and mitigating unusual circumstances.



Command & Leadership Academy: Three paramedics graduated from the New Jersey State Association of Chiefs of Police Command and Leadership Academy. This five-month leadership program is held primarily as a law enforcement senior staff development class. Graduate level leadership theory is taught by experienced law enforcement and EMS leadership to students in the program. Five regions of the program are held with attendees from five states. New Castle County EMS continues to be proud of all supervisory level staff are graduates from this program.

National Liberty Museum Awards of Valor: NCC*EMS Community Outreach Coordinator Lorrie Williams was recognized with the National Liberty Museum Awards of Valor, "Meritorious Community Service Award for an Individual". The award was presented to Lorrie on November 13, 2024, at the National Liberty Museum in Philadelphia, Pennsylvania. In her role, she manages programs such as Vial of L.I.F.E. program, school programs, open house displays, health fairs, story time with children's groups, PulsePoint, and most notably, the "Lend a Hand, Save a Life", hands only CPR programs. In 2024 alone, under Lorrie's leadership, the NCC*EMS Division has trained nearly 1000 citizens throughout New Castle County in "hands-only" CPR.



TRAINING ACTIVITY

Conference Presentations: New Castle County Paramedics continue to be active teaching at local and regional conferences. In October of 2024, Assistant Chief Chris Johnson and Technical Rescue Paramedic Corporal Mark Plumley presented a program highlighting the EMS Division's Technical Rescue Paramedic Program, start up, and integration with the local fire service. This program was presented at the Eastern Pennsylvania Regional EMS (CODE) Conference in Mount Pocono, Pennsylvania.



International Police Mountain Bike Association Training: New Castle County EMS continues to be one of the only agencies in Delaware to offer International Police Mountain Bike Association training opportunities to all EMS and Fire agencies in Delaware. Partnered with the New Castle County Police Department, the three NCC*EMS IPMBA instructors hosted training events throughout the year. BLS agencies from Good Will, Aetna, and University of Delaware continue to have interest and paramedics from throughout the state are trained through the NCC*EMS IPMBA programs.

ALERTT Active Attack Integrated Response (AAIR) Training:

New Castle County EMS has started an initiative to train 100% of paramedics in the Advanced Law Enforcement Rapid Response Training (ALERTT) Active Attack Integrated Response (AAIR). Throughout 2024, New Castle County Paramedics joined our local fire service, BLS partners, and law enforcement agencies by attending one-day AAIR programs held at the Corpus Christi School in Elsmere. New Castle County EMS sent Senior Sergeant Richard Moerman to the TEEX ALERTT conference in San Antonio, Texas to continue our efforts to adhere to the latest training and tactical strategies in active assailant operations.

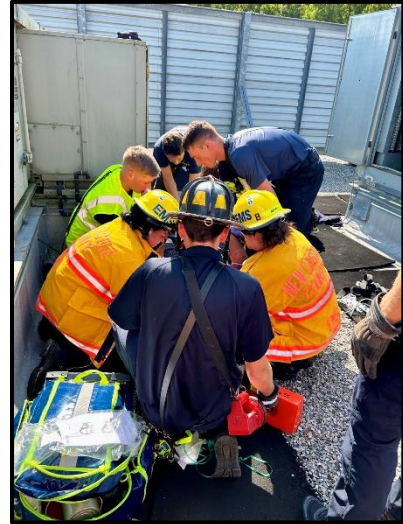


Emergency Vehicle Operator Instructors & Training: On April 22, 2024, New Castle County EMS sent four paramedics to the VFIS EVOC Instructor program in Bethlehem, Pennsylvania. Four paramedics became certified EVOC instructors through the VFIS program. In May of 2024, all New Castle County Paramedics and Paramedic Recruits attended a one-day EVOC program at the Dover International Speedway in Dover, Delaware. Working with the New Castle County Police EVOC instructors, all paramedics received a full day of low speed and high-speed driver training. This hands-on practical EVOC training occurs every other year to ensure all paramedics receive the most up-to-date practical driving experience on the course.



ACCOMPLISHMENTS FOR 2024

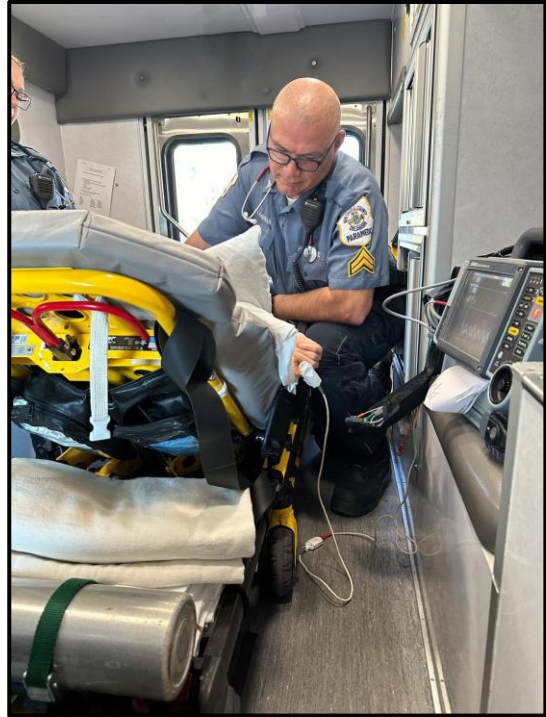
- The EMS Division was evaluated by representatives from the American Heart Association and Mission Lifeline Gold with Target Heart Attack Honor Roll was received.
- National leader in out of hospital cardiac arrest. NCC*EMS currently sees a 45% witnessed cardiac arrest survival rate of non-traumatic cardiac arrest.
- Expansion of pre-hospital Point of Care Ultrasound (POCUS) to all paramedic units in New Castle County with new iQ3 POCUS units.
- Held an academy of 13 paramedic recruits and held a rigorous training academy resulting in the graduation and National Registry Paramedic certification in the Spring of 2025.
- Completed an aggressive recruitment initiative for the 7th New Castle County Paramedic Academy.
- Completion of site exploration to relocate and expand future paramedic locations to provide more efficient paramedic responses.
- Continued aggressive recruitment of certified paramedic applicants. The recruitment of certified paramedics along with the running of paramedic academies is necessary to fill vacancies.
- Worked with Transfusion journal and all Delaware Paramedic agencies to publish an article on initiating a pre-hospital whole blood administration pilot program.
- Monthly Community Health Fair outreach programs continue to be held with our City of Wilmington partners.
- Technical Rescue Paramedic Team of five members successfully completed certification in Collapse Rescue, Ropes, High Angle and Confined Space Rescue. All members received pro-



- board certification and attended FDNY training.
- Held third annual New Castle County Police and Paramedic Youth Summer Program.
- Expanded the use of Twiage to include stroke and worked with the Christiana Care Neuro Interventionalists to assure positive patient outcome.
- Addition of a dedicated Community Outreach and Recruitment Vehicle from a repurposed paramedic vehicle at the completion of its service life as an emergency response vehicle.
- Signed a lease agreement with Odessa Fire Company, Station 4 (Boyd's Corner) for a remote paramedic office at this location. Expansion of service to the Fire Station 4 location took place during daytime shifts when staffing permitted.

2025 GOALS

- Hire the 7th New Castle County Paramedic Academy to allow the EMS Division to continue deploying diverse cohorts of paramedics in order to increase staffing to achieve more efficient response to critically ill or injured patients.
- Maintain the administrative, operational and organizational requirements for national accreditation. The achievement of accreditation requires ongoing maintenance of the standards to verify the EMS Division continues to meet the “gold standard” for a modern emergency medical service. December 2025 will mark the 15th consecutive year of accreditation for the New Castle County EMS Division.
- Committee on Accreditation of Ambulance Services (CAAS) site visits to achieve re-accreditation.
- Expand the use of pre-hospital whole blood in the pre-hospital setting to include medical patients.
- Expand the reach of the Technical Rescue Paramedic Team from collapse and trench rescue to include high angle and confined space rescue situations.
- Increase the sudden cardiac arrest survivability rates by increasing community outreach programs and increasing the percentage of incidents where bystanders performed chest compressions.
- Expand the use of PulsePoint to permit first responders to have access to the “verified responder” side of the app.
- Train all paramedics in ALERRT awareness and operations level for active shooter incidents.
- Become a Resuscitation Academy Lighthouse Community and continue to deliver the Delaware Resuscitation program to first responders in the tri-state area.
- Work with the other divisions of Public Safety to construct the emergency vehicle operations course (EVOC) and continue long-term planning/design of a facility that will enable the Division to stay at the forefront of public safety.
- Increase State of Delaware reimbursement by 5% of the total operating budget for FY26.
- Relocation of Paramedic Station #4 in North Wilmington from the Bellefonte area to a location more centralized. Relocating Paramedic Station #4 will increase efficiency of paramedic unit responses in the North Wilmington area by locating them closer to areas of high call volume.
- Recruit pre-certified paramedics by attending local and national EMS conferences.
- Expand use of the Point-Of-Care-Ultrasound (POCUS) program under the guidance of medical direction to include use in those suffering respiratory emergencies.

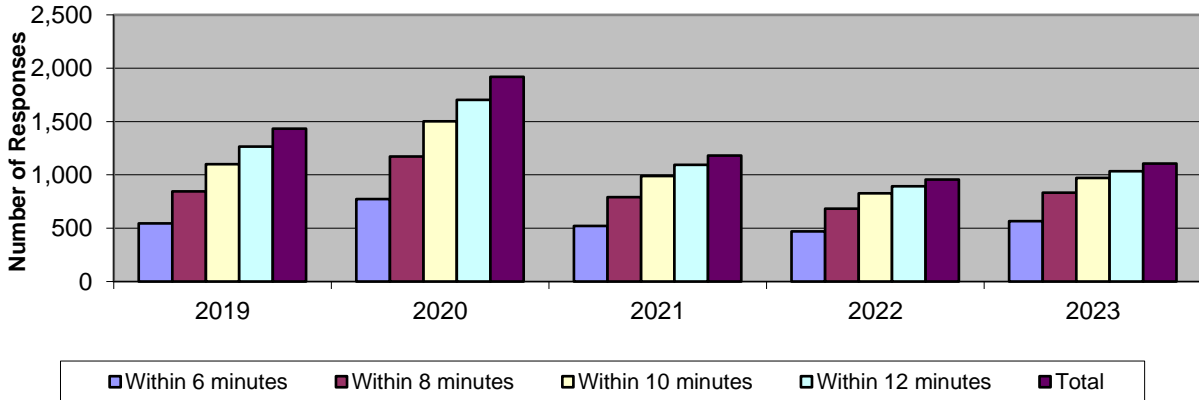


In Summary, The New Castle County Emergency Medical Services Division is dedicated to living up to our motto of “Excellence in Service” The New Castle County Emergency Medical Services Division continues move forward in providing the best medical care to the sick and injured residents and visitors of New Castle County. Embracing new technologies and training personnel to the highest standards are critical to our success.

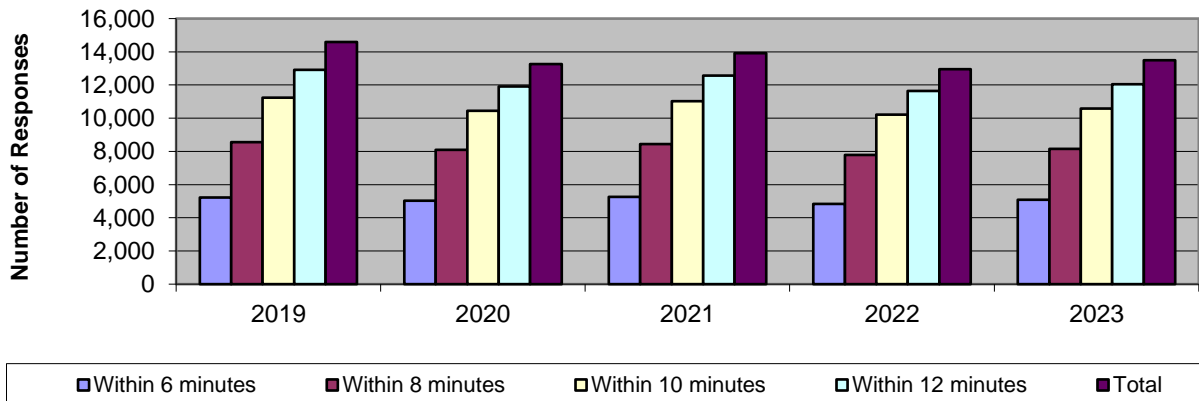
The continued aggressive recruitment and retention of paramedics is critical to our success. As we move forward it is our intention to run regular paramedic academies and simultaneously recruit quality certified paramedics. This will allow the Division to increase our staffing and place additional units in service to meet growing demand.



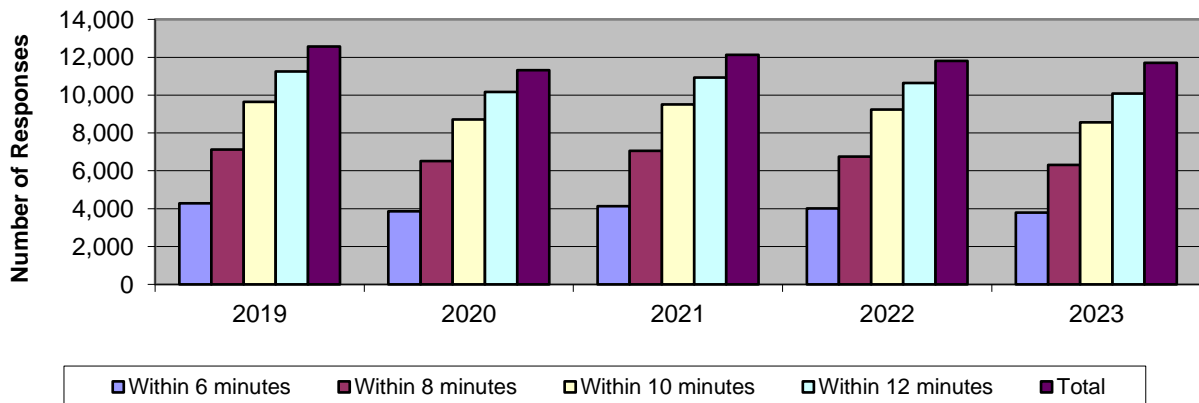
Echo Level Response, NCC EMS



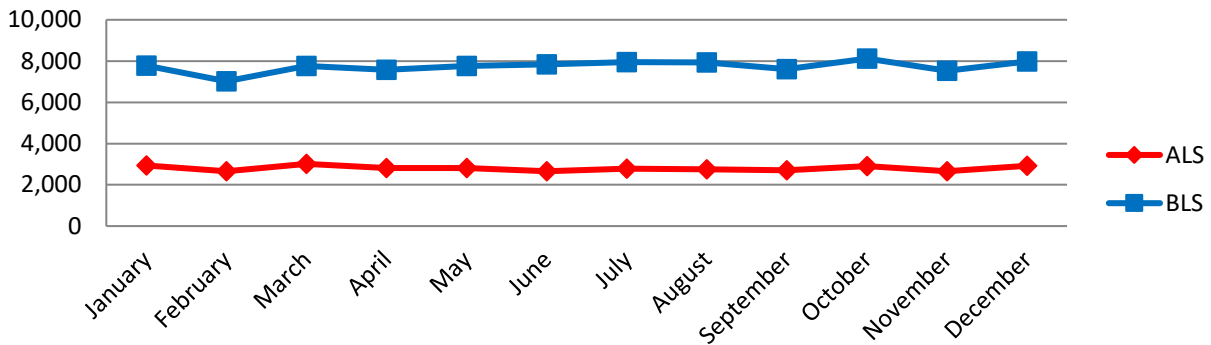
Delta Level Response, NCC EMS



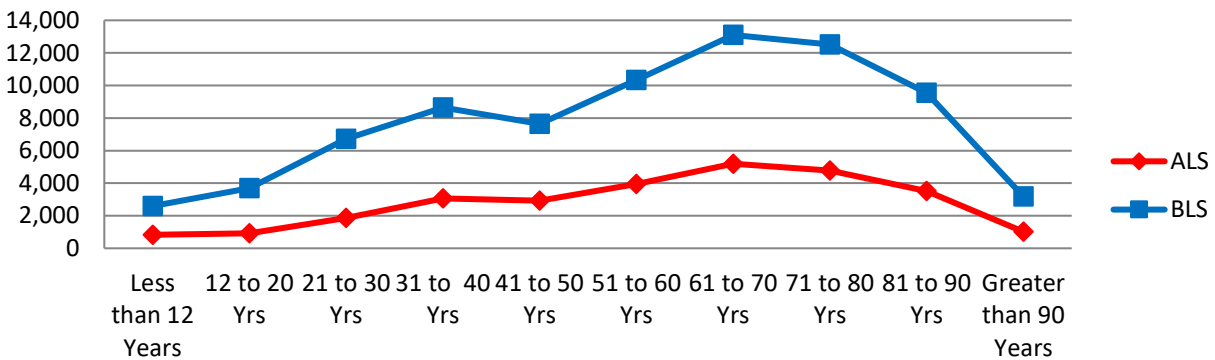
Charlie Level Response, NCC EMS



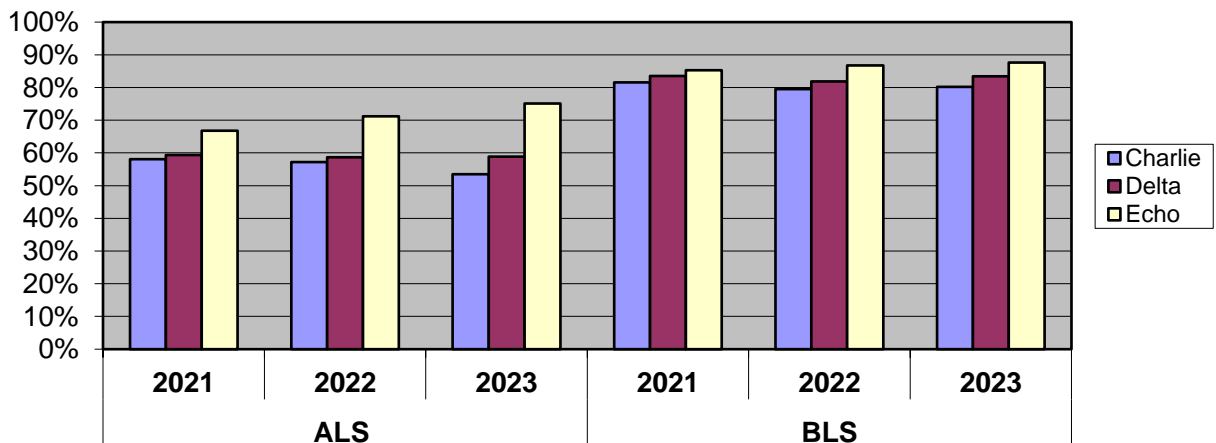
ALS/BLS Incidents by Month - 2023 New Castle County



ALS and BLS Patient Age Comparison - 2024 New Castle County



Percentage When New Castle County ALS/BLS Arrived On-Scene in 8 Minutes or Less on Delta/Echo/Charlie Level Incidents - 2023



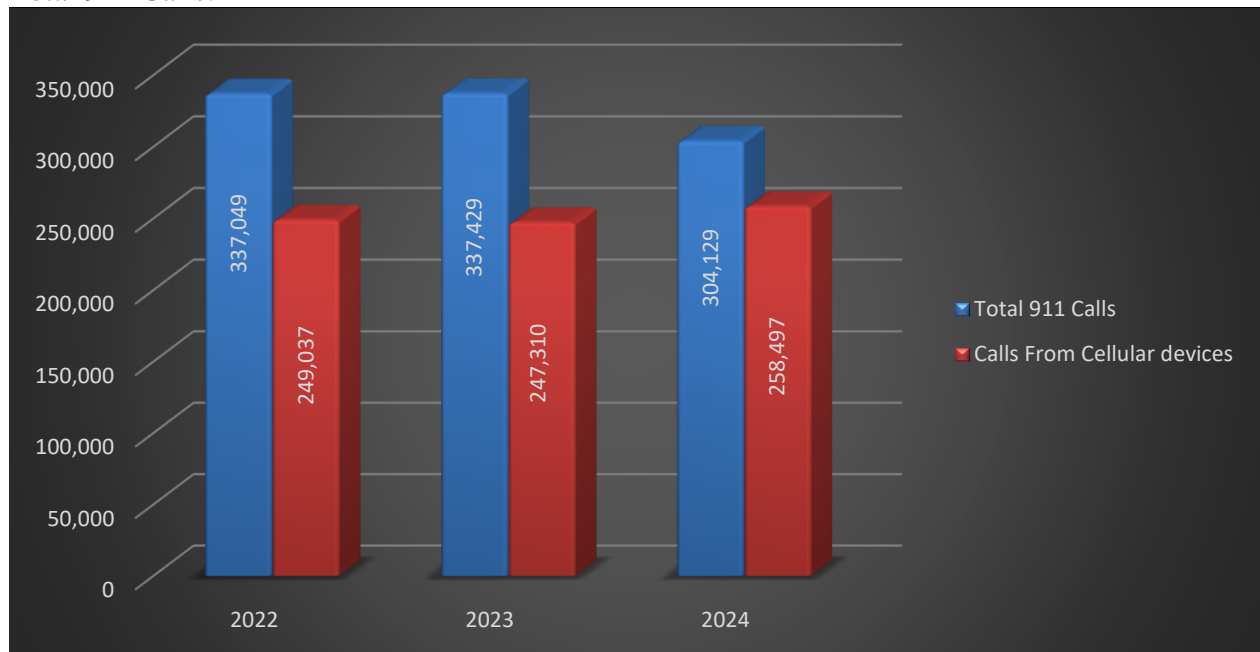
New Castle County Communications Center

Submitted by Chief Donald W. Holden



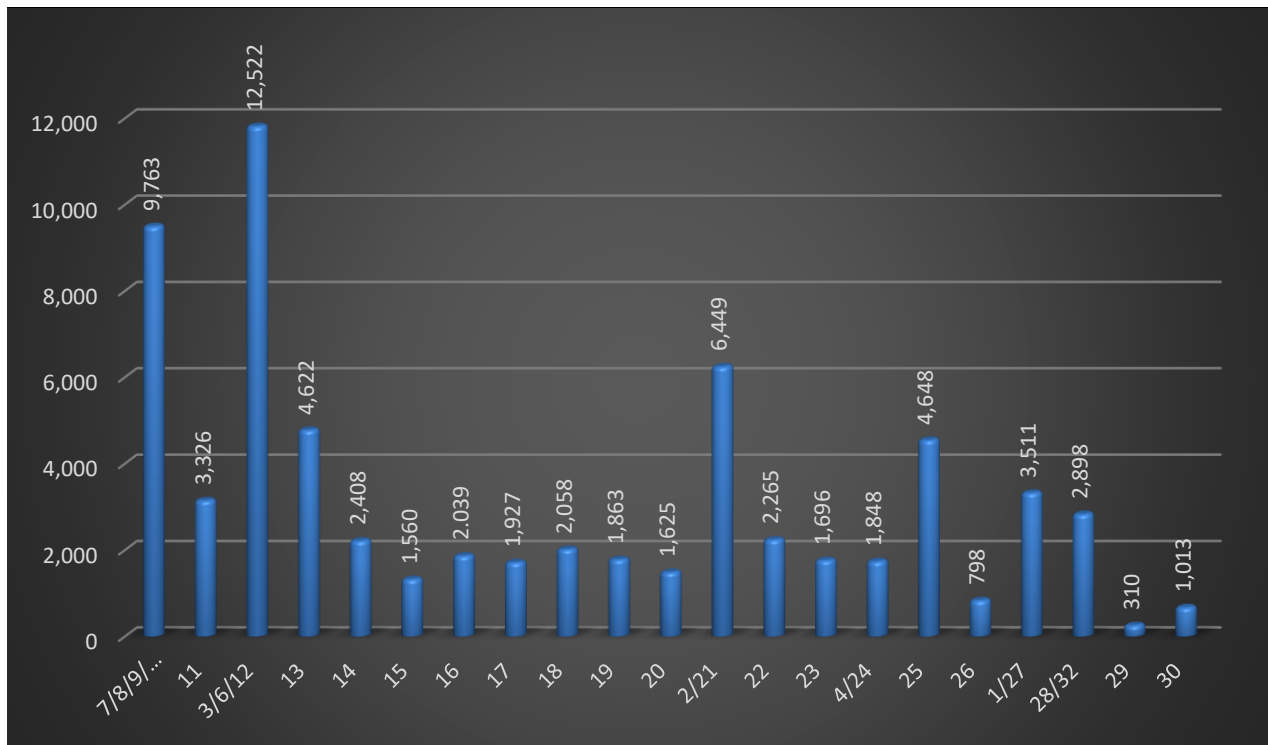
The New Castle County 9-1-1 Emergency Communications Center receives 911 calls through a variety of phone exchanges and numerous cell towers throughout New Castle County. The total number of 911 calls processed in year 2024 was 304,129. Another 103,449 non-emergency calls were also processed by our Public Safety Operators. The Center dispatched or processed a total of 169,300 fire/medical incidents and 227,599 police incidents in year 2024. The New Castle County Emergency Communications Center handled over 45.3% of the 687,193 total 911 calls in the State of Delaware for 2024.

Total 911 Calls:

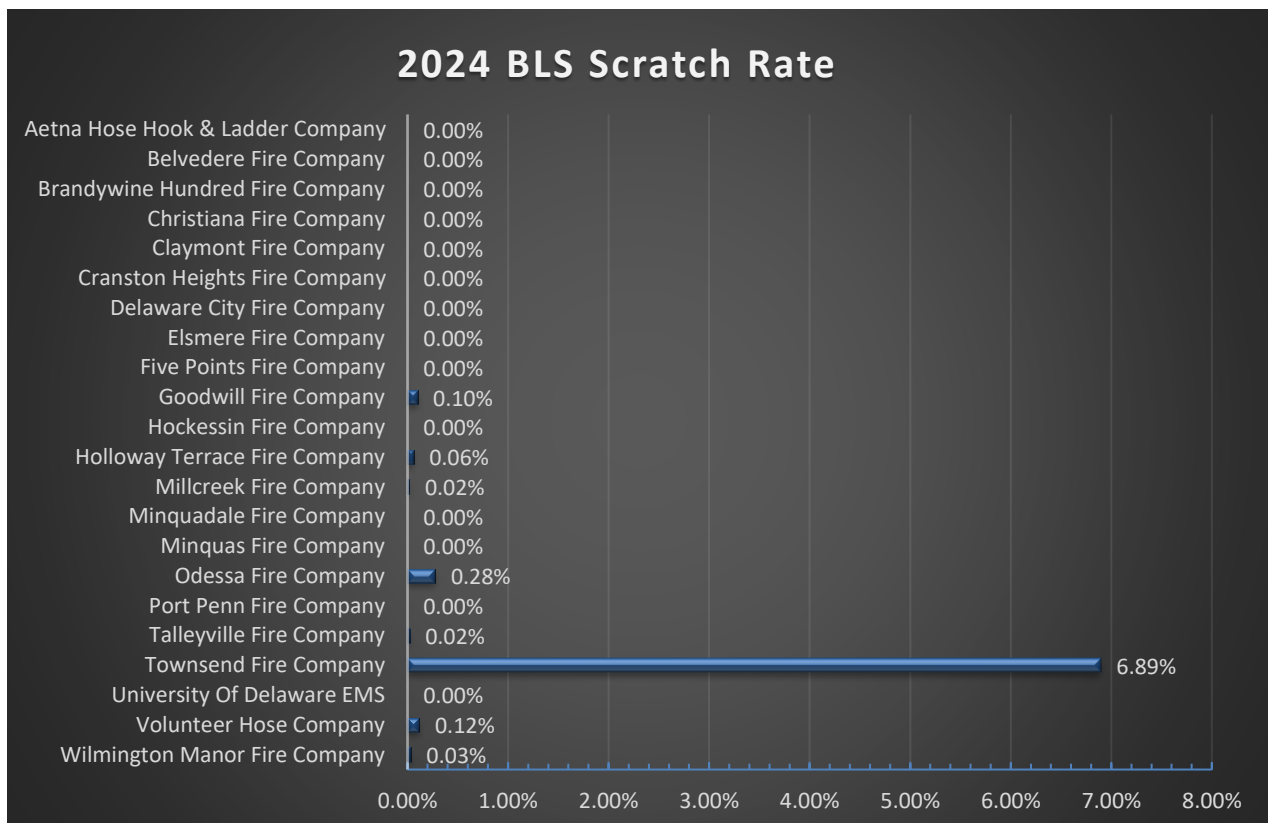


***This information is provided by Intrado.**

Medical Responses by Fire Company for 2024: 69,149

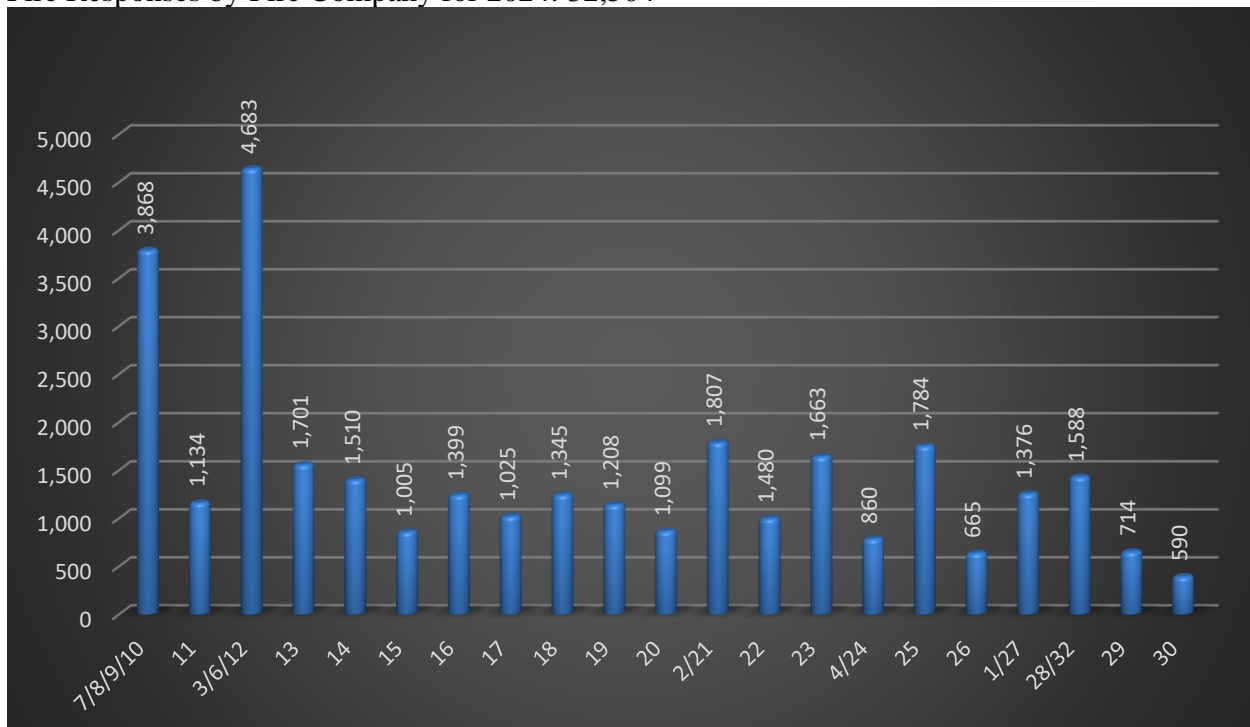


*This information is provided by Tyler Technologies.



*This information is provided by Tyler Technologies.

Fire Responses by Fire Company for 2024: 32,504



*This information is provided by Tyler Technologies.

Accomplishments

- We continue to exceed the standard in call answering time. The NENA standard states that 90% of incoming 911 calls should be answered within 15 seconds or less. NCC911 answered over three hundred thousand calls within 10 seconds or less 93.14% of the time.
- Retained our ACE (Accredited Center of Excellence) certification with the Academy of Emergency Medical Dispatch and received our ACE (Accredited Center of Excellence) certification for Fire Protocols.
- Continue to teach our Emergency Telecommunicator Courses for prospective new hires.
- Successfully installed a test server to evaluate protocol update versions to make changes “on the fly” without affecting the Live CAD environment.
- Continue to integrate into the communities we serve by educating them on how 911 works and how they can help us help them by signing up for Smart 9-1-1.

2025 Challenges and Goals

- Move all 9-1-1 telephone calls from the Fire/EMS dispatch area into our Public Safety Operators section.
- Provide support to our Quality Assurance & Quality Improvement section to assist with attaining and maintaining the status of a Tri-Accredited Center of Excellence.
- Started the process of replacing our Mobile Command Post. Delivery late 2026 or early 2027.
- Continue to provide the Emergency Telecommunicators Course to prospective employees.
- Maintain our current CAD System with the most updated software and next generation technology.

Summary

The New Castle County Emergency Communications Center is staffed by twenty-eight full time Public Safety Operators, twenty-two Police Communications personnel, twenty-six full-time Fire/Medical Communications personnel, and an administrative staff of seven personnel.



The New Castle County Emergency Communications Division utilizes the International Academies of Emergency Dispatch protocol system to triage incoming emergency calls to determine the appropriate level of service. All our Emergency Communications Division personnel are trained to provide pre-arrival instructions for all calls for service.

Each of our Emergency Communications personnel continue to participate in continuing education training to maintain their proficiency and certifications in each protocol.



DEPARTMENT OF PUBLIC SAFETY

Executive Summary

2024 Annual DEMSOC Report

The Kent County Department of Public Safety oversees three critical divisions: Communications (911), Emergency Medical Services (EMS), and Emergency Management, with a strong focus on Homeland Security and Terrorism Preparedness. This report outlines the department's key accomplishments, strategic initiatives, and ongoing efforts to enhance public safety across the county.

Accomplishments

Division of Communications:

- Operates a state-of-the-art 911 Center that adheres to national accreditation standards.
- Maintains accreditation in Emergency Medical, Emergency Fire Dispatch, and Police Protocols via Priority Dispatch.
- Partners with the Delaware State Police in a Joint Communication Center to ensure seamless interoperability and rapid response.
- Implements emerging technologies, including Next Generation 911, PulsePoint, Smart 911, Rave Facility, and Rave Panic Button, to improve public safety engagement.
- Expanded the Drone Program to provide 24/7 support across all divisions and public safety partners.

Division of Emergency Medical Services:

- Strategically deploys paramedics throughout Kent County, supporting trauma care and specialized response teams, including SWAT, High-Angle Confined Space Rescue, and Maritime Response.
- Actively participates in TECC (Tactical Emergency Casualty Care), TCCC (Tactical Combat Casualty Care), and ALERRT (Advanced Law Enforcement Rapid Response Training).
- Provides medical coverage for high-density mass gathering events with specialized response teams and equipment.
- Established a new paramedic sub-station with 24/7 coverage in western Kent County to meet growing demand.

- Initiated the Whole Blood Project, allowing Kent County EMS paramedics to administer O-positive whole blood to trauma patients and others experiencing severe hemorrhage, improving pre-hospital survival rates.
- Continues efforts to combat drug-related overdoses with a balanced approach to prevention, treatment, and response.

Division of Emergency Management:

- Prioritizes preparedness for terrorism and weapons of mass destruction incidents.
- Secures extensive training and equipment through local, state, and federal Homeland Security funding.
- Engages in national training programs and provides instruction to other public safety agencies.

Challenges and Future Goals:

- Anticipates a 5-7% increase in dispatch and response volume in the coming year.
- Faces challenges in securing funding and recruiting qualified paramedics.
- Continues collaboration with partner agencies across government and private sectors to maintain the highest level of service and integration.

The Kent County Department of Public Safety remains dedicated to delivering exceptional emergency response services while continuously adapting to new technologies and evolving threats. Through strategic partnerships, ongoing training, and innovative initiatives like the Whole Blood Project, we are prepared to meet both current and future challenges in public safety.

Respectfully,

Acting Chief John A. Tinger

Acting Director of Public Safety

Kent County Department of Public Safety Division of Emergency Medical Services 2024

*Submitted by: Deputy Chief John A. Tinger
All date and photos submitted by Kent County EMS*

Overview

2024 marked the 33rd year of Operations for Kent County Department of Public Safety, Division of EMS. Our coverage area is approximately 798 Square miles. We proudly serve the citizens and visitors to Kent County with units in Dover, Frederica, Harrington, and Smyrna.

Mission

Our mission is to be the guiding light in meeting the healthcare needs of our county's citizens and visitors. We are committed to delivering exceptional advanced life support services, fostering education, and implementing prevention programs that reflect our core values and collective vision for a healthier community.

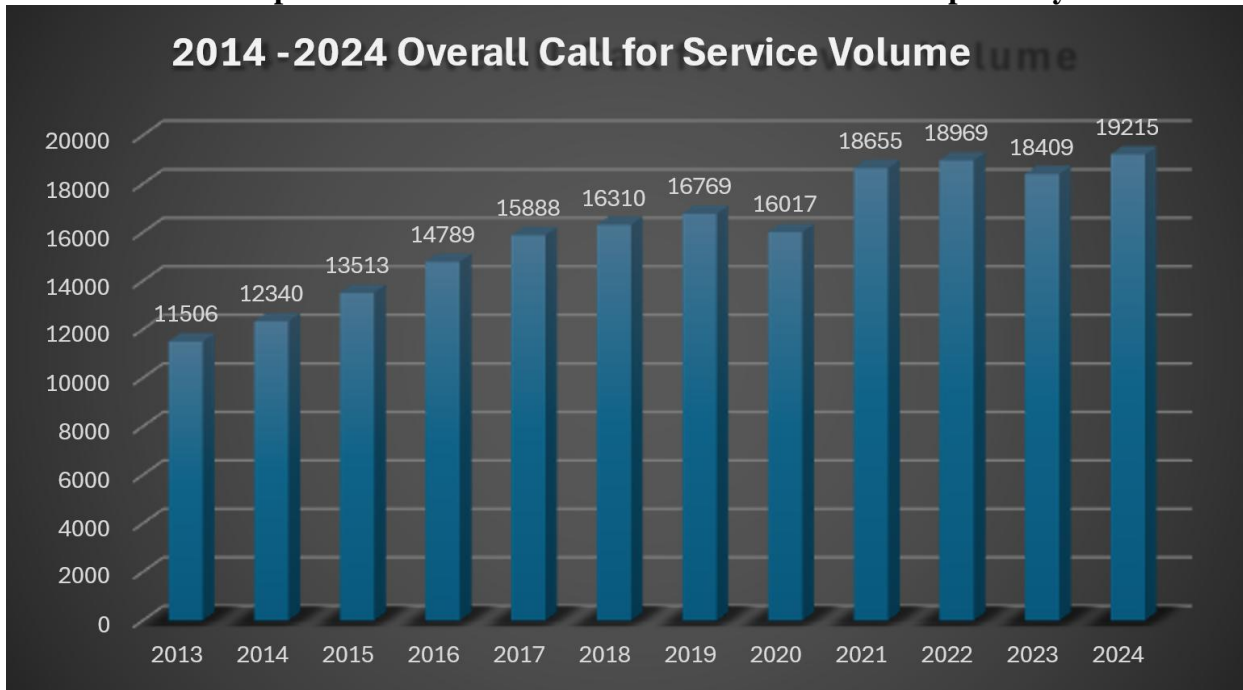
Values

- **Service:** We are passionately dedicated to aiding the sick and injured, delivering superior care to our patients and community with exceptional skill, profound empathy, and unwavering compassion.
- **Quality:** Our patients are at the heart of everything we do, driving us to achieve and uphold the highest standards of excellence in every facet of our service.
- **People:** Our paramedics, along with our valued partners who include EMTs, volunteers, physicians, nurses, and students, are the lifeblood of our organization. They are the champions of our success and the pillars of our reputation. We honor them with respect, dignity, and courtesy, cultivating a collaborative and enriching environment for all.
- **Stewardship:** Our mission requires us to manage our resources with wisdom and integrity, ensuring transparency and accountability to the public and the communities we serve.
- **Integrity:** We are committed to maintaining the highest levels of honesty and fairness in all our relationships, building trust and respect with our team, partners, and the broader healthcare community.

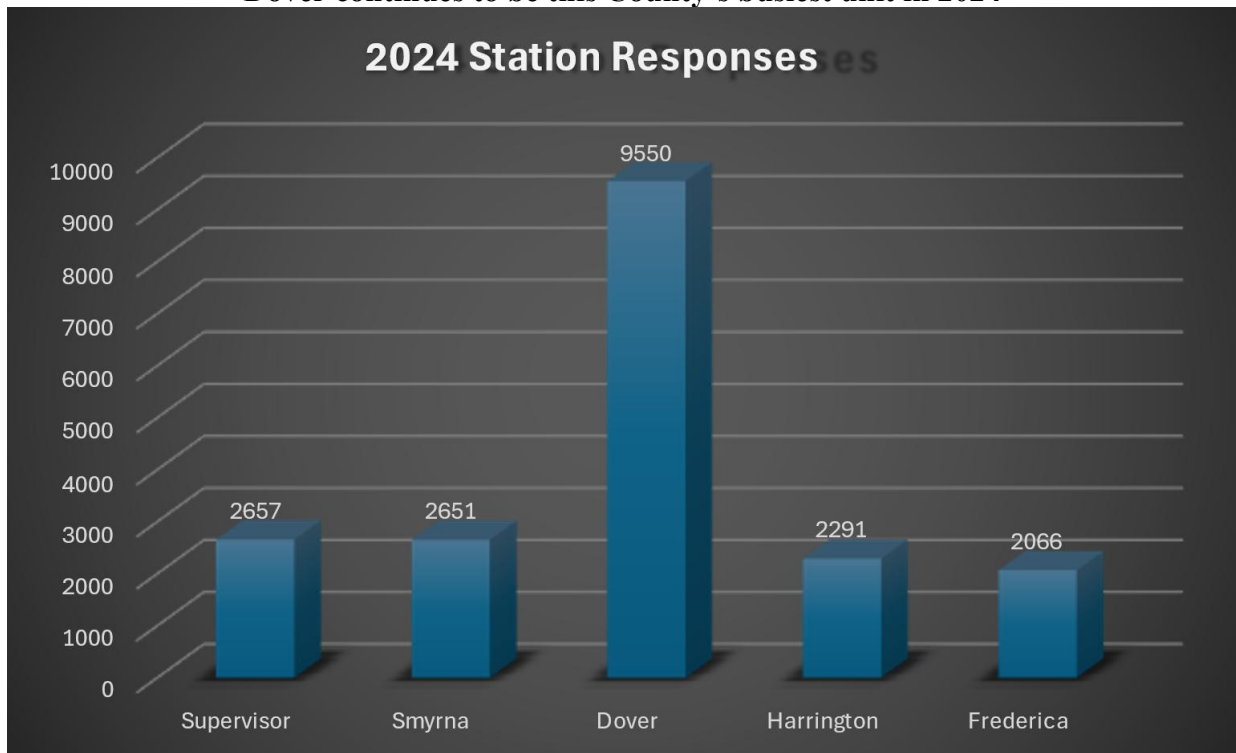


Operational Overview

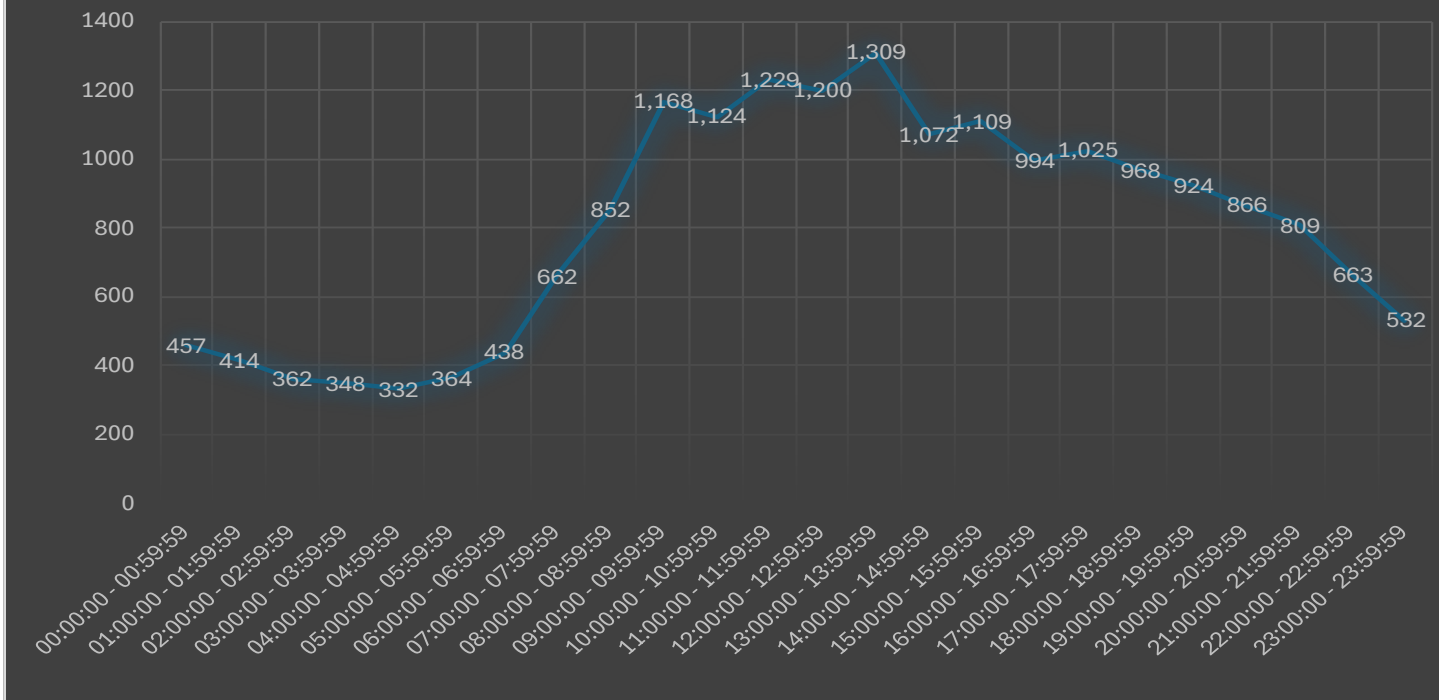
We have experienced a 66% increase in call volume over the past 10 years.



Dover continues to be this County's busiest unit in 2024



2024 Calls for Service by Hour of Day



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Total # Cardiac Arrest	29	33	20	24	21	18	26	23	26	18	24	19	281
ROSC documented	7	8	2	2	4	3	6	4	6	8	5	4	59
Percentage ROSC	24.14%	24.24%	10.00%	8.33%	19.05%	16.67%	23.08%	17.39%	23.08%	44.44%	20.83%	21.05%	21.00%



We continue to report to the CARES registry in Kent County. Return of spontaneous Circulation after CPR was average 21% in 2024.

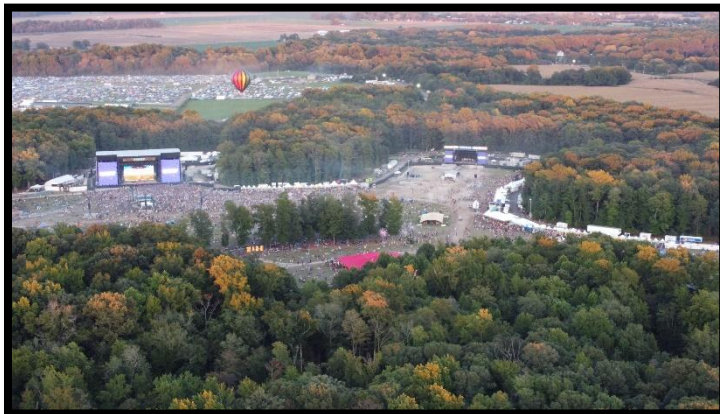
Kent County Levy Court Department of Public Safety - Division of Emergency Medical Services has achieved the Mission: Lifeline® EMS Gold Plus Level Recognition Award once again in 2024. The American Heart Association recognizes that Pre-hospital personnel are the first providers of care to patients suffering from a STEMI heart attack and are an integral part of the STEMI

system of care impacting the overall care and outcome of the patient. This achievement illustrates a commitment to providing guidelines-based care while meeting high standards of performance.

Mass Gatherings



The Division provides medical coverage at several Mass Gathering venues each year. Notably, the NASCAR race and Music Festivals at Dover Motor Speedway, the Delaware State Fair, the Bike-to-the-Bay, the DAFB Air Show and the Amish Country Bike Tour account for the venues with the largest populations. There are occasionally other events (VIP appearances, City of Dover events, etc.) which also require Mass Gathering preparations. Response may be limited to assigning a Bike Team to the venue or expanded to establishing an entire communications center with dozens of support units on site.



Community Involvement

KC Paramedics were able to participate in several community training events in 2023:

AHA Heartsaver CPR/AED

12 classes - 56 students

Hands Only CPR : KC Paramedics have participated in various special events including local festivals, events and school programs. Since its inception at the end of summer 2019, we have taught over 1,000 people in Hands Only CPR.

Food Drive: We also conducted a Food drive for the Foodbank of Delaware and donated almost over a ton of food during the Thanksgiving Holiday Season.



KCEMS Special Operations

SWAT Paramedics



KC SWAT Paramedics have supported the Smyrna SWAT Team, Milford Police SOG Team, and Dover Police SORT Team on 27 missions.

- Training 251 hours
- We sent one paramedic to the Special Operations Medical Association conference and three paramedics to the ALERRT Conference.
- Over half of our division participated in Active Attack Integrated Response training hosted by DSP.
- We conducted two TECC classes.
- We trained numerous LE and DOC staff in naloxone administration.

All-Terrain Medical Response

The Bike Medic Team once again supported Dover International speedway at the annual NASCAR race. The Specialized bikes and Medic-Gators are pre-deployed to many events each year. While the units are capable of emergency response, the application of these assets remains as support to in-progress incidents. The units are housed in the ATMR trailers which require transport to the scene.



Our specially outfitted response gators and Bike Medic Team covered the Spring NASCAR race and Delaware State Fair. Additionally, the team was deployed at multiple events including Safe Summer Day, the Governor's Fall Festival, the Amish Country Bike Tour, and the Wyoming Peach festival.

Mental Health Resiliency / CISM

Kent Medics CISM team provides mental health support to our first responder community. Our medics go through specialized training to assist with critical stress management to those affected by a traumatic event. Each shift staffs a CISM certified paramedic, and we are in the process of adding dispatchers to our team, so we are ready to respond at any time. Our team also has two emotional support K9's named Lucy and Eugene who patrol our HQ and responds to activations.



Technical Rescue

Our Technical Rescue Paramedics have responded to 12 call outs in 2024.



This included mutual-aid assistance to North Carolina response with DE TaskForce1. Call outs included vehicles into structures, large animal rescues, structural collapse from natural disasters, and confined spaced rescue operations.

Training included both monthly in-house training and joint training with the entire Kent County Special Operations Team.

We sent three technical rescue paramedics to Rope Rescue Operations/Technician courses.

We had four team members trained in Trench Rescue – both at Operational and Technician levels.

Two paramedics participated in the FEMA Medical Specialist Course in Ocala FL.



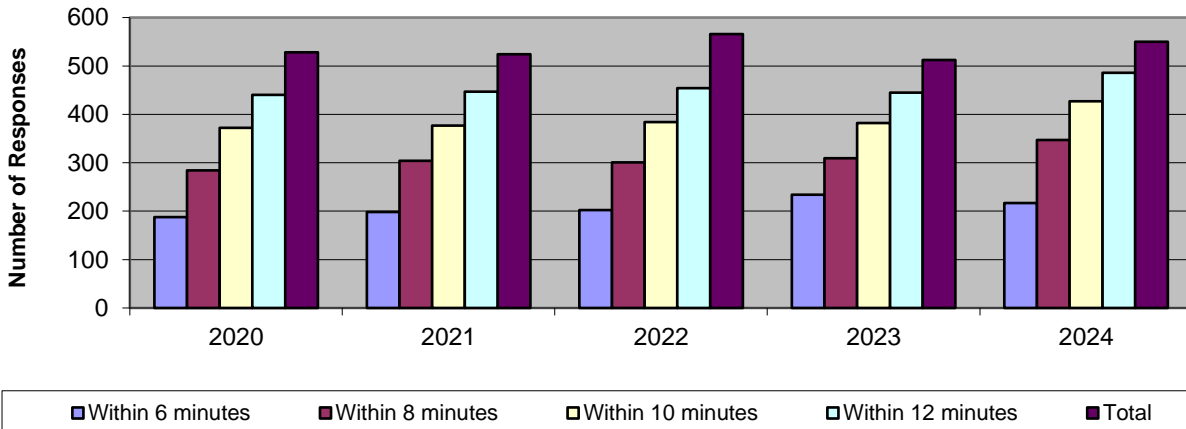
Accomplishments

- Kent County started carrying Whole Blood for administration during traumatic and medical events for those in hemorrhagic emergencies
- KCEMS held our 2nd Annual Cardiac Arrest Survivors Reunion. We honored twelve Cardiac Arrest Survivors and the Emergency Personnel who responded to their emergencies.
- CPR training classes for the public.
- Continued to provide high quality refresher and Con Ed to our Paramedics.
- Achieved Gold Plus recognition from the American Heart Association for 2024 in the Mission Lifeline EMS STEMI Quality Achievement Award.
- Expanded our Academy for Paramedic Students

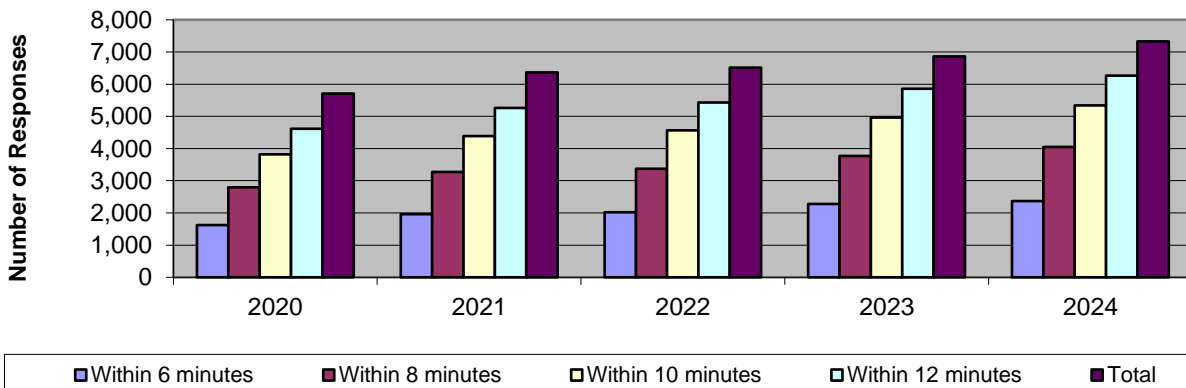
2025 Challenges

- Staffing remains a challenge. Finding qualified applicants of certified Paramedics is still difficult. We have risen to the challenge by implementing an academy program to train paramedics in partnership with Delaware Technical Community College.
- Maintaining operational tempo to sustain and support the increased call volume.

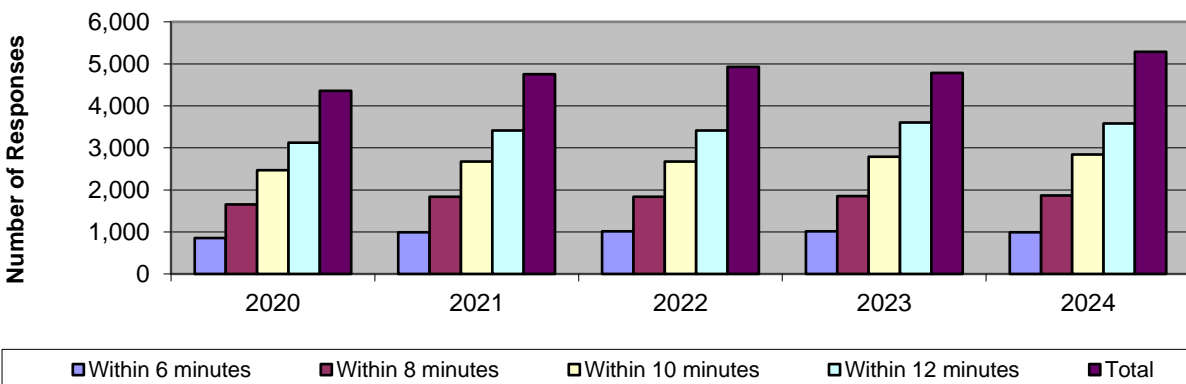
Echo Level Response, Kent County EMS



Delta Level Response, Kent County EMS

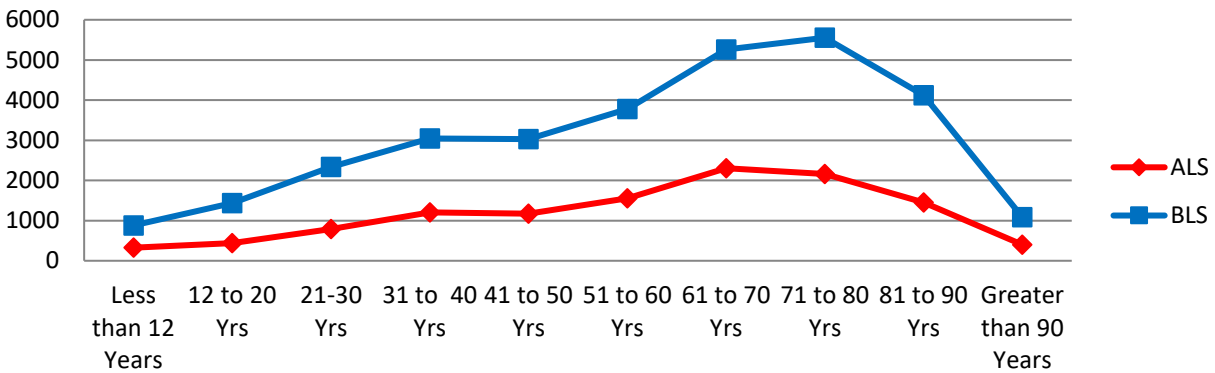


Charlie Level Response, Kent County EMS



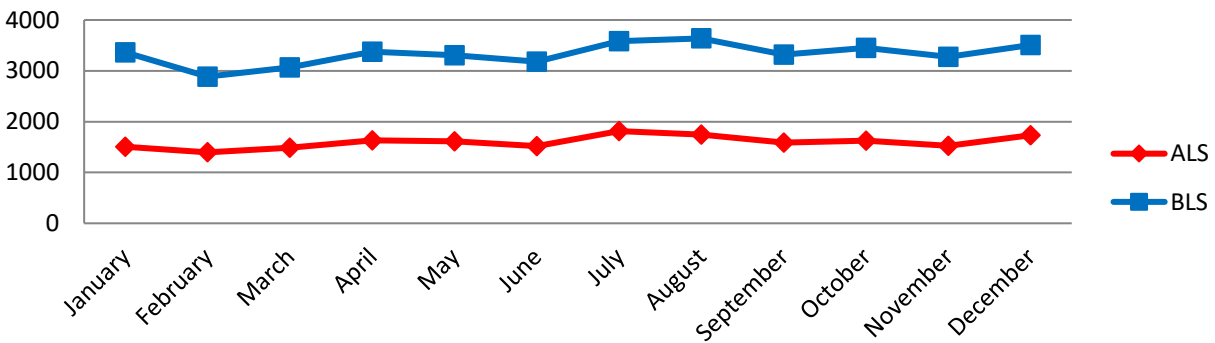
ALS and BLS Patient Age Comparison - 2024

Kent County

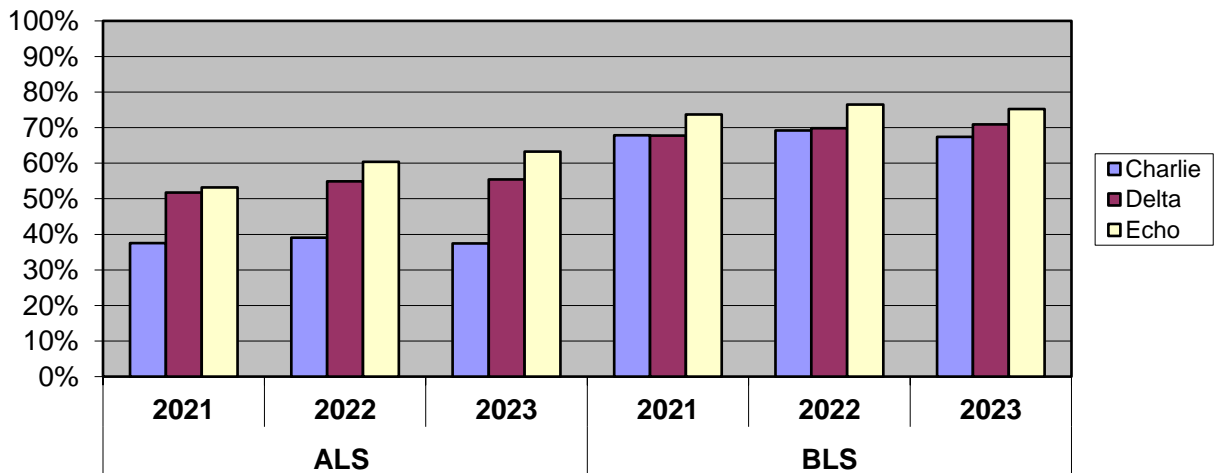


ALS/BLS Incidents by Month - 2024

Kent County



Percentage When Kent County ALS/BLS Arrived On-Scene in 8 Minutes or Less on Delta/Echo/Charlie Level Incidents - 2024





Kent County Department of Public Safety Division of Emergency Communications 2024 Overview

Submitted by: Assistant Director Robert Watts

**All photos and data submitted by Kent County 911*

The Kent County Department of Public Safety, Division of Emergency Communications, handles 911 calls from multiple phone exchanges across Kent County, southern New Castle County, and northern Sussex County. In 2024, the center processed 97,631 emergency 911 calls and 57,800 non-emergency administrative calls. Dispatchers managed 41,595 medical incidents, 9,244 fire incidents, and 123,788 police incidents throughout the year.

Mission

We are the Kent County Department of Public Safety Emergency Communication Division, known as Kent Center, the first point of contact in emergencies. We connect the public with lifesaving services through rapid, accurate, and compassionate communication. As the critical link between citizens and first responders, we utilize advanced technology and skilled personnel to protect life, property, and community safety.

Values

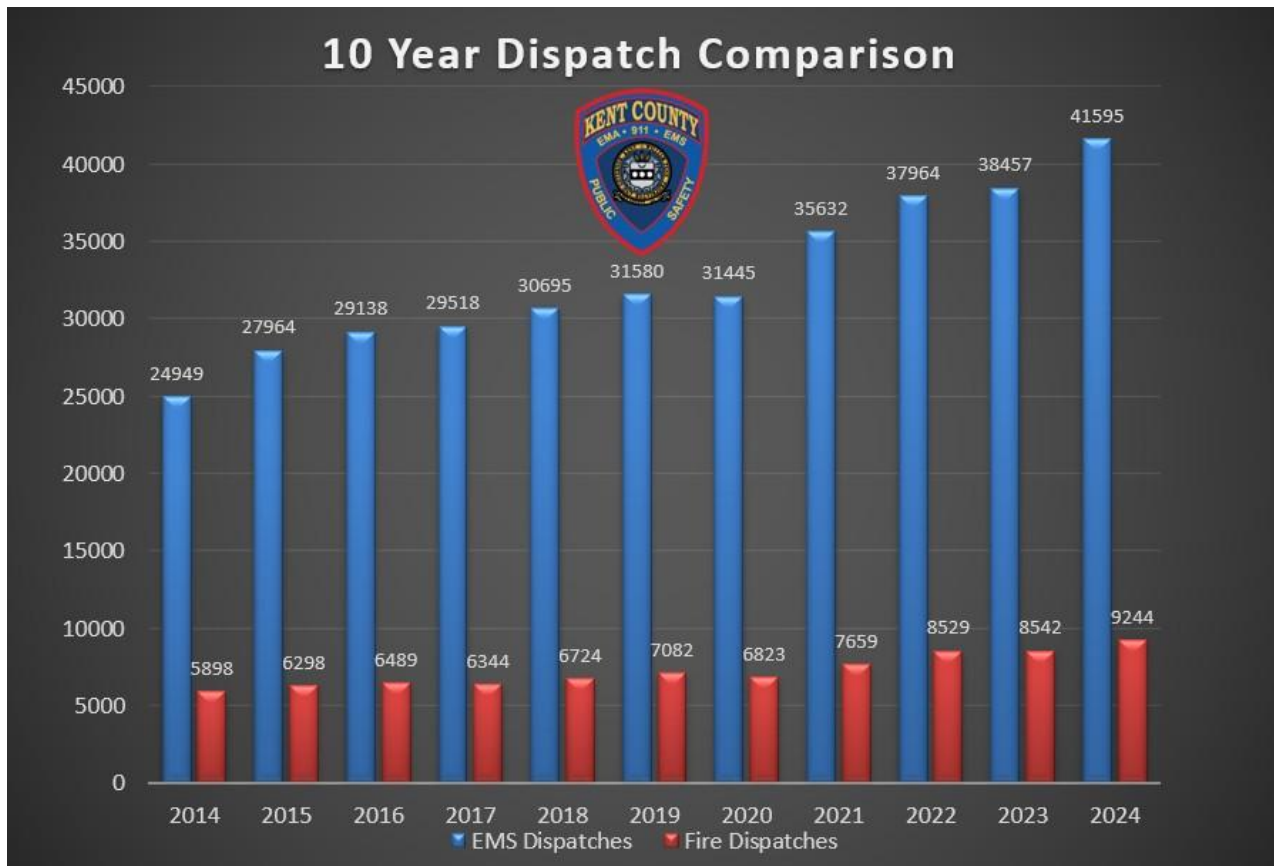
- Integrity - We are committed to honesty, consistency, and upholding high moral standards in all interactions with colleagues, citizens, and external partners.
- Pride - We take pride in our profession, our colleagues, and the organization. We strive to uphold its reputation through excellence and dedication, and a commitment to the highest standards of service.
- Teamwork - We promote respect, open communication, and collaboration within our team, while maintaining individual accountability and contributing to collective success.
- Open Communications - We foster direct, transparent communication that encourages responsibility, effective conflict resolution, and the avoidance of misunderstandings or rumors.
- Innovation - We embrace continuous improvement by exploring new ideas, technologies, and experiences to enhance service delivery and drive progress.

- Respect and Service – We treat all individuals with fairness and dignity, fostering an inclusive environment that reflects and supports both our staff and the community we serve.
- Positive Work Environment – We create a supportive and engaging work culture that promotes job satisfaction, personal responsibility, and accountability, contributing to the overall success of the team and the agency.

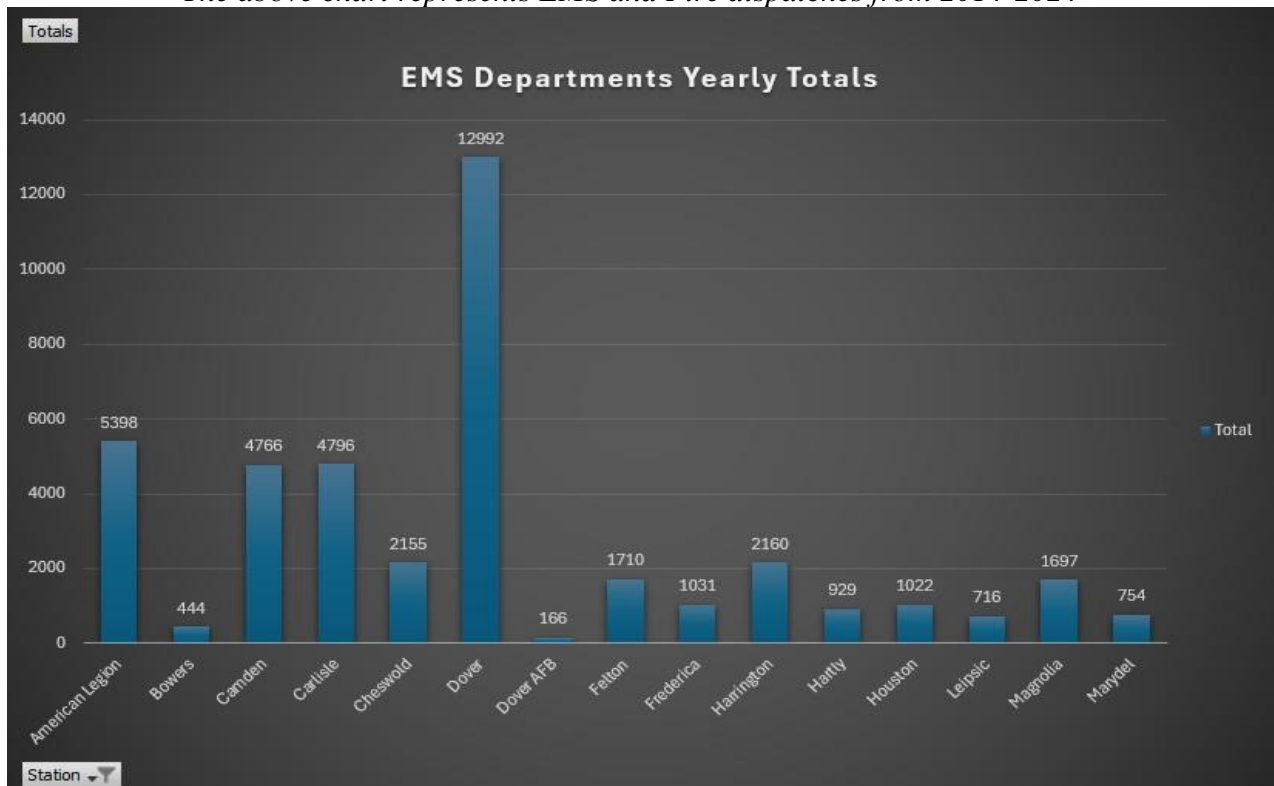
Operational Overview



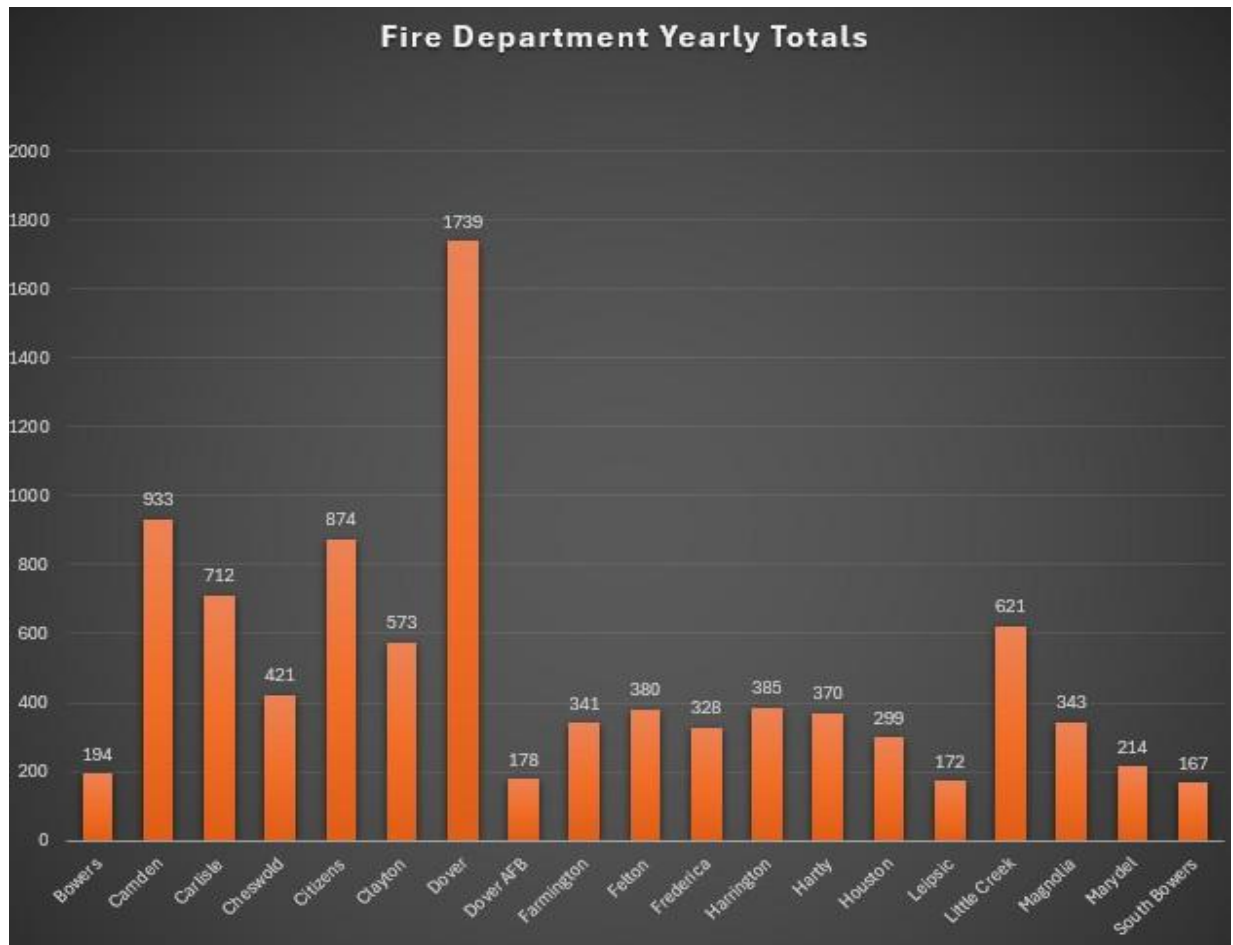
The above chart represents 911 calls, Administrative calls, and combined calls from 2014-2024



The above chart represents EMS and Fire dispatches from 2014-2024



The above chart represents BLS dispatches by Station in 2024



The above chart represents Fire dispatches by Station in 2024



Smart911™

The Kent County Department of Public Safety remains committed to supporting and promoting Smart911, a free service that allows residents to create a Safety Profile for

their household. This profile can include vital information they want 911 call takers and first responders to have in an emergency. When a registered individual dials 911, their Safety Profile automatically appears on the call taker's screen, potentially saving crucial seconds or even minutes in response time. Throughout the year, our division has conducted numerous demonstrations and sign-up events to encourage community participation in the program.





The Kent County Department of Public Safety continues to support and promote PulsePoint, a smartphone application designed to assist in life-saving efforts. Running in the background of a user's phone, PulsePoint

alerts registered CPR-certified citizens to nearby cardiac emergencies occurring in public locations. For general users, notifications are only sent for incidents in public spaces, while verified responders receive alerts for all locations, including private residences.

Mass Gatherings

Each year, we participate in multiple mass gatherings by integrating into a Joint Operations Center (JOC). These events include:



- NASCAR races at Dover Motor Speedway, which in 2024 saw its largest crowd since before the pandemic.
- The Phish Mondegreen Festival at The Woodlands, which drew approximately 45,000 attendees over its four-day duration in 2024.
- The 2024 First State Airshow at Dover Air Force Base, which drew over 97,000 attendees in a single day and led to record-breaking crowds.
- The Delaware State Fair in Harrington, which spans over 300 acres and features concerts, agricultural exhibits, and other classic state fair activities. In 2024, the fair attracted approximately 303,000 attendees over its 10-day duration.
- Several smaller events.



Collectively, these large-scale musical and sporting events draw significant numbers of visitors to our county.

2024 Accomplishments

- ☐ Expanded our Drone Team, integrating Public Safety personnel from all divisions within the department.
- ☐ Answered 99.63% of 911 calls within fifteen (15) seconds, surpassing both the NENA and NFPA standards.
- ☐ Implemented yearly upgrades to our Computer-Aided Dispatch (CAD) and Mobile Data systems using funds from the State 911 Board.
- ☐ Expanded our GIS Analysis position to support Public Safety agencies with GIS data management and mapping updates for the CAD system.
- ☐ Designed and ordered a new mobile command vehicle, with delivery expected in 2025.



- ❑ Maintained a minimum staffing level of five (5) Fire/EMS Dispatchers 24/7, ensuring improved service during shift changes and peak hours.

2025 Challenges and Goals

- ❑ Achieve Accredited Center of Excellence status for Police Protocols.
- ❑ Expand staffing by implementing a power shift, adding an extra dispatcher during peak hours.
- ❑ Upgrade the 911 phone system through the State provider, Intrado.
- ❑ Maintain Medical and Fire Dispatch Accreditation through the International Academy of Emergency Dispatch.
- ❑ Enhance our Computer-Aided Dispatch (CAD) system with next-generation technology and software, and deploy the CAD app Crew Force to assist at special events.
- ❑ Expand the Communications Center footprint from 18 to 22 dispatch consoles.
- ❑ Replace the dispatch center's wall fabric and carpeting, addressing wear from continuous 24/7 use since the facility's construction in 1998.

Summary

The Kent County Emergency Communications Division provides Fire/EMS dispatch services for 18 volunteer fire companies, two EMS companies, and the Kent County Paramedics. The center is staffed by 26 Fire/EMS personnel and an administrative team of four. Additionally, the Delaware State Police (DSP) Communications Center, "KentCom," operates within the facility, along with DSP "ReCom," which is temporarily housed there.



All dispatchers are certified in Emergency Medical, Fire, and Police Protocols and are cross-trained to support any function within the center. They complete extensive continuing education to maintain their certifications.

In November 2000, the Kent County Emergency Communications Division was recognized as an Accredited Center of Excellence in Emergency Medical Dispatch by the International Academy of Emergency Dispatch, becoming the 49th agency in the world to achieve this distinction. The division has continuously met accreditation standards since then. In November 2007, the center also achieved accreditation in Emergency Fire Dispatch, becoming the 6th agency in the world to do so, maintaining compliance every year since.

SUSSEX COUNTY EMERGENCY MEDICAL SERVICES



2024 ANNUAL REPORT

“Caring People. Quality Service”



INTRODUCTION

2024 Sussex County EMS Goals & Accomplishments

- Improved hospital transfer of care times - 99.6% of dwell times are < 30 minutes (0.4% improvement)
- Airway management - First Pass Intubation success rate improved by 6%
- Integration into the Department of Public Safety
- Involvement of Communications personnel in some of the monthly Con Ed programs
- Support of DTCC's first year of the 12-month certificate program
- Substantial completion of Medic 103 station in Millsboro

Sussex County Emergency Medical Services (SCEMS) continued its tradition of excellence in pre-hospital care in a year with multiple achievements. A new modern station in central Sussex County (Medic 103) was nearly completed by the end of the year. The addition of this station continues Sussex County's commitment to transitioning the department to county owned and maintained facilities. The SCEMS competition team once again competed in the annual JEMS Games. The American Heart Association again presented

the GOLD Plus award to SCEMS for excellence in the care of cardiac and stroke patients.

Medic 114 returned to Dewey Beach for a third summer season to support EMS responses along the Route One corridor. Medic 109 completed its first full year as a year-round daytime-only unit. Our staff continues to be supervised by two District Supervisors and an administrator on call. Behind the scenes, all paramedics are supported by clerical, logistical, information systems, and administrative personnel to ensure a constant state of readiness.

THOMAS W. BERRY III

The 2024 year was not without great loss on the SCEMS family. On August 13, 2024, EMS Logistics Technician Thomas W. Berry III was first on the scene of a motor vehicle accident, and tragically, lost his life in the line of duty while assisting someone in need. Thomas was devoted to his family, proud of his role in the EMS department, the fire service and looked forward to furthering his role in emergency services. The loss of Thomas represents the second LODD in Sussex County EMS history.



COMPLETION OF THE NEW MEDIC 103 STATION ON HANDY ROAD IN MILLSBORO



Medic 103 (Source: Sussex County)

Sussex County officials continue to support the department's efforts to own and maintain stations. The construction of the new Medic 103 in the Millsboro area has been nearly completed and the station will go into service early 2025. The new location is anticipated to improve response times in the general area secondary to its improved access to DuPont Boulevard. The station continues to implement safety initiatives such as drive through bays and additional lighting to identify garage door opening and closing activities decreasing the potential for collisions.

CLINICAL EXCELLENCE

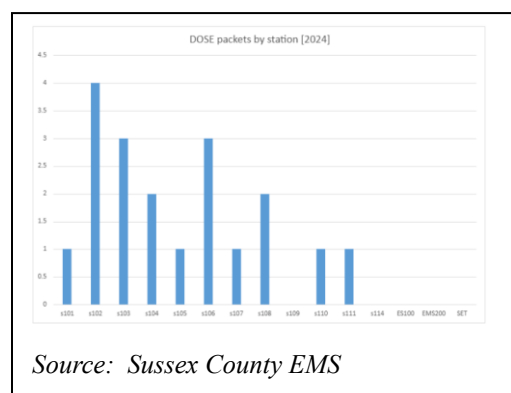
Whole Blood: In 2024, Sussex County EMS proudly continued its prehospital low titer whole blood program. Over the course of the year 34 patients in Sussex County have received blood, with eight patients receiving multiple units of blood products. Continuously striving for improvement, we are actively refining our strategies and best practices for the deployment and administration of this life-saving intervention.



Working collectively with the Delaware Office of EMS and the Blood Bank of Delmarva, we have leveraged collaborative efforts to enhance our program's effectiveness. This year our partnership has allowed for us to embark on a "zero waste" program where the Blood Bank of Delmarva has allowed for the return of unused blood product to protect the supply of this precious commodity.

COMMUNITY PROGRAMS

DOSE Program: Sussex County continues to pioneer the county-wide Direct On-Scene Education (D.O.S.E.) program that was established in 2015. In the previous nine years, Sussex County Paramedics have provided 242 families with potentially life-saving education to prevent infant sleep-related deaths. All EMS calls are quickly evaluated by Paramedics for potential educational or resource needs. When a child under the age of 12 months is identified by paramedics on the scene of an EMS or fire call, a D.O.S.E. packet is provided to the family. Each packet provides state resources and education on up-to-date safe-sleeping practices approved by the AAP. Additionally, if a dire situation is identified without a safe-sleeping space for each infant, a crib is immediately provided to the caregivers shortly after the 911 call. In total, eight cribs have been provided to Sussex County residents and visitors. The D.O.S.E. program continues to see success through routine participation and the spread of both education and awareness to the public during interactions with EMS services.



Narcan Leave Behind Program: The Delaware Opioid Rescue Kit program remains an important effort to put lifesaving therapy into the hands of vulnerable populations. The rescue kits are distributed in situations where a patient has been treated with naloxone but refuses transport to a hospital. These cases pose particular risk of relapse or recurrent respiratory depression.

In such cases, Sussex County Paramedics offer a Delaware Office of Emergency Medical Services supplied opioid rescue kit to the patient, their friends, or family members remaining on scene. Kits contain two doses of intranasal naloxone, an antidote to opioid exposure. Also inside each kit are instructions to provide additional patient care until the arrival of trained rescuers as well as additional information on drug abuse counseling and rehabilitation services.

Sussex County Paramedics have been participating in this important initiative since 2021. Each year has seen an increase in the number of rescue kits distributed and individuals trained by our paramedics. In 2024, 112 kits were distributed, and 152 citizens were trained to manage an overdose.

PERSONNEL

Staffing: SCEMS entered 2024 with one vacancy. Six (6) new paramedics were hired throughout the year with two additional paramedics returning after seeking new employment opportunities. SCEMS ended the year with six vacancies. Twelve employees separated from the department throughout the year including six retirees. 2024 concluded with seven employees having more than 25 years of service and are eligible for retirement. SCEMS appreciated a turnover rate of about 10% (excluding retirees 5%) while the EMS industry often sees an annual rate of 20-30%.

In addition to the paramedic candidates, SCEMS also brought on board six paramedic students. Currently, three of these students have successfully attained paramedic credentials. SCEMS plans to continue with additional students in future cohorts.

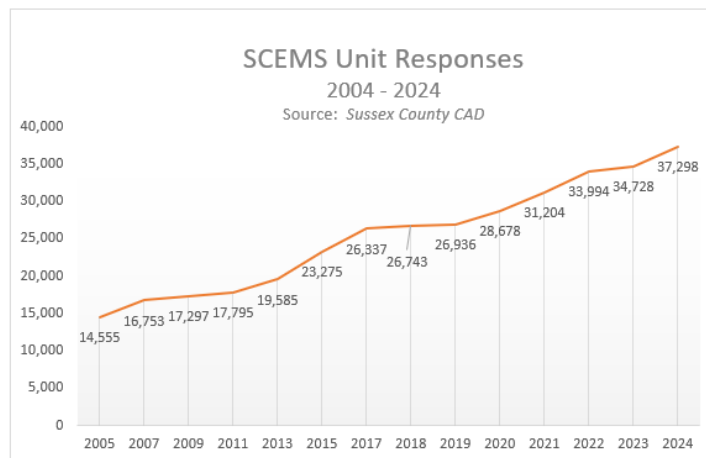
Employee Wellness: Employee mental health, wellness and resiliency remained a priority during 2024. All employees attend an appointment with a mental health professional as part of the biennial medical evaluation process. This provider in consultation with our occupational health medical provider will determine an employee's fitness for duty. As appropriate, the provider may be involved in return-to-work decisions.

2024 INCIDENTS

For 2024, SCEMS experienced a 7% increase in response volume compared to last year. Over the past ten years, a 77% increase in unit responses has been appreciated. This demand has continued to be met with eleven paramedic units, including two single medic 24-hour stations in Bridgeville and Milton, and a full-time day shift only single medic in the Roxana area. For the third year, these full-time units were supported by a summertime "power unit" in Dewey Beach to help address the call volume and difficulty navigating the Route 1 corridor between Memorial Day and Labor Day.

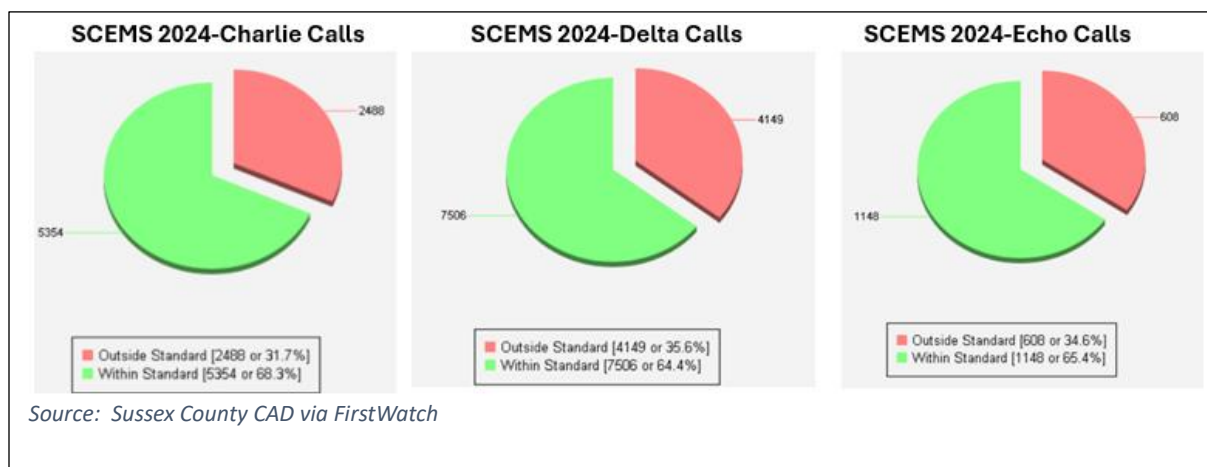
2024 Incident Responses		Δ Last Year
EMS 100 (Eastern Supervisor)	1,508	7%
EMS 200 (Western Supervisor)	1,220	-3%
Medic 101 (Lincoln)	3,198	1%
Medic 102 (Laurel)	2,864	3%
Medic 103 (Dagsboro)	3,639	3%
Medic 104 (Lewes)	5,024	13%
Medic 105 (Millville)	2,693	3%
Medic 106 (Long Neck)	3,837	13%
Medic 107 (Bridgeville)	1,524	-2%
Medic 108 (Georgetown)	3,234	4%
Medic 109 (Summer "Power Unit")	1,098	38%
Medic 110 (Seaford)	4,143	3%
Medic 111 (Milton "Power Unit")	2,015	22%
Medic 114 (Dewey "Power Unit")	633	19%
Special Operations	250	14%
Other (Administration)	418	55%
Total	37,298	7%

Incident Responses by Unit (Source: Sussex County CAD)



Medic 109: In 2024, Medic 109 had its first full year as a full-time day shift unit stationed in the Southeastern portion of Sussex County along Lighthouse Road in Roxana. Medic 109 provides a valuable resource to an area that continues to grow and expand. Medic 109's response volume increased as expected with the year-round deployment.

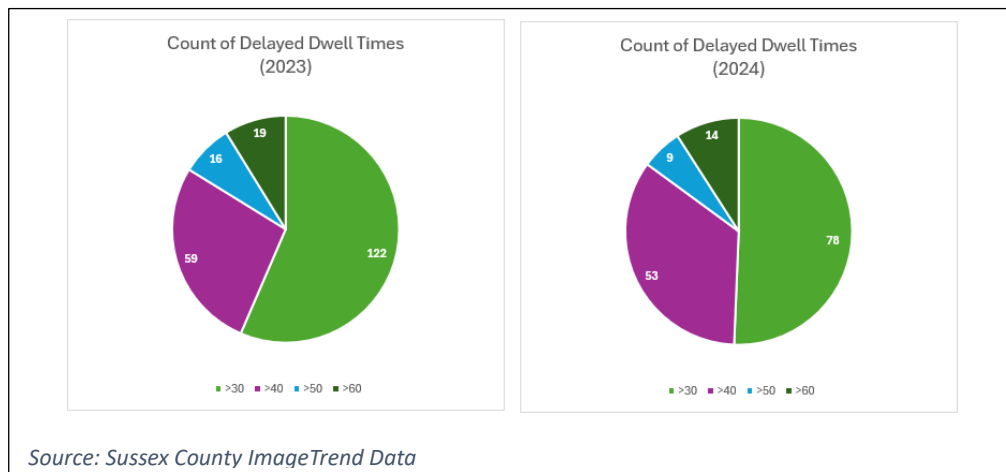
Response Times: Meeting the goal of an 8-minute response time continues to be a challenge in Sussex County. Our geography continues to be the greatest barrier. While response times are evaluated based on EMD code, compliance with an 8-minute standard is consistent between Charlie, Delta, and Echo responses.



Our Patients: Sussex County continued to welcome visitors throughout the year, approximately 8.7% of our patients for 2024 resided outside of Sussex County. This represents a decrease of 4.5% from 2023.

Dwell Times: An issue in Sussex County is the time it takes to transfer patient care to hospital staff after a patient arrives to the emergency department. This has been termed our Dwell Time. Hospitals often refer to this as *wall time*. In 2024, SCEMS arrived at a local hospital with a patient 17,936 times. Our dwell times vary due to a multitude of factors, with most patients being transferred in under twenty minutes. However, we did experience 154 times that required a unit to be at a hospital for greater than 30 minutes to facilitate a transfer of care. In fourteen

cases, a SCEMS unit had a dwell time exceeding one hour. The dwell time issue really began during the COVID pandemic when hospitals were at maximum capacity. The challenge today is that when EMS is busy, hospitals are also busy. However, our paramedics need to transfer care in a reasonable timeframe so that they may return to service and be available for the next incident. 2024 saw the implementation of a emergency transfer policy in partnership with area hospitals and the Office of EMS. In 2024 the policy did not have to be implemented.



AWARDS

SSH IMSH Conference: In 2024 Sussex County EMS leadership and simulation team leadership were invited to attend the Society for Simulation in Healthcare's (SSH) IMSH Conference in San Diego, California. At the Diamond Ball event, leadership accepted an award for conferment of accreditation and teaching/education along with 34 other award recipients. SCEMS continues to be the only prehospital simulation group that is accredited by the SSH.



SPECIAL OPERATIONS

Special Operations: SCEMS provided ALS coverage during 183 mass gatherings, public education events, Honor Guard duties, or Presidential visits over the course of 2024. These events were staffed by 367 paramedics, contributing more than 2,400 hours. The SCEMS Honor Guard has grown into an often-requested resource for training, serving at funerals, public events, and presenting the colors at the DVFA Conference. In 2024, it was a hazmat technician refresher year, with the team running multiple scenarios during the recertification training. SCEMS also participated in a full-scale Sea Witch exercise based on 2023's tabletop exercise, closing out the 2-year training.



SCEMS bike medics on a



SCEMS Competition Team at the 2024 JEMS Games (Source: [unintelligible])

JEMS Games: The SCEMS competition team returned to compete at the 2024 FDIC JEMS Games in Indianapolis, IN. This year the team served as the “run through” team for the final competition. The final scenario involved a house fire with multiple victims trapped. As the scene progressed there was a first responder victim that had been overcome by smoke and ultimately collapsed during the scenario. SCEMS participation allowed the remaining teams to have an enhanced experience in the final competition.

EDUCATION AND QUALITY MANAGEMENT

Continuous Quality Improvement (CQI): The SCEMS CQI program remains a robust process and a contributing factor to our clinical success. The process is demanding, time consuming, and incredibly valuable to the quality of care delivered by SCEMS paramedics. Quality staff attended Collaborate Live, a conference presented by FirstWatch, which focuses on FirstPass and shares best practices to improve and set up our CQI system. As we transition into FirstPass, the rules based system will require less field provider involvement, leverage the automation of the program, and direct a more focused approach by field training officers and administrative personnel in the CQI process.

Continuing Education: In 2024, Sussex County EMS focused its monthly continuing education on enhancing paramedic performance. January marked a milestone with the completion of NAEMT's TECC course, certifying all paramedics in trauma and tactical emergency care. February introduced surgical cricothyrotomy, where staff completed individual signoffs on task trainers and pig tracheas. April maintained our commitment to inventory and EVOC training, while also welcoming new UTV instructors who provided hands-on training. October featured state Con Ed, introducing updated protocols alongside expert-led sessions



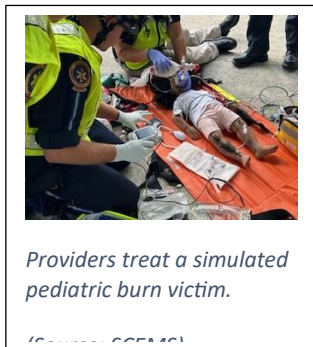
2024 State ALS Con ED in Dover (Source: SCEMS)

from the Blood Bank on transfusion therapy and Christiana Care on stroke care advancements. September's joint agency training was one of our largest to date, bringing together over 100 BLS providers from county fire departments, hospital staff, and communications. Participants rotated through four dynamic, hands-on scenarios: a structure fire with multiple entrapments and a mayday event, live vehicle extrication, MCI care for a 55-patient school bus incident, and critical care management of an ejected patient requiring air transport with Trooper 2. This collaborative training reinforced interagency teamwork and high-quality patient care in complex rescue environments.

Expansion of FTO Program: Increases to the workload and the departments commitment to train students required the reexamination of our field training program. To address the continued demands in the department the program was expanded from 16 total FTO's up to 20 FTO's. This equates to one additional Field Training Officer per shift.

NAEMSP Quality Course: To increase efficiency and standardize the processing of data, SCEMS committed to send all members of the quality and standards division, in addition to our medical director, through the National Association of EMS Physicians (NAEMSP) Year-long Quality & Safety Course. This course is set to conclude in June of 2025 and has a research-based presentation component.

Paws for People: During each Con Ed day, SCEMS welcomes several visitors from the Paws for People program. The pups make their rounds visiting paramedics and dispatchers. Looking at the smiles on faces and wagging of tails, it is hard to tell who is happier- the medics or the dogs! This program has been well received and has been a high point of the day and contributes to employee happiness.



Providers treat a simulated pediatric burn victim.

Simulation Program: In 2024, Sussex County EMS conducted 40 high-quality simulation sessions both on- and off-site, reinforcing critical skills and real-world preparedness. These sessions were also used to evaluate multiple ventilators for a planned 2025 purchase, ensuring the best fit for patient care. Two simulation sessions allowed staff to train on trauma and pediatric scenarios with Bayhealth and Tidalhealth at their facilities with our teams working together to better improve our teamwork, knowledge, and interactions. Simulation continues to be a key training tool, allowing paramedics to practice advanced procedures, refine decision-making, and improve teamwork in high-risk scenarios.

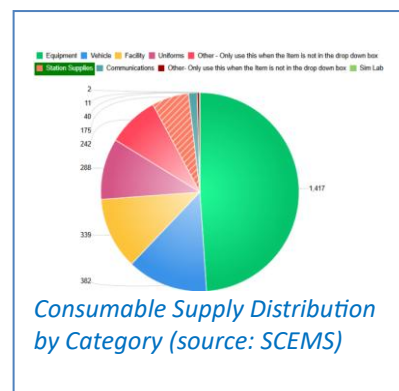
The team acquired and trained on a new GSW Tommanikin from North American Rescue that can be utilized in TECC, AAIR, and other trauma related classes and simulations. This hands-on approach enhances clinical performance and ensures our team is ready for complex emergencies.

LOGISTICS AND CAPITAL IMPROVEMENT

Logistics: SCEMS continues to be supported by a five-person Logistics Division that oversees and coordinates station, equipment, vehicle purchasing, maintenance, and employee uniforms. In 2024, they handled 2,896 requests for service and repairs. Additionally, our Logistics Division purchased, processed, and distributed 41,233 requests for consumable medical supplies. This represents a 2.9% decrease compared to 2023 utilization.

Response Ready Fleet: Five ALS response Suburban's and one pickup truck for the Logistics Division was placed in service. Our fleet drove 591,597 miles, a 1 % increase using 46,792 gallons of fuel for an average of 12.73 miles per gallon.

Paramedic Station Updates: 2024 saw construction begin of a new Medic 103 station in Millsboro with anticipated occupancy in early 2025. Future construction plans are in the works for Medic 101 in Lincoln and Medic 111 in Milton. Sussex County has entered into an agreement to support housing a seasonal paramedic unit within the planned Dewey Beach municipal complex.



Consumable Supply Distribution by Category (source: SCEMS)

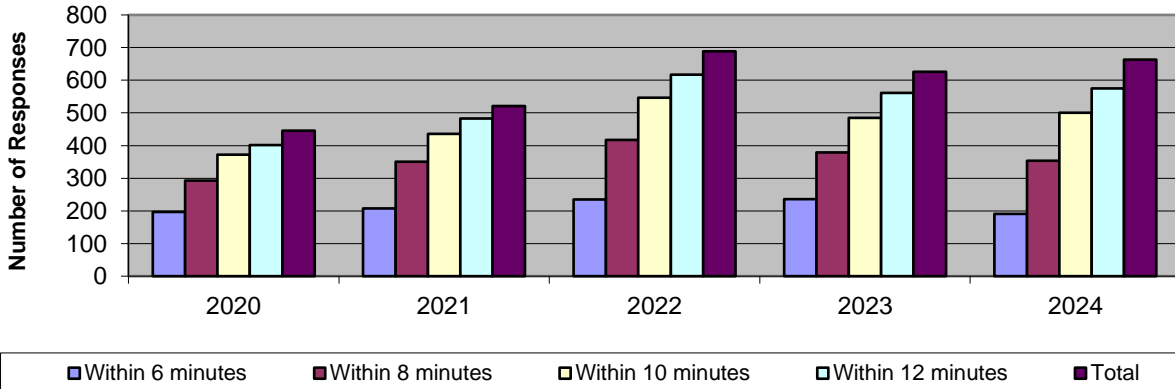
SUMMARY AND A LOOK AT 2025 GOALS

This past year was a milestone for Sussex County EMS. We upgraded our pre-hospital whole blood program to include a “no waste” process. Our simulation program was recognized with an award from the SSH. Sussex County EMS has worked with our hospital and OEMS partners to improve hospital delays. Increased communication and the development of an emergency transfer policy have resulted in improvements in dwell times at all facilities. All SCEMS activities are completed with our motto of “Caring People, Quality Service” in mind. As we look towards 2025, SCEMS will be looking to update some of the equipment that is used every day. Progress towards a new Medic 101 station should be substantially completed by the end of next year. A new home for Medic 114 in Dewey Beach will begin as the town starts construction of a new town hall and police station. Plans for new Medic 111 (Milton) stations will follow.

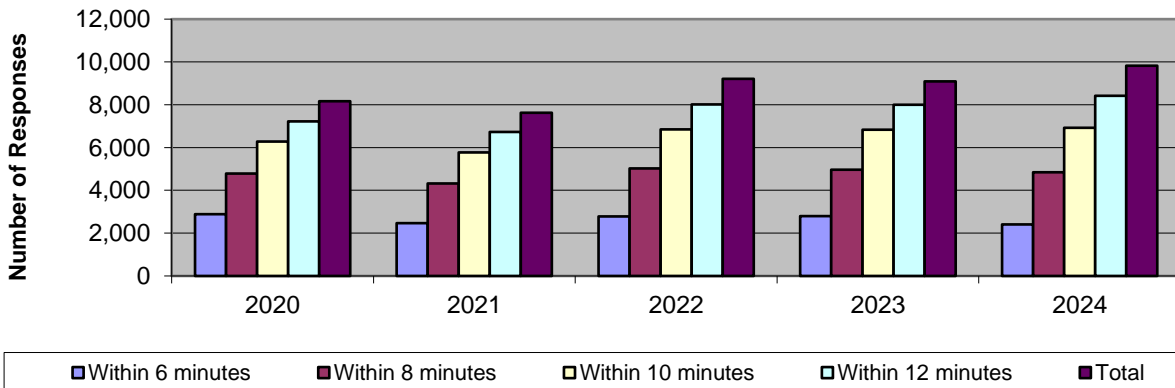
2025 Goals and Initiatives

- Enhance employee safety with the addition of quantitative fit testing equipment
- Complete upgrade of cardiac monitors and transport ventilators
- Enhance training and simulation to improve proficiency with new upgraded cardiac monitors and ventilators
- CAAS Re-accreditation in CY2025 (current expires 12/2025)
- Adapt recruiting efforts to ensure steady flow of applications and just in time hiring
- Begin construction of Medic 101 station in Lincoln

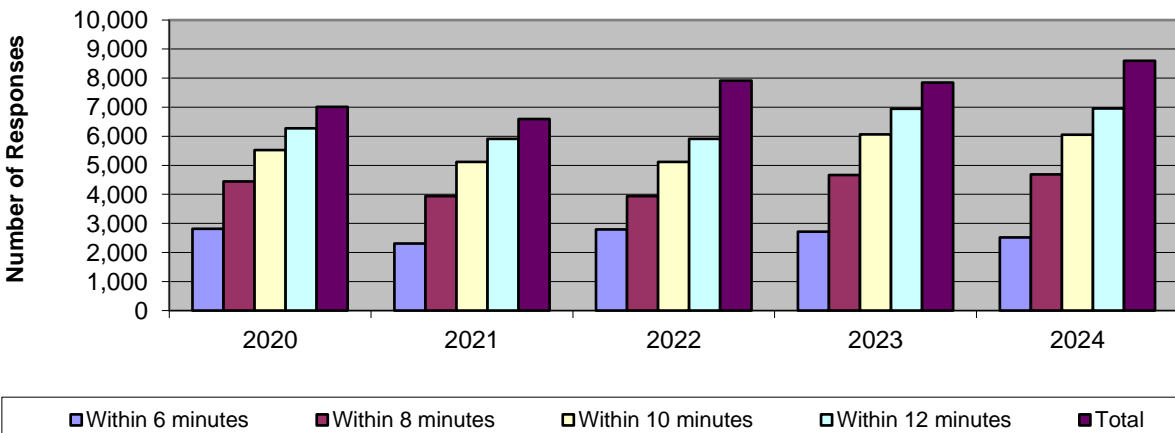
Echo Level Response, Sussex County EMS



Delta Level Response, Sussex County EMS

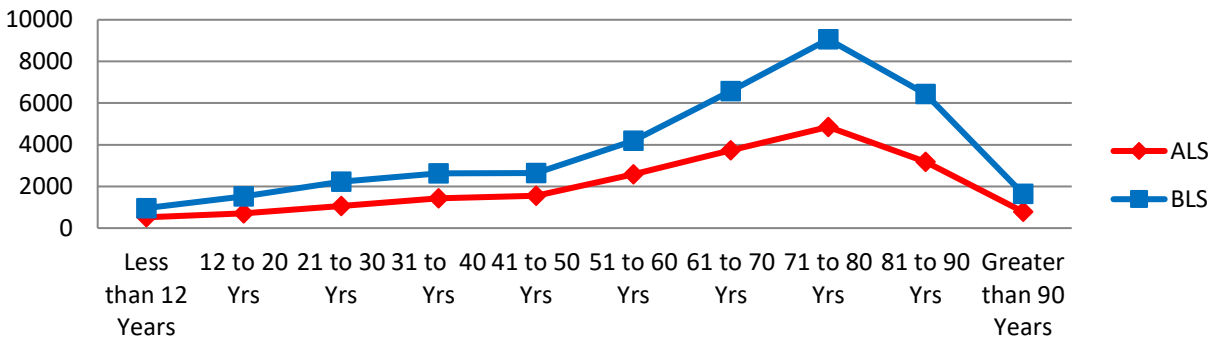


Charlie Level Response, Sussex County EMS



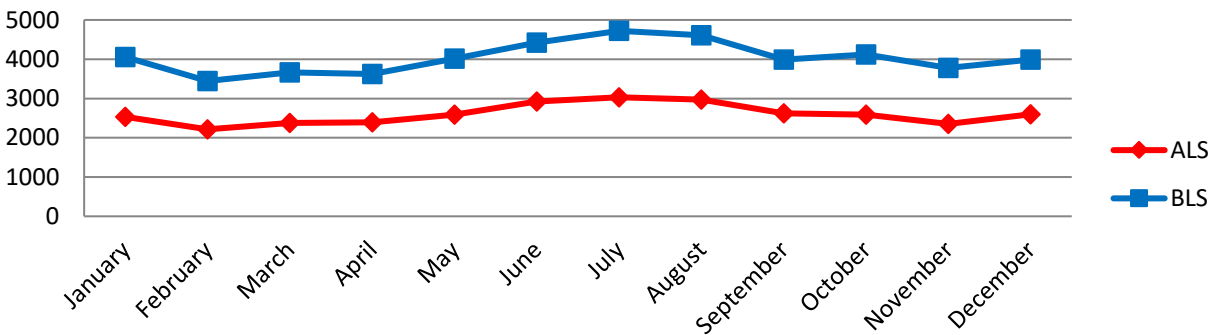
ALS and BLS Patient Age Comparison - 2024

Sussex County

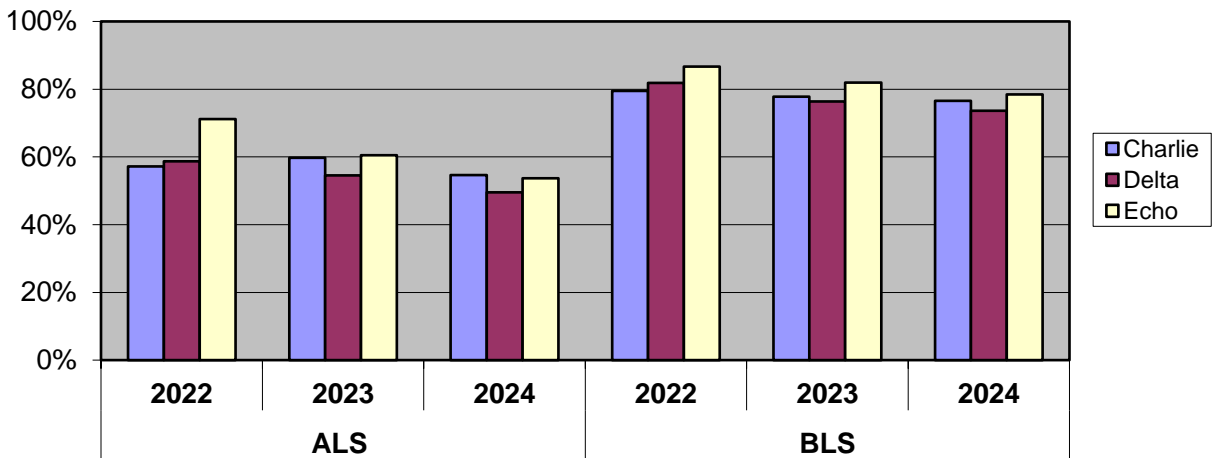


ALS/BLS Incidents by Month - 2024

Sussex County



Percentage When Sussex County ALS/BLS Arrived On-Scene in 8 Minutes or Less on Delta/Echo/Charlie Level Incidents - 2024

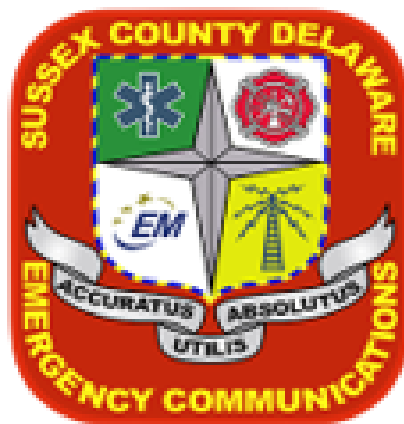


Sussex County Emergency Communications Center

Submitted by Deputy Director, Richard C. Short

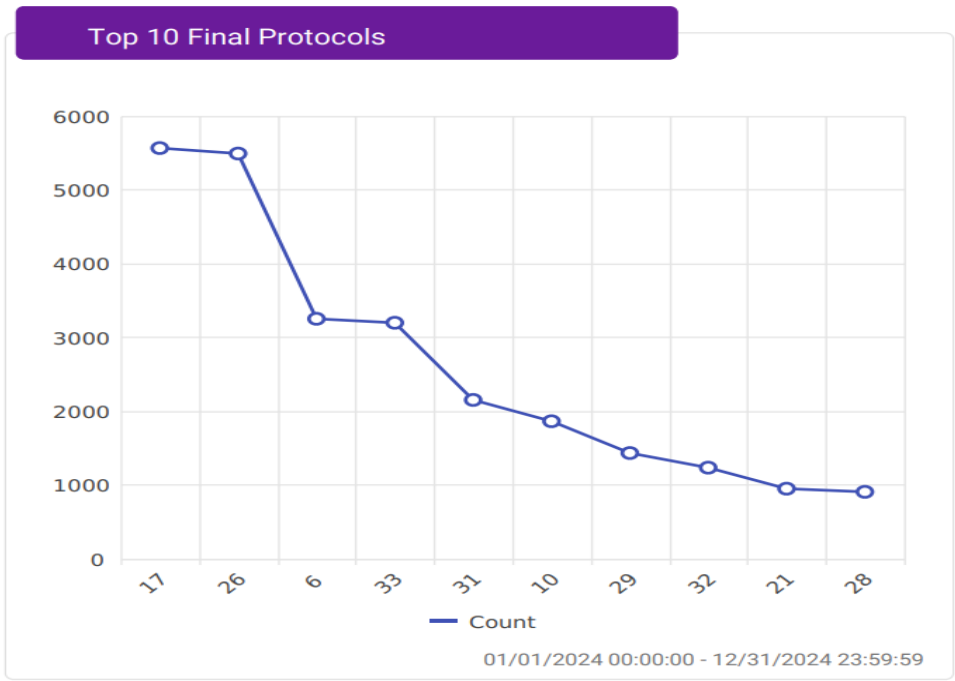
Introduction:

Sussex County Emergency Communications Center is committed to delivering exceptional emergency services. Their dedication to providing timely 9-1-1 call processing and dispatching for Fire and EMS is essential for public safety. By aiming to be a "TRI - Center of Excellence," they are ensuring that they meet high professional standards in emergency communications, which can help improve response times and outcomes for those the call 911.

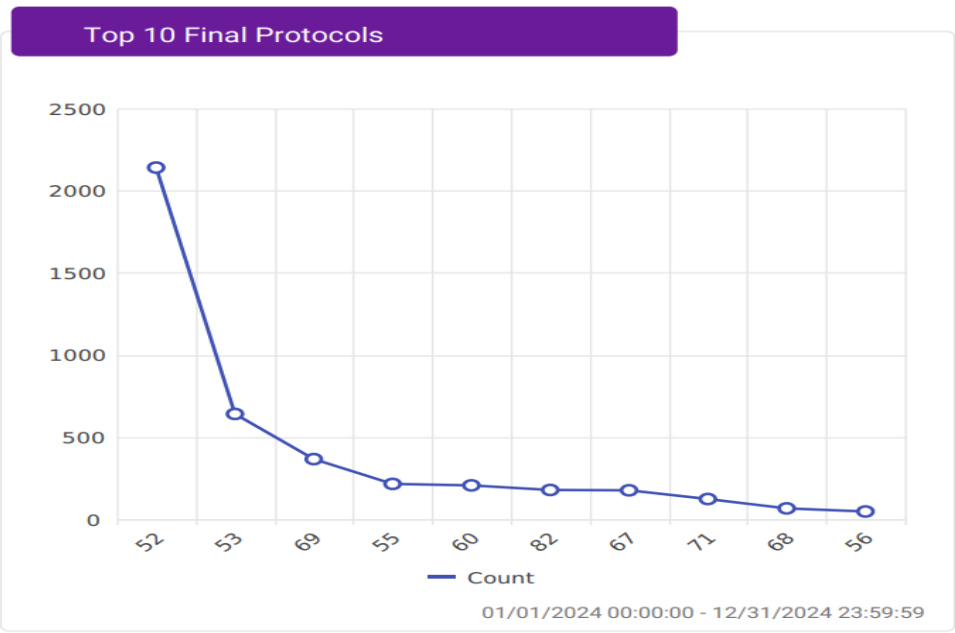


Operational Overview and Yearly Totals for EMS-FIRE-Police Incidents

EMS

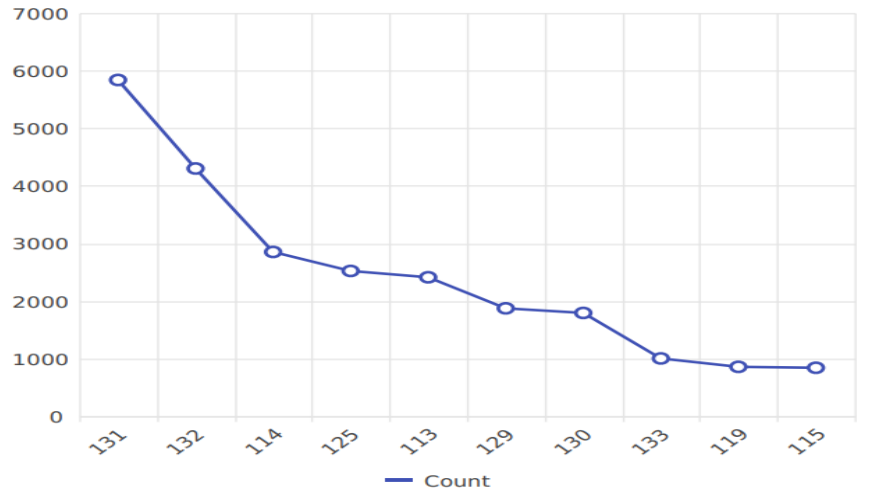


FIRE



POLICE

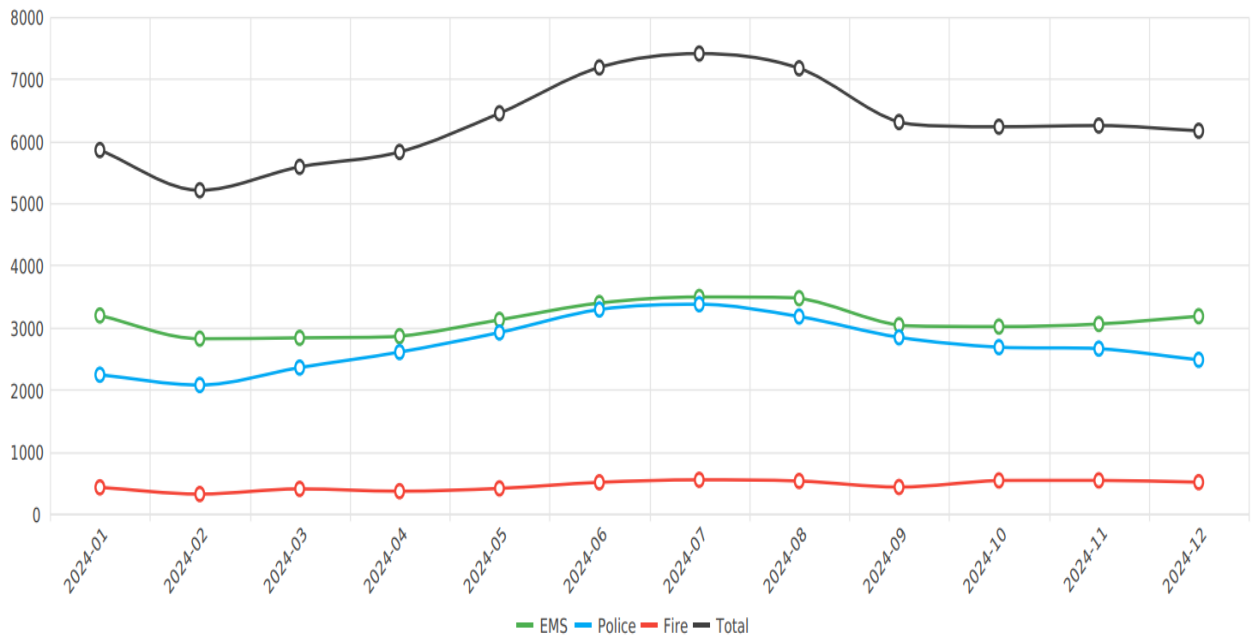
Top 10 Final Protocols



01/01/2024 00:00:00 - 12/31/2024 23:59:59

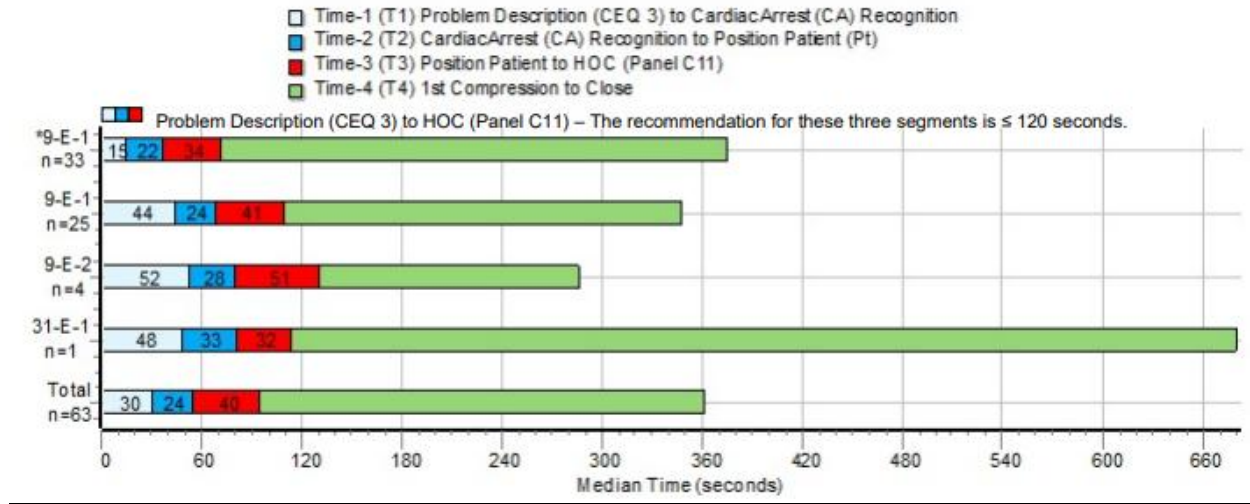
Total Combined Call Volume

Call Volume by Discipline by Month



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CPR COMPRESSION REPORT



2025 Initiatives



Sussex County Emergency Communications Community Programs

- 32 Command Post Events and Exercises
- 11 Smart 911 Displays and Community Outreach
- 14 Fire Department Trainings at their Respective Stations
- 6 Command Post Callouts for Emergency Incidents
- 5 Drone Call outs

2024 Accomplishments

- **Staffing Levels Increasing to 96% of the 44 Call-Takers and dispatchers needed**
- **Maintaining TRI-ACE Accreditation through Performance Standards**
- **Hiring Dedicated Call-Takers for each shift**
- **100% completion for all Emergency Dispatchers obtaining the IAED's Dispatch Directed CPR Class**
- **Launching the Drone Team and having 2 team members on each shift**
- **Integration of Emergency Communications into a Public Safety Matrix with Emergency Management, Paramedics and Communications.**
- **RE-Accreditation for Medical under Priority Dispatch Systems**
- **Implementing an ACD (Automatic Call Distribution) Environment for Call-Takers and Dispatchers**
- **Implementation of a "Quiet Room" for dispatchers. This is an area where dispatchers/call-takers can remove their self from a stressful situation or bad call.**
-

2025 Goals/Challenges

- **Starting on Fire-Police RE-Accreditation with Priority Dispatch Systems**
- **New County Wide Scheduling and Payroll System (UKG)**
- **Reaching 100% Staffing Levels**
- **ASAP to PSAP: Future this allows the alarm company to transfer alarm data directly into the CAD. This minimizes the phone calls into the 911 center and updates alarms in real time.**
- **911 Information sharing (resource request/ incident details and unit status) with the Rave Aware between Sussex County and Caroline County**

Rehoboth Beach

9-1-1 Communications Center

Submitted by Chief Keith Banks

The Rehoboth Beach 9-1-1 Communications Center provides 24/7 9-1-1 and emergency communications services to the City of Rehoboth Beach Police and the surrounding area encompassing the 21 square mile Rehoboth Beach Volunteer Fire Company jurisdiction. Serving a total population of 21,700 residents and over 10,000,000 visitors each year.

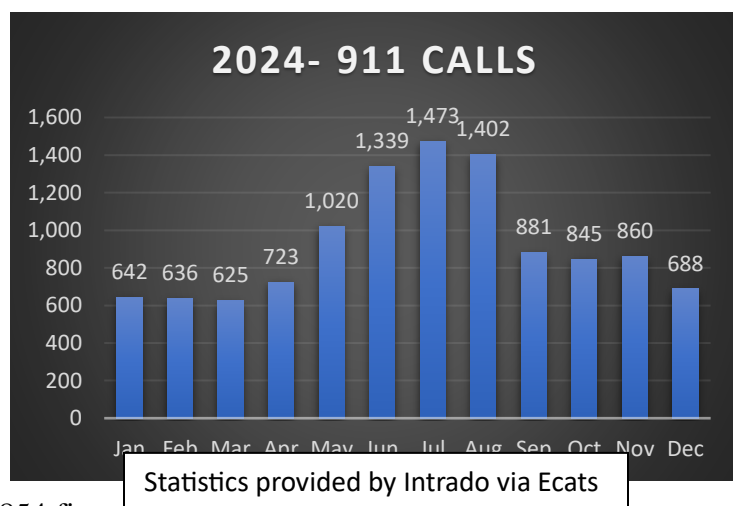
To accomplish this the Rehoboth Beach 9-1-1 Communications Center operates within the Rehoboth Beach Police Department building under the direction of the Chief of the Rehoboth Beach Police Department and an Emergency Communications Manager. Utilizing the INTRADO 9-1-1 phone system, Verint recording software, Ring Central VOIP administrative lines, Motorola Centracom Elite Radio System, and Tyler Technologies Enterprise CAD.

The 9-1-1 center is staffed with thirteen full-time employees consisting of one Communications Specialist I, five Communications Specialists, two Communications Specialist Trainees, four Communications Specialist IIs, which act as shift supervisors, and one Emergency Communications Manager that oversees all 9-1-1 center operations. There are currently no Communications Specialist vacancies.

The Rehoboth Beach 9-1-1 Communications Center was recognized by the International Academy of Emergency Dispatch as the 79th Emergency Medical Accredited Center of Excellence in the world on April 1, 2003. In 2019 the communication center received accreditation in both Emergency Police and Fire Dispatch and was recognized as the 17th Tri-ACE in the world, and the first in the State of Delaware.

Call Volume

In 2024 the Rehoboth Beach 9-1-1 Communications Center processed 11,134 incoming 911 calls, and 14,477 non-emergency calls for a total of 25,611 incoming calls. The communications center processed and/or dispatched a total of 13,368 incidents consisting of 3,571 police incidents, 2,399 traffic stops, and 1,961 9-1-1 Disconnects for a total of 7,931 police type complaints. As well as 4,583 EMS incidents of which 72 were ECHO level cardiac arrests, and 854 fire incidents.



2024 Accomplishments

In 2024 the Rehoboth Beach 9-1-1 Communications Center accomplished several major goals. Including training five Communications Specialists and hiring an additional two Communications Specialists bring our center up to full staffing for the first time in over two years.

Successfully installed a new training and back-up console. This upgrade to the center moved existing 911 and radio hardware out of the supervisor's office and onto the floor allowing trainers to better teach and supervise new Communications Specialist, while also serving as a fourth 911 console when needed.

Our center successfully implemented the two proposed mobile workstations, enhancing our centers flexibility during major events giving Communications Specialists operating out of a command post the benefits of the full dispatch CAD. These workstations have improved communications between the 911 center, the command post, and the incident commanders during the event allowing information to flow more freely and helping to make timely decisions.

Staffing and Training

In late 2023 into early 2024 we successfully hired six new employees that began the six-month training program to become Communications Specialists for the Rehoboth Beach 9-1-1 Communications Center. Of those six trainees, five successfully completed the training program and moved onto regular shifts. In October and December 2024, we successfully hired two additional employees who have begun the training program and bring the center up to full staffing. Our training program is led by our dedicated certified training officers, whose expertise, commitment, and guidance ensured the success of these employees' onboarding and skill development during the six-month training process. Their exceptional work has contributed greatly to our center's growth and ability to expand our team without compromising the quality of training.



Newest members of the Rehoboth Beach 911 Communications Center Team left to right: Ky'Ajah Anderson, Katie Stachowski, Noah Tuohey, Christine Ramcharran, Cynthia Peters – Submitted by the Rehoboth Beach 9-1-1 Communications Center

2025 Goals

In 2025 the Rehoboth Beach 9-1-1 Communications Center has set goals to further the efficiency and effectiveness of the communications center. These goals include continuing the process for updating and reviewing policies and procedures by the Communications Specialist IIs. In 2025 our center will be recertifying in Emergency Medical, Police, and Fire Dispatch maintaining our Tri-ACE Status. Lastly the communications center will continue as always to provide continuing education and advanced training opportunities to the Communications Specialists to meet the needs of certification and recertification as well as the expansion of their individual knowledge of emergency communications.

Summary

The Rehoboth Beach 9-1-1 Communications Center seeks to provide the most effective access to the 9-1-1 system and emergency communications possible to the citizens, visitors, and emergency agencies in Rehoboth Beach. To achieve this the communications center continually invests in the Communications Specialists and equipment operating in the 9-1-1 Communications Center. As well as setting and achieving goals based on the operational needs of the center and the agencies we support to protect lives and safety, stabilize emergency and non-emergency incidents, and conserve property.



Air Medical Transport Certification

The Systems of Care Office oversees Delaware's Air Medical Transport Certification Program. Air medical transportation plays a key part in the Trauma and Stroke Systems of Care, to get the right patient to the right facility in the quickest amount of time.

Delaware's Division of Public Health first promulgated regulations for Air Medical Ambulance Services in 1993 and are scheduled to be updated. The purpose of these regulations is to provide minimum standards for the operation of Air Medical Ambulance Services in the State of Delaware. It is the further intent of these regulations to ensure that patients are served quickly and safely with a high standard of care.

Air medical services may apply for any of three levels of State of Delaware interfacility transport certification and/or prehospital certification. The initial certification period is three years, with recertification required every three years subsequently.

911 Scene Response Certification:

Approval granted following satisfactory completion of the application process to an air medical wishing to act as a supplemental resource to the Delaware State Police in carrying out prehospital scene missions in Delaware. These services may also apply for full certification to provide point to point transport service within the state of Delaware and one way transport to or from Delaware.

- Delaware State Police, Middletown & Georgetown, DE
- ChristianaCare LifeNET, Newark & Georgetown, DE

Full Interfacility Certification:

Approval granted following satisfactory completion of the application process to an air medical service wishing to provide point to point transport service within the state of Delaware, in addition to one way transport to or from Delaware.

- ChristianaCare LifeNET, Newark & Georgetown, DE
- JeffSTAT, Media, PA
- MedSTAR, Baltimore, MD
- PHI ExpressCare, Baltimore, MD
- STAT Medevac, Baltimore, MD

Limited Interfacility Certification:

Approval granted following satisfactory completion of the air medical program certification process to an air medical service wishing to provide one-way transport to or from Delaware only.

- Cooper Air Medical, Millville, NJ
- PennSTAR, Philadelphia
- Temple MedFlight, Doylestown, PA

Delaware State Police Aviation Section

Submitted by Sgt. Ted Stipa



Mission Statement

To enhance the service provided by the Delaware State Police with effective and efficient aviation resources, to safely support the delivery of law enforcement, emergency medical services, and search and rescue operations, while enhancing the quality of life for all Delaware citizens and visitors.

Core Values

Honor, Integrity, Courage, Loyalty, Attituded, Discipline, and Service

DSP Aviation Section



Photo courtesy of Senior Corporal David Huynh Delaware State Police

Introduction

The Aviation Section's primary missions are to provide rapid transport of critically sick or injured persons to medical facilities and to support law enforcement ground personnel in the apprehension of criminal suspects. In addition, the Section conducts search and rescue operations, airborne security for visiting dignitaries, homeland security operations, photographic missions, narcotics interdiction, pursuit support, and maritime security missions.

The Section consists of 28 pilots and medics providing 24-hour coverage from two locations, Georgetown and Middletown. Additionally, there is 1 pilot in training. In 2024 the division purchased two (2) new Bell 429 helicopters bringing the aircraft fleet to a total of four (4) Bell 429 helicopters and one (1) fixed-wing Cessna 182 aircraft.



2024 Accomplishments

Acquisition of Two New Aircraft

In late November of 2024, the Delaware State Police Aviation Section completed the acquisition of two new Bell 429 Global Ranger helicopters. This acquisition included replacing an older model helicopter and expanding the fleet to a total of four (4) Bell 429 helicopters. This project required numerous trips over two (2) years collaborating on the design with the Bell team and the Aviation Section. The helicopters are equipped with the latest technology including cameras, hoisting equipment, and a fully functional emergency center used in immediate care during transportation. The Aviation North at Summit Airport and Aviation South at Georgetown Airport will each have a new helicopter based out of their location.



Law Enforcement Profile

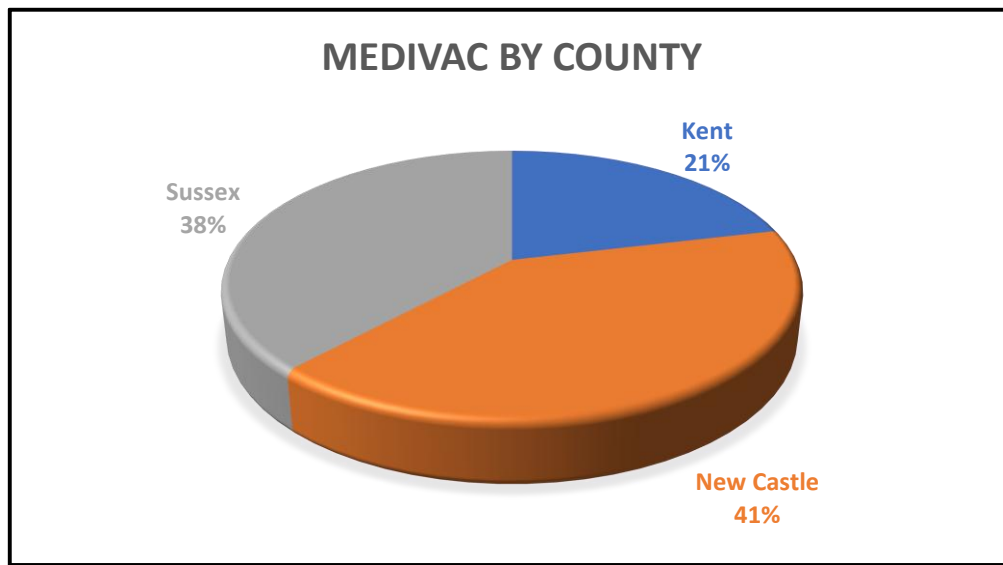
The Aviation Section supports State, Federal, and Local law enforcement by providing aerial assistance in several areas:

- Aerial Law Enforcement Support
- Tactical Medic Support
- Homeland Security Operations
- VIP Transport and Security
- Aerial Photo Evidence

2024, the Aviation Section continued to support the community accumulating 1,456 flight hours.

	2023	2024
Total Missions	4,074	4,238
Total Support & Training	628	605
Total Flight Hours	1,493	1,456

The Aviation Section provides air medical transport and advanced life support backup for ground transport of seriously injured and/or ill persons. In 2024, the Aviation Section had 2,355 requests for medivac service.



In 2024 the Aviation Section conducted 694 Criminal Searches. There were 36 Pursuits in 2024 resulting in 21 apprehensions. Additionally, there were 286 non-criminal searches concluding with 54 locations of persons on land or a boat.

	2023	2024
Criminal Activation	742	694
Pursuit	40	36
Pursuit Apprehensions	35	21
Non-Criminal Searches	314	286
Located (Non-Criminal)	89	88

Delaware State Police Aviation Tactical EMS Missions

The Delaware State Police Tactical Medic Mission is comprised of four (4) Trooper medics who have received specialized training and equipment to provide medical support for the Delaware State Police Training Academy, Delaware State Police Special Operation Response Team, FBI Special Weapons Tactical Team, Wilmington Police Department Special Weapons Tactical Team, Delaware State Police Explosive Ordinance Disposal Unit, and the Delaware State Police SCUBA Team during high-risk operations. In 2024, the DSP Tactical Medics had a total of 133 activations.



Photo Courtesy of New Castle County Paramedic Assistant Chief Chris Johnson

President of the United States (POTUS) Missions

Delaware State Police Aviation Section has been supporting the United States Secret Service during POTUS movements in the State of Delaware by providing aerial overwatch. Since 2021 the Aviation Unit has been engaged in 217 missions supporting this effort including 39 in 2024.

Medic Training

In 2024, the medics attended training at the University of Maryland Baltimore County to satisfy their continuing education credits needed to maintain their paramedic certifications. Trooper medics also participated in continued education with New Castle County ALS, and Sussex County ALS. The Delaware State Police Trooper medics provide CPR training for all Divisional members who needed it. Law enforcement medical response training, a 40-hour class, is taught by Trooper Medics to all recruit Troopers and Municipal recruits.

Delaware State Police Aviation Section hired a civilian paramedic trainer in 2021. This trainer provides all the Divisional CPR and LEMR training.

Automated External Defibrillator (AED) and Narcan Deployments:

In addition to supervising day-to-day operations, the Paramedic Commander is responsible for overseeing the training, maintenance, deployment, and reporting for AED use, Narcan administration, and investigating potential infectious disease exposures for the entire Delaware State Police workforce.

There are 460 boxes (or 920 doses) of Narcan that are available to be deployed in the field in 2024. In 2024 Troopers deployed their Automated External Defibrillator (AED) 29 times and Narcan 38 times.

Infectious Disease Exposures:

During the 2024 calendar year, the Delaware State Police had a total of 7 confirmed infectious disease exposures. While in 2023 there were a total of 24 confirmed infectious disease exposures compared to a total of 11 confirmed infectious disease exposures in 2022 and 46 in 2021.



2025 Challenges and Goals

Staffing

The Delaware State Police Aviation Section will hold oral boards in March of 2025, for the position of pilot and medic. Currently, one Trooper Pilot is active duty with the Delaware Army National Guard.

Training

The goal for 2025 is to increase training and proficiency by incorporating training with all three ALS agencies, riding with ground ALS agencies, and attending nationally recognized Paramedic Conferences. The Delaware Aviation Tactical medics will continue to train monthly with the tactical paramedics from New Castle County ALS. This tactical medical training is personally overseen by the Delaware State Police Medical Director / New Castle County Paramedic Medical Director Dr. Justin Eisenman, DO.

Search and Rescue

The Delaware State Police will continue to partner with members of the Delaware Air Rescue Team (DART) to provide search and rescue services. DART is comprised of members of Delaware volunteer fire departments. These two groups collectively train annually during a two-week period with an external training consultant, Priority 1 Air Rescue. In house training is conducted quarterly to keep everyone's skills sharp.

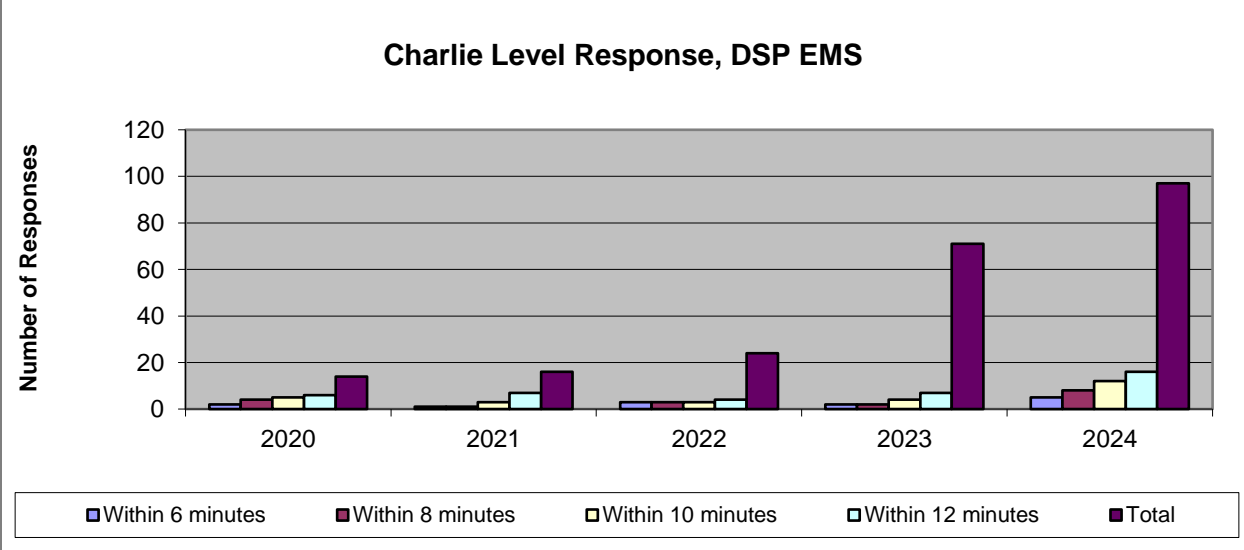
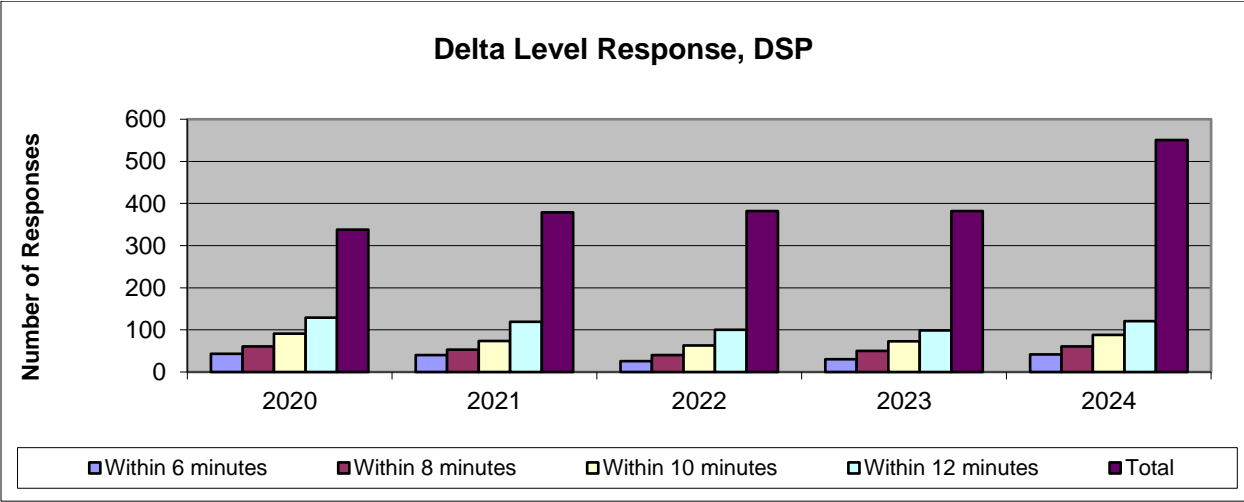
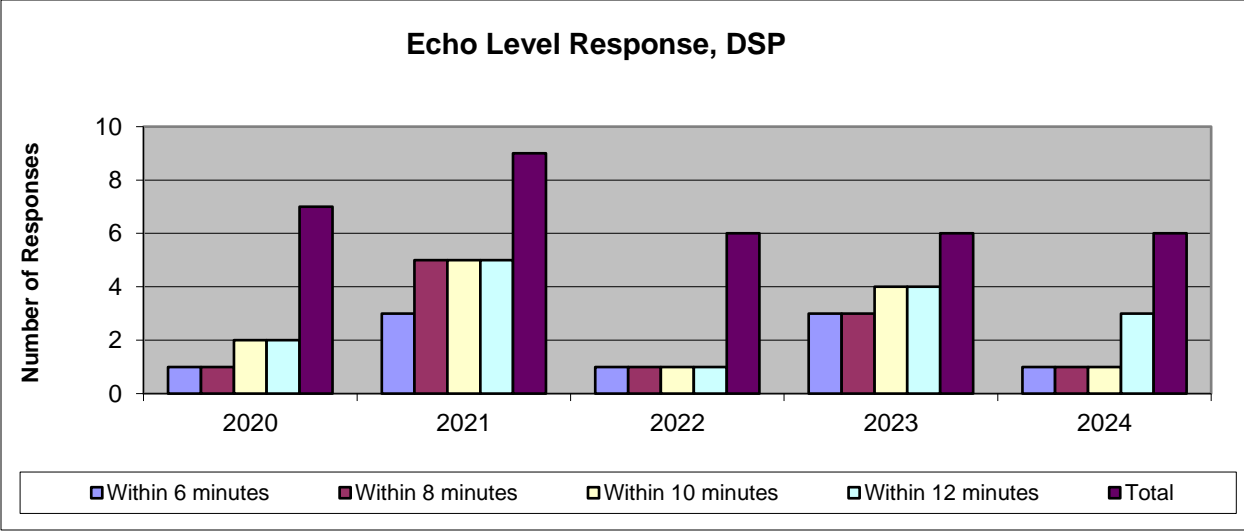
Implementation of a Whole Blood Program

With an anticipated early 2025 implementation, The Delaware State Police Aviation Section has partnered with the Blood Bank of Delaware and is supported by the Delaware Emergency Management Agency (DEMA) to implement a Whole Blood Program. Whole blood is the complete mixture of all the components found in the human blood and can be used with patients of all blood types. This program will improve the outcome of patients suffering from hemorrhagic shock due to significant blood loss.

Beginning in December 2024, Trooper Medics completed several hours of training with other agencies supporting a Whole Blood Program, including New Castle County and Sussex County Paramedics. Additionally, procedures, equipment and protocols were implemented to maintain and administer the whole blood. To finalize the program with the Blood Bank of Delaware, a two-week formal validation was completed. This included monitoring and reporting the maintenance of the appropriate temperature of the coolers used to store and transport the whole blood during each shift.



Photo courtesy of John Jankowski





ChristianaCare LifeNet DEMSOC Report 2024

Submitted by Jeffrey Cox BS, CEMSO, FP-C
Clinical Base Lead/Critical Care Flight Paramedic



INTRODUCTION



LifeNet 6-4 Landing

ChristianaCare LifeNet has been an integral part of pre-hospital and critical care interfacility transport since the spring of 2001. With bases in New Castle and Sussex Counties, the LifeNet aircrafts are available to support not only the hospital and EMS agencies in Delaware, but also Pennsylvania, New Jersey, Maryland and Virginia.

Our highly skilled and critical care trained flight team is equipped to maintain or adjust life sustaining treatments initiated on scene or at referring hospitals.

Our staff are not only Registered Nurses and Paramedics, but they also hold specialty critical care certifications demonstrating competence and advanced skillsets well beyond standard certifications. All our paramedics have completed the rigorous testing to become critical care flight paramedics (FP-C). Most of our staff have over twenty years of experience as health care providers. Extensive protocols with liberal standing orders, expanded scope medications, and advanced invasive monitoring capabilities allow the crew to deliver uninterrupted quality critical care during transport.

Critical Care Capabilities

BLOOD PRODUCTS

EXPANDED MEDICATION FORMULARY

CRITICAL CARE VENTILATORS

EXTRA CORPORAL MEMBRANE OXYGENATION (ECMO)

HIGH-FLOW NASAL CANNULA OXYGENTATION

INTRA-AORTIC BALLOON PUMP

IMPELLA AND LEFT VENTRICULAR ASSIST DEVICE (LVAD) MANAGEMENT

CARDIAC AND CEREBRAL INVASIVE PRESSURE MONITORING

CHEST TUBE MANAGEMENT

CAMTS

Accreditation:

ChristianaCare

LifeNet is proud to have been awarded and maintained accreditation by the Commission on Accreditation of Medical Transport Systems (CAMTS) since April of 2006. This accreditation indicates that our aviation and patient care systems have completed multiple rigorous site surveys and have been found to meet or exceed the nationally established standards for critical care transport programs. In 2024 we passed our accreditation re-review and were again awarded full accreditation by CAMTS.

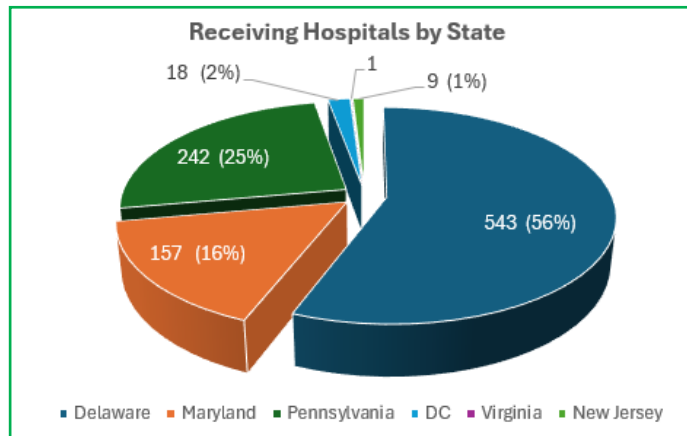


LifeNet 6-1 at Hospital University of Pennsylvania. Source: Jeff Cox

2024 ACCOMPLISHMENTS

hospitals across 6 states and received by 40 major specialty centers in Delaware, Pennsylvania, Maryland, the District of Columbia, New Jersey, New York and Virginia. In comparison, the reduction in flight volume due to the Covid pandemic was dramatic, appreciating a decrease in volume to 385 patients transported by our flight team in 2020. 2021, 2022, 2023 and 2024 saw a resurgence of volume resulting in a 238% increase in volume over the same time 2021. This can be attributed to increased use of the EZ-Button, autolaunch and increased utilization by our sending facilities. LifeNet also provided support to EMS agencies in New Castle, Kent, Sussex and Chester counties and transported 56 scene patients to area trauma centers. All graphs are sourced from ChristianaCare EMSCharts and Transfer Center data.

2,305 flight requests resulted in 968 missions being completed in 2024 with referrals from 44 area



Instrument Flight Rules (IFR): During our initial year of IFR capability in 2022, the Georgetown base completed 19 IFR flights. For 2024, we completed 51 IFR missions, logging 1,974 minutes of IFR flight time for the Georgetown Base on patients that would have been transported by an already stressed ground transport system. Our flight crews verbalize a high level of confidence with our IFR flights and the pilots. Crews have verbalized that they prefer IFR because it is “safer”. With the new LifeNet-61 EC145 aircraft, the pilots at our north 61 base will be completing the two week long IFR course at AirMethods headquarters in Denver Colorado. In early 2025 all of our pilots

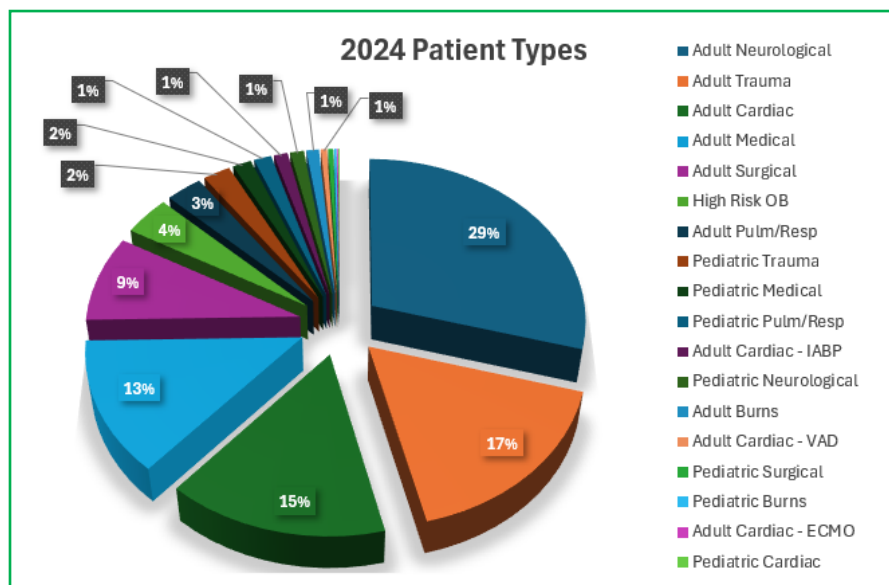
at both of our bases will be IFR certified and capable.

Autopulse: LifeNet has implemented the Zoll AutoPulse NXT on our ground and air assets. Both of our helicopters now carry the AutoPulse NXT for use on cardiac arrest patients. As we are flying with only two providers in the patient area, cardiac arrests have proven challenging for the aeromedical industry. The addition of the AutoPulse allows the providers to free up from chest compressions and concentrate on other aspects of the resuscitation during flight.

Education Coordinator: After years of lobbying senior administration within the hospital, ChristianaCare Prehospital Services was able to secure a Nursing Professional Development Specialist (Education Coordinator) for the ground and flight teams. This education specialist is dedicated to the needs of the ground and flight team. Our new Education Coordinator comes to us with over 20 years of critical care and flight experience and will re-vitalize our educational program for all providers. Our Critical Care providers must maintain numerous different critical care and multi-state licenses. The addition of the Education Coordinator will assist in providing the advanced continuing education needed for recertification in these many disciplines. We will be restarting lecture based, hands-on and specialist education for all our providers. We have also contracted with FoamFrat to provide additional online education for our staff. This education will help maintain and increase the high-level of care already provided by our ground and air assets.



LifeNet 6-4 stands ready for dispatch. Source: Jeff Cox



New EC145 and EC145 D3: ChristianaCare LifeNet proudly placed into service the EC145 twin to our existing Georgetown base helicopter. The increased capabilities have led to an increase in team flights such as ECMO and a planned expansion back into flying NICU teams. We hope to have delivery of our state-of-the-art EC145 D3 mid-2025.

Prehospital Scene Response: ChristianaCare LifeNet has appreciated a dramatic increase in our prehospital scene responses due to the statewide stroke initiative. We are proud to have been a partner to 911 agencies for 18 prehospital stroke patients, transporting them directly to our state's Comprehensive Stroke Center. In total, LifeNet transported 56 prehospital scene patients from New Castle (2), Kent (9), Sussex (38) and Chester PA (7) counties.



LifeNet 61 EC145 D3

2024 CHALLENGES

as staffing, funding and increased volume. Flight and critical care medicine requires multi-year experienced clinicians and with the shortage of paramedics it has become increasingly difficult to attract and hire new, yet experienced, staff to keep up with the increased demand. A large portion of our increased demand is downstate hospitals are unable to obtain timely ground transport for their non-flight patients and they are utilizing the helicopter to transport these patients due to 6-12 hour or longer ETA's from the private ambulance services. During inclement weather, our flight crews are routinely staffing both ChristianaCare and private interfacility ambulances and completing flight-requested transports by ground ambulances. Our Critical Care Ground Transport Team completed 4,354 patient transports in 2024. It is also well documented that many tertiary and community hospitals are at capacity, causing a backlog of transports and patients waiting for beds to become available. We have experienced transports to very distant and non-common destinations as sending facilities attempt to find an open bed anywhere possible. We continue to show rapid linear growth in our requests for transfers and our patient volume that we do transfer by ground and air.

LifeNet has experienced similar challenges to those experienced by the county 911 services such



LifeNet 64 at University of Maryland. Source: Jeff Cox

LOOKING FORWARD

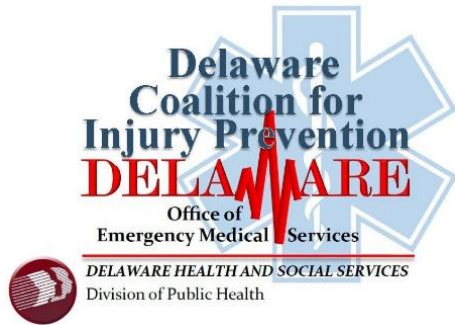
We continue to be a high-volume flight and ground program. Current flight volume is

dramatically increasing, and we intend to increase staffing to meet the increased demand. We will continue to explore opportunities for specialty team flights such as ECMO and NICU utilizing our new LifeNet 61 helicopter and have placed into service new critical care ground ambulances. We will continue to expand our Instrument Flight Rules (IFR) capabilities to better serve our patients and partners. We are excited about the learning opportunities our new Education Coordinator can organize and conduct, providing high-level critical care education for our orientees and veteran staff. We are eagerly anticipating the arrival of our new EC-145 D3 aircraft in 2025. This state-of-the-art helicopter has been made possible due to the hard work of the flight crews and administration resulting in a major increase in our flight volume.

AirMethods and ChristianaCare LifeNet's medical crew, pilots, mechanics, medical leadership and program director will continue to provide aeromedical services to our community by being prepared to deliver high quality critical care when our patients need it most.



LifeNet 61 and 64 at our ChristianaCare base. Source: Jeff Cox



Delaware Coalition for Injury Prevention

Submitted by Injury Prevention Coalition of Delaware

A key component of the Trauma System is the Delaware Coalition for Injury Prevention. This coalition is overseen by the Office of EMS. Injury prevention is vital work. Prevention has been proven to save lives and healthcare dollars.

The concept of the injury prevention program was introduced in 2000 with a vision that Delaware's culturally diverse population would be empowered to reduce their risks for injuries by making safe choices. Since 2004, the Coalition has been meeting on a quarterly basis.

The first and most obvious challenge to injury prevention efforts is to be successful - to get the message to the public, especially under-served populations, in such a way that injuries and injury-related deaths actually decrease.

The Delaware Coalition for Injury Prevention began and continues to develop and support public education injury prevention programs. Through these efforts, the Coalition's goal of safe communities throughout Delaware will be realized, as measured by fewer injuries, fewer risk-taking behaviors, safer environments, and reduced incidence of injury-related disabilities.

Approximately 30 agencies from all areas of the state belong to the Coalition. Active efforts are being made to increase surveillance, partnerships, interventions, training, and evaluation by the Coalition's members and their agencies. Together they strive to teach all Delawareans that injuries are preventable.

Members of this coalition form focus teams in the areas of:

- Falls
- Gun Violence/Violent Injuries
- Poisoning
- Dog/Animal Bites
- Fires/Burns/Smoke Inhalation
- Motor Vehicle/Motorcycle
- Traumatic Brain Injury
- Pedestrian
- Sexual Assault/Gender-Based Violence

Per the Delaware Trauma Registry, falls make up over 55% of all preventable injuries, with 69% of those occurring in patients over 60. The primary subgroup of the Coalition—the Falls Prevention Team—is concentrating heavily on reaching out to Delaware's senior citizens to reduce the number of injured people through public education and awareness.

The latest available Delaware Vital Statistics Annual Report 2020 (page 166) lists accidents (unintentional injury) as the fourth leading cause of death overall in the state.

- Of the 720 deaths due to unintentional injury in 2020 (6.7% of all deaths), 15 percent were due to motor vehicle accidents and 84 percent were due to non-transport accidents. More than two thirds (71%) of the 431 non-transport accidents were caused by unintentional poisonings; the majority (98%) of unintentional poisonings were drug-induced poisonings.
- Unintentional poisonings surpassed motor vehicle injuries as the leading cause of unintentional injury death in 2020.
 - Poisonings caused the most unintentional injuries for non-Hispanic white and non-Hispanic black decedents. Motor vehicle traffic accidents were the second highest unintentional injuries for both non-Hispanic black males and females whereas falls were the second highest unintentional injuries for both non-Hispanic white males and females.
- In 2016-2020, accidents were the number one cause of deaths for people 1-44 years of age, and they were responsible for 45 percent of all deaths of people 15-24 years of age. For decedents ages 15-24, accidents, homicides, and suicides were the three most frequent causes of death and accounted for 82% of total deaths for that age group.



* Mechanism of injuries by age groups – Year 2023

Consolidated Injury types	0-4	5-10	11-15	16-35	36-55	>55	UNK	Total
Fall-all types	143	195	84	204	375	3802		4803
MVC	34	52	48	541	344	470	1	1490
Blunt mechanism	33	45	69	150	109	110		516
Motorcycle				121	78	43		242
Firearms			13	141	45	13	1	213
Pedestrian	3	4	2	53	44	48		154
Penetrating mechanism	9	6	7	39	36	33		130
Bicycle	1	8	4	27	27	60		127
ATV/Motorcross	1	6	12	54	30	15		118
Assault	1		9	41	40	20		111
Not documented	58	3		5	9	19	4	98
Knife			3	44	23	16		86
Biting	15	16	9	8	12	12		72
Burn-all types	8	4	4	12	9	7		44
Glass	2		2	7	8			19
Total	308	339	266	1447	1189	4668	6	8223

* Transfer cases are not included

Delaware Trauma Registry – 2023 Data (latest year with complete data)



Delaware Pediatric System of Care (Safe Kids Delaware)

Submitted by Safe Kids of Delaware

Unintentional injuries are a leading cause of death and hospitalization for children. The leading causes of injury hospitalizations in this age group are falls and highway incidents. Violent injuries such as those involving firearms lead to longer hospital stays, and motor vehicle crashes are responsible for a higher number of severe injuries.

Led by Delaware's Division of Public Health, Office of Emergency Medical Services, Safe Kids Delaware is a member of Safe Kids Worldwide, the nation's primary organization dedicated solely to prevention of unintentional childhood injuries. Safe Kids Delaware was established in 1992 to educate the public on a variety of child injury prevention topics. Each of Delaware's three counties has their own chapter under the Safe Kids Delaware umbrella.

Safe Kids Delaware subcommittees (injury focus groups), include Kids at Home, Kids in Cars and On the Road, Kids in Sports and Play, Consumer Product Safety, and Child Passenger Safety.

In 2023, Safe Kids Delaware increased its partnerships with civic and state organizations, providing educational programs to further their goal of reducing the number of childhood injuries across the state.

Safe Kids Delaware Accomplishments

	Number of Events	People Reached	Car Seats Distributed
2019	939	113749	52
2020	121	6000	10
2021	235 (including 194 virtual)	10546	9
2022	346	33252	38
2023	76*	69586	63

**Calculated differently than previous years/co-branding now required*

Child Passenger Safety is a core programming area and includes the Car Seat Assistance Program, which provides car seats to Delawareans using a voucher system. In 2023, 63 car seats were provided at a discounted rate to persons in need. This is a 165% increase from the previous year.

Safe Kids Delaware uses social media to increase education and awareness about childhood injury prevention.

Thank You

The Delaware Emergency Medical Services Oversight Council (DEMSOC) would like to express a sincere thank you to all the agencies that submitted reports for this year's DEMSOC report.

Office of EMS, Office of Preparedness, Department of Safety and Homeland Security, SFPC, DSFS, State Fire Marshal's Office, Delaware Technical and Community College, New Castle County EMS, Kent County EMS, Sussex County EMS, Delaware State Police, Delaware Healthcare Association, Emergency Medical Services for Children, Safe Kids Delaware, Delaware Coalition for Injury Prevention, DE Trauma Committee, DE Overdose Committee, DE Stroke Committee, NCC Dispatch, KC Dispatch, SC Dispatch, Rehoboth Dispatch, ChristianaCare LifeNet.