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Report 2025-037

Report Title: Northumberland Paramedics 2024 Year End Report

Committee Name: Community Health

Committee Meeting Date: March 4, 2025

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Council Meeting Date: March 19, 2025

Strategic Plan Priorities: ☐ Innovate for Service Excellence
☐ Ignite Economic Opportunity
☒ Foster a Thriving Community
☐ Propel Sustainable Growth
☐ Champion a Vibrant Future

Information Report

“That the Community Health Committee receive Report 2025-037 ‘Northumberland Paramedics 2024 Year End Report’ for information; and

Further That the Committee recommend that County Council receive this report for information.”

Purpose

The purpose of this report is to provide a year-end review of Northumberland Paramedic Services inclusive of the Operations and Quality Assurance and Training departments for information purposes. All data and statistics presented include the period from January 1 to December 31, 2024.

Background

Northumberland County with a land area of 1,905 sq Km provides emergency responses from six (6) ambulance stations that are strategically located throughout the County in the following locations:

- **Cobourg** (1) 24-hour and (1)12- hour ambulance,
- **Port Hope** (1) 24-hour and (1)12- hour ambulance,
- **Colborne** (1) 24-hour ambulance and (1)12-hour ambulance,
- **Roseneath** (1) 24 - hour Ambulance and (1)12- hour first response unit,
- **Campbellford** (1) 24-hour ambulance,
- **Brighton** (1) 24-hour ambulance.

The total response for service requests for 2024 was 28,137. Included in this figure are requests for emergency and life-threatening calls (Code 3 and Code 4), interfacility transfers and assessments (Code 1,2,3, and 4), and standby for emergency coverage and incidents (Code 8). Please refer to Appendix A, displaying the top eleven (11) categories of calls for 2024, as well the breakdown of the CTAS levels responded to. CTAS is the Canadian Triage Acuity Scale which measures the acuity of the patient. The concept of the CTAS system is prioritizing response, assessment, and treatment to the sickest person the fastest.

Northumberland Paramedics drove a total of 930,945 Km in 2024. To help put this into perspective, the Earth's circumference is 40,075 kilometers. Northumberland Paramedics would have driven around the earth twenty-three times. Total fuel consumption for 2024 was 254,852 liters.

Northumberland Paramedics deploys one (1) first response Emergency response Vehicle (ERV) throughout Northumberland County each day. The first response vehicle is available to respond to calls in each of the member municipalities within Northumberland County, however the focus is in the central rural area of the County where we experience increased response times. In 2024 the first response vehicle responded to a total of 386 calls and arrived prior to the dispatched transporting ambulance 265 times. The deployment of the ERV saved a total of 2,198 minutes and six seconds in response times and began an earlier assessment and treatment by the responding Paramedic. Appendix A outlines the call types encompassed within the high acuity calls, and the respective number of calls within each lower tier municipality.

Northumberland Paramedics utilize ECO-mode on all our Vehicles. Eco-mode is a feature that reduces engine idling time and decreases fuel consumption while maintaining optimal climate in the ambulance. Paramedics activate ECO- mode when exiting the ambulance at the response scenes. Ambulances will idle only during the following situations:

- 1) Regulate the internal temperature of the vehicle outside of the pre-set temperatures.
- 2) Maintain a safe battery level.

Technology, Innovation and Excellence

In 2024 ECO-mode was activated for 887 hours and 7 mins, this has allowed 20% less idling of our vehicles. Utilization of the ECO-mode resulted in 3,975.84 kg of savings for CO2 released into the atmosphere.

Northumberland Paramedics introduced mCAD (Mobile Computer-Aided Dispatch) in 2024. The purpose of mCAD is to provide Paramedics with automated real-time electronic dispatch information that meets the needs for a real-time communication tool between the Ambulance Communication Centre and the Paramedics, utilizing smartphones and tablets. This allows mapping of calls with step-by-step directions to designated addresses, also reduces notification delays, the unnecessary radio calls for updates. The mCAD application enhances communication with paramedics and provides the most effective and efficient route to a call based on real time data such as traffic patterns, hazards, and other emergent calls within the area.

Another innovative change with Northumberland Paramedics is PSRN (Public Safety Radio Network). This is a new digital radio system that will enhance radio transmission capabilities and increase the safety of the Paramedics. This digital radio system is a more secure method of communication as radio transmissions are encrypted for security and privacy. It also allows us to communicate and collaborate with other allied agencies such as OPP, MNR, and Coast Guard through their specific talk groups within the PSRN system. The digital system also required updating to network towers which should result in stronger signals and clearer transmissions which should improve troublesome locations previously identified. All vehicles in Northumberland Paramedics have been fitted with this new equipment, with a go-live date of May, 2025.

With the addition of both PRSN and mCAD systems, it will help increase the safety of our Paramedics as well as allow them to respond to calls in a more timely and efficient manner.

Responses outside the County

The Ambulance Act mandates seamless emergency coverage for responding ambulances to any code 4 response in the Province of Ontario. Regardless of the originating municipality, the closest ambulance to an emergency will be dispatched. The majority calls that are being completed by Northumberland Paramedics outside of Northumberland County are to Hastings-Quinte, and Peterborough City/County respectively.

Northumberland Paramedics cross border responses have increased in 2024 to 655 calls completed within the Hastings Quinte regions, compared to their 186 responses into Northumberland County. This results in a differential of calls completed by NP by 469 calls. (Appendix B)

Northumberland Paramedics cross border responses decreased in 2024 to 523 calls completed within Peterborough County/City, compared to their 371 responses into Northumberland County. This still results in a differential of calls completed by NP by 152 calls. (Appendix C)

Hospital Off Load Delays

Northumberland Paramedic off- load delays decreased in 2024 to a total of 717 hours, compared to 900 hours in 2023. The hospitals we frequent are Northumberland Hills Hospital

(NHH), Campbellford Memorial Hospital (CMH), Peterborough Regional Health Center (PRHC), and Trenton Memorial Hospital (TMH). In 2024 NP experienced a decrease in off-load delays in all hospitals with the exception of TMH. The decrease in off-load delays in both NHH and CMH can be attributed to the dedicated Off load delay program (DONP) that began in the 2022/23 fiscal year. (Appendix D). This continued funding of this program is key to minimizing off-load delays at our hospitals.

Quality Assurance and Education 2024-year end

Education

In the spring of 2024, we actively recruited and onboarded eighteen (18) new Paramedics. These new Paramedics attended an orientation that included topics such as: driver training, legislative requirements, policies & procedures, County culture and values, equipment training for the provision of patient care, mental wellness, and resilience.

Each year, Paramedics must attend training for the maintenance of skills and knowledge for delegated medical acts (medications and procedures) as well as training on new medical directives, medications, and general enhancements to scope of practice. This training is provided by the Central East Prehospital Care Program (CEPCP), which is a part of Lakeridge Health. In 2024, each Paramedic received twenty-four (24) hours of training related to the above listed categories. CEPCP also provides training to Paramedics that are returning from extended leaves to ensure that they are comfortable and able to provide patient care in alignment with legislated standards.

In addition to the CEPCP training, Northumberland Paramedics provide sixteen (16) hours of training to each paramedic to ensure that the paramedics are meeting the legislative standards. This includes the Basic Life Support Patient Care Standards (BLS-PCS), Ontario Ambulance Documentation Standards, and others. In Spring 2024 this included training related to mass casualty incidents, changes within legislated patient care standards, CPR recertification, and skills maintenance on use of equipment that is not frequently utilized. In the Fall, training focused on the upcoming implementation of the Ministry of Health Medical Priority Dispatch System (MPDS), set to launch in Northumberland County March 2025. This is a significant change to our current system and is aimed at ensuring appropriate resourcing of emergency medical resources to patients within our County.

In collaboration with our partners at Northumberland Hills Hospital (NHH) and Campbellford Memorial Hospital (CMH) we secured positions within the operating suite for Northumberland Paramedics completing their intravenous (IV) therapy scope of practice. This allows a rapid consolidation of skills in a controlled setting providing confidence to paramedics initiating IV therapy in the community.

The concept of the CTAS system is prioritizing response, assessment, and treatment to the sickest person the fastest. The paramedics report the CTAS level of a patient three times during a call. CTAS is assigned upon arrival of the patient, departure of scene, and lastly upon arrival at the hospital. Hospitals also utilize the CTAS system and will assign to patient upon arrival at hospital to determine their room location and the “time to see a physician” and the percentage of time that will occur.

Quality Assurance

In 2024 we manually audited over 3,140 call reports completed by paramedics in addition to the software audits done in real time when the Paramedics are completing their reports.

Paramedic Supervisors also completed 170 evaluations on calls they attended with paramedics. These evaluations provide feedback on paramedic performance during the real applications of their skills and compliance with BLS-PCS standards.

Call Data 2024

In 2024 Northumberland Paramedics attended 191 cardiac arrests where they were able to provide care. Of the 191 cardiac arrests, sixteen (16) of these patients resulted in the return of spontaneous circulation (ROSC- resulting in a return of the heartbeat) restored by the Paramedics or first responder with a defibrillator during their response.

October 22, 2024, we held our ninth annual survivor night to celebrate those patients where the Paramedics were able to restore heartbeats in 2023. There were nineteen (19) return of spontaneous circulations (ROSC's) and we were honored to have three (3) of those survivors of cardiac arrest join us that evening in person, as we recognized the Paramedics, Ambulance Communications Officers and Firefighters that were a part of the survival stories.

We look forward to inviting our 2024 survivors of cardiac arrest along with the paramedics, fire, and ambulance communications officers involved in their resuscitation to our 10th Annual Survivor Night in October 2025.

For certain types of heart attacks (STEMI's), Paramedics by-pass the local hospital emergency department and take these patients directly to the Catheter lab for angioplasty treatment at Peterborough Regional Health Centre (PRHC). In 2024 Paramedics identified and utilized the bypass criteria sixteen (16) times. Angioplasty is considered the definitive treatment, restoring blood supply to the heart and reducing permanent damage to the affected portion(s) of the heart.

Patients suffering from an acute stroke (within 6 hours of onset) were transported by paramedics to regional stroke centers for definitive treatment. In 2024, 122 patients were transported to a regional stroke center under the stroke protocol bypass agreement. Assessed by neurologists, and timely CT scan to diagnose the type of bleed to restore blood flow to the brain as soon as possible and minimize permanent damage to the affected portion(s) of the brain.

These specialized bypass protocols have made significant improvements to the patient's quality of life within Northumberland County.

Consultations

ESO (Interdev) Analytics

Ambulance Dispatch Reporting System

Legislative Authority / Risk Considerations

N/A

Discussion / Options

N/A

Financial Impact

N/A

Member Municipality Impacts

The data presented is a year-end report inclusive of Northumberland County

Conclusion / Outcomes

Staff request that the Community Health Committee and County Council receive report 2025-037 'Northumberland Paramedics Year-End Report' for information.

Attachments

- 1) Report 2025-037 ATTACH 1 Appendices