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## 2022 Department Overview

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### Paramedic Department

#### Service Description

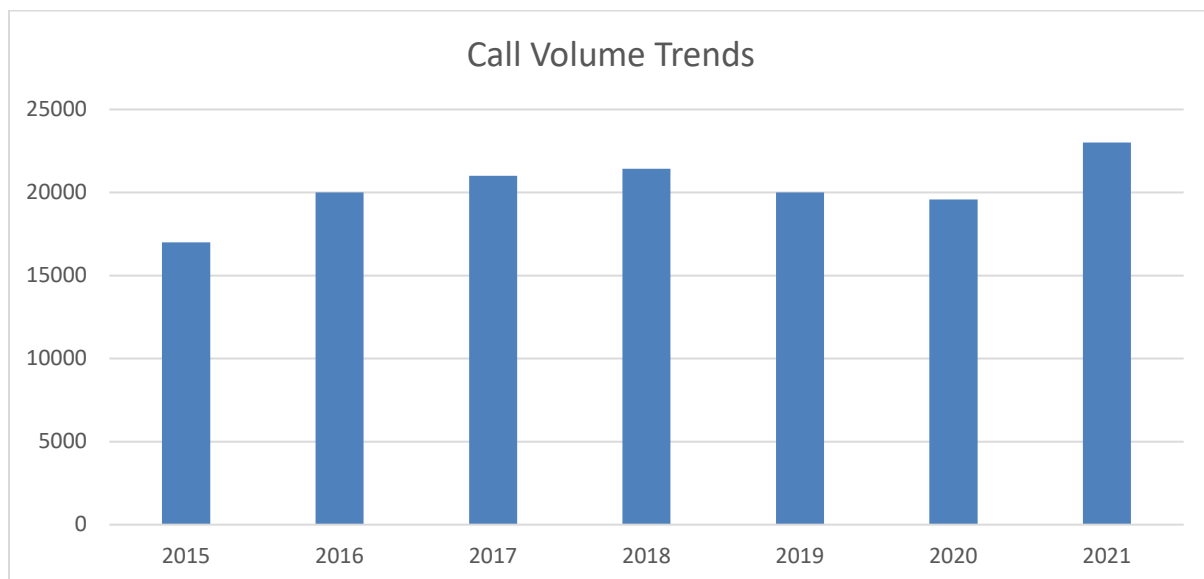
##### Mutual Trust and Respect

Northumberland Paramedics provides industry leading healthcare. We embrace a positive work ethic. We aspire to achieve the highest level of patient care using a combination of leadership, critical thinking, teamwork and best practices in every challenge we face.

##### Accountability

The County's Paramedic department provides land ambulance services primarily to the 90,437 residents of Northumberland County. This population increases seasonally. The Paramedic department covers about 2,000 km<sup>2</sup> of land mass that is spanned by over 500 km of roadway. Also included in the ambulance coverage area is a significant stretch of the 401 and one of Canada's busiest railway corridors.

Ambulance call volumes have been increasing at a consistent rate. Total call volumes that include all ambulance calls and activity reached 22,172 in 2018 and levelled there in both 2019, and 2020. In 2021 there is an increase in the call volume trending towards 23,500.





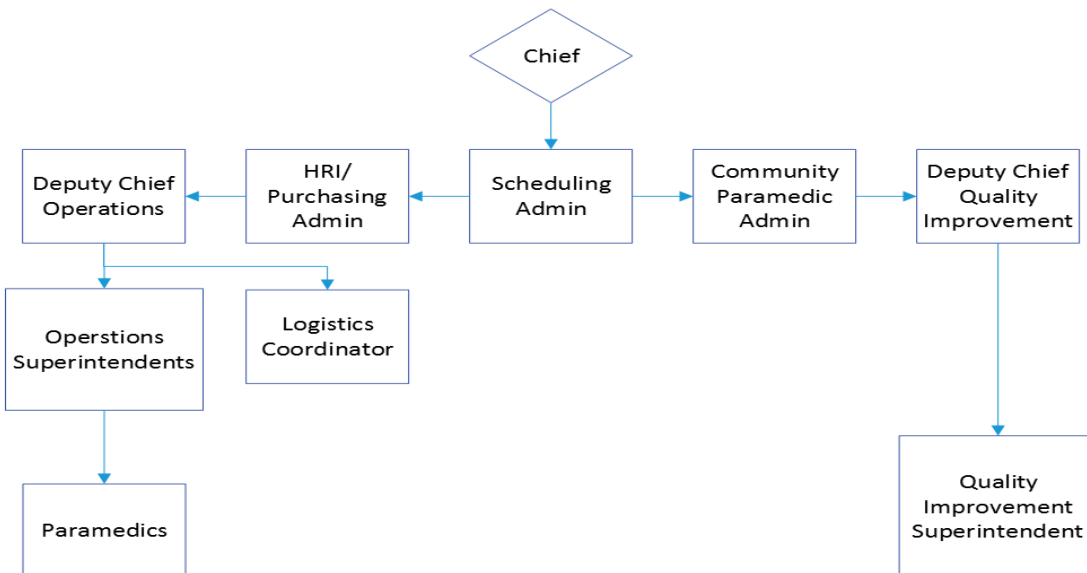
The County's Paramedics do not only respond to emergencies within the County. The County's Paramedics are required to respond to emergencies anywhere in Ontario based on the principle of "the closest ambulance" – that is, the ambulance closest to a medical emergency is required to respond. This means that when a neighbouring municipality has an emergency but does not have an ambulance immediately available, a Northumberland Paramedics ambulance will respond. The same holds true in the event that a Northumberland ambulance is travelling through another region and is closest to an emergency call.

The following description is a brief overview of the land ambulance service provided by the County's Paramedic department.

### **Departmental Staffing**

- 1 Chief
- 1 Deputy Chief of Operations
- 1 Deputy Chief of Quality Improvement and Professional Standards
- 1 Full-time Quality Improvement and Education Superintendent
- 6 Full-time Operations Shift Superintendents
- 2 Part-time Operations Shift Superintendents
- 1 Full-time Logistics Coordinator
- 3 Administrative Assistants
- 60 full-time paramedic positions
- 48 part-time paramedic positions at both the advanced and primary care levels

Paramedic Department organisation chart:



## Vehicles - Ambulances



The County's Paramedic department maintains a fleet of thirteen (14) type III single-stretcher ambulances. The 13 ambulances are rotated in use between day and night shifts. Ambulances in the Province of Ontario have a service life of approximately fifty-four (54) months or 250,000 km, whichever comes first and must meet very specific legislated standards that address vehicle specifications, maintenance schedules and equipment specifications. Northumberland County has incorporated several features which improve the safety of paramedics and patients including increasing the visibility, custom suspension, G-force and systems monitoring as well as power stretcher and load systems.

## Vehicles – Emergency Response (ERV)



Northumberland Paramedic Department has 5 ERVs in its fleet. Each ERV is equipped with a cardiac monitor-defibrillator and emergency response supplies making it capable of responding to any emergency in a “first response” capacity in cases where the vehicle deployment is taxed such as a multi-vehicle incident on the 401 highway. ERVs are not meant or designed for patient transport although in extreme cases like a disaster, they could be deployed to assist with lessor injured patients.

## Stations

The County operates its fleet of ambulances from six (6) ambulances stations or bases

Stations are located throughout The County in:

- \* Brighton, 28 Elizabeth Street – Shared facility with Fire
- \* Campbellford, 50 Doxie Street South – Shared facility with Trent Hill Fire Department
- \* Cobourg, 600 William Street – Paramedic administration and station
- \* Colborne, 232 Purdy Road Colborne, Shared facility with Cramahe Fire Department
- \* Port Hope, 423 Croft Street – stand-alone Paramedic Station with training/meeting facility
- \* Roseneath, 9160 CR 45 Shared facility with Alnwick-Haldimand Fire Dept.





**Colborne Base** – A new shared facility with the Township of Cramahe Fire Department was completed in 2017. Colborne is staffed 24/7/365 with both Primary and Advanced Care Paramedics. Colborne base annually responds to between 2500 -3000 calls annually and generally uses Northumberland Hills as a destination hospital however Quinte Health Trenton can be the closer facility for calls originating in the east side of the township.



**Campbellford Base** – This new facility is located at 50 Doxie Street. It is staffed 24/7/365 with both Advanced Care and Primary Care Paramedics. Campbellford responds to 2500-3000 calls annually. Patient destination is most commonly Campbellford Memorial Hospital however more emergent cases are transferred to Peterborough or in some instances Kingston General.



**Cobourg Base** – Located in the town of Cobourg at 600 William Street is staffed 24/7/365 and has a 12 and a 24-hour vehicle. The busiest of the 6 stations, Cobourg base responded to 6968 calls in 2019 and has both Primary and Advanced Care Paramedics. Northumberland Hills is generally the patient destination however more acute cases may be transported to Peterborough. Often This station will be deployed for inter-facility transports for tertiary care in Toronto or Kingston.



**Port Hope Base** – The County of Northumberland purchased and renovated the facility at 423 Croft Street Port Hope in 2012/2013. Previously the department was sharing space in the Port Hope Fire Hall but had outgrown that facility. Port Hope is staffed 24/7/365 with both Primary and Advanced Care Paramedics and generally uses Northumberland Hills as the primary destination hospital. Port Hope responded to 3200 calls in 2019. The addition of the 12 -hour car to this location has increased the calls responded to 4500 calls in 2021.



**Roseneath Base** – Located at 9160 CR-45. The Roseneath station is staffed 24/7/365 and services the village as well as Alderville First Nations and the rural Alnwick-Haldimand, Hamilton and Trent Hills townships. Roseneath base generally responds to between 2000 to 2500 calls annually. Construction completed in November 2018 on the new shared Emergency Service Facility with Alnwick-Haldimand Fire Department and is located in the village of Roseneath.



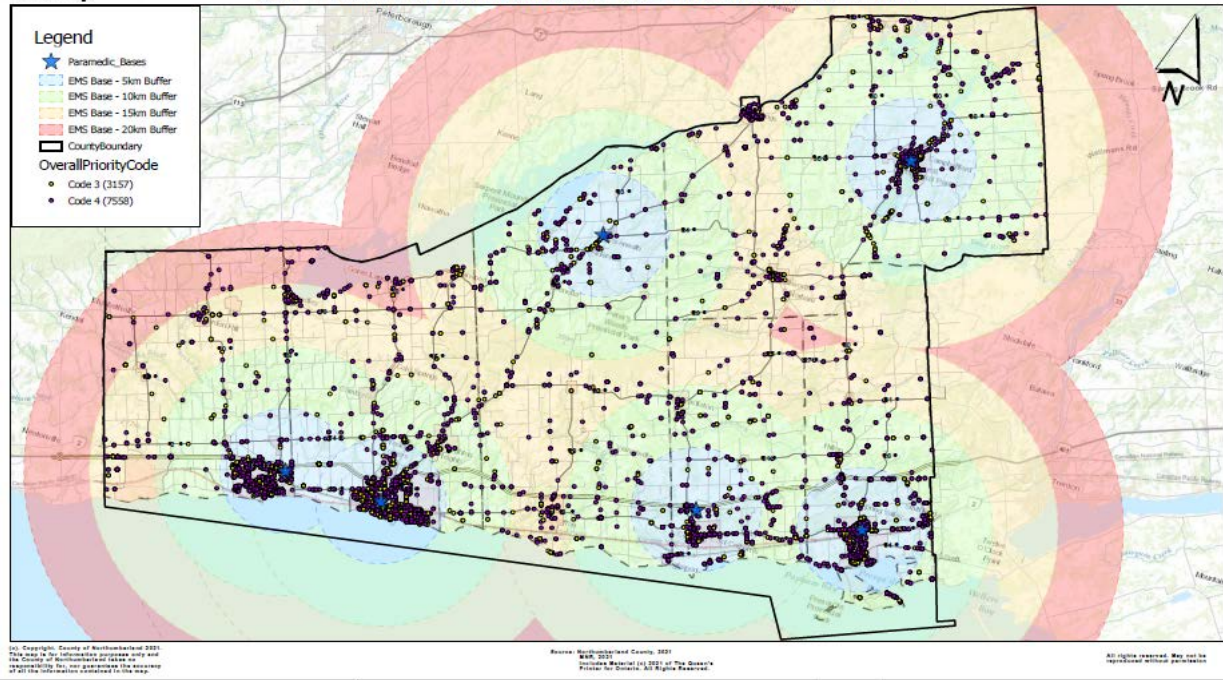
**Brighton Base** - located at 28 Elizabeth St. in the town of Brighton is staffed 24/7/365. Brighton station responds generally to 3000 calls annually. Depending on call location, patient destinations hospitals could be Quinte Health, Northumberland Hills or Campbellford Memorial. The paramedic department enjoys a lease agreement with the town of Brighton and its Fire Department. The Brighton station is due to be replaced in next few years and Northumberland County will hope to collaborate once again with the municipality on a shared Emergency Services Facility

Stations are strategically located to address areas with historically high volumes of requests for emergency medical care – each station is in areas of highest population within areas of our highest historical volume of critically ill or injured people. The map depicts call volume plotted around our 6 stations. The grey shaded areas represent a 5-10-15 km radius from each base.



## Northumberland Paramedics

2021 - T3 Enroute Calls in Northumberland - Code 3 and 4 within Northumberland



## Paramedic Shift Staffing



Paramedics are scheduled in a manner to ensure coverage twenty-four (24) hours per day, seven (7) days per week on every day of the year. The County's Paramedic department operates eight (8) ambulances during the day-time period and six (6) ambulances over the night-time period. Shift rotation patterns are standard for all station locations however, shift start, and end times vary by





location and are aligned with historical surge. This is strategic to our deployment plan and minimizes over-time incurred at end of shift due to late calls.

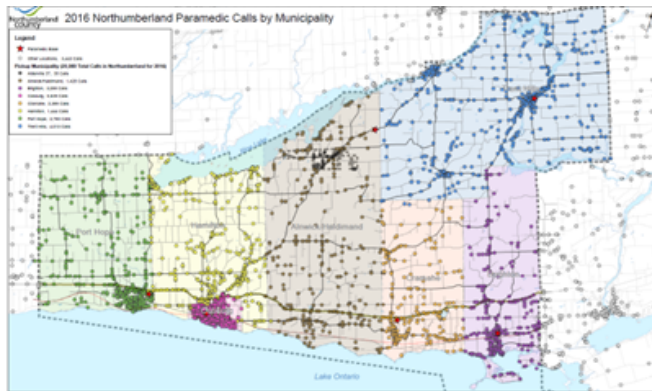
The staffing of ambulances is listed in the table below.

Station	Hrs./ Day	Day Shift	Night Shift
Cobourg	24 Hours	07:30 – 19:30	19:30 – 07:30
Cobourg	12 Hours	06:00 – 18:00	-
Campbellford	24 Hours	06:30 – 18:30	18:30 – 06:30
Port Hope	24 Hours	07:00 – 19:00	19:00 – 07:00
Port Hope	12 Hours	09:00 – 21:00	-
Colborne	24 Hours	07:00 – 19:00	19:00 – 07:00
Roseneath	24 Hours	08:00 – 20:00	20:00 – 08:00

## Sustainable Growth

The analysis that follows is not required legislatively but provides a more thorough examination of data that is useful for developing operational policies and paramedic service deployment plans.

### Call Trends and Analysis



This map is an overview of Northumberland County with the locations of Northumberland Paramedics' stations. We have calculated our response times for the past 10 years. Annually we are required to report our response times on CTAS. That is the Canadian Triage Acuity Scale and is used in the pre-hospital environment as an

indicator of severity. CTAS is separated into levels from 1 (resuscitation) through 5 (non-urgent). The following is a detailed explanation.

### Response Time Metrics - Defining the Canadian Triage Acuity Scale (CTAS)



The Canadian Triage and Acuity Scale (CTAS) was first developed for use in Canadian hospital emergency departments (ED) as a tool to help define a patient's need for care. CTAS assists hospital staff to assign a level of acuity for patients based on the presenting complaint and the type and severity of their presenting signs and symptoms. Patients are triaged using CTAS to ensure that they are managed based on their need for care (e.g. sickest patients are seen first).

Shortly after CTAS was implemented in Ontario hospital EDs, CTAS was successfully adapted for use by paramedics in the prehospital environment. One major difference between the hospital use of CTAS and the prehospital use is that in the ED, the CTAS assessment is used as a triage tool while in the prehospital care setting it is used solely as an indicator of acuity. In Ontario, the term Prehospital CTAS will be used to be consistent with the terminology found in current legislation and paramedic practice standards.

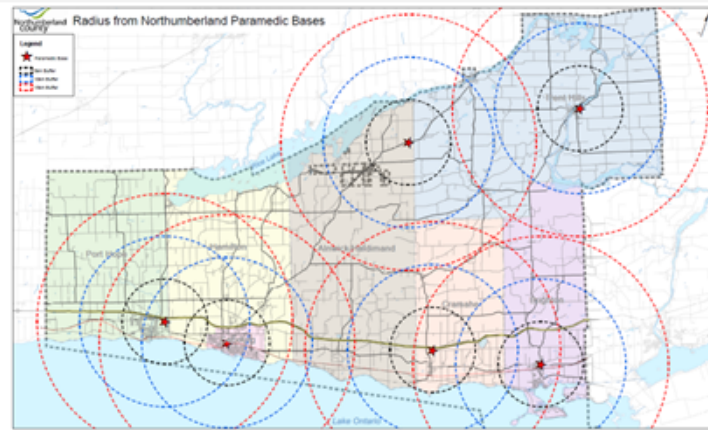
CTAS is based on a five-level scale with Level 1 (Resuscitation) representing the "sickest" patients and Level 5 (Non urgent) representing the least ill group of patients. The determination of a CTAS level is achieved by establishing a relationship between a presenting complaint (or

chief complaint) and the potential causes of that complaint. CTAS level is determined by the paramedic on-scene and is re-evaluated in transport to hospital.

Calls are averaged and compared to response time standards on CTAS as reported to the MOHLTC.

#### CTAS Level 2 (Emergent)

CTAS 2 is defined as conditions that are a potential threat to life, limb or function requiring rapid medical interventions and the use of condition specific controlled medical acts. These patients have serious illness or injury and have the potential for further deterioration that may then require resuscitation. They need prompt treatment to stabilize developing problems and treat acute conditions. These patients often have had controlled acts applied in the field (i.e. advanced airway procedures, advanced cardiac ECGs – diagnosis – transport to Cath labs, reversal of anaphylaxis, reversal of opioid overdoses, reversal of acute diabetic emergencies, etc.).



The circles on this map indicate distance in kms around our bases. Black (5 kms), Blue (10 kms), Red (15 kms). The areas beyond where Red lines intersect would geographically take us longer than 17 minutes to respond to. It is important to note that these demarcations are in distance “as the crow flies” so depending on the county road, times could vary. Northumberland Paramedics is continually looking at ways to close response time gaps in our rural and remote areas. In 2020 the paramedic department added a rural Emergency Response Vehicle (ERV) during peak times in the day (08:00 – 20:00). This ERV had a significant effect on rural access to a paramedic in 10 minutes or less. Additionally, this vehicle, when not responding to emergencies, can perform important “Community Paramedic” work in rural communities.

## Striving for Clinical Excellence

The service that paramedics deliver almost always provides opportunities to learn and to improve on the high quality of care already provided. The Advanced Life Support Patient Care Standards (ALSPCS) change frequently and are considered a “living document” referenced in legislation and updated annually. The paramedic scope of practice, both primary and advanced is evolving with it. The department has developed several initiatives to improve the quality of care in the community both directly and indirectly. The direct measures included increased monitoring of patient care through practical observation on calls as well as digital chart review. These observations are then used as opportunities to educate paramedics. Some of this education occurs with high fidelity simulation either in our lab or in the field. This process has greatly enhanced the training available to paramedics and supports our best practices initiatives. In addition, simulation is a vital part in preparing paramedics to return to the workplace and clinical practice after an extended leave.



Indirectly, paramedics continue to participate in the training of member municipal staff in first aid and CPR. These courses occur a few times a year and allow us to connect with both laypersons as well as trained first responders. The experience of training and connecting with highly trained paramedics helps to build relationships and enhance the safety and well-being of the people in Northumberland County.

## Exemplary Service Medal

The Exemplary Service Medal, created on July 7, 1994, recognizes paramedic professionals in the provision of pre-hospital emergency care who have had at least 20 years of exemplary service, ten of which were in a position of risk. This year the County once again submitted to the Chancellery for recognition of three veteran paramedics who are eligible to receive the Emergency Services Exemplary Service Medal.

Unfortunately, the presentations of these awards continued to be delayed due to the COVID pandemic. In 2020 two paramedics were scheduled to receive their 20-year medal and the other paramedic will receive his 30-year bar. In 2021 Nominations were put forward to the OAPC Board and Chancellery, at this point these have yet to be confirmed.

## Collaboration with Hospital Partners

As one of our largest partners, collaboration with all of the hospitals we transport patients to is an essential part of our operations. Collaboration takes place every day between front line paramedics and hospital staff in order to best care for the patients we take to hospital. On a larger scale, ongoing cooperation and collaboration has resulted in system improvements and efficiencies. This collaboration is achieved by cultivating and maintaining partnerships with management staff at our local hospitals through our Northumberland Emergency Services Network (NESN) with the goal to improve communication, increase collaboration and better serve our community.



## **Community Paramedicine – Ontario Health Team Northumberland**

In 2019 the provincial government announced that they were dissolving the Local Health Integration Networks (LHINs) in favor of new entities called Ontario Health Teams (OHTs). Northumberland County in collaboration with Northumberland Hills Hospital, Northumberland Community Care, Northumberland Family Health Team, Hospice and other stakeholders got together to complete the first phase application to create an OHT Northumberland. That application was successful, and we now have Ontario Health Team Northumberland. The group has identified three focus projects as requirements which are: Volunteer Peer Support (Community Care Northumberland), Outreach (Community Health Centre for Northumberland) and Community Paramedicine (CP). Community Paramedicine resides in the Paramedic Department and receives Local Health Integration Network (LHIN) funding that supports two FTEs, some admin support and a 50-patient cohort for Remote Patient Monitoring. The Paramedic Department is committed to the development of a robust CP program and feels that this service is a vital link gaps in community care. Focus areas will include fragile elderly, mental health and addictions, homelessness and palliative care. The program functions in three capacities:

1. Referrals from community partners such as Family Health, Mental Health, Social Services, Palliative Care, etc.
2. Remote Patient Monitoring – Using Bluetooth enabled adjuncts in the patient home to monitor blood sugar, blood pressure, heart rate, weight, etc. which is uploaded to a cloud and monitored daily by paramedics.
3. Mobile wellness clinics servicing citizens who otherwise cannot access care due to social-economical, geographical or other reasons. E.g. diabetes health, immunizations.

*More about Community Paramedicine can be found in Appendix A “A Community Paramedicine Model for Northumberland County – Bridging the Gap in Access to Care”*

## **Peer Support Team**

In 2019, framework began in the development of a “Peer Support Team” for Northumberland Paramedics through TEMA Foundations and is now fully deployed. This team is activated following difficult and challenging calls within our community. It allows for a check in on the Paramedics involved to ensure they are doing ok and allow for discussion and review of healthy and self-care tools to help ensure they maintain a healthy perspective and have access to tools and supports they may need. These essential components assist with educating and building resiliency. A communication tool introduced in late 2019 was the “Peer Support App”. The Peer support App was developed and purchased by the department and supported financially in 2021/2022 by the Ministry of Health. This App allows easy access for staff to connect with an available peer support person when the need arises, as well allows for peers to recommend a staff member to be contacted by a peer supporter. This allows for real time recommendation





for peer support, and tracked that a timely connection has been completed. Another key initiative of the Peer Support Team is wellness Wednesday. Wellness Wednesday entails a peer support member monthly dropping by the bases proactively providing refreshments and snacks to the crews. This allows for the opportunity to connect with peers, remind them of the program and “check in” to see how the peers are doing.

Additionally, the paramedic department and the County of Northumberland partnered with “Wounded Warriors.” This is a national not-for-profit program that closes gaps in access to care during psychological stress injuries for first responders and their families.

warning signs, support methods and resilience strategies. The course was developed at the Mental Health Commission of Canada. This initiative was done in collaboration with the County Health and Safety/Emergency Management Coordinator.

## **Ambulance Service Review**

In June 2021, the MOHLTC conducted its triennial service review for Northumberland Paramedics. This review is a full audit of the entire paramedic operation. The purpose of the audit is to ensure compliance, in all aspects of service delivery, with legislated standards. The service received notice 90 days prior to the review along with the MOHLTC team participants and an audit matrix. Due to the ongoing Pandemic this review was conducted virtually, and thus was a modified partial audit of the paramedic operation, focusing on administration and Quality Assurance aspects. The preliminary exit interview of this inspection was successful with complimentary references as “standing out in Ontario” with Quality processes. This has allowed the renewal of our certificate to operate the Ambulance Service through to 2025.

The on-site portion of this Review will be scheduled once the Pandemic travel restrictions are lifted. The on-site portion will focus on Patient Care by participating in Ride -Out with the crews, inspection of our Ambulances ERV’s and Bases to ensure compliance with the Basic Life Support and Advanced Life support – Patient Care Standards (BLS-PCS and ALS-PCS), and Vehicle and Equipment Standards.

## **Survivor Night**

Northumberland Paramedics responds to approximately 150 cardiac arrests per year. A small percentage of these cardiac arrest calls have the potential for successful resuscitation. Public awareness and education on the “Chain of Survival” has a direct impact on the chance of resuscitation. Once a year we honour and connect cardiac arrest survivors with the Paramedics, community First Responders (Fire, Police), Ambulance Dispatch Officers and public involved in their successful resuscitations. This event brings together community members and allied agencies for an evening of celebration and has become highly appreciated and



anticipated by the First Responder agencies we work with every day. This strengthens our positive relationships both on and off duty. This year we are celebrating 11 saved lives through the collaborative efforts of our teams. The 2021 Survivor Night took place October 14<sup>th</sup> at an outdoor event to ensure the safety protocols of the COVID 19 pandemic were adhered to. This event continues to acknowledge and celebrate the ongoing collaboration of First Responders, Allied Agencies, and the community involved in the successful resuscitation of a cardiac arrest.

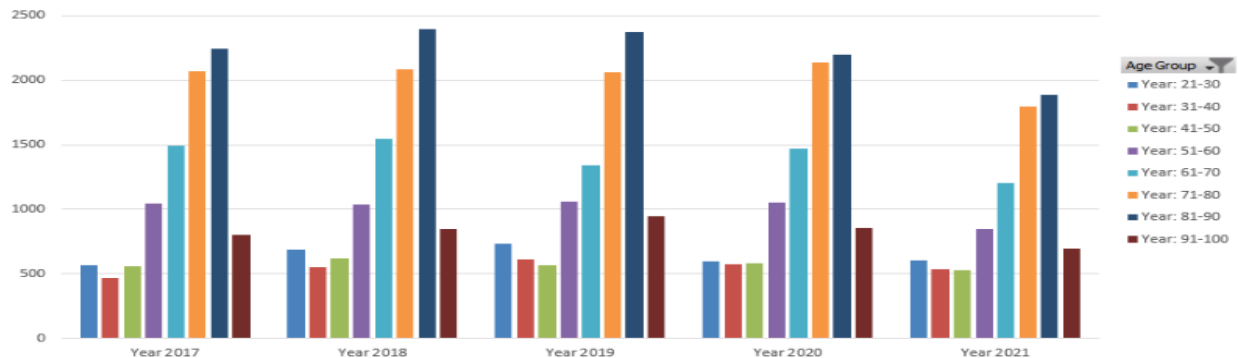


### **Call Volumes**

Over the past 10 years, the number paramedic responses have increased consistently in a linear fashion. The trend of growth in true emergencies is expected to continue due to longer lifespans leading to the numbers of people in ill health with multiple health issues increasing the aged proportion of the population in Northumberland. 80% of ambulance calls are for people aged 60+

- The proportion of the 60+ age cohort is expected to increase
- This is coupled with an expected 1% growth in population
- Increased instances of community care in the home
- Increasing traffic volumes throughout the County but especially on the 401 corridors

This graph represents the number of calls by Northumberland Paramedics by age demographic.



## Specialized Care for the Community

There are two standard agreements where ambulances from Northumberland Paramedics, based on pre-determined MOHLTC approved provincial or local protocol, will bypass the closest community hospital to a specialty centre:

- Acute Stroke care
- specialized heart attack care (Cardiac Cath Lab for Percutaneous Coronary Intervention (PCI))

*\*\*These bypasses are strictly governed and monitored through both local and provincial Quality Assurance metrics. Any variance that would cause a patient's presentation or symptoms to fall outside the bypass protocol would mean a transport to the closest facility.*

Regardless of the originating municipality, if the ambulance is closest to an emergency, it is dispatched. The majority of outside calls are being completed in Peterborough City/County followed by Hastings-Quinte-Prince Edward, Kingston, and Durham Region.

## Mandatory Programs

The County's Paramedic department must:

- Obtain and continue to maintain a "Land Ambulance Certificate" issued from the Province of Ontario. This is renewed triennially after the accreditation service review.
- Ensure the health and safety of all employees at all times while in the employ of The County
- Develop a plan outlining ambulance station location, emergency coverage patterns and emergency coverage re-instatement (in cases where ambulances are busy responding to calls for medical assistance). Referred to as the "Deployment Plan"
- Respond to requests for emergency medical assistance in the community by sending the ambulance closest to the emergency
- Provide emergency medical care to those in need as a result of illness or injury
- Provide transportation of those in need of medical care to the most appropriate medical facilities
- Develop and administer a strict ambulance maintenance schedule
- Develop and administer strict Paramedic equipment maintenance schedule
- Develop and administer mandatory medical supplies inventory management
- Develop and administer mandatory paramedic documentation auditing process to ensure quality of care and compliance with legislated patient care and documentation standards
- Report to the Ministry of Health and Long-Term Care annually on:
  - \* Service Plan
  - \* Financial Plan
  - \* Response Time Performance on CTAS for up-coming Year
  - \* Actual Response Time Performance on CTAS for Previous Year
- Provide a variety of continuing education programs for paramedics to ensure compliance with legislation as well as continuous quality improvement of patient care using evidence based (proven through study) medicine.



## **Ambulance Deployment**

- Northumberland Paramedics must develop an ambulance service deployment plan
- The deployment plan is then submitted to the Ministry of Health and Long-term Care (MOHLTC) and to the MOHLTC operated Central Ambulance Communications Centre (CACC)
- The purpose of the deployment plan is to direct the MOHLTC operated CACC in the use and deployment of Northumberland County's ambulances and Paramedic resources
- The rules are developed strategically to optimise ambulance coverage across Northumberland County
- The optimisation strategy is based on balanced coverage to ensure that the highest quality Paramedic care is delivered as efficiently and as quickly as possible meeting all Paramedic Response commitments
- The current deployment plan is a station-based deployment model – ambulances are dispatched from stations
- When an ambulance is dispatched on an emergency call, coverage is re-distributed to the remaining ambulance stations to make sure that the County receives optimal coverage

The deployment plan also outlines many other aspects of the use of ambulances such as:

- Use of ambulances on non-urgent transfers
- Use of ambulances for coverage in municipalities outside Northumberland County
- Inclement weather policies
- Advanced Care Paramedic back-up

## **Ambulance Response Times and Response Time Commitment**

Northumberland Paramedics are legislatively required to set response time performance targets. This is a change from the past where the MOHLTC set response time targets based on the Ambulance Service's performance in 1996. The growth in call volumes in the period from 1996 through to the end of 2016 was over 236% and now averaging 6-7% a year for Northumberland Paramedics although 2016-2017 had an increase of 15.4 %. Similar call growth was seen across the Province of Ontario. This made the old 1996 response time standard inadequate as a target and the Province revised response time performance reporting to reflect the new call volume realities. The new performance reporting requirements came into effect as of the 2013 business year

- Each year in October, the Ambulance service must set its response time targets for the following year
- The new response targets require ambulance services to report on six different priority levels





- Ambulance services must set the percentage of the time that they will meet two high priority patient response times as well as setting the percentage of time and the time interval that they will meet in lower priority patient categories

## Summary of the reporting requirements for response time standards on CTAS

### MOHLTC Response Time Reporting Standard Requirements Introduced October 2012

Patient Priority based on Canadian Triage Acuity Scale (CTAS)	MOHLTC Time Target	Percentage of Time Target Will Be Met
Sudden Cardiac Arrest	6 minutes to defibrillator arrival	Determined by the Province
CTAS 1	8 minutes to Paramedic Arrival	Determined by the Province
CTAS 2	Determined by Paramedic Service	Determined by Paramedic Service
CTAS 3	Determined by Paramedic Service	Determined by Paramedic Service
CTAS 4	Determined by Paramedic Service	Determined by Paramedic Service
CTAS 5	Determined by Paramedic Service	Determined by Paramedic Service

The response time targets for Northumberland Paramedics remain the same and the **targets** for 2022 are presented in the following table:

### Northumberland Paramedics Council Approved Response Time Commitment

Patient Priority based on CTAS	Time Target	% of Time on Target
Sudden Cardiac Arrest	<b>6 minutes</b> to defibrillator arrival	<b>40%</b>
CTAS 1	<b>8 minutes</b> to Paramedic Arrival	<b>55%</b>
CTAS 2	<b>10 minutes</b> to Paramedic Arrival	<b>65%</b>
CTAS 3	<b>10 minutes</b> to Paramedic Arrival	<b>65%</b>
CTAS 4	<b>10 minutes</b> to Paramedic Arrival	<b>65%</b>
CTAS 5	<b>10 minutes</b> to Paramedic Arrival	<b>65%</b>



Northumberland Paramedics 2020 **Actual Performance** against the commitment is summarised on the following table:

Patient Priority based on CTAS	Time Target	Percentage of Time Target Will Be Met	ACTUAL PERFORMANCE %
Sudden Cardiac Arrest	<b>6 minutes</b> to defibrillator arrival	45%	43.6
CTAS 1	<b>8 minutes</b> to Paramedic Arrival	55%	60.9
CTAS 2	<b>10 minutes</b> to Paramedic Arrival	65%	66.7
CTAS 3	<b>10 minutes</b> to Paramedic Arrival	65%	65.6
CTAS 4	<b>10 minutes</b> to Paramedic Arrival	65%	70.6
CTAS 5	<b>10 minutes</b> to Paramedic Arrival	65%	69.0



## **Discretionary Programs**

### **Central East Local Health Integration Network (CELHIN) Referrals**

Northumberland Paramedics continues to send patient referrals directly to the Central-East LHIN electronically. The paramedic service responded to over 27,000 calls last year. It is not uncommon to respond to the same address two and three times per week usually due to a gap between a resident's knowledge of and ability to access services available in the community. Paramedics play an important role in identifying residents that may benefit from established community services provided by the LHIN. With the patient answering a few short questions and giving consent, the referral form gets faxed seamlessly to the Central East LHIN. This small initiative not only puts residents in-touch with health care teams members that can aid with specific needs but also reduces unnecessary repeat visits to the hospital emergency department.

### **Paramedic Week Celebrations**

Every year in May the County recognizes National Paramedic Week. Northumberland Paramedics take this opportunity to celebrate service to the community and strengthen relationships with our partners across the County. This year COVID 19 prevented our in-person celebration which would have included our annual open house and BBQ and concluded with our staff appreciation awards.

Additional Discretionary Programs include:

- Support and monitor public access defibrillation programs in Northumberland
- Develop and administer a public relations program to educate public both in the use of Paramedic Services and 911 and promote community safety
- Continuous improvement in the use of electronic media to capture and store data related to all ambulance service activities
- Continue to develop a land ambulance service program that forms a model for best practices in the Province by using accurate and complete data to form part of a continuous quality improvement

### **Paramedic Week Celebrations - Virtually**

Every year in May the County recognizes National Paramedic Week. Northumberland Paramedics takes this opportunity to celebrate service to the



community and strengthen relationships with our partners across the County. Due to the COVID 19 pandemic, the department was unable to hold its Paramedic Week open House and BBQ in person again in 2021.

This year's national theme is **"Paramedic as Educator- Citizen Ready"**.

The theme for Paramedic Services Week 2021 demonstrates the important role that paramedics play as educators to the public. As healthcare professionals, paramedics are often incorporating the best research into practice, but the public doesn't always know why simple steps taken can make the difference in many emergencies prior to help arriving. We look to build on existing education and incorporating new trending treatments for the public to be citizen ready. Each of the five days had a specific public education focus that was designed to prepare citizens for an emergency. The five topics included Activation of 911, Control the Bleeding, High Performance CPR, Opioid Overdoses, Emergency Preparedness (the first 72 hours), and Paramedic Services Recognition day/Community Paramedicine.

Paramedics across Ontario are providing care that now exceeds the confines of the ambulance. Community Paramedicine and healthcare partnerships are enhancing the services that are available to the members of our communities. The ongoing expansion of Paramedic Scope of Practice is developing paramedic skills to include services beyond the traditional 9-1-1 response. This evolution in clinical practice has grown to include clinical and psycho-social assessments, chronic disease management, referral to community-based agencies and public education. Paramedics are out in the community educating clients on personal care, risk of falls in the home, medication compliance and general health and wellness. Initiatives aimed at reducing emergency department visits and wait times and improving community health are major priorities and support the theme of Paramedic Services week. Northumberland Paramedics are committed to best practices and pursuing opportunities to work with primary healthcare providers, allied emergency responders, social service agencies, family health care teams, palliative care, mental health and addictions teams, and public safety groups to develop initiatives which will help us better attend to those in need. Paramedicine is about caring for our communities, every hour, every day.

### Community Engagement – Colouring Contest

Due to COVID restrictions and the inability to celebrate with our BBQ and open house, we organized a colouring contest for our community children to participate in. The completed pictures once submitted were proudly displayed in the halls of



our bases. Drawn at random the winners per age group were visited by one and only Terry the Traumasarus.





## Partnerships

Paramedic Department engage in initiatives to foster positive relationships and create shared services and training with our member municipal Fire Departments. With this came an observation that efficiencies could be appreciated in cooperative partnerships with the Fire Departments throughout Northumberland. The County in partnership with Cramahe Township celebrated the completion of our shared Emergency Services Base Spring 2017.

The planning and collaboration during the development, design and construction of the Colborne Emergency Services base helped bolster our community partnerships and will be a great model for us moving forward. Collaborating with our peers in the member municipalities is an excellent way to enhance our quality of service.

Alnwick-Haldimand entered into a similar agreement to share an Emergency Services facility in the Roseneath area with a completion date in November 2018.

2020 saw the completion of the Trent Hills Emergency Services Base.

We are looking forward to working collaboratively with Brighton through 2021 and 2022 in a similar partnership.



Northumberland County has a Tiered Response Agreement all 7 municipalities participating with the Paramedic Department to bring expedient, clinically evidenced and lifesaving care to our citizens.

Northumberland Paramedics continues to partner with Northumberland Hills Hospital and Cobourg Police on community safety initiatives.



## COVID Pandemic Response and Partnerships

Northumberland Paramedics inclusive of the Community Paramedics responded to many calls for assistance from our Community, Health Partners, and the Ministry due to the challenges of the COVID pandemic. Starting in 2020 and continuing through the first part of 2021 Northumberland Paramedics continued to support various COVID swabbing testing centres; Northumberland Hills Hospital (NHH), Campbellford Memorial Hospital (CMH), HKPR Health Unit and Canton Testing site.

Participation in COVID vaccination programs through mobile Community Pop up centers and providing mobile vaccination to the high-risk individual vulnerable population such as the Homebound, Homeless and Shelters.

Assisted the Ministry of Health with the decanting of surge COVID patients from central Toronto out to the Eastern hospitals to ensure treatment and capacity through triaging of COVID patients and their acuity.

Continued support of the Northumberland ACT Team with home visit diagnostics - Blood draws

## Ontario Health Team Northumberland (OHTN)

Our ongoing partnership with Ontario Health Team-Northumberland through 2020, and 2021 continues to be successful. Having a seat at this table has been a tremendous opportunity to partner with allied healthcare providers in our communities. OHTN adopted Community Paramedicine as both a year one and year two priority continues to evolve and expand our Community Paramedicine program in our Community.

## Community Paramedicine – Enhancing Community Care

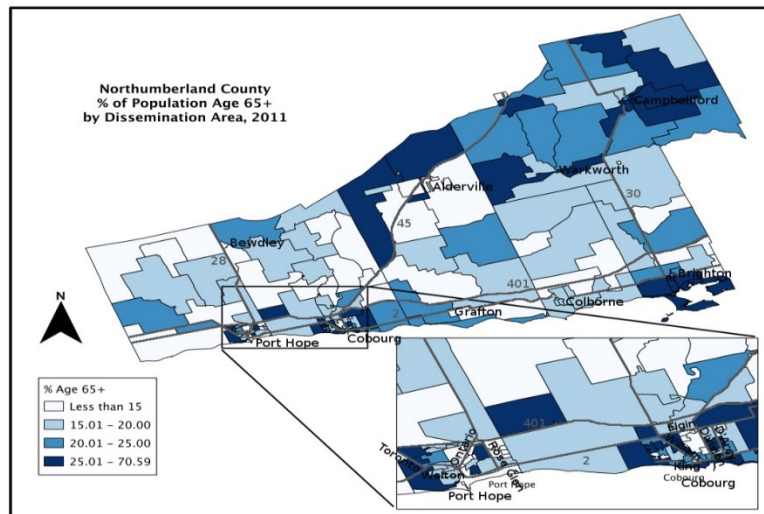
The Paramedic department believes in the need for “community paramedicine” in Northumberland as part of our “Community Care Strategy” and should be a normal function of all land ambulance services in Ontario. Many services have community paramedicine programs, but all are slightly different in scope. The commonality in every community is attempting to bridge gaps in current services provided through the Ontario Local Hospital Integration Networks (LHINs) or other community supports. When these gaps exist in the provision of care for people with chronic physical or mental illness, emergency services and hospital emergency rooms are over-utilized causing surge capacity and ambulance deployment challenges. The current governments Ontario Health Teams (OHT) has played a distinct role in bringing Community Paramedicine to Northumberland County.

The Community Paramedic program continues to evolve and flourish as a result of our continued partnerships with Trent Hills Family Health, Haliburton/Kawartha/Pine Ridge Health Unit and Northumberland Hills Hospital, and the addition of Campbellford Memorial Hospital, Ontario Health and High Intensity Support at Home program (HISH).

## Environmental Scan

### Population & Demographics

The population of Northumberland County is 90,437. The 2009 Growth Management Strategy report completed for Northumberland County stated the average population growth across the County will be 1.37% annually. This translates to a steady growth rate of about 4,000 to 7,000 people in next decade.



The County's population has a higher proportion of older adults aged 60+ (30%) than Ontario (21%) according to the Housing and Homelessness Plan. Northumberland County has fewer households with children on average compared to the average in the Province. Approximately 80% of ambulance calls are for the proportion of the population aged 60+ and the rate of growth of that demographic is expected to be greater than any other age group in the County.

Given the fact that the majority of ambulance calls are for those aged 60+ and the fact that the 60+ age demographic will continue to increase at a higher rate than other age cohorts, it can be expected that ambulance call volumes will also continue to increase. In fact, Northumberland Paramedics is already seeing the impact of the age shift with the volume of true emergency calls that Northumberland Paramedics respond to increasing at an average rate of 6-7% annually over the last 10 years and 41% since 2014. In addition to age demographics, the volume of traffic on the 401 and elsewhere in the County is also increasing. With increasing



traffic volumes, there are a higher number of motor vehicle collisions – a greater number of collisions increase the number of calls that paramedics must respond to. Overall life expectancy and increasing health monitoring and awareness mean that paramedics are responding to calls involving ever more complex care requirements. People living longer means that paramedics are seeing individual patients with multiple, concurrent medical issues, more than ever before.

## **Funding**

The funding for land ambulance service provision in Ontario comes from a combination of both Provincial and Municipal taxes:

- 50% of Land Ambulance funding comes from the Municipal levy in the form of an annual subsidy
- The 50% of operating costs covered by the Province of Ontario is based on the previous year's actual operating costs
- This typically means that in the year that the subsidy is received, the value of the subsidy is less than 50% of the current year's operating costs
- The shortfall in the subsidy granted in the current year's operating cost is covered wholly by the Municipal levy
- The remaining 50% of the operating budget for land ambulance is funded by the province
- Capital expenditures are 100% funded by the Municipal Levy in the year of the expenditure – 50% of the capital expenditure is recovered through amortization over the life of the capital asset, for example:
  - o For a defibrillator worth \$35,000 and an expected useful life of 5 years, the County would fund 100% of the purchase – or \$35,000 – up-front. Then, in each year over the next 5 years, the County would receive \$3,500 in subsidy money such that at the end of the expected useful life, 50% of the cost of the asset – in this case \$17,500 – will have been recovered through MOHLTC subsidy
- The current arrangement is expected to continue as per past practice
- The MOHLTC is requiring increased reporting on all aspects of ambulance operations especially with respect to ambulance service funding.

The Association of Municipalities of Ontario continue to work with Provincial government partners to ensure continued, adequate funding of land ambulance including reviewing the 50% funding formula to move toward full 50% funding with no funding gap year-to-year. The fiscal year-end for Municipalities is December 31 of each year whereas the fiscal year-end for the Province is March 31 also making reporting and funding more complex.



## Legislative

Ambulance services are regulated by the Emergency Health Services Branch (EHSB) of the Ministry of Health and Long-term Care (MOHLTC).

- The EHSB to enter discussions with the 52-land ambulance designated delivery agents (DDAs) regarding the regulatory framework within which all DDAs must operate
- The EHSB of the MOHLTC has now undertaken a review of many of the standards that apply to the delivery of land ambulance services
- This review has led to many revisions of existing standards
- The purpose of these reviews and revisions has been to update the standards to reflect the current operating environment, including medical evidence to update patient care standards
- There has also been a staff re-structuring at the EHSB
- This staff re-structuring has occurred for many reasons – it has led to a much more responsive EHSB
- DDAs are still subject to both un-announced inspections as well as to a triennial full audit and review of the ambulance service
- The triennial service review is intended to ensure that ambulance services meet all legislated standards and regulations in their operation
- Meeting all requirements is evidenced by the issuance of an operating certificate
- The un-announced inspections are “spot checks” that are intended to ensure continuing compliance between service reviews
- The *Ambulance Act* is the over-arching legislation guiding the provision of land ambulance and paramedic services in Ontario
- There are numerous other pieces of Legislation both Provincially and Federally that must be met in ambulance service delivery
  - Examples include:
    - *Occupational Health and Safety Act*
    - *Personal Health Information Protection Act*
    - *Highway Traffic Act*
    - *Coroner’s Act*
    - *Controlled Drugs and Substances Act* (Federal)
    - Among many other Acts and regulations

## Economic Factors

- The greatest impact that Economic factors have on the delivery of Paramedic Services is the ability of both the Province and of the Municipality to each provide their share of the required operating costs to deliver Paramedic Services





- The largest operating cost for paramedic service delivery is salary and benefits which represent 76% of the \$14M operating budget for Northumberland Paramedics
- Staffing requirements remain the most expensive portion of ambulance services as people are required for this service delivery
- The ability of the Province and the municipality to continue to contribute the finances necessary are based on local and provincial economic factors
- The overall state of the local economy also impacts ambulance operations as a result of a correlation between the state of the economy and call volumes
- Under good economic conditions or “boom” cycle, ambulance call volumes generally decrease and, conversely, in slow economic periods, ambulance call volumes generally increase

It must be noted that economic factors are only one influence of many on call volumes. The correlation between economic conditions and call volumes also mean that more resources may be required under economic conditions where the system cannot afford the additional resources needed – Paramedic Services must look to alternate strategies such as Community Paramedicine to address service delivery challenges.

## Public Safety Messaging

Traditionally paramedic services are in a perpetual state of readiness to react to emergencies. Although this is the foundation of what we do, as health professionals in the community we will continue to take a more proactive role in public safety and awareness. We continue our active participation in working groups with local police/OPP, Fire Departments local Hospitals/health units and County Communications to create a Public Safety Strategy. This will give us the opportunity to educate our citizens in matters such as the dangers of Opioid/other drug overdoses, Acute Coronary Syndrome (ACS), Stroke awareness, First-Aid/CPR/AEDs, fall prevention/injury statistics, etc. It is our hope that through this strategy we can improve the safety, health, and well-being of the residents in Northumberland