



2023 Department Overview

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.

Our Vision

Northumberland Paramedics will become an industry leader in paramedicine through sustainable growth, advancements in training and community initiatives.

Our Strategies

We will advance our profession through open, positive communication with our internal and external relationships.

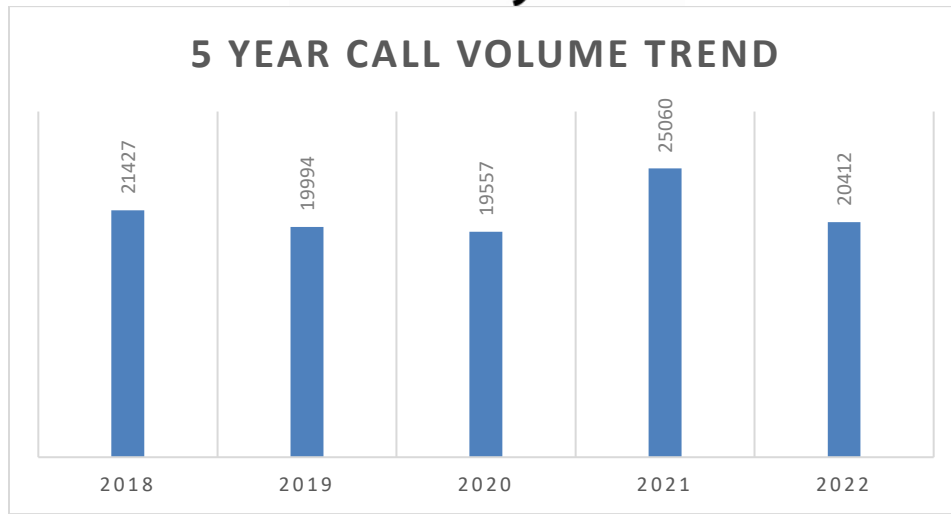
We will become an integral part of health- care in our community.

We will invest in our staff through innovative programmes designed to advance not only our personal skills but our profession.

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 km² 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 historically have ranged between 19,000 and 21,500 with an increase call volume of 25,060 calls in 2021 and a continued increase thus far in 2022 (October).



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

Departmental Staffing

Emergency 911

- 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
- 1 Part-time Operations Shift Superintendents
- 2-Full-time Logistics Coordinator
- 2 Administrative Assistants
- 62 full-time paramedic positions
- 48 part-time paramedic positions at both the advanced and primary care levels

Community Paramedicine:

- 1 CP Coordinator
- 1 Superintendent - Quality Assurance
- 1 Superintendent - Operations Support
- 1 Logistics
- 10 Community Paramedics -CP LTC
- 2 Community Paramedics – CP MOH

Vehicles - Ambulances



The County's Paramedic department maintains a fleet of thirteen (13) 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.



Community Paramedic Vehicles



Northumberland Community Paramedic program has 7 Community Paramedic Vehicles in its fleet. There are 2 vehicles that run out of the Northern Base located at Campbellford Hospital and 5 vehicles that run out of the South base at 600 William St in Cobourg.

Stations

The County operates its fleet of ambulances from six (6) ambulances stations or bases. Stations are located throughout The County in:

Colborne - 232 Purdy Road Colborne - Shared facility with Cramahe Fire Department



- Staffed - 1 vehicle 24/7/365
- PCP and ACP
- Call Volume: 2952 calls in 2021 / 2474 calls in 2022 thus far



Campbellford Base - 50 Doxie Street South – Shared facility with Trent Hill Fire Department



- Staffed - 1 vehicle 24/7/365
- PCP and ACP
- Call Volume: 2096 calls in 2021 / 2107 calls in 2022 thus far

Roseneath Base – 9160 County Road 45 – shared with Alnwick/Haldimand Fire Dept



- Staffed - 1 vehicle 24/7/365
- PCP and ACP
- Call Volume: 3416 calls in 2021 / 2820 calls in 2022 thus far



Brighton Base – 28 Elizabeth St Brighton – Brighton Fire Hall



- Staffed - 1 vehicle 24/7/365
- PCP and ACP
- Call Volume: 3757 calls in 2021 / 3005 calls in 2022 thus far
 - * 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

Cobourg Base – 600 William Street Cobourg



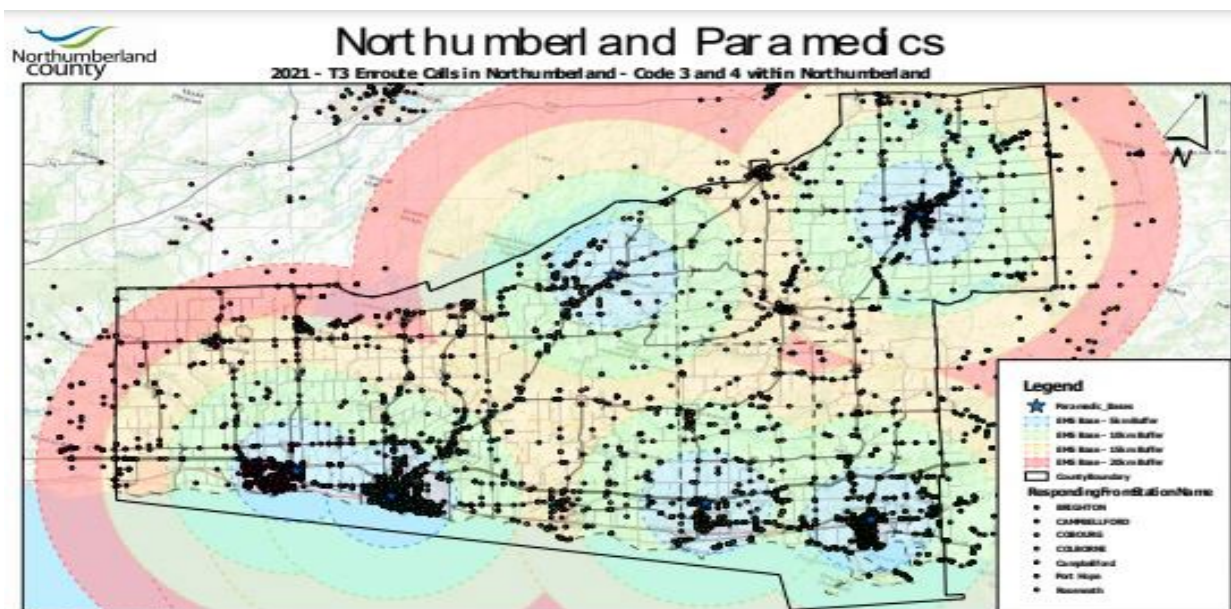
- Staffed - 1 vehicle 24/7/365 and 1 vehicle 12/7/365
- PCP and ACP
- Call Volume: 6804 calls in 2021 / 5205 calls in 2022 thus far

Port Hope Base – 423 Croft Street



- Staffed - 1 vehicle 24/7/365 and 1 vehicle 12/7/365
- PCP and ACP
- Call Volume: 6030 calls in 2021 / 5020 calls in 2022 thus far

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 coloured areas represent a 5 km-(blue) 10 km-(green) 15 km-(yellow) radius from each base, and 20 km and beyond (red).





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	09:30 – 21:30	-
Colborne	24 Hours	07:00 – 19:00	19:00 – 07:00
Roseneath	24 Hours	08:00 – 20:00	20:00 – 08:00

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.

Northumberland Paramedics participate in Continuing Medical Education (CME) throughout the Year.



The Service develops and presents two (2) In-Service CME each at 8 hours for a total of 16 hours annually. This allows the Service to review and present any Legislative materials, introduce new equipment, medications, and update any policies and procedures that may be required. The local Base Hospital (CEPCP) is responsible for delivering (2) CMEs annually to review medical directives, review skills, and recertify under the Physician's license. As well as further 2 x 4-hour sessions for medical case studies.



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.

Specific enhancements included:

- Increased reviews of ambulance calls including random and targeted audits and call reviews
- Increased use of technology and improved processes in conducting and expediting call investigations, patient chart review and feedback.
- Continued utilization of high-fidelity patient simulation in lab and now available in the field.
- Implementation of a new ePCR/Quality Assurance tool to enhance the ability to accurately collect and report on data, utilize a digital dashboard to monitor key performance indicators in real-time, provide two-way feedback to paramedics, reduce paper, and support LEAN initiatives.

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. Working closely with our hospital partners we have established improvements in our linen retrieval processes (LEAN); improved communications between nursing staff and Superintendents to address the deployment challenges surrounding emergent inter-facility patient transfers and process improvements through post-incident reviews. 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”

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



Post-Traumatic Stress Disorder (PTSD) Prevention Plan

As a result of the passing of Bill 163, all paramedic service providers were required to submit their PTSD Prevention Plans to the Minister of Labour by April 29, 2017. A comprehensive plan both proactive and reactive was completed and submitted.

Road to Mental readiness (R2MR) training initiative is a full day course teaching staff about PTSD including warning signs, support methods and resilience strategies. This training is developed from the Mental Health Commission of Canada and was delivered to all paramedics and managers through in-service education. All paramedics were trained in 2017 and all new recruits moving forward receive this same training. This initiative was done in collaboration with the County Health and Safety/Emergency Management Coordinator.

In 2019, framework began in the development of a “Peer Support Team” for Northumberland Paramedics through TEMA Foundations and is now fully deployed. This involved eliciting the services of professionals to interview and select suitable paramedic peers that are interested in becoming peer support contacts. The department had over 30 peer to peer nominations. Once a team is selected, they will receive training in this area. This support is in line with legislation and our County PTSD Prevention Plan. 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.

The Peer Support continued to develop their Team and member recruitment by hosting a second nomination process in 2022, and successfully added a further ten members to the team. These additional members participated in a week- long training that included components of Mental Health First Aid, Suicide Awareness, and skills and strategies to assist mental health and stress.

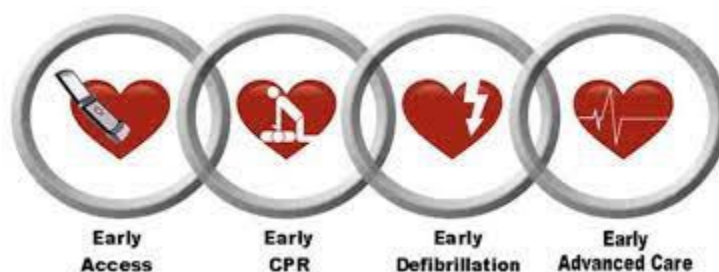
Ambulance Service Review

In June 2018, 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. Over three days, the Team audited all aspects of legislative requirements in service delivery. This included Operations; vehicle and equipment maintenance schedules, Quality Assurance programs; Human Resources Inventory, education development/facilitation and chart auditing, collaboration/cooperation with other ministry stakeholders; Regional Base Hospital Program, MOHLTC Eastern Field Office, Hospitals, Allied Agencies.



The completion of our service review ended with the MOHLTC exit presentation. The meeting was attended by Paramedic Senior management and the County CAO along with the senior Review Team members. The results were complimentary with some references as “standing out in Ontario” with Quality processes. There were some observations for improvement considered as minor and will be or have already been addressed. The official follow -up review will take place with an Inspector from the Ministry in November. The department is due for its next review in 2023/2024.

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 survival. Once a year we honour and connect cardiac arrest survivors with the Paramedics, community First Responders (Fire, Police) and Ambulance Dispatch Officers 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 10 saved lives through the collaborative efforts of our teams.



Innovation

Remote Patient Monitoring



One of the key technological tools used by our Community Paramedicine (CP) program to support our clients is the Remote Patient Monitoring (RPM). This tool allows the client to take and report electronically their vitals back to the CP program and potentially their primary care physician.

The vitals and measurables are:

- Pulse
- Blood pressure
- Glucometry
- Pulse oximetry
- Weight scale

In the future there is plant to introduce a fall detection system.

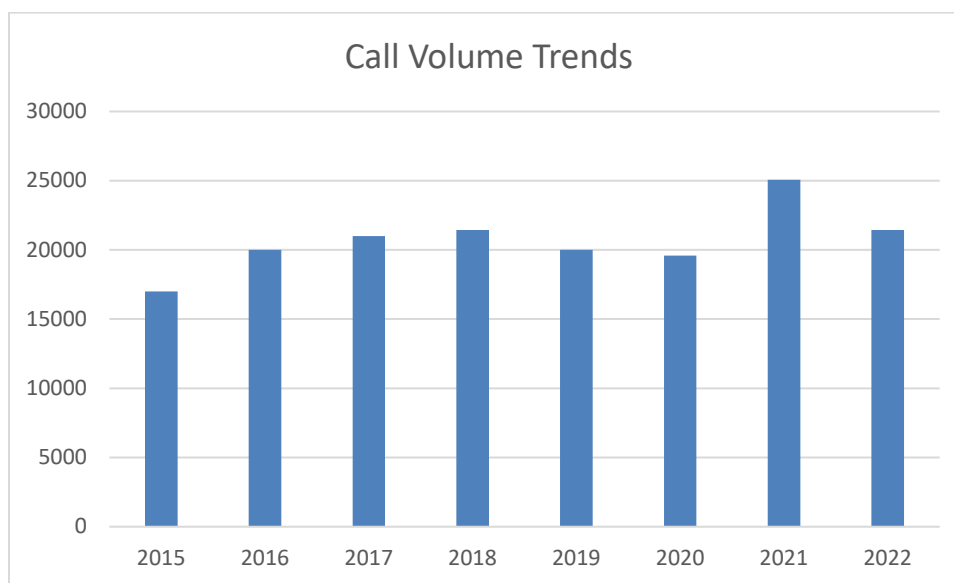
Call Volumes

Each of the County's 6 Paramedic Stations is located in a high-density cluster of serious calls meaning that the stations are very well located strategically to respond to emergencies. When developing ambulance deployment models, this is the data that is used as these are the time-sensitive patient calls. The number of emergency calls with transport to hospital is increasing year to year.



The Paramedic department's total call responses which include;

- Emergency responses and transport
- Emergency "First Responses"
- moving vehicles to balance emergency coverage around the county
- emergency responses where there is a refusal of service
- ambulance is cancelled by the Central Ambulance Communication Centre enroute

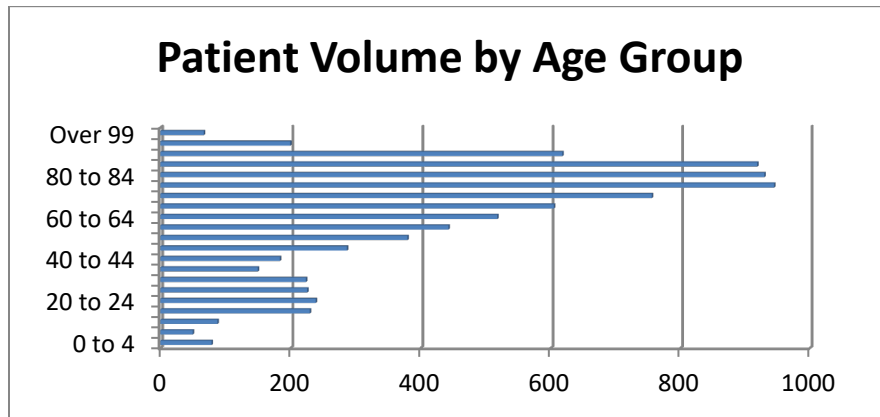


Over the past 5 years, the number paramedic responses have been consistently around 20,000 however since the Covid 19 Pandemic in 2021 we reached 25,010 and thus far in 2022 the current call volume is 22,140 and increasing before the end of year. The trend of growth in true emergencies is expected to continue due to longer life-spans 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.

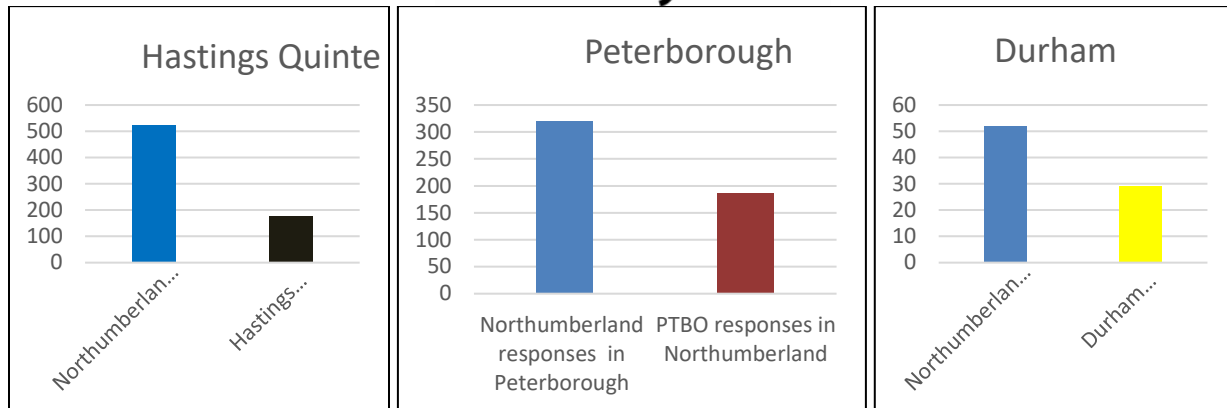


Cross-Border Service

Ambulance service delivery in Ontario is seamless meaning the closest available ambulance is dispatched to respond to emergencies regardless of its geographical location at that time.

The charts below outline the number of calls that Northumberland Paramedics complete in other municipalities, outside Northumberland County. This measure is important as it identifies the number of times that Northumberland Paramedics ambulances are responding to emergencies outside Northumberland County.

Hastings County	Northumberland Paramedics responded to 525 calls in Hastings, and Hastings responded to 178 calls in Northumberland County. (Figure 3)
Durham	Northumberland Paramedics responded to 52 calls in Durham, and Durham responded to 28 calls in Northumberland County. (Figure 4)
Peterborough County	Northumberland Paramedics responded to 320 calls in Peterborough County, and Peterborough responded to 180 calls in Northumberland County. (Figure 5)



The reasons can be attributed to two primary factors:

- Overall increasing call volumes in the Province
- Increasing volumes of patients being transported out of Northumberland County to Centres of excellence for specialised care. Examples of transports for tertiary care may include: orthopaedic services, obstetrical services, mental health services, long-term acute intensive care requirements, and patients needing other highly specialised care.

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))

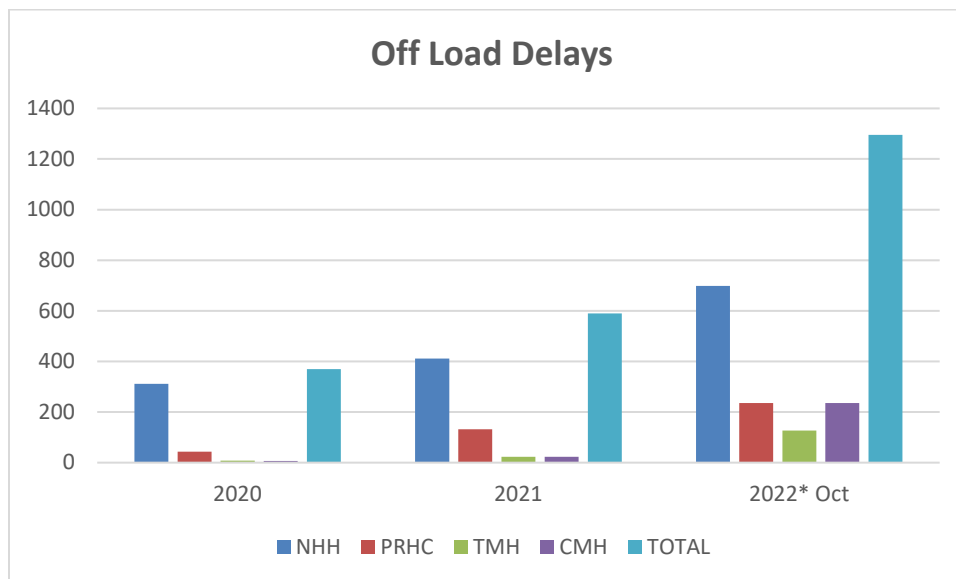
***These bypasses are strictly governed and monitored through both local and provincial Quality Assurance metrics. Any variance that would cause a patient's presentation or symptoms to fall outside the bypass protocol would mean a transport to the closest facility.*

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



Off Load Delays at Hospitals

Off-load delays at hospitals have increased in both frequency and duration over the past 2-3 years. This causes an increase time per call and limits the resources and distance in the County available to respond to the next emergency call. These factors also have a negative impact on meeting the CTAS Response Time Standards. The four main hospitals that Northumberland Paramedics transport to daily are: Northumberland Hills Hospital (NHH), Campbellford Memorial Hospital (CMH), Peterborough Regional Health Center (PRHC), and Trenton Memorial Hospital (TMH).



Through the first half of 2022, Northumberland Paramedics had already surpassed the total off-load delay time for all of 2021. The four (4) main hospitals we transport to are: Northumberland Hills (NHH), Campbellford Memorial Hospital (CMH), Peterborough Regional Health Center (PRHC), and Trenton Memorial Hospital (TMH). The common pre-hospital measure of an off-load delay begins to count after 30 minutes on arrival at the hospital. The 30-minute delay has been understood as a “normal” time to arrive at hospital, register the patient with triage, be provided direction to a stretcher/room at the hospital, transfer patient over and give a report to nurse/physician, clean stretcher, and equipment, return to state of readiness, and begin the required documentation – Ambulance Call Report (ACR). Currently, Paramedics are experiencing off load times beyond this “accepted” 30 minutes. The paramedics and the ambulance dispatchers communicate in real time



the Transfer of Care (TOC). The TOC is the time at which the patient is received by the hospital and is now in their care. In 2020 the total off load delay at NHH, CMH, PRHC, and TMH was 370 hours, in 2021 it was 590 hours, and thus far in 2022 we have accumulated 1,274 hours of off-load delays. As a reminder, this off load time is only accumulated after 30 min arrival at the hospital.

The increased call volume combined both within Northumberland County and neighbouring Counties, and the off-load delays create challenges in obtaining and maintaining our response time standards. The Ministry of Health under Regulation 257/00 Part VIII of the Ambulance Act sets out key performance indicators (KPI's) that all Paramedic services must set, monitor, evaluate and report to the MOH and the public for transparency. One of the KPI's is the response time performance plan.

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 Times

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 Paramedic Service
CTAS 1	8 minutes to Paramedic Arrival	Determined by Paramedic Service
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 those targets are presented in the following table:

Northumberland Paramedics 2021 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	6 minutes to defibrillator arrival	45%	42.35%
CTAS 1	8 minutes to Paramedic Arrival	55%	53.23%
CTAS 2	10 minutes to Paramedic Arrival	65%	66.82%
CTAS 3	10 minutes to Paramedic Arrival	65%	66.31%
CTAS 4	10 minutes to Paramedic Arrival	65%	68.93%
CTAS 5	10 minutes to Paramedic Arrival	65%	64.52%

Northumberland Paramedics Council Approved Response Time Commitment for 2023

Patient Priority based on CTAS	Time Target	% of Time on Target
Sudden Cardiac Arrest	6 minutes to defibrillator arrival	40%
CTAS 1	8 minutes to Paramedic Arrival	55%
CTAS 2	10 minutes to Paramedic Arrival	65%
CTAS 3	10 minutes to Paramedic Arrival	65%
CTAS 4	15 minutes to Paramedic Arrival	65%
CTAS 5	20 minutes to Paramedic Arrival	65%



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 25,000 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 – cost of approximately \$20,000
- 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



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, Alnwick-Haldimand in 2018, and Trent Hills in 2020. The next base scheduled to be replaced is Brighton and we are planning for a similar collaboration with the Brighton.

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.

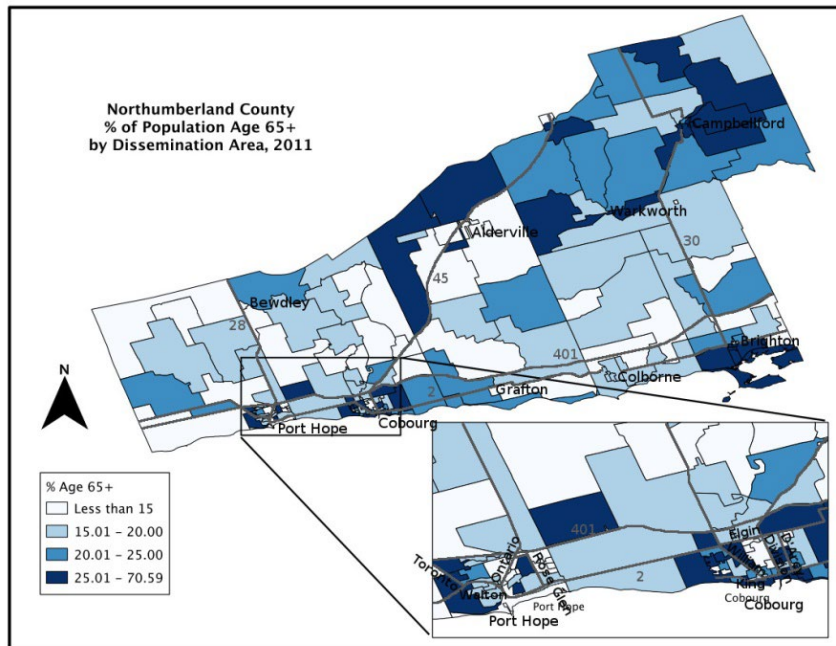
Northumberland Paramedics continues to partner with both Northumberland Hills Hospital and Campbellford Hospital and our three police services: Cobourg Police, Port Hope Police, and OPP regarding community safety initiatives.

One of the newest partnerships has been with our healthcare partners through the OHT-N. This partnership helped establish our initial Community Paramedicine program serving as one of the first initial projects. This partnership and familiarity with our health and social service partners was instrumental in our collaboration and success during the Pandemic.

Environmental Scan

Population & Demographics

The population of Northumberland County is 90,701. The 2019 Growth Management Strategy report completed for Northumberland County stated by 2051, the County's total population base is forecast to grow to approximately 122,000. This represents an increase of approximately 34,400 persons between 2016 and 2051, or an average annual population growth rate of 1.0% during this period.



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 82 % of the \$18.4 M 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