



2021 Business Plan & Budget

Paramedic Department

Prior Year Accomplishments

Economic Prosperity & Innovation

Paramedics continue to support *Economic Innovation & Prosperity* by providing best practices, clinically evidenced high quality service, and strengthening the County's overall corporate brand.

Sustainable Growth

Paramedic Stations

The department long term plan for station replacement is on schedule. Cramahe Emergency Services Base was completed in 2017. Alnwick-Haldimand Shared Base was completed in December 2018 with a Grand Opening in the spring of 2019 and Trent Hills Emergency Base was completed in July 2020. That leaves Brighton remaining and preliminary discussions have not yet begun although a replacement station is in the municipality's strategic plan. Locations, research/planning as well as the current ministry funding model will need to be discussed before this shared facility can be realized. We strongly believe that these collaborative projects are examples of the County and member municipalities working together to create efficiencies and improve service delivery to our communities.

Ambulance Replacements

As part of the County's capital planning, ambulances and Emergency Response Vehicles (ERVs) are replaced on a regular cycle. This cycle ensures that the County continues to efficiently and cost effectively, operate paramedic services. In addition to replacement, in order to maintain operational readiness in its 24/7 operation, the County ensures that there is one ambulance available for every shift as well as ERVs that are deployment ready to service the community as needed. The following were under-taken in 2019/2020 to address the Paramedic Department's capital needs: **Ambulance (3) – ERV (1)**



Emergency Generator – Port Hope Base

Northumberland Paramedics is committed to providing the best possible level of service to the community. The purchase and installation of a back-up power generator for the Port Hope Paramedic Station is an opportunity to maintain service levels and emergency paramedic response times in the event of a power outage and increased service demands. During periods of prolonged power outages, the facility would be not able to be occupied and used as an emergency response station. The installation occurred in spring 2020 and has brought the facility up to the same standard in regard to back-up power as we have at the other 5 paramedic stations.

Scissor Lift – 600 William Street

Paramedics

The department requires significant storage space to maintain an inventory of equipment and supplies. 600 William Street is home to the Cobourg Paramedics Base. It also serves as the department's central storage depot (serving five other Paramedic bases throughout the County).

Some of the equipment kept at 600 William is bulky and/or heavy. Supplies that are regularly delivered include pallets of linens and boxes of uniforms. These items, along with medical equipment, must be stored and easily accessed for use by the Paramedics.

Since the scissor lift purchase in Q1 2020, it has been utilized 15 times. We estimate that in year one, the lift will have mostly paid for itself and in coming years will represent a savings to the County.

Ambulance Service Review

In 2021, MOHLTC will conduct 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. Over three days, the Team will audit all aspects of legislative requirements in service delivery. This includes 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.



Thriving & Inclusive Communities

Pursuit of 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.

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
- Continued utilization of high-fidelity patient simulation in lab and now available in the field.
- Focused training in “Crisis Intervention and de-escalation”
- 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.



Paramedic Week Celebrations

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.

This year's national theme is "**Pandemic – Paramedics on the Front Line.**" The theme for Paramedic Services Week 2020 demonstrates the important role that paramedics play on the front lines of the healthcare system during a pandemic. During a global pandemic health emergency, paramedics play an integral role on the front lines of healthcare. Paramedics are often an early point of contact in the public arena. If not called upon to respond to you in need when you call, they are "running toward" the risks associated with a pandemic response when they arrive. The Paramedic Chiefs of Canada endeavors to highlight the contributions of important roles played by paramedic professionals during a pandemic outbreak. These proud professionals are well positioned in their mobile role to make significant contributions to working toward protecting the health and well-being of our citizens they serve.

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.

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 17 saved lives through the collaborative efforts of our teams. Unfortunately, the 2020 Survivor Night had to be cancelled due to the COVID 19 pandemic however the department is planning to send a certificate and story to all community first responders and bystanders involved in the successful resuscitation of a cardiac arrest.

Exemplary Service Medal

The Exemplary Service Medal, created on July 7, 1994, recognizes paramedic professionals in the provision of pre-hospital emergency care whom 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. Two paramedics will be receiving their 20-year medal and the other paramedic will receive his 30-year bar. The presentations scheduled to take place during the 2020 September Ontario Association of Paramedic Chiefs (OAPC) Conference have been cancelled due to the COVID pandemic.

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 want to take a more proactive role in public safety and awareness. Our first initiative will be to work 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.

Leadership in Change

Ontario Health Team Northumberland (OHTN)

The end of 2019 brought with it the successful application for an Ontario Health Team-Northumberland. 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 a year one priority which contributed to our successful application for base funding.

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. Northumberland Paramedics submitted a strong proposal to Minister Elliott at the 2020 ROMA Conference. The proposal aimed to reduce non-emergency visits to hospital, reduce re-admission rates to hospital, increase efficiency and availability of emergency ambulances and facilitate improved access between patients and primary health care providers. The proposal which included an efficacy paper highlighted several patient cohorts that would benefit in our community including Frail Elderly, Palliative Care, Mental Health and Addictions and Homelessness. The proposal was successful with base funding of \$348,000.00 annually.

2020 has seen this very important and valuable service come to fruition. 12 paramedics have been chosen to receive very specified training needed for this type of outreach. These 12 paramedics will rotate through two community paramedic vehicles, one in the rural County and one in the south. Some of this work has already begun as a result of partnerships with Trent Hills Family Health, Haliburton/Kawartha/Pine Ridge Health Unit and Northumberland Hills Hospital (COVID swabbing centres) and Northumberland Mental Health (Blood draws).

Psychological stress injury - Supporting our front line

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 to the Minister’s Office.

All staff received Road to Mental readiness (R2MR) training and is now a standard part of recruitment. This initiative is a full day course teaching staff about PTSD including 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.

In 2019/2020 the framework was developed and implemented for our own “Peer Support Team” for Northumberland Paramedics. This involved eliciting the services of professionals to interview and select suitable paramedic peers that were interested in becoming peer support contacts. Once the team was selected, specialized training was provided. The staff chose “Tema Solutions” as their resource. There were 31 nominations which is “very high and to be commended” quoted Tema. This support is not limited to paramedic staff but will be available to all county staff should they wish to call on it. Also, in 2020 the “Peer Support App” was developed and purchased by the department. This App allows easy access for staff to connect with an available peer support person when the need arises.

Paramedic Team Leader (PTL)

These positions were solidified in 2019 and continue to be successful in 2020, entailed training a group of full-time primary or advanced care paramedics in the basic duties of a Superintendent and then deploy a PTL to cover for a short-notice absence from the superintendent team i.e. sick. There are a few positive outcomes in engaging in this program. The first and most obvious is the continuance of a paramedic leader who can respond to the needs of crews in emergencies, health and safety, emergent equipment replenishment, liaise with allied agencies and short-notice sick call scheduling. An additional benefit is the opportunity for the front-line staff to experience and learn the skills and aptitude for a municipal management position. Currently there is a gap in this area and no opportunity to learn these skills until an individual is hired into the position. Additionally, there are no succession opportunities for our internal staff. The trial was a great success operationally and fostered employee growth and engagement.

Paramedic FT Float positions

Historically, when a full-time employee requests, or requires time off they are back filled by a part time paramedic. The reasons for time off can vary such as; vacation, STAT time, banked time, training, sick, WSIB, Leave of Absences (LOA's) maternity, educational leaves etc... Therefore, ensuring 24/7 coverage given the various time off can present serious challenges and staff scheduling hours.

Paramedic Enhancement – Port Hope

County Council approved a 12 hour/7 day a week enhancement to the Port Hope station. This meant increasing our full-time staff compliment by 4 positions beginning in Q3. The bulk of



paramedic responses occur between 8 am and 8 pm so to include an overlap, the shift begins at 0930 and ends at 2130 hrs. An enhancement of one 12 hr. ambulance (four FT staff) strategically placed in Port Hope has already proven efficacy in keeping our deployment within capacity and regulatory response time performance on target.

Call Data Analytics

Northumberland County Paramedic Service has reduced risk and reallocated time and resources to an electronic Patient Care Reporting (ePCR) system which will more closely resemble the paramedic practice in Northumberland County. 2020 is the first full year the paramedic department call data has been hosted with Interdev solutions. This product has a very robust back-end for quality assurance and monitoring, workflow for critiques or questions to the paramedic and back, built-in forms with automatic distribution to the MOHLTC Field Office when indicated, real-time dashboard with data analytics and real-time data (Cad Link) drop directly to the paramedic patient record.

The County will benefit from heightened transparency regarding Paramedic department performance, timely reports of response times by municipality, expedient access to queries on Paramedic call data, mitigation of privacy exposure, minimization of clinical protocol variances, and a significant reduction in labour associated with ePCRs.

Northumberland County Paramedic Service should rely heavily on its electronic Patient Care Reporting System (ePCR) in order to:

- Reduce time spent auditing patient care reports
- Have a real time dashboard of key performance indicators and statistical data drawing from patient reports and Ministry Ambulance Dispatch Reporting System (ADRS)
- Manage risk associated with non-compliance of clinical protocol
- Deliver legislated response time reports to the MOHLTC
- Generate reports on system performance for planning exercises
- Handle the digital screening and transmitting of Incident reports to the MOHLTC Field Office as per the Documentation Standard
- eliminate privacy issues associated with handling patient data

Primary Care Paramedic Autonomous Intravenous Access (PCPAIV)

Northumberland Paramedics is committed to providing the best possible level of service to the community through innovation and Organizational excellence. The implementation of a Primary Care Paramedic – Autonomous IV (PCP-AIV) program continued in 2020 and was an opportunity to increase the knowledge and skills of 12 additional primary care paramedics that can now



provide a higher level of care to the community and as well as visitors of Northumberland County.

The PCP-AIV certification allows Primary Care Paramedics (PCP) to initiate Intravenous (IV) access and administer a wider range of medications. This will both reduce suffering and decrease wait-time to medication which would otherwise be given in the Emergency Department. The PCP-AIV certification does not reach the level of Advanced Care Paramedic (ACP). Therefore, the educational and training costs are quite manageable consisting of only 2 days in class and 2 days in the clinical setting.

Northumberland has a large pool of dedicated primary care paramedics who are now AIV certified. To date we have trained 26 primary care paramedics in intravenous cannulation.

2021 Service Objectives & Initiatives

Economic Prosperity & Innovation

The objectives for the Paramedic department continue to focus on service delivery. Through call data analysis, quality improvement audits and patient feedback we can measure many aspects of service delivery. From this, benchmarks are set creating Key Performance Indicators that serve to enhance excellence in service delivery. The quality of the service delivered is central to the brand that Paramedics continue to refine.

These Quality Improvement initiatives help to meet what it is that the public expects from its paramedic service. In setting the departmental goals and objectives to meet public expectations, Paramedics will be poised to support *Economic Prosperity and Innovation* by developing a sustainable program that will ensure that people and businesses are confident with the pre-hospital care offered in Northumberland County.

Sustainable Growth

Emergency Services Base – Brighton

The Brighton ambulance station is strategically located to service the Municipality of Brighton and secondary coverage to Cramahe and Trent Hills. With the County's aging demographic and global call volumes increasing each year, the demand on our resources will continue to increase. In order to address the increasing call volumes and mitigate the inherent challenges

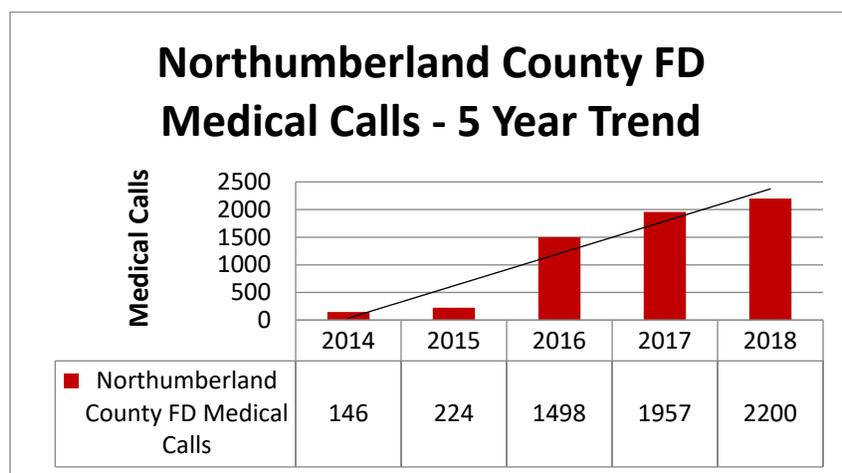


of rural response times, we need to plan for an infrastructure capable of delivering the level of service we expect in Northumberland County. The primary coverage radius of the Brighton station includes the town and Municipality of Brighton, eastern Municipality Cramahe and the southern Municipality of Trent Hills. The Station’s proximity provides emergency coverage to a large section of highway 401. The current station is shared with the Fire Department but is no longer suitable and does not meet regulatory compliance. Additionally, there is only room for one ambulance inside leaving the second outdoors. Preliminary discussions with the Municipality of Brighton for a new shared facility should begin in 2021 with a projected partnership in 2022.

Current Targets and Future Trends

Northumberland Paramedics service delivery is outlined in the department’s ambulance service deployment plan. This plan is a living document and is reviewed semi-annually for efficiencies. Using resources to their maximum capacity has been necessary in the face of year over year increasing call volumes. This trend is anticipated to continue and is a result of several factors. The most significant factor remains the overall increase in age of the population.

Using resources to capacity and many times beyond has resulted in daily occurrences of Critical Minimum Emergency Coverage (CMEC). The county is in and out of CMEC daily and often at levels of CMEC 1 or CMEC 2 meaning 1 or 2 ambulances remaining for the entire county. When at CMEC 0, an overtime call-out is initiated which strains our operating budget. The departments 12-hour enhancement in Port Hope began at the start of Q3 and has had a significant positive impact thus far.



This increased capacity has a direct effect on the municipal Fire Departments. Since 2014 the number of medical calls being dispatched to the County’s Fire Departments has increased



dramatically. This chart illustrates the number of medical calls dispatched to our municipal fire departments since 2014.

Aside from our aging population, additional factors contributing to capacity are increased bypass transports out of the county for tertiary care (Stroke and Cardiac Cath lab), Hospital surge capacity causing off-load delays and an increase in traffic volume through the 401 corridor.

Ambulance Replacements - 2021

As part of the County's capital planning, ambulances and Emergency Response Vehicles (ERVs) are replaced on a regular cycle. This cycle ensures that the County continues to efficiently and cost effectively, operate paramedic services. In addition to replacement, in order to maintain operational readiness in its 24/7 operation, the County ensures that there is one ambulance available for every shift as well as ERVs that are deployment ready to service the community as needed. The following were under-taken in 2020/2021 to address the Paramedic Department's capital needs: **Ambulances (3)**

Data Analytics – Situational Awareness Dashboard and CAD Link

Interdev is the contracted technology vendor of the Paramedic Department for the provision of electronic patient care report (ePCR) software, data analytics and other related applications. The electronic patient care report (called iMEDIC) is highly integrated, with the ability to bring data from multiple sources into the patient record automatically. One vital point of integration is Interdev's computer aided dispatch (CAD), vehicle data and mapping integration tool, which is called CADLink.

CADLink has the unique ability to receive ambulance call information from the Central Ambulance Communication Centre (CACC) and immediately notify the paramedic crew while plotting the fastest route to the emergency. CADLink brings the dispatch data into the ePCR along with the Automatic Vehicle Locating (AVL), GPS and mapping data which provides all the data needed to review an event within a single ePCR. The system supports secure two-way communications and updates the server continuously while on a call. The updates to the server include latitude, longitude, speed, and direction, current call state, all paramedic entered times, and optionally the state of the vehicle (lights/siren). All the data and information can also be made available in the form of a dashboard utilizing Real Time Data (RDT) to assist in the management of the service in the moment.

While this valuable tool was developed some time ago, the data needed to utilize it was unfortunately not made available to the service. The MOHLTC recently announced that data from the Central Ambulance Communications Centre (CACC) will become available to all



paramedic services in 2020. This is an exciting opportunity for all Paramedic Services to be able to utilize this valuable data, and with the existing partnership with Interdev we can move forward seamlessly.

- Issue paper attached

Thriving & Inclusive Communities

Public Safety Messaging

The Paramedic department will continue to strive for partnerships in the community. We want to take a more proactive role in public safety and awareness. Our efforts thus far have fostered excellent relationships with local police/OPP, Fire Departments local Hospitals/health units which supports our effort 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.

Survivor Night

2021 will see our seventh annual Survivor Night. This is a much anticipated and appreciated event that brings together cardiac arrest survivors and the paramedics and community responders who were directly involved in saving them. Cardiac arrests make up approximately 1% of the overall total call volume at Northumberland Paramedics. Of those cardiac arrests that are clinically viable to resuscitation, our save rate is 18%, almost twice the national average. With increased community awareness and training in by-stander CPR and the increased placement of Automated External Defibrillators (AEDs), the elapsed time between a cardiac arrest and an AED at the victim's side is narrowing, meaning those averages will continue to improve. This event also fosters continued excellent working relationships with our emergency partners in the community.

Paramedic Week Celebrations

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. We will celebrate Paramedic Week 2021 with our annual open house and BBQ and concluded with our staff appreciation awards. One such award is the "Community Award" which is given out to those members of the community who



get involved in a life-saving intervention prior to paramedic arrival i.e.: CPR, intervening in a choking emergency, applying an AED to a person in cardiac arrest, etc. This is well received by the community and is a great opportunity to meet with them, share what we do and express our gratitude for their assistance in an emergency.

Exemplary Service Medal

In 2021 the County will once again participate in the recognition of those paramedics recommended for the prestigious award. The Emergency Medical Services Exemplary Service Medal, created on July 7, 1994, recognizes professionals in the provision of pre-hospital emergency care whom have had at least 20 years of exemplary service, ten of which were in a position of risk. The process for recommendation to the Governor General's office is quite lengthy and begins in January of each year. The initial phase is the collection of supporting data (BIO, dates and places of employment, community service, volunteer work, etc.) from the department's Awards Committee. From there the application is reviewed by the director and barring any reason to refute, is passed on the Ontario Association of Paramedic Chief's (OAPC) board for review. On the completion of that process, the application is sent on to the Governor General's Office. Recipients are typically notified in June/July and medals are awarded in the fall.

Leadership in Change

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 Teams, Hospice and other stakeholders got together to complete the phases of the application process. We were successful in creating OHT 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). The Paramedic Department was successful in obtain base funding from the Ministry of Health in 2020 for 2 FTEs, 50 patient Remote Monitoring cohort and 0.5 FTE for Admin. The base funding amount is 350,000.00 annually. Community Paramedicine resides in the Paramedic Department and the 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, Bridge Hospice, etc.
2. Mobile wellness clinics servicing citizens who otherwise cannot access care due to social-economical, geographical or other reasons.
3. Remote Patient Monitoring – Patients with multiple comorbidities and have little to no support or are challenged with access to care.

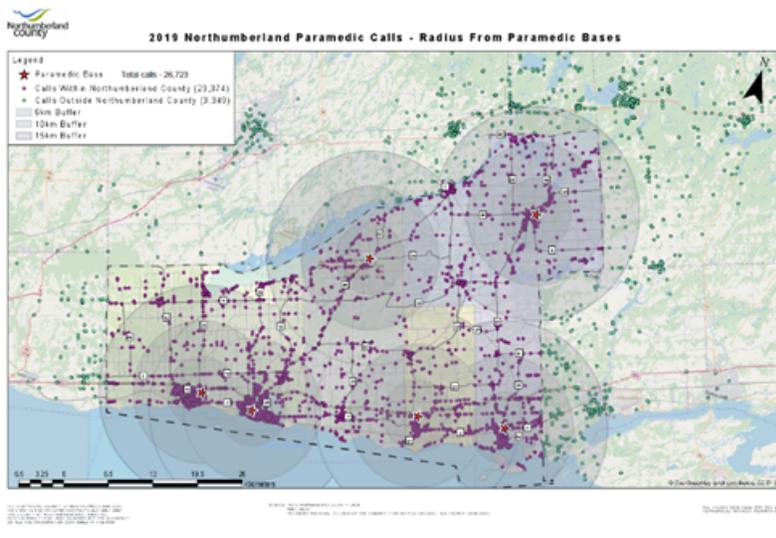
Long Term Plan & Strategic Objectives

Economic Prosperity & Innovation

We will continue to improve the public image of the paramedic department as part of the broader health-care framework in our communities and as such, will support Economic prosperity by making Northumberland County a more attractive place to live and work. The department is undertaking measures to increase our visibility outside of reacting to emergencies. The department is committed to a larger proactive presence in the community through public safety messaging, support/access to resuscitation education and improved digital information i.e. County website.

Sustainable Growth

Call Volumes

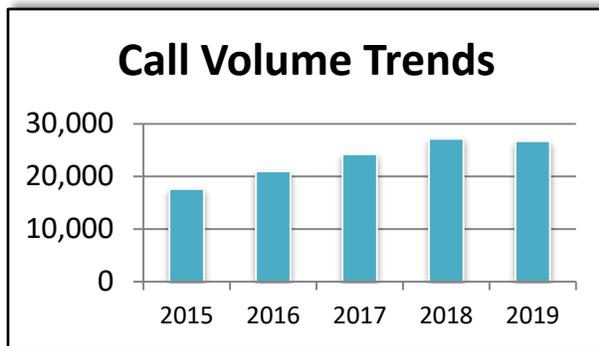


The following map indicates calls in Northumberland in 2019. This data assists the department to optimize base locations compared to call volumes and assess the need for enhancement. Statistically, call volumes are rising between 6 and 7 percent each year although the department did experience a large jump from 2016 [20,989 responses] to 2017 [24,240 responses], an increase of 15.49%. 2018 saw a similar rate of increase.

Northumberland Paramedics is monitoring these trends along with station locations and vehicle deployment plans. Strategies to address capacity in 2020 were three-fold. 1. Initiation of the Community Paramedic program



(this will reduce low acuity call to 911) 2. 12-hour ambulance enhancement in Port Hope Q3 (addresses core capacity and positively impacts rural deployment, 3. Emergency Response Vehicle deployment in Rural Northumberland.



Year over year the department is increasing quite significantly, 47% in fact since 2015. Our deployment was at and beyond capacity at times in 2019 which was taking a toll on resources and regulatory compliance. This generated the need for a 12-hour enhancement which was deployed in Port Hope in Q3 of 2020. With our aging demographic, declining health and 401 corridor volumes we need to look at other solutions for long-term sustainability. As mentioned previously, one very viable strategy is the implementation of our community paramedicine program. Treating and/or referring patients before they need to utilize 911 have proven very successful in programs across Ontario with as much as a 30% reduction. This equates to less hospital ED surge, less off-load delay and more available ambulance resources when needed.

Station Replacement Schedule

2018-2020 saw the completion of both Roseneath and Campbellford stations in a shared emergency services facility with the respective municipal fire departments. This leaves the Brighton facility as the only remaining station within the County due to be replaced. The department anticipates a similar collaboration with Brighton and will look to begin discussions with that member municipality in 2021 in hopes to solidify a plan for 2022 assuming the current funding model remains unchanged.

Power-load Stretcher overhaul – 2022

In 2018 the ambulance fleet was outfitted with the Stryker Power Stretcher and Load system. This system effectively eliminated a minimum 8 lifts per call, greatly reducing the physical demand to the paramedic and the potential for lost time due to acute and repeated strain



injuries. In addition, to reducing lifts and therefore lost time due to injury, a power load stretcher system also:

- Increased patient and paramedic safety
- Increased patient comfort/stability at transport height
- Increased the weight capacity and therefore eliminate the need for extra bariatric equipment/stretchers
- Reduced the need for lift assist and therefore increase available ambulances when caring for bariatric patients
- Reduced tiered response lift assist and therefore reduce cost to member municipalities

Stryker's recommended life cycle for this system is seven years. Through consultation with the manufacturer, it was agreed that ten years was easily achievable if an overhaul was performed at the five-year point. Ten-year life span is in our long term financial plan as the first five years is dedicated to repaying the debenture and the next five for allocating budget dollars for replacement in 2028 budget cycle.

Thriving & Inclusive Communities

The Paramedic Department will continue to foster excellent relationships with both our Community Healthcare and First Responder partners. Various mechanisms to achieve this are:

- Joint advisory committees
- Ontario Health Team Northumberland
 - o Family Health Teams, Primary Care, Mental Health, Hospice, Social Service, GAIN, etc.
- Tiered response alliance
- Hospital advisory committees
- Field collaboration with community care

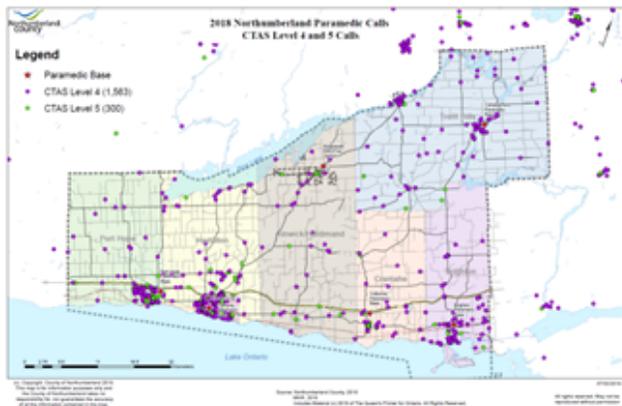
Leadership in Change

Community Paramedicine Northumberland

Although community paramedicine is referenced throughout this document, it is important to leave in the strategic objectives. With our successful application for Ministry funding in early 2020, we are now poised to implement and appreciate these benefits in our own communities. Community Paramedic Programs have been evolving across Ontario over the last decade. Initially implemented in large urban centers such as Toronto, the focus was primarily on targeting those patients that are repeatedly visiting the ER due to gaps in community care or access to that care because of geographic or socioeconomic barriers. These programs and specifically Toronto, found a decrease in repeat ER visits from this demographic by 80%. A

direct impact to decreasing congestion in the ER is ambulance off-load times and therefore vehicle deployment. More importantly, are there gaps in community care that are appropriate to be addressed by the paramedic department without duplicated existing services.

Besides connecting frequent emergency system users with appropriate primary care services, an effective Community Paramedic Program will focus on fall and injury prevention (through home-safety inspections), expanded resources for mental health and substance abuse clients, and improved disease management for patients with diabetes, congestive heart failure, and chronic respiratory conditions therefore improving health outcomes among those considered medically most vulnerable. In addition, save healthcare dollars by preventing unnecessary ambulance transports, emergency room visits and inpatient hospitalizations.



The above map depicts the nearly 2,000 emergency responses that were actually non-urgent, low acuity calls. These patients would benefit more from community care referrals, community paramedics or treat and release strategies rather than a trip to the emergency department.

A key theme in a community paramedicine program is overcoming geographic and transportation challenges through outreach and home visits to meet the needs of residents who are facing these barriers due to socioeconomic circumstances or in county locations where primary care providers and public transportation resources are scarce.

The program's success will be contributed to the strong web of local connections with social services, local LHIN, hospitals, primary care providers, elder services, family healthcare teams, mental health providers, substance abuse specialists, pharmacists, dietitians, and Social Services.

The program will function in three capacities:

1. Referrals from community partners such as Family Health, Mental Health, Social Services, Bridge Hospice - Palliative Care, etc.



2. Remote Patient Monitoring (vital signs monitored remotely, and alerts sent to CP and shared with caregivers)
3. Mobile wellness clinics servicing citizens who otherwise cannot access care due to social-economical, geographical or other reasons.

A Community Paramedicine program working in parallel with the traditional Land Ambulance system can reduce the non-urgent 911 calls by as much as 30% (statistics provided from a similar municipality utilizing community paramedic) leaving those ambulance resources available for actual emergencies