

Paramedic Services

**2023–2026 Business Plan
and 2023 Budget**

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Executive Summary

Mission: Continually strive to provide people in Peel with unsurpassed paramedic services by always seeking to improve the quality of patient-centred, pre-hospital and community care while enhancing safety, efficiency and responsiveness.

Services we provide:

- Quality pre-hospital care, emergency health services and community care within the Region of Peel, including specialized rapid response and tactical teams.
- Innovative community paramedicine programming aimed at preventing the need for emergency care and filling system gaps for vulnerable populations.

With continued focus on innovative care models, staff health and wellbeing, and critical capital investments, Paramedic Services will continue to provide high quality care to residents and visitors to the Region of Peel.

Interesting facts about this service:

- Peel is amongst Canada’s busiest Paramedic Services, serving the country’s largest airport, seven major highways, as well as urban cities and rural towns.
- A 72% cardiac arrest save rate achieved by Region of Peel Paramedic Services is among the best in North America.
- 140,000 calls were handled in 2021, part of an increasing trend in call volumes each year, which is expected to continue.

Highlights of the Business Plan include:

- Delivering on an expanded role during the COVID-19 pandemic and through recovery.
- Innovating in areas such as Community Paramedicine to improve people’s health, which also addresses system pressures such as keeping people out of hospital.
- Continuing to implement a multi-stage, comprehensive approach to employee health and psychological wellbeing.
- Keeping a focus on response time targets through dispatch reform, alternative models of service delivery and investments in ambulance fleet and staffing.

Net Investment (\$million)	2023	2024	2025	2026
Operating	\$76.3	\$80.3	\$87.1	\$92.9
Capital	\$55.8	\$29.3	\$15.6	\$10.7
Full Time Equivalents	706.1	741.1	797.1	843.1

Core Services

Vision, Mission, Goals of Service and Service Delivery Model

Vision

Provide people in Peel with expert, reliable pre-hospital medical and community care.

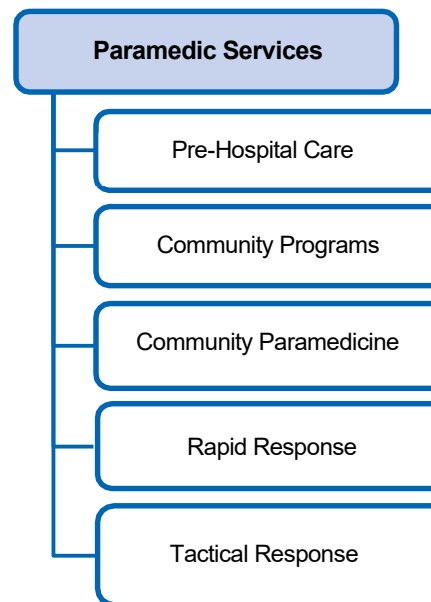
Mission

Continually strive to provide people in Peel with unsurpassed paramedic services by always seeking to improve the quality of patient-centred, pre-hospital and community care while enhancing safety, efficiency and responsiveness.

Goals of Service

1. Respond quickly to health emergencies and provide the highest quality of care.
2. Maintain strong relationships with health system partners to continually improve efficiency and evidenced-based patient care.
3. Contain costs with innovative and forward-thinking approaches.
4. Implement a comprehensive approach to employee health and psychological wellbeing that includes a culture of caring, inclusivity and 'zero tolerance' on violence toward staff.
5. Deliver unsurpassed paramedic services and measure continual progress with evidence and validation by patients, community partners and staff.

Service Delivery Model



Service Levels and Trends

Service Levels

Paramedic Services operates four reporting stations and 21 satellite stations. These stations cover Peel’s 1.45 million residents and those who visit the region. While emergency health services are available to all, 30% of patients who receive the service are over 65 years of age. The top five most common reasons for calls are due to: feeling unwell, trauma, abdominal pain, musculoskeletal issues and difficulty breathing. Furthermore, 66% of these calls require a ‘lights and sirens’ response.

Current funding formulas do not accurately account for the aging population and residential growth, which both lead to an increased demand for Paramedic Services. This mismatch between funding and demands on the service exacerbates pressures, leading to staffing challenges and slower response times. Figure 1, is a summary of relevant data that illustrate service level pressures and their effects on response times with comparison over time, 2018-2021.

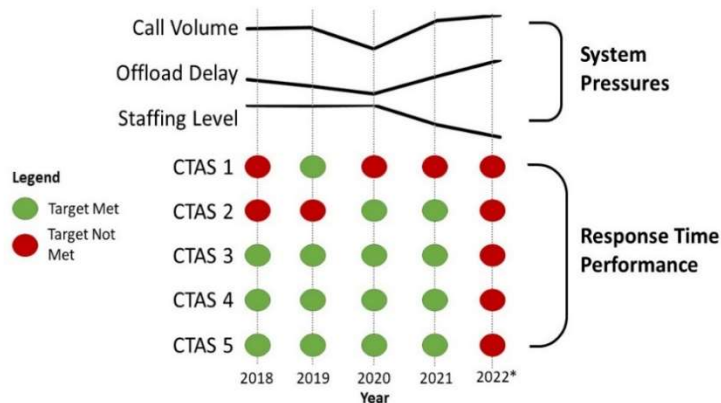


Figure 1. System Pressures and Response Time Performance

Paramedic Services’ performance is measured based on the achievement of target response times across five patient acuity levels as well as a response time target for Sudden Cardiac Arrest (SCA).

Response times are measured using the following parameters:

- The Canadian Triage Acuity Scale (CTAS) categorizes patient acuity into five categories. Response time is measured from when the paramedic is notified (assigned to the call) to when they arrive at the location of the patient (arrival on scene).
- Sudden Cardiac Arrest response time is measured from the time of notification of call to when a bystander, emergency responder or paramedic first applies a defibrillator to the patient.

Ambulance Call Volume

While the COVID-19 pandemic decreased call volume growth in 2020, call volumes rebounded in 2021, surpassing 2019 volumes. Factors such as population growth and population aging will continue to drive service demand in the Region. In 2020, COVID-19 lock-down measures and public hesitancy to seek emergency health care resulted in an 11% reduction in call volume. (See Table 1). However, 2021 call volumes recovered, increasing by almost 16% above 2020 volumes. When comparing the total number of calls received between January 1 and June 30, 2021 to the same period in 2022, there was an increase of 4.6%. Other key highlights of service levels include:

- Between January to July, Paramedic Services responded to a total average of 378.4 calls per day in 2021 and 395.7 calls per day in 2022.
- 147,689 total calls are projected by the end of 2022.

- Peel Paramedics continue to respond to over 95% of Peel's emergency calls while the remaining 5% of calls are responded to by neighbouring service providers to support coverage.
- In 2021, Peel Paramedics responded to 5,254 calls in neighboring municipalities to provide seamless service.

Table 1. Total Call Volumes from 2019 to 2022

Total 9-1-1 Calls			
2019	2020	2021	*2022
137,669	122,817	142,531	147,689

*Total calls projected by end of 2022

Offload delay

The industry standard time for paramedics to transfer patient care to hospital staff, complete paperwork and return to the road, ready to respond to new 9-1-1 calls, is 30 minutes. If this process exceeds 30 minutes, it is considered 'offload delay'. Paramedic Services has recognized a marked increase in offload delay time. Severe health sector human resourcing challenges and lack of beds to admit patients at area hospitals directly impacts the ability of hospital staff to move patients from paramedics to the care of the hospital. Paramedic Services continually works with hospital partners to improve these delays. From 2019 to 2021 the total paramedic hours lost to offload delay across all three hospital sites increased by approximately 14%, from 40,785 hours in 2019 to 46,364 hours in 2021.

Staffing

The global COVID-19 pandemic has resulted in staffing shortages in the health care sector, including Peel Paramedics. Between the months of June 2021 to May 2022, the average number of unfilled shifts increased from 7% to 17%, which is the equivalent of 18 ambulances off the road each day. There was also a reluctance by staff to accept overtime shifts during this time, attributed to fatigue, adding to the challenge of filling shifts. Paramedic Services is actively focusing on strategies to recruit, engage and retain this critical workforce.

The combined effect of these three pressures, call volume, offload delay and staffing levels, has significantly affected Paramedic Service's ability to meet response time targets.

Response Time

In 2020 and 2021, Peel Paramedics met response time targets for all acuity levels except for CTAS 1 calls. While the remaining response time targets were being met, response times increased by approximately one minute or more from 2020 to 2021. Between 2021 and 2022, response times across all acuity levels continued to increase. Paramedic Services have not been able to meet the Ministry of Health or Regional Council response times targets thus far in 2022 (See Table 2). Consequently, the lack of quality response times can affect the health outcomes for the residents of Peel.

Paramedic Services expects to see better response times for high acuity calls with the introduction of the Medical Priority Dispatch System (MPDS) within the Mississauga Central Ambulance Communication Centre (CACC). The new triage tool will ensure that the response is targeted to the needs of the caller and that patients get the right care at the right time. For example – a cardiac arrest will be responded to immediately where a fracture may have a delayed response.

Time on Task

Time on task is a measure of the total time a paramedic spends on a call, including time required to reach the patient up until they are discharged or care is transferred. The average time on task in 2021, was 153 minutes per call, while in 2022 (January-May), time on task increased to 161 minutes per call. Time on task is impacted by a number of factors including traffic congestion on-route, densification, the complexity of the patients served, and delays during care transitions.

Community Paramedicine (CP)

Paramedic Services has expanded its Community Paramedicine program aimed at reducing avoidable emergency department visits. This program serves individuals who make frequent 9-1-1 calls for emergency service, or who are at greater risk of needing emergency health services or long-term care. This program advances health equity by ensuring that seniors with complex needs, who often experience many barriers to healthcare, can access this low-barrier service to support their health needs. While Paramedic Services is sustaining the current CP program, the service is looking to secure sustainable funding and additional support from the Province to continue this important work.

Key system partnerships in this program include Home and Community Care Support Service Organizations (formerly Local Health Integration Networks), all three hospitals in Peel, and Peel Living, with funding from the Ministry of Long-Term Care and from Ontario Health Central Region. Critical internal partners have included: Long Term Care, Senior Services Development, Strategic Policy and Performance Division and the Paramedic Services Medical Director.

- Community Paramedicine at Home: A total of 801 patients have been enrolled between December 2020 and February 2022. Out of those 801 patients, 63% have received at least one visit by a paramedic.

- Community Paramedicine at Clinic: In 2022, between January 1st and August 15th, a total of 1,145 patients were supported by the Community Paramedicine at Clinic program.

Trends

There are a number of trends within emergency health services that are shifting how services are provided, encouraging innovation but also creating challenges for Paramedic Services.

Workforce and Service Pressures

The prolonged nature of the COVID-19 pandemic has significantly amplified service system pressures on Paramedic Services resulting in several challenges including increasing ambulance call volumes, rising hospital offload delays, high levels of staff absenteeism and challenging working conditions. Code events are another reflection of system-level pressures that result in fewer ambulances available to provide patient care. From January to August 2022, Peel Paramedics experienced 30 Code Black events (one or fewer ambulances available to answer calls in the entire Region of Peel). Over the same time period, Peel Paramedics experienced 923 Code Red events (five or fewer ambulances are available to answer calls in the entire Region of Peel).

To meet the existing service pressures, Peel Paramedics is actively focusing on strategies to recruit, engage, and retain this critical workforce. In addition, a multi-stage psychological health and safety strategy is being developed to protect, foster and sustain the workforce while also supporting staff health and wellbeing.



Health System Partnerships

Paramedic Services has pursued local health system partnerships and developed innovative service models that focus on prevention, such as partnering with Peel Region's Long Term Care division for the community paramedicine program.

Partnerships have also been critical in implementing practical solutions that address key pressure points in the healthcare system, such as transporting low-acuity patients to urgent care centres, partnering with hospital emergency departments to reduce off-load delays and creating new referral pathways for discharged hospital patients to access Peel's community paramedicine program.

Securing and Growing Assets

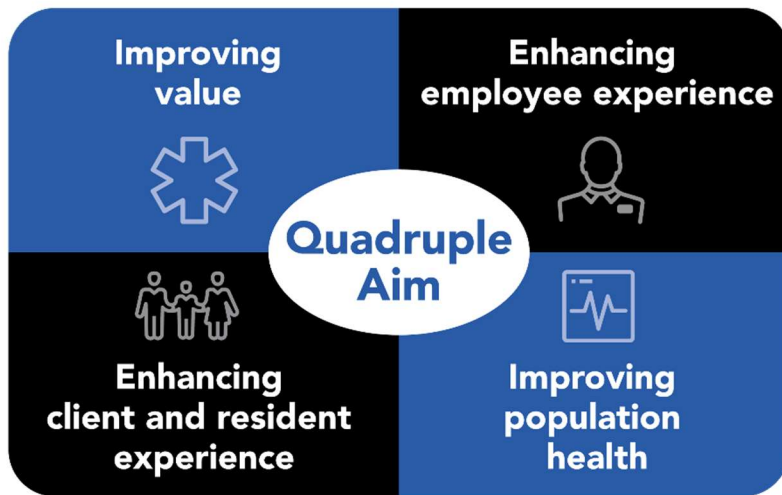
Paramedic Services has been responding to service demands by adding to the ambulance fleet, staffing complement and securing additional reporting and satellite sites in alignment with the Long-Term Facilities Plan.

Paramedic Services transformation is changing and expanding the way services are offered to patients to ensure appropriate care at the right time in the right place. The Ministry of Health (MOH) has introduced new models of care to support Paramedic Services Transformation. This includes options for treatment and transport of patients. For example, transporting patients to destinations other than the emergency department where they can receive appropriate treatment, treating patients on-scene and referring them to another health care provider, and treating and releasing patients on-scene and referring select low-acuity patients during the 911 call to appropriate care in the community.

Performance Measures and Results

The performance measures utilized within Paramedic Services are well aligned with the “Quadruple Aim” framework, adopted by Health Services (as shown in Figure 2). This framework focuses on improving value for money, enhancing resident and client experience, enhancing employee experience, and improving population health outcomes considering health equity.

Figure 2. Quadruple Aim



Improving Value

By examining costs associated with episodes of care, Paramedic Services can better assess and target opportunities for maximizing value. There are a number of metrics that illustrate key areas of opportunity for increasing value, examples include lost hours due to off-load delay and Community Referrals by EMS (CREMS).

Number of offload delay hours: The industry standard time for paramedics to transfer patient care to hospital staff, complete paperwork and return to the road, ready to respond to new 9-1-1 calls, is 30 minutes. If this process exceeds 30 minutes, it is considered ‘offload delay’.

From January to June 2022, there was a total of 26,274 offload delay hours which represents a 36.5% increase from the same time period in the previous year. Off-load delay represents an important indicator related to value that is critical to track and analyze to support continuous improvement initiatives.

Number of Community Referrals by Emergency Medical Services (CREMS): The number of referrals made to community-based support services when appropriate CREMS is intended to improve the response and support available to frequent users of Paramedic Services by referring them to community based support services when appropriate. In 2021, 671 referrals were made to the Home and Community Care Support Services and from January to August 2022, 633 referrals were made. Supporting patients in the community and providing them appropriate care outside of the emergency department further supports the value Paramedic Services provide to the residents in the Region of Peel and the broader health care system.

Enhancing Client and Resident Experience

Paramedic Services strives to provide unsurpassed pre-hospital care to patients by emphasizing efficient, timely and patient-centred care. The care patients receive from paramedics is critical to enhancing their experience with the service.

Response time reflects a key indicator of patient experience for those seeking emergency health services. Paramedics Services measures response times across five patient acuity levels and for sudden cardiac arrest (SCA). Response time targets are set by Regional Council, and by the Ministry for the most urgent life-threatening calls (See Table 2 for targets and response times).

Table 2. 2020, 2021 and January to June 2022 – Targets and Response Time

Level of Acuity	Target Time (Minutes: Seconds)	Target Percentile	Response Time (Minutes: Seconds)		
			2020	2021	2022
Sudden Cardiac Arrest* (Patient has no vital signs)	6	70%	5:59	5:51	**
CTAS 1 (Critically ill or have potential for rapid deterioration)	8	75%	8:32	8:41	9:21
CTAS 2 (Potential to life, limb or function, requiring rapid medical intervention, controlled acts)	10	80%	8:54	9:54	10:20
CTAS 3 (May progress to serious problem. Associated with significant discomfort or affecting ability to function)	13	90%	10:59	12:48	13:06
CTAS 4 (Conditions that would benefit from intervention or reassurance)	14	90%	11:36	12:36	14:12
CTAS 5 (Non-urgent, chronic, without evidence of deterioration)	14	90%	11:38	13:19	15:14

*2022 CTAS data is based on January 1 to June 30, 2022.

**2022 SCA (Sudden Cardiac Arrest) data is not yet available.

Enhancing Employee Experience

Employee wellbeing and a positive workplace culture are central to delivering high-quality care. Challenging workloads and cumulative exposure to stressful events during the pandemic have highlighted the importance of measuring the psychological health and wellbeing of employees. Paramedic Services monitors a number of key indicators that reflect paramedic well-being, including **per cent staffing levels** and **per cent absenteeism, overtime hours, and end-of-shift overruns hours**. In 2021 the average per cent staffing level was 93% (7% absenteeism) while in 2022, per cent staffing levels are lower at 89% (and increased absenteeism at 11%). To address these and other issues, a Health Services Culture and Wellbeing Advisory Group was formed in early 2022. It identified some immediate priorities: leadership development, raising awareness and engagement with wellbeing initiatives, and promoting diversity, equity and inclusion tools and resources.

Number of Workplace Safety and Insurance Board (WSIB) Claims:

Paramedic Services also measures staff absence due to injury (including over-exertion and exposures to harmful substances) and illness (including mental health) that have resulted in claims to the WSIB. There has been a total of 127 WSIB claims from January to July 2021 and a total of 117 WSIB claims from January to July 2022. Another important metric for measuring provider health and wellbeing is incidents of violence against paramedics. From January to June 2022, paramedics reported 249 incidents of violence. It is estimated that additional incidents may go unreported. Work is underway to reduce the stigma associated with reporting these incidents. Both WSIB claims and incidents of violence reflect the challenges faced every day by staff and reinforce the need to continue to measure and support employee health and wellbeing.

Improving Population Health

Diverting low acuity patients away from emergency departments and towards more appropriate care settings can have a significant impact on both patient and population health outcomes. This includes the number of patients transported to urgent care, rather than emergency departments. **The number of low acuity patients diverted from the emergency department and transported to urgent care:** between January and July 2022, was 152.

Diverting low-acuity patients can also be measured by the **percentage of patients transferred to emergency departments out of the total number of emergency calls made.** Between January and July 2022, 58% of patients were transferred to emergency departments while the remaining patients were treated in home.

Health Equity

Paramedic Services, in partnership with others in Health Services, is exploring avenues to incorporate health equity in the performance measurement framework. Capturing and reviewing data that illustrate the sociodemographic characteristics of our community and those accessing services will help highlight groups that may be experiencing inequities. This will be essential to designing targeted interventions and improve how we are providing community and pre-hospital care to Peel's diverse population.

Awards and Achievements

Awards

Patti Cochrane Partnership Award (July 2022)

Paramedic Services received the Patti Cochrane Partnership Award granted by Trillium Health Partners, for their significant contribution to the immunization efforts within Peel. The award highlights Paramedic Services' strong community partnerships and willingness to mobilize to respond to the immediate needs of the community. Paramedic Services provided 30 paramedics to support the immunization initiative.

Achievements

Fit to Sit ('Fit2Sit')

Offload delays have presented a significant challenge for Paramedic Services and the broader healthcare system. Paramedic Services has successfully implemented Fit2Sit at all three hospitals in Peel to address this key system pressure. Fit2Sit started as a pilot project and innovative partnership between Paramedics Services and Brampton Civic Hospital that allowed eligible, low-risk patients to be transferred to the waiting area in the emergency department while awaiting triage and registration by the hospital staff. The Fit2Sit program has had a direct impact on reducing offload times, allowing paramedics to return to service to respond to new 9-1-1 calls for ambulance. The total number of hours saved in the emergency health system from all three hospitals through the appropriate use of Fit2Sit program is 1,434.4 hours during the period between April 1 and August 18, 2022.

Transporting Low-Acuity Patients to Alternate Destinations

In 2022, Paramedic Services introduced transports to the Peel Memorial Urgent Care Centre (UCC). Select low-risk patients are transported to UCC as an alternate destination to the Brampton Civic Hospital Emergency Department. This process allows for patients to be received faster by hospital staff, allowing paramedic crews to be available for responding to new 9-1-1 calls. The UCC transport initiative positively impacts system pressure by reducing overcrowding in the Brampton Civic Hospital Emergency Department and reducing off load delay.

Community Paramedicine (CP)

Community Paramedicine allows for an expanded primary care role for paramedics to fill system gaps and contribute to efficiency in caring for populations at greatest risk of hospitalization or admittance to a Long-Term Care Home. A major achievement for Paramedics Services has been a 'made in Peel' Community Paramedicine program that partners with Long Term Care, Senior Services Development, Strategic Policy and Performance Division and the Paramedic Services Medical Director, to deliver integrated services to seniors with complex needs in the community.

The 2023 -2026 Business Plan Outlook

Planning for the Future

Supporting Our Workforce

Health and Psychological Wellbeing

Workforce health and wellbeing will continue to be a major focus for the next four years. Paramedic Services' comprehensive approach to health and wellbeing will include increasing total number of paramedics, mental health supports, such as access to a psychologist and addressing scheduling challenges. Paramedic Services are reviewing options to consolidate schedules to better align leadership to staff that support psychological health safety initiatives. These changes will also enhance and streamline operations and link shift patterns and start times to call demands. A focus on prevention will also be a key component of the approach moving forward. Initiatives that focus on keeping employees physically and psychologically healthy will be prioritized.

To protect and foster a healthy workforce, sustain Paramedic services, and ensure quality of care to patients, a multi-stage staff psychological health and safety strategy is being advanced. Supporting and protecting front line and support staff remains a key priority that is central to ensuring staff health and well-being

Paramedic Services has several key immediate initiatives in place to support workforce health and wellbeing. A program manager and several key advisors and analysts will be hired to carry on the psychological health and safety work. In addition, work will continue on specific areas of focus:

- Suicide Prevention and Awareness;

- Critical Incident Response Management (Operational Debrief training for Paramedic Leadership);
- Employee Support (Through prevention, intervention and postvention)
- External Violence Against Paramedics.

These initiatives are currently underway and are going through a re-evaluation to confirm deliverables, resourcing, timeline and a communication plan to ensure continued success of the initiatives. In addition, change management approaches will be implemented to prepare and support staff as new initiatives are being applied in Paramedic Services.

Leadership Development

Paramedic Services is actively engaged in developing a plan for training and education for the leadership team. A new leadership training program will be implemented to support our leaders in driving strategic initiatives, managing change and promoting an engaged workforce.

Increasing Capacity

Paramedic Services has managed a range of existing and new pandemic-related pressures that all affect service delivery including increasing call volumes, offload delay and staffing shortages. To ensure all operational requirements continue to be met, Paramedic Services will be looking to add an additional 4 ambulances and 44 FTE staff in 2023 with similar additions of ambulance and FTEs in subsequent years. This will allow Paramedic Services to effectively manage system pressures, ensure emergency coverage and achieve response time targets.

Finding Efficiencies

Continuous Improvement

The objective of the Region's Continuous Improvement Program is to optimize service delivery and maximize value for tax dollars spent. The continuous improvement initiatives positively impacts patient experience, employee engagement, reduces service delivery risk and supports cost avoidance.

Patient Experience

Wait times are a critical element of the patient experience. As the Medical Priority Dispatch System is operationalized this year, leadership will be involved in evaluation and ongoing improvement cycles to ensure successful adoption of the system. Furthermore, change management strategies and staff training will be put in place to ensure the success of the implementation.

Employee Engagement

Psychological health and safety is another area in which Paramedic Services engages in ongoing improvement initiatives to advance and protect the mental health of staff. Suicide prevention and awareness training will continue to support staff in identifying any colleagues at risk and intervening in a supportive manner. This training also helps to reduce the stigma associated with suicide and mental health challenges.

Reduced Service Delivery Risk

Paramedic Services plans to continue the implementation of the Culture of Safety Program. This program focuses on a strong critical incident response management approach following an incident and through to debrief. Follow-up also may include the review of critical incidents, root cause analysis of any contributing factors, group brainstorming on possible changes in process and the development of recommendations for improved safety and the prevention of future critical incidents.

Cost Avoidance

An Operations Superintendent is now situated within the Central Ambulance Communication Centre, 24 hours a day, 7 days a week to work directly with dispatchers to optimize paramedic coverage. This allows for real-time feedback to senior staff and the opportunity for rapid improvement. This initiative leads to cost avoidance by avoiding employee overtime and end-of-shift overruns.

System Transformation

Health Equity and Partnership

Community paramedicine will continue to fill critical gaps in access to care and establish important linkages with vulnerable populations. Paramedic Services will continue to build and sustain partnerships with others in the health system to improve care for Peel's diverse community.

Implementing Dispatch Reform

The Medical Priority Dispatch System (MPDS) will be implemented at the Mississauga Central Ambulance Communication Centre in November 2022. Given that not all patients require a 'lights and sirens' response, MPDS allows for a tailored response based on patient's needs. This will optimize the deployment of paramedic resources by matching the response with the clinical situation, and when the system is strained, prioritizing Peel Paramedics' response to the most life-threatening 9-1-1 calls.

Shifting the Paramedic Care Landscape

As an integrated health system partner, Paramedic Services continues to explore opportunities to reduce pressure on emergency departments, by ensuring the most appropriate use of paramedic resources in Peel. Transporting select types of patients to other appropriate health services, and 'treat and release' and 'treat and refer' provide future options for reducing emergency department transports and hours lost to offload delay. The Treat, Release or Refer approach will allow paramedics to treat patients and have them stay at home when clinically indicated, transport them to a more appropriate care centre, or refer them to a different provider. Paramedic Services will be investing in building staff skills and competencies to deliver the Treat, Release and Refer approach to care.

Transforming Our Business with Technology

Technology plays a crucial role in the delivery of Paramedic Services. It is a common thread in all aspects of Paramedic Services business and is a critical ingredient for improving service delivery and supporting staff.

Access to Mental Health Supports

Technology is being leveraged to provide increased access to mental health supports by Paramedic Services staff. Staff can utilize technology to access supports through Homewood Health, the Centre for Addiction and Mental Health, or the Boots on the Ground peer support program.

Two-way Electronic Ambulance Call Record Data Exchange Project

Data exchange through a bi-directional feed between paramedic records and data from ambulance dispatch is a secondary program interface that will allow direct data transfer between the Central Ambulance Communication Centre (CACC) and the paramedic on the road. Through a mobile data terminal in the ambulance, paramedics can receive real time information when responding to 911 calls and upload their call report information to the CACC. This will improve the accuracy, flow of information, protection of medical records and efficiency in completing patient documentation.

Coordinated Electronic Health Record

Electronic Health Records represent an improvement opportunity that can be leveraged for efficiency and coordination in documenting patient information. The implementation of the Coordinated Electronic Health Record has started with 'read only' access, which prevents patients from repeating their story or providing information that has been previously documented. Additional opportunities for collaboration will be explored in the future to support wrap-around care (i.e., the ability for emergency paramedics to add to a patients care plans).

Maintaining our Infrastructure

Paramedic Services is strengthening its capacity to provide emergency service in an environment of increasing call volumes and an aging population by adding to the ambulance fleet, reporting stations and satellite stations. Capital investments will allow Paramedic Services to respond to service demands. In planning for the future, the following capital investments will be made:

Increase to Ambulance Fleet: As indicated by predictive models, 201 ambulances will be required to meet growing service demands by 2030, representing an increase of 67 ambulances or 50.0% from the 2021 fleet size. For 2023, Paramedic Services plans to add four, 24/7 ambulances to provide adequate coverage across Peel.

New Reporting Stations: A new reporting station will be fully operational by late 2025 and an additional new reporting station will be in development between 2023 and 2026.

New Satellite Stations: By the year 2023, two new satellite stations will be operational, with plans for additional satellite stations to be in development between 2023 and 2026.

Predicted Growth of Ambulance Fleet Over Time

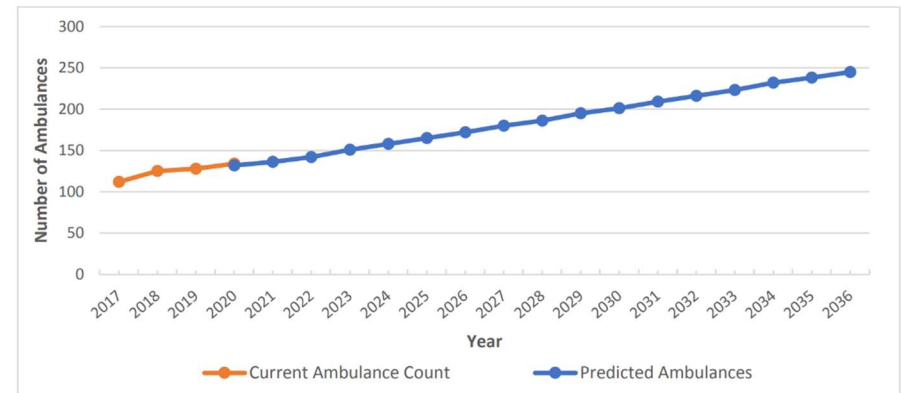


Figure 2. Number of current and predicted ambulances over time as presented in the 2020 Report, 2017 to 2036

Region of Peel. Appendix I: Paramedic Services Long Term Facilities Capital Plan Update from Paramedic Services System Pressures. Retrieved on September 8, 2022

Proposed Operating Budget

This part of the Business Plan sets out the financial resources required to deliver the proposed 2023-2026 Business Plan. Information is provided by major expenditures and revenue. The costs to maintain existing service levels and operationalize prior decisions are identified in the base budget changes separately from proposed changes. The net cost for the service in 2022 was \$66.8 million and the proposed budget for 2023 is \$76.3 million.

Net Expenditures: \$76.3 million (Total Expenditures: \$144.6 million)

Description	Proposed 2023 Budget	Approved 2022 Budget	\$ Change Over 2022	% Change Over 2022
Operating Costs	15,290	13,017	2,273	17.5%
Labour Costs	103,086	92,065	11,021	12.0%
Reserve Contributions	12,754	12,754	-	0%
Debt Charges	-	-	-	-
Grant Payments	1,443	1,443	-	0%
Facility, IT, HR and other support costs	14,848	14,204	643	4.5%
Recoveries	(2,807)	(2,774)	(33)	1.2%
Total Expenditures	144,612	130,708	13,904	10.6%
Grants and Subsidies	64,566	60,701	3,865	6.4%
Supplementary Taxes	-	-	-	-
Fees and Service Charges	105	103	2	1.8%
Transfer from Development Charges	-	-	-	-
Contributions from Reserves	3,641	3,130	510	16.3%
Total Revenues	(68,312)	(63,935)	4,377	6.8%
Total Net Expenditure	\$76,300	\$66,774	\$9,526	14.3%

Note: May not add up due to rounding

2023 Operating Budget Pressures

\$'000	Total Expenditures	Total Revenue	Net Cost 2023 vs 2022	
2022 Revised Cost of Service	130,708	63,935	66,774	%
Cost of Living/Inflation				
Labour costs	4,242	-	4,242	
Goods and Services	1,415	2	1,413	
Base Subsidy/Recoveries				
Increase in Provincial funding		3,065	(3,065)	
Other Pressures¹	1,524	800	724	
Base Budget Changes Subtotal	7,181	3,867	3,314	
Service Level Demand²				
Staffing to address projected increase in call volumes (50% provincial funding with one-year lag funded from internal reserves)	6,460	3,230	3,230	
Systems Specialist and Human Resources Consultant to support current programs and future growth of Paramedic Services	262	-	262	
Removal of 2022 temporary staffing reserve funding		(2,720)	2,720	
Service Level Changes Subtotal	6,722	510	6,212	
Total 2023 Budget Change	13,903	4,377	9,526	
2023 Proposed Budget	\$144,612	68,312	76,300	14.3%

Note: May not add up due to rounding

Operating budget pressure notes:

Other pressures¹

- New Paramedics pharmaceutical award has increased costs by about \$724 thousand
- Adjustment is required to bring back expenses and provincial funding of \$800 thousand related to Community Paramedicine from the capital to the operating budget.

Service Level Demand²

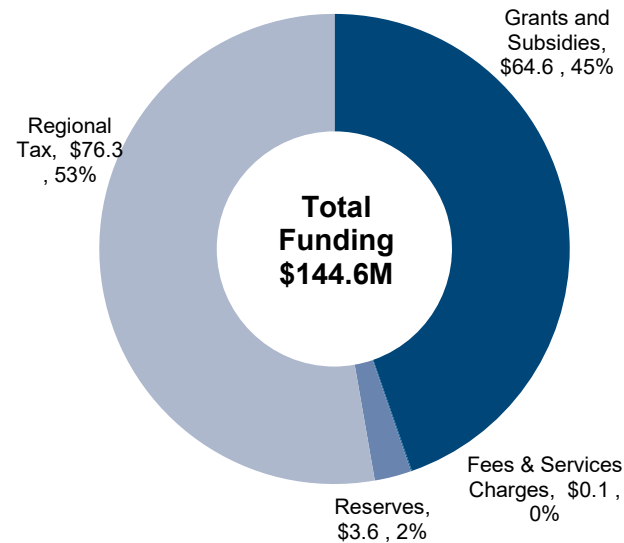
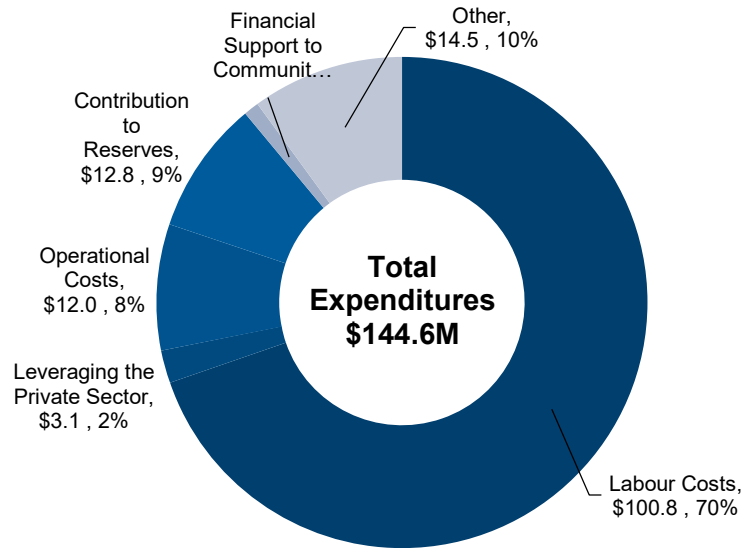
- Based on projections, call volumes are expected to grow. Additional staffing (44 FTE) is required to address the increase at a cost of \$6,460 thousand. Provincial funding (50%) is estimated at \$3,230 thousand with one year lag hence the funding gap in 2023 is proposed to be filled by regional internal reserves.
- 2.0 FTEs are required in the role of System Specialist and a Human Resources consultant dedicated to Paramedics to support the creation of new facilities and address the increased level of maintenance of aging facilities and recruitment of staff.

Staffing Resources to Achieve Level of Service

2022	2023	2024	2025	2026
660.1	706.1	741.1	797.1	843.1

Note: Staffing resources are regular positions (Full Time Equivalent, FTE)

2023 Total Expenditures & Funding Source (In \$M)



2023 Budget Risks

Performance measures are tied to the legislated response time framework. In 2022 Paramedic Services is not meeting any of the response time targets as a result of high call volume, increase in paramedic offload delays and staffing shortages.

- Impact of COVID-19 on operations will depend on the duration and severity of the pandemic.
- There is continued lag in inflation and growth funding by one year. It creates uncertainty about the Provincial funding methodology and approved funding may be different than assumed amounts.
- There has been rising number of WSIB and Post-traumatic stress disorder (PTSD) cases in our staff. While steps are being taken to address the rising trend, there is risk that availability of staff resources is severely impacted due to the trend. It may require additional resources to address the pressure.
- COVID has had a profound impact on Paramedics staff across the Province including Peel. The heightened need for thorough personal protection attention and the number of COVID related patients cared for by paramedics as well as the multiple directives and medical protocol changes is starting to take a toll on their mental health and well-being causing higher than normal staff absences.

2024 - 2026 Operating Forecast

	Budget			Forecast					
	2022	2023		2024		2025		2026	
	\$'000	\$'000	%	\$'000	%	\$'000	%	\$'000	%
Total Expenditure	130,708	144,612	10.6%	153,839	6.4%	165,890	7.8%	177,026	6.7%
Total Revenue	(63,935)	(68,312)	6.8%	(73,529)	7.6%	(78,742)	7.1%	(84,120)	6.8%
Net Expenditure	66,774	76,300	14.3%	80,310	5.3%	87,148	8.5%	92,906	6.6%

Note: May not add up due to rounding

- Forecast years' increases are related to maintaining base services.
- 2024 forecast increase is for 3 24x7 Ambulances with a staffing requirement of 30 Paramedic FTEs and 3 support staff to address call volume increases
- 2025 forecast increase is for 4 24x7 Ambulances with a staffing requirement of 40 Paramedic FTEs as well as 16 FTEs to staff the 5th reporting station
- 2026 forecast increase is for 4 24x7 Ambulances with a staffing requirement of 40 Paramedic FTEs and 6 support staff to address call volume increases

Proposed Capital Budget

Capital Budget: \$55.8 million (Ten Year Plan: \$216.6 million)

2023 Capital Budget Overview

The following table provides a summary of Paramedics' planned capital project activity for 2023, including funding sources for both new capital project requests in 2023 and projects carried forward to 2023.

Capital Plan By Funding Source	Carry-forward from Prior Years (WIP) (\$'000)	2023 Capital Budget (\$'000)	Total Capital in 2023 (\$'000)
DC Growth	7,032	1,336	8,368
Externally Funded	800		800
Non-DC Internal	38,855	54,454	93,309
Total Expenditures	46,687	55,790	102,477
# of Projects	35	5	40

Existing Capital Projects - \$46.7M

- \$33.1M Design and construction of the fifth reporting station and two satellite stations
- \$6.6M State of Good Repair purchases of ambulances and other fleet delayed by supply chain challenges
- \$1.9M State of Good Repair and Other purchases of equipment including stair chairs, automated external defibrillators, and narcotic boxes
- \$1.8M Facility maintenance on existing reporting and satellite stations
- \$1.7M IT Initiatives including State of Good Repair on ambulance toughbooks and introducing bidirectional feed of information between Paramedic Services and the Central Am,balance Communication Centre
- \$1.6M Final construction work on existing reporting and satellite stations

2023 Capital Budget - \$55.8M

Key highlights:

- \$38.0M Land acquisition for sixth reporting station and one additional satellite station
- \$8.1M Enhancement and state of good repair for ambulance and other fleet
- \$8.1M Enhancement and state of good repair for equipment including the replacement of 93 powerloads and power stretchers
- \$1.0M Facility maintenance including state of good repair and other work on in-service reporting and satellite stations
- \$0.6M Enhancement and state of good repair for ambulance toughbook computers

See Appendix I for details.

2023 Budget Risks

- Implementation of capital projects may be affected by heightened inflation and supply chain challenges

Operating Impact of 2023 Capital Budget

- General operating costs of \$0.5M and staffing costs of \$1.5M for 5th reporting station, beginning in 2025

Proposed Capital Plan

2023 - 2032 10-Year Capital Plan - \$216.6M

By Project Classification:

State of Good Repair \$90.5M	DC Funded Growth \$10.3M	Non-DC Funded Growth & Other \$115.8M
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Key Highlights:

- \$107.6M Growth-related satellite and reporting stations
- \$60.7M New ambulances for growth and replacement of vehicles reaching the end of their useful life
- \$34.4M Equipment replacements in line with safety standards and regulations, as well as new equipment tied to growth
- \$8.2M Major facility maintenance for existing in-service reporting and satellite stations
- \$5.7M Various IT initiatives including replacement of toughbook computers

See Appendix II for details.

2023 Financing Sources and Funding Status (\$'000)

2023				
<i>Total Expense</i>	<i>Development Charges</i>	<i>Reserves & Reserve Funds</i>	<i>External Funding</i>	<i>Debt Funding</i>

<u>Project</u>	<u>Name</u>	<u>Description</u>			
237801	Defibrillators and Medical Equipment	Purchase of Defibrillators and Medical Equipment for replacement and growth.	8,103	136	7,967
237803	Ambulance Fleet and Support Vehicles	Purchase of Ambulances and Administration vehicles for Peel Regional Paramedic Services program.	8,055	1,200	6,855
237807	IT Initiatives	IT related Capital Projects	668		668
237809	Ambulance Facilities - Growth	New satellite stations to address growth	38,000		38,000
237810	Major Facility Maintenance	Based on improvements for refined 10 year plan for existing Ambulance facilities.	963		963
Paramedic Services			55,789	1,336	54,454

Service: Paramedic Services

Appendix II

2023 Ten Year Combined Capital Program (\$'000)

			2023	2024	2025	2026	2027	Yrs 6-10	Gross
<u>Project</u>	<u>Name</u>	<u>Description</u>							
237801	Defibrillators and Medical Equipment	Purchase of Defibrillators and Medical Equipment for replacement and growth.	8,103	2,330	1,917	2,606	1,113	18,418	34,486
237803	Ambulance Fleet and Support Vehicles	Purchase of Ambulances and Administration vehicles for Peel Regional Paramedic Services program.	8,055	2,792	6,728	7,403	6,466	29,252	60,696
237807	IT Initiatives	IT related Capital Projects	668	550	671	514	384	2,877	5,665
237809	Ambulance Facilities - Growth	New satellite stations to address growth	38,000	23,500	6,150	0	0	39,885	107,535
237810	Major Facility Maintenance	Based on improvements for refined 10 year plan for existing Ambulance facilities.	963	154	107	197	164	6,613	8,198
Paramedic Services			55,789	29,326	15,573	10,720	8,127	97,043	216,580

Budget Requests

This table presents the costs by Budget Request for proposed new initiatives. Each BR is numbered. Detailed descriptions of the budget requests can be found in the pages following the table.

Proposed Initiative	Division	Budget Request #	FTEs Requested	Contract FTE Requested	Net Operating Impact \$	Capital \$
Peel Regional Paramedic Services (PRPS) Land Acquisition Facility Plan	Paramedic Services	13	0.0	0.0	0	38,000,000
Systems Specialist for new PRPS stations and increased level of maintenance for aging facilities.	Paramedic Services	14	1.0	0.0	127,945	0
Additional paramedic resources to serve community related to unexpected call volume increase and system pressures	Paramedic Services	15	45.0	0.0	3,295,307	0
TOTAL			46.0	0.0	3,423,252	38,000,000

Budget Request #: 13

Proposed Initiative	Department	Division	Service Area
Peel Regional Paramedic Services Land Acquisition Facility Plan	Health Services	Paramedic Services	Paramedics

Description of Budget Request

Paramedic Services requires finances to acquire property for a sixth reporting station (Mississauga) and one satellite station (Brampton) in order to meet the demands of future population growth and call volume. This is in line with the council approved direction from the December 3, 2020 council report titled, Paramedic Services Long Term Facilities Plan, Key Supporting Analyses.

Required Annual Operating Investment

Impacts	2023 \$	2024 \$	2025 \$	2026 \$
Gross Expenditures	-	-	-	-
Less: Internal and Capital Recovery	-	-	-	-
Total Expense	-	-	-	-
Reserves	-	-	-	-
Other Revenue	-	-	-	-
Total Revenue	-	-	-	-
Net Impact - Tax	-	-	-	-
Net Impact - Utility Rate	-	-	-	-
FTEs	-	-	-	-
New Contracts	-	-	-	-

Required Capital Investment

	2023 \$
Total Expenditures	38,000,000
Reserves (Ambulance Stabilization R0235)	38,000,000
Development Charges	-
External Funding	-
Debt	-
Total Funding	38,000,000

Why Staff Recommend this Initiative

An aging population, ever increasing call demand in a highly populated community and the impacts related to longer term COVID-19 health complications require the need for the continued expansion of facilities to support pre-hospital care.

Details of Service Change

Paramedic Services working with our regional partners will look at options to reduce the capital impact through partnerships with lower tier or utilizing existing regional assets that meet the requirements for design and fit. The capital investment is to have available the appropriate funds to negotiate land purchase. It is anticipated that the land purchase would conclude in 2023 and commence development of these sites in 2024. The total estimated cost for land purchases is approximately \$38 million. The 2022 10-year capital plan includes these anticipated costs in 2024 but must be brought forward for the purchase of land and are subject to council approval for 2023.

Service Impact

The outcomes for this specific part of the project will be realized after the acquisitions of sites have been determined . The next phase will be the design and construction that would meet net-zero emissions standard, which would be seen as operational for the reporting station by early 2028 and for the satellite station by mid 2025. The impact to service delivery means that the number of ambulances and associated equipment and vehicles will not be maintained in accordance with the Ministry standards or the expectations set by council through the response time framework. Responding to the ever increasing needs of the Peel community are pivotal to ensure expedited care when needed.

Budget Request #: 14

Proposed Initiative	Department	Division	Service Area
Systems Specialist for new PRPS stations and increased level of maintenance for aging facilities.	Health Services	Paramedic Services	Asset Management

Description of Budget Request

Add 1 new Systems Specialist (SS) in Facilities & Occupant Services to support the new Peel Regional Paramedic Services (PRPS) Reporting Station as well as the Regional Offices portfolio. The PRPS portfolio will be adding a new Reporting Station, which will be built to the Region's new Net Zero Emissions Building Standard and will require additional support to work closely with the Building Operations Technicians.

Required Annual Operating Investment

Impacts	2023 \$	2024 \$	2025 \$	2026 \$
Gross Expenditures	127,945	-	-	-
Less: Internal and Capital Recovery	-	-	-	-
Total Expense	127,945	-	-	-
Reserves	-	-	-	-
External Funding (Ministry of Health 50/50)	-	63,973	-	-
Other Revenue	-	-	-	-
Total Revenue	-	63,973	-	-
Net Impact -Tax	127,945	(63,973)	-	-
Net Impact - Utility Rate	-	-	-	-
FTEs	1.0	-	-	-
New Contracts	-	-	-	-

No Capital Investment Required

Why Staff Recommend this Initiative

According to the 2020 report "Peel Regional Paramedic Services Long Term Care Facilities Capital Plan" the predicted number of ambulances needed, PRPS will require 3 more reporting stations over the next 10 years, to be in operation by 2023, 2025 and 2029. This illustrates the urgent need to have a facility that is operational and fully supported.

Details of Service Change

The Systems Specialist will be responsible for documenting technical system work orders and reports to identify any trends that may significantly impact the asset lifespan or program occupants. They will also assist the Property Integration Managers with the planning of preventative maintenance, building automation systems, contract scope of work development and general vendor management, policy and process development and analysis of operation impacts of capital projects. This role is also responsible for ensuring that contracts are adhered to and following up with any omissions and/or deficiencies to ensure compliance. Systems Specialists play an important role in Reporting Station design, construction and ultimately Station operations once the building is substantially completed, including design requirements and optimized operations to meet the net zero emissions performance standard over the life of the asset. This new position will allow some support for the new Peel Manor facility as well from our centralized group of specialists during the challenging period of time when the new facility starts up and during absence periods of staff due to vacations and illness.

Service Impact

The Specialist will be responsible for ensuring preventative maintenance plans are performed regularly and that inspections are completed. This includes work on many technical systems and automation controls. The Specialist will act as the liaison with PRPS and occupants to provide customer service and targeted support through automated controls, low-carbon Heating, Ventilation, and Air Conditioning technology and many other technical facility systems. They will work closely with the Building Operations Technicians and will provide Subject Matter Expert guidance to the Property Integration Manager for contracts and specifications related to this equipment. Will allow us to maintain our base services to PRPS and some additional services to Peel Manor and our corporate facilities.

Budget Request #: 15

Proposed Initiative	Department	Division	Service Area
Additional paramedic resources to serve community related to unexpected call volume increase and system pressures	Health Services	Paramedic Services	Paramedics

Description of Budget Request

To continue to provide excellent pre-hospital care to residents and visitors of Peel, Paramedic Services is requesting 4x 24/7 ambulances and 45 FTEs. System pressures have been amplified by the pandemic, challenging the sustainability of the service to meet ongoing service demands and council approved response times. Increased call demand, population growth, population aging, impacts on staff, and overall healthcare system pressures (offload delay) are driving this need for service enhancements

Required Annual Operating Investment

Impacts	2023 \$	2024 \$	2025 \$	2026 \$
Gross Expenditures	6,590,614	-	-	-
Less: Internal and Capital Recovery	-	-	-	-
Total Expense	6,590,614	-	-	-
Reserves (Working Fund R1212)	3,295,307	-	-	-
External Funding (Ministry of Health 50/50)	-	3,295,307	-	-
Other Revenue	-	-	-	-
Total Revenue	3,295,307	3,295,307	-	-
Net Impact -Tax	3,295,307	(3,295,307)	-	-
Net Impact - Utility Rate	-	-	-	-
FTEs	45.0	-	-	-
New Contracts	-	-	-	-

No Capital Investment Required

Why Staff Recommend this Initiative

Increased call demand, population growth, population aging, impacts on staff resulting from service demand increases, and overall healthcare system pressures (offload delay) are challenging the sustainability of the service to meet ongoing demands and council approved response time targets. Additional Paramedic resources are intended to build capacity to allow the service to maintain efforts to meet the growing call demands and response time targets and compensate for system pressures.

Details of Service Change

As the world enters the third year of the pandemic, all parts of health systems continue to be deeply impacted, including Paramedic Services, which has managed a range of existing and new pandemic-related pressures that all affect service delivery. Based on the call volumes seen between January and May 2022, the overall yearly volume is projected to increase by 3.6 per cent over 2021. Paramedic Services was not able to meet the response time target for Canadian Triage and Acuity Scale (CTAS) 1 (Critical Patients) in 2021. While the remaining response time targets were met, response times increased by approximately one minute or more from 2020 to 2021. Offload delay across all three hospital sites increased by approximately 14 per cent, from 40,875 hours in 2019 to 46,364 hours in 2021. Absenteeism increased by 14 per cent from March 2021 to March 2022, directly related to pandemic-related quarantine, fatigue, and injuries (mental health) that continue to impact staffing resources.

To manage these pressures, while continuing to provide paramedic services to the residents of Peel as well as meet council approved response time targets, an additional four 24/7 ambulances are being requested. This equates to 45 FTE which includes 40 direct FTE to staff ambulances, 4 FTE that support the in-direct needs as staff are added into the system and 1 FTE in Human Resources to support workforce growth.

Service Impact

By adding additional staff and ambulances, the Service is strengthening its capacity to provide emergency service in an environment of increasing demand. Expected outcomes include having sufficient resources (paramedic service hours) to strategically position ambulances ready to respond to Peel's growing service demand, meeting response time targets per the framework, better managing paramedic offload delay, and balancing workload among paramedics in an equitable manner. Other expected outcomes include a reduction of end-of-shift overruns and improved management of meal breaks.