

Toronto Paramedic Services – Rising Response Times Caused by Staffing Challenges and Pressures in the Healthcare System

June 21, 2024

Tara Anderson, CPA, CA, CIA, BAcc Auditor General



Table of Contents

Executive Summary 1
LACCULIVE Summary
Background7
Audit Results
A. Response Times Increasing as Availability of Staffed Ambulances Decreases
A. 1. Increasing Response Times 10
A. 2. More Frequent and Longer Episodes of Low Staffed Ambulance Availability
A. 3. Response Times by Geographic Area Vary and Not Monitored
B. Why is This Happening - Healthcare System Pressures, Need for Further Provincial Support, and Staffing Challenges
B. 1. In-Hospital Time Accounts for 60 Per Cent of Paramedics' Service Time and is Increasing
B. 2. Need for Additional Provincial Support
B. 3. Staffing Challenges
C. Opportunities for Improvement Going Forward
C. 1. Explore Strategies to Better Address Low Acuity Calls
C. 2. Opportunities to Divert Some Mental Health Calls
C. 3. Reduce Call Volume Through Data Analysis on Frequent 9-1-1 Users
C. 4. Forty-Six Per Cent of Ambulance Vehicles Are Not In Active Use
Conclusion
Audit Objectives, Scope, and Methodology
Exhibit 1: Journey of a 9-1-1 Call for Ambulance
Exhibit 2: Response Time Targets, Ministry Reporting, and External Accreditation
Appendix 1: Management's Response to the Auditor General's Report Entitled: "Toronto Paramedic Services – Rising Response Times Caused by Staffing Challenges and Pressures in the Healthcare System"

Executive Summary

	As mandated by the <i>Ambulance Act</i> , R.S.O. 1990 (the Act), Toronto Paramedic Services (the Division), provides paramedic-based healthcare services 24 hours a day, seven days a week, 365 days a year in Toronto. Its services encompass emergency medical dispatch, paramedic care and land ambulance transportation to hospital, and community paramedicine ¹ .
	The Division manages its own ambulance communications centre (called the Central Ambulance Communications Centre ²) to receive and dispatch calls, including 9-1-1 calls transferred to it by the Toronto Police Service. See Exhibit 1: Journey of a 9-1-1 Call for Ambulance for further details on the process for handling and dispatch of these 9-1-1 calls.
Ambulance operation funded 50% by Province, ambulance communications centre 100% funded by Province	The Division's budget is jointly funded by the Province of Ontario and the City of Toronto, but the extent of the funding varies. The Province pays for 100 per cent of the cost of the Central Ambulance Communications Centre, through an agreement with the Ministry of Health (Ministry), and 50 per cent of the cost of the land ambulance operation. The City pays for all of the Division's capital budget. The Division also receives additional provincial funding to support various programs, including the Dedicated Offload Nurses Program aimed at reducing paramedic wait times in hospitals, and the community paramedicine programs.
Audit objectives	The objective of this audit was to assess whether Toronto Paramedic Services is providing ambulance emergency response services in a timely manner across the City of Toronto, while optimizing the use of its resources. In assessing this objective, our audit aimed to answer the following questions:
	Is Toronto Paramedic Services meeting its legislated and

 Is Toronto Paramedic Services meeting its legislated and internally approved targets for providing a timely emergency response to persons requesting ambulance service?

 $^{^{\}rm 1}$ Community paramedicine is a non-emergency service that provides community-based primary medical care and referrals in aging and vulnerable communities to reduce 9-1-1 calls at the source.

² Toronto Paramedic Services completes a voluntary accreditation process by the International Academies of Emergency Medical Dispatch (IAED). The accreditation process includes a quality review of the call taking and dispatching processes. The Toronto Central Ambulance Communications Centre is one of approximately 200 communication centres in the world accredited as a Centre of Excellence by the IAED.

- Is Toronto Paramedic Services effectively measuring, monitoring, and reporting on how well it meets its targets and using these results to inform management decisions?
- Are there opportunities for Toronto Paramedic Services to optimize its use of resources, including the use of vehicles and staff, to improve its performance and response time?

What We Found: Significant Audit Results in Brief

A. Response Times Increasing as Availability of Staffed Ambulances³ Decreases

Response times for life- threatening and highest acuity calls were both higher in 2023 than 2019; 6% higher for sudden cardiac arrest and 14% higher for CTAS 1	Although Toronto Paramedic Services achieved the ambulance response time ⁴ targets approximately 80 per cent of the time in 2023, the overall response times, which includes the dispatch response times, increased. We found that, for those patients with li threatening and highest acuity conditions, more calls did not meet the legislated targets for response times in 2023 than 2019 ⁵ . Even second matters as these critical incidents require paramedics performing life-saving procedures. For life-threatening and highest acuity (sudden cardiac arrest and CTAS 1 ⁶) patients, the average overall response times were six per cent and 14 per cent higher, respectively. The targets for response times were more consistently and reliably achieved for CTAS 3, 4 and 5 patients than for higher acuity patients. See Exhibit 2 for further details on response time targets, CTAS levels, and Ministry reporting requirements.	
Response times also higher for next level of acuity calls; about 30% higher for both CTAS 2 and CTAS 3	In addition, the average response times for all levels of patient acuity increased from 2019 to 2023. The increase was significant for CTAS 2 and 3 patients who saw their average overall response times increase by 31 per cent and 29 per cent, respectively.	
	There were a number of factors contributing to the increase in average response times, with paramedic wait times in hospitals to offload patients (called offload delays) and staffing challenges being the main factors, both described in further detail in Section B of the report. Other factors include traffic congestion and having new in- training call takers and dispatchers.	

³ Staffed ambulances refer to ambulances that are staffed by two paramedics.

⁴ Overall response time is comprised of dispatch response time (the time from when a call taker answers the call to when the paramedic unit is notified) and ambulance response time (the time from when the paramedic unit is notified to arrival at the scene).

⁵ We compared 2023 data to 2019 because 2020, 2021, and 2022 were affected by the COVID-19 pandemic. ⁶ The Canadian Triage Acuity Scale (CTAS) is a five-level tool used by paramedics, as well as hospital emergency departments, to assess a patient's acuity level and to prioritize patient care requirements. Sudden cardiac arrest and CTAS 1 are the most severe and CTAS 5 is the least severe. While response time targets are based on CTAS, dispatch priorities are based on information obtained from the caller. CTAS cannot be determined until patient contact has been made.

With the ongoing shortage of doctors, more people rely on paramedic services (and hospital emergency departments) as a safety net to access basic healthcare when other options are unavailable. This trend further contributes to overcrowding at hospital emergency departments, staffing shortages, and longer wait times at hospitals. Delays in offloading can also cause ambulances to be dispatched from locations that can sometimes result in further distances and longer response times to certain patients' locations.

The availability of staffed ambulances throughout the city directly affects emergency response times. Since 2019, there has been a significant increase in the number and length of episodes where there was a low availability of staffed ambulances. The number of episodes increased from 1,300 in 2019 to 6,800 in 2023. In 2023, Toronto Paramedic Services spent on average a total of almost two and a half hours daily with only five staffed ambulances or less. We also specifically examined the trend with what the media calls "Code Red" where no staffed ambulances are available. While the average duration of episodes with no staffed ambulances remained consistent since 2019 at two minutes, the number of episodes in 2023.

We also found patients in downtown Toronto received on average, better response times for high priority calls than those in other parts of the city. Management advised that this could be due, in part, to higher call volumes typically experienced in the downtown area, and with many of the larger and more specialized hospitals located downtown, it consequently draws more staffed ambulances to that area. The Division currently collects GPS coordinates of caller locations. This data should be mapped to geographic areas or neighbourhoods to provide better information for performance monitoring and allocation of resources.

B. Why is This Happening - Healthcare System Pressures, Need for Further Provincial Support, and Staffing Challenges

We found that paramedics spend 60 per cent of their service time⁷ in hospitals, and this trend has been increasing. It is taking paramedics longer to offload patients to hospitals. The industry best practice is 30 minutes, but the percentage of time that paramedics waited longer than that went up from 33 per cent in 2019 to 42 per cent in 2023. Currently, the Province has not mandated a target for the time paramedics should spend waiting for hospitals to accept care of their patients.

Frequency and duration of episodes where there was a low availability of staffed ambulances is increasing

Response time was slower for high priority patients outside of the downtown area

In-hospital time accounts for 60% of paramedics' service time and is increasing

⁷ Service time is the total length of time required by a paramedic unit to service a call from the moment the unit is assigned until it returns to ambulance availability, as illustrated from point 2 to point 7 in **Exhibit 1**.

The Ministry of Health amended the Act to permit paramedics to treat selected patients on scene and refer or transport these patients to destinations other than hospitals. However, the lack of integration across the healthcare system has made it difficult for the Division to adopt all the new patient care models.

This is because Toronto Paramedic Services is currently required to make separate formal arrangements with each healthcare provider (e.g., walk-in clinics, family doctors' offices) due to the absence of a centralized database that lists all healthcare providers in a neighbourhood. Additionally, more support and capacity are needed from non-hospital-based facilities to accommodate patients brought in by paramedics. Without further investment from the provincial government and until the healthcare systems become more interconnected, opportunities for referrals and alternate destinations will continue to be limited.

We also found that further provincial support is needed to ensure adequate staffing at Toronto's ambulance communications centre to address the increase in call volume.

Analysis needed to determine optimal staffing levels and address times of peak demand We found that Toronto Paramedic Services has not conducted a comprehensive analysis to determine the optimal staffing level that can address its current and estimated future call volume, workload demand, and response time targets, while factoring in inactive staff and time off for staff. Staffing challenges can be an issue at peak times of demand when more staffing is needed, such as on the weekends, weeknights after 9 p.m., and during the summer and fall months. The Division has been utilizing overtime to manage these demand surges. Full shift overtime, which is voluntary, increased 169 per cent since 2019, which could contribute to stress-related injuries and staff turnover. Once optimal staffing levels have been determined, this can help to address staffing challenges, and daily, weekly, and seasonal demand surges, thereby helping to improve response times.

C. Opportunities for Improvement Going Forward

We found that going forward there are opportunities for improvement in the following areas:

Need to explore strategies to better address low acuity calls	The Division needs to explore strategies to better address low acuity calls, which accounted for 27 per cent of calls in 2023, with 80 per cent of these cases not needing hospital transport. It costs the Division \$109 to attend a call, and \$422 where transport is required. Certain jurisdictions are exploring innovative strategies to free up resourcing for higher acuity calls. These include community paramedics responding to select low acuity 9-1-1 calls by collaborating with a diverse team of professionals, placing a registered nurse in the ambulance communications centre to provide medical advice over the phone, and offering paid taxi services to select low risk patients such as the model used by Niagara Emergency Medical Services.
Opportunities to divert some mental health calls	As Toronto Paramedic Services continues to collaborate with Toronto Community Crisis Service (TCCS) to be able to divert some mental health calls in the future, we found that the Division can consider joint trainings, and enhance its data collection and communication. In 2023, based on a review of 2022 call data, the Division identified approximately 11,000 calls received that did not require medical intervention and could potentially have been redirected to TCCS. As TCCS is currently in a pilot phase operating in four communities of the city, Toronto Paramedic Services should continue its collaboration with TCCS and the Toronto Police Service, to ensure that patients are directed to the appropriate agencies capable of providing the necessary care and service, where those are available.
Enhance frequent 9-1-1 user analysis to identify patients for community paramedicine programs and develop targeted public education to reduce call volume	There is an opportunity for Toronto Paramedic Services to use the patient care information it collects on frequent 9-1-1 users to develop strategies to meet their healthcare needs more efficiently, as well as reducing the related call volume by providing targeted education on when to call 9-1-1 for an ambulance. Currently, management conducts a monthly analysis solely based on addresses. However, the analysis does not include additional patient care information, such as age, gender, and medical intervention performed. Incorporating this additional information could enable the Division to identify more patients who can benefit from community paramedicine programs

and develop targeted public education and awareness campaigns.

The optimal level of ambulances required has not been determined; on days with most scheduled ambulances, there were just over 100 not in active use We noted that Toronto Paramedic Services has not performed any data analysis to determine the optimal number of ambulances it requires in its fleet. The numbers in the current ambulance fleet are not based on call demand nor response time targets. In 2023, Toronto Paramedic Services had 234 ambulances, but scheduled at most 126 on any given day; leaving at least 46 percent or 108 ambulances not in active use. Management informed us that the additional ambulances are budgeted for special events, routine preventative maintenance, significant mechanical issues, and long supply lead times are required when purchasing new vehicles. The Division should assess if there are opportunities to better manage its fleet.

Conclusion

Response times have been increasing and more emergency calls for the highest acuity patients did not meet the legislated targets for response times. In the face of healthcare system pressures, including hospital offload delays, we found more frequent and longer episodes of low availability of staffed ambulances to respond to the increasing number of emergency calls.

Toronto Paramedic Services is monitoring and reporting on its response times against targets. However, it is not monitoring response time by geographic area, which is important to understand further as the average response time was slower for high priority calls outside of the downtown area.

There are opportunities for Toronto Paramedic Services to optimize its staffing and ambulance resources. Potential opportunities can also be considered to free up resources for higher acuity calls and better address low acuity calls, divert some types of mental health calls, and enhance data analysis on frequent 9-1-1 users to reduce call volume.

In our view, implementing the 10 recommendations contained in this report will help Toronto Paramedic Services improve the efficiency and effectiveness of its operations.

We would like to express our sincere appreciation for the co-operation and assistance we received during our audit from the management and staff of Toronto Paramedic Services.

Background

Toronto Paramedic Services (the Division) provides paramedic-based healthcare and ambulance services for residents of the City of Toronto. It operates under the authority of the *Ambulance Act*, R.S.O. 1990 (the Act) and the Ministry of Health (referred to as the Ministry). The Division manages its own ambulance communications centre (called the Central Ambulance Communications Centre), which handles 9-1-1 calls transferred to it from the Toronto Police Service. In some smaller jurisdictions in Ontario, the ambulance dispatch process is handled by the Ministry. For a detailed explanation of the journey of a 9-1-1 call for an ambulance, see **Exhibit 1**.

Staffing and Vehicle Resources

Figure 1 below summarizes the number of frontline staff and their roles at the ambulance communications centre and land ambulance operations of Toronto Paramedic Services. The Division also has 70 Operation Supervisors who perform administrative roles and respond to calls as needed, as well as 123 management staff and 127 staff in supportive roles.

Figure 1: Frontline Staff Complement⁸ of Toronto Paramedic Services, as of December 31, 2023

Call Takers (38)	Dispatcher (137)	Paramedics (1,450)
		¢٦
Responsible for gathering critical information from the caller and assessing the priority of the call	Responsible for assigning the appropriate resources to a call and maintaining ambulance coverage across the city	Responsible for providing emergency treatment and support to patients, as well as transporting them to a hospital for follow-up care, if necessary

Frontline paramedics operate on rotating 12-hour shifts and are deployed at 45 ambulance stations across the city. Ambulance stations, on-duty paramedic units, and calls are organized into six sectors to facilitate better span of control at the ambulance communications centre and help achieve a balanced allocation of workload.

⁸ Includes staff on legislated and protected leaves (5 call takers, 10 dispatchers, and 175 paramedics).

Toronto Paramedic Services maintains a fleet of 234 transport ambulances and 26 emergency response vehicles for frontline duties. Some examples are shown in **Figure 2** below:

Figure 2: Overview of Operation Vehicles



The Division also employs community paramedics that deliver community-based, primary medical care, and referrals, as well as athome medical care to support seniors and vulnerable residents.

Funding Framework

The Division's budget is jointly funded by the Government of Ontario and the City of Toronto. The Province fully funds the ambulance communications centre through an agreement with the Ministry of Health and pays 50 per cent of the costs of the land ambulance operation. The City of Toronto is responsible for 100 per cent of the capital budget.

The Division also receives additional provincial funding to support various programs, including community paramedicine programs and the Dedicated Offload Nurses Program, which is aimed at reducing paramedic wait times in hospitals.

Call Volume

On average, Toronto's ambulance communications centre handles about 910 emergency calls per day. The centre is the busiest of all the 22 ambulance communications centres in the province, receiving approximately 16 per cent of the medical emergency calls in Ontario.

⁹ There are 30 additional Emergency Response Vehicles that are not staffed regularly, but are available for incidents that require Superintendents or above on scene.

Toronto Paramedic Services received significantly fewer calls in 2020, because of the public's reluctance to attend hospitals during the first year of the COVID-19 pandemic. From 2021 to 2023, call volumes returned to and surpassed pre-pandemic levels. Due to Toronto's aging and growing population, management expects call volumes to continue to increase by three to five per cent annually.

Access to Healthcare and Impact on Hospital Emergency Departments and Paramedics

Increasing number of people are using paramedic services (and hospital emergency departments) to access basic healthcare due to a lack of primary care or difficulty navigating the healthcare system The ongoing shortage of doctors is putting added pressure on paramedic services. The Ontario College of Family Physicians reported that more than 516,000 Torontonians are currently without a family doctor. It further forecasts that nearly one million Torontonians could be without a family doctor by 2026. Management of Toronto Paramedic Services has told us that people are now turning to its services for basic healthcare. Some of the 9-1-1 calls received are for people with non-emergency health needs who do not have a family physician or access to the healthcare services they need. This observation is supported by the Paramedic Chiefs of Canada who have publicly stated that people call 9-1-1 for low acuity healthcare needs because of a lack of primary care or difficulty navigating the healthcare system.

As illustrated in **Figure 3**, more people rely on paramedic services (and hospital emergency departments) as a safety net to be able to access basic healthcare when other options are unavailable. This trend further contributes to overcrowding at hospital emergency departments, staffing shortages, and longer wait times at hospitals.

Figure 3: Pressures in the Healthcare System



Audit Results

A. Response Times Increasing as Availability of Staffed Ambulances Decreases

A. 1. Increasing Response Times

A.1.1 More Life-Threatening Calls Did Not Meet the Response Time Targets

More highest acuity calls have not met the legislated response time targets	Having timely access to emergency paramedic care is important as it saves lives and helps limit the consequences for patients of the emergency incident. Rapid response times for the highest acuity patients (sudden cardiac arrest and CTAS 1 ¹⁰) are even more crucial as these patients require timely access to life-saving procedures to survive emergency incidents, such as cardiac arrest, stroke, and major trauma.	
	We found that a higher percentage of life-threatening and highest acuity calls did not meet the legislated targets for ambulance response times and dispatch response times ¹¹ in 2023 than in 2019. As illustrated in Figure 4:	
	• For CTAS 1 patients, 82 per cent of ambulance responses in 2019 met the eight-minute target for providing paramedic care and ambulance services. The percentage of responses meeting the response time target for providing ambulance services in 2023 fell to 78 per cent.	
	 In 2019, 73 per cent of incidents about a sudden cardiac arrest met the two-minute target of dispatch response. In 2023, the percentage of those responses dropped to 65 per cent. For CTAS 1 patients, the percentage of dispatch responses meeting the target has dropped from 72 per cent in 2019 to 56 per cent in 2023. 	

¹⁰ The Canadian Triage Acuity Scale (CTAS) is a five-level tool used by paramedics, as well as hospital emergency departments, to assess a patient's acuity level and to prioritize patient care requirements. Sudden cardiac arrest and CTAS 1 are the most severe and CTAS 5 is the least severe. While response time targets are based on CTAS, dispatch priorities are based on information obtained from the caller. CTAS cannot be determined until patient contact has been made.

¹¹ Exhibit 2 displays the segments of response time being measured and monitored, along with a table detailing response time targets and Ministry reporting requirements.



Figure 4: Comparison of Ambulance and Dispatch Response Time Performance for the Highest Acuity Patients in 2019 vs. 2023

Source of Data: Toronto Paramedic Services

In addition, we reviewed the average ambulance and dispatch response times for the highest acuity patients and noted, as shown in **Figure 5**, that they increased over the last five years. In particular,

- The ambulance response times for the highest acuity (sudden cardiac arrest and CTAS 1) patients had increased by five per cent and seven per cent, respectively.
- The dispatch response times for sudden cardiac arrest and CTAS 1 patients increased by 10 and 35 per cent, respectively.

The average **overall response times** (sum of ambulance and dispatch response times) for sudden cardiac arrest and CTAS 1 patients increased by six per cent and 14 per cent, respectively.

While these increases were not as significant as the increases in response times for lower acuity of CTAS 2 to 5 patients, every second matters as these critically ill or injured patients require timely life-saving procedures. In addition, it is important to note that **Figure 5** displays averages and individual response times can be longer or shorter than these. For example, in 2023, seven per cent of sudden cardiac arrest and 14 per cent of CTAS 1 patients experienced ambulance response time of 10 minutes or longer. On 87 occasions in 2023, these patients waited more than 20 minutes for an ambulance to respond and begin delivering help.

Patient Acuity Level*	Average Ambulance Response Time in 2023 (mm:ss)	% Increase from 2019 to 2023	Average Dispatch Response Time in 2023 (mm:ss)	% Increase from 2019 to 2023	Average Overall Response Time in 2023 (mm:ss)	% Increase from 2019 to 2023
Sudden Cardiac Arrest (SCA)	06:00	5%	01:52	10%	7:52	6%
CTAS 1	06:47	7%	02:30	35%	9:17	14%
CTAS 2	09:27	26%	03:07	51%	12:34	31%
CTAS 3	15:07	24%	06:56	40%	22:03	29%
CTAS 4	15:37	19%	07:17	37%	22:54	24%
CTAS 5	14:11	13%	05:53	30%	20:04	18%

Figure 5: Average Response Time by Patient Acuity Level, 2023 and 5-Year Trend

Sudden cardiac arrest and CTAS 1 are the most severe and CTAS 5 is the least severe.

* The dispatch priority of a 9-1-1 call for ambulance is determined by the information given by the caller. However, paramedics assess the patient acuity (CTAS) after they arrive on scene, which may differ from the dispatch priority. The response time targets set by the *Ambulance Act* are based on patient acuity rather than the condition suggested at the time of the call. For example, if a bystander observes and calls regarding a serious car accident, the call may be assigned a high dispatch priority. However, the paramedics may reassess the incident as lower patient acuity upon arrival if the drivers were found without serious injuries. Consequently, this call would be classified as lower patient acuity but with a faster response time.

Ambulance response times for lower acuity CTAS 3, 4, and 5 met more than 80% of time in 2023 for Division's internal targets

Highest acuity patients would benefit more from faster response times Furthermore, we noted that the targets for ambulance response times were consistently met more often for CTAS 3, 4 and 5 patients than for sudden cardiac arrest and CTAS 1 and 2 patients. As shown in **Figure 6**, the Division met its own targets for ambulance response times for CTAS 3, 4 and 5 patients more than 80 per cent of the time in 2023. However, that was not the case for the higher acuity patients. Clinical evidence suggests that the highest acuity patients would benefit more from faster response times, leading to improved patient outcomes. The Division should continue to direct its efforts to reliably deliver timely responses to critically ill and injured patients.



Figure 6: Ambulance Response Time Performance by Patient Acuity Level in 2023

Source of Data: Toronto Paramedic Services

Niagara Emergency Medical Services observed in 2019 that it was meeting its targets for ambulance response times more consistently for lower acuity patients than for higher acuity patients. As a result, it revised its performance plan and set targets of longer response times for CTAS 2 to 5 patients. This revision aimed to enable Niagara Emergency Medical Services to improve its compliance rate (percentage of calls that meets the legislated targets for response times) for the highest acuity sudden cardiac arrest and CTAS 1 patients.

Management has advised us that they are working on an initiative to evaluate response time targets for lower acuity patients, with the goal of improving response times for critical patients.

A. 1. 2. Response Time for Other Lower Acuity Levels Also Increasing

Not only did the response times increase for the highest acuity patients, but we also noted a significant increase in the response time for the next levels of high acuity of CTAS 2 and 3 patients.

As noted earlier, **Figure 5** showed that CTAS 2 and 3 patients experienced the most significant increases in ambulance response times, at 26 and 24 per cent, respectively. The increases in dispatch response times for CTAS 2 and 3 patients were even greater, at 51 per cent and 40 per cent respectively. Together, the average **overall response times** (sum of ambulance and dispatch response times) for these patients increased by 31 per cent and 29 per cent, respectively. The increases in average overall response times have been caused by a combination of factors, with paramedic wait times in hospitals to offload patients (called offload delays) and staffing challenges being the main factors, both described in further detail in **Section B** of the report. Other factors include traffic congestion and having new intraining call takers and dispatchers.

Recommendation:

1. City Council request the Chief, Toronto Paramedic Services to:

a) Review its performance plan and its response time targets to see if any updates are needed; and

b) Improve overall response times to ensure it meets its response time targets and performance plan, particularly for the highest acuity calls.

A. 2. More Frequent and Longer Episodes of Low Staffed Ambulance Availability

Availability of staffed ambulances directly affects response times	The availability of staffed ambulances ¹² throughout the city directly affects emergency response times. When there is a low availability of staffed ambulances, a caller may have to wait longer as paramedics first attend to other more urgent patients or travel a longer distance when there are no closer ambulances available.
	Toronto Paramedic Services monitors the availability of staffed ambulances 24/7, refreshing its data every 30 seconds. When assessing its ambulance availability, Toronto Paramedic Services considers available staffed ambulances and excludes any that are on special duties since those would not be deployed to regular incidents.
Low availability is when 10% or less of staffed ambulances are available	Toronto Paramedic Services considers the availability to be low when the number of staffed ambulances that can respond to emergency calls drops to 10 per cent or less of the scheduled number of staffed ambulances. Since the number of scheduled staffed ambulances changes throughout the day based on expected call volume, an availability level of 10 per cent means having five to 12 ambulances free for dispatch, with an average of around nine ambulances.
	For the purposes of our testing, we reviewed five years of data, from 2019 to 2023, and conservatively selected five ambulances as our baseline for low ambulance availability.

¹² Staffed ambulances refer to ambulances that are staffed by two paramedics.

Frequency and duration of episodes where there was a low availability of staffed ambulances is increasing	We found that in 2023, Toronto Paramedic Services spent on average a total of almost two and a half hours each day with a low availability of staffed ambulances. Specifically, there were more than 6,800 episodes of low availability in 2023, with each episode lasting an average of almost eight minutes. In comparison, in 2019, there were 1,300 episodes lasting an average of four minutes each.	
	Based on our review, the longest single episode of low availability in 2023 lasted from 11 p.m. on October 28 to 6 a.m. the next day, or 7 hours and 6 minutes. In comparison, the longest single episode in 2019 was 1 hour 14 minutes.	
Zero staffed ambulance availability increased from 29 episodes in 2019 to over 1,200 episodes in 2023	We also specifically examined the trend of having no staffed ambulances available, which the media has called "Code Red." While the average length of these episodes remained consistent since 2019 at two minutes, the frequency with which they occur increased from 29 episodes in 2019 to over 1,200 episodes in 2023.	
A. 3. Response Times by Geographic Area Vary and Not Monitored		

Priority post ambulance station locations not reviewed since 2013
Toronto Paramedic Services has 45 stations throughout the city, including stations strategically designated as priority posts due to their proximity to areas of high call volume and high acuity calls. According to the Division's dispatcher manual, priority posts must always have staffed ambulances available. Priority posts also take priority over a regular station when the availability of staffed ambulances is low.
Figure 7 shows a map of all stations throughout the city, with blue circles indicating priority post stations. From our interviews with management and dispatchers, the location of priority post ambulance stations has not been reviewed since 2013.



Figure 7: Toronto Paramedic Services Ambulance Stations Including Priority Post Stations

Toronto Paramedic Services does not monitor response time by geographic area Toronto Paramedic Services currently collects callers' GPS coordinates when they call in. However, the Division does not apply this data to geographic areas or neighbourhoods to provide better information for performance monitoring and allocation of resources. We tried to match the areas covered by ambulance stations to city wards but were not able to align them perfectly. We could not conclude, using census data, whether there was any correlation between response times and the city's vulnerable communities (i.e., low-income population, wards with high population of seniors, etc.).

Based on the call location data collected by Toronto Paramedic Services, our office calculated the response times for each station area. In our analysis of 2023 data, we found varying average response times across the city for high priority calls. In **Figure 8**, we have highlighted 15 stations where high priority calls originating from their response areas had the longest average response times in 2023.



Figure 8: 15 Stations with the Longest Response Times in 2023

Slower average response times for high priority calls outside of downtown area In particular, we found that calls from the downtown area had on average, faster response times than calls from the outskirts of the city. For example, we found that two priority posts in downtown Toronto have average response times between nine and 10 minutes; whereas, a priority post in North York and another priority post in south Etobicoke have average response times of more than 13 minutes.

In discussions with management on this matter, they advised us that emergency response priority is based on the information provided by the caller and is not influenced by demographic factors. Management said that downtown could have better response times due in part to a higher number of staffed ambulances allocated to the downtown area due to its higher call volume. Another important factor affecting response time is the location of the ambulance at the time of its dispatch. Management noted that, due to offload delays, many staffed ambulance resources are drawn towards the hospitals, and that many of the city's larger hospitals are located in the downtown area, including specialty hospitals for high acuity patients. Therefore, the proximity of callers to hospitals may be an important factor in longer response times for patients from outside the city's downtown area. It would be helpful for Toronto Paramedic Services to look into this further, and work with the Province where needed, to ensure that ambulance response times are equitable across the city.

Toronto Paramedic Services can serve Toronto's diverse population better by understanding unique demographics of different geographic areas In addition to proximity to hospitals, there are other factors that affect ambulance response times, such as population growth, condition of roads and highways, call volume, etc. By understanding which areas of the city experience higher response times, Toronto Paramedic Services can:

- Understand the demographics of different areas to help improve service to meet the diverse needs of various communities, including Toronto's vulnerable and marginalized populations.
- Use this information to better allocate staffing and ambulance resources.
- Target its public education efforts about the different healthcare options available in each community, particularly for lower acuity healthcare needs, other than calling 9-1-1 to get an ambulance.

Paramedics (and hospital emergency departments) have become a safety net when people are not receiving the healthcare services they need Management also advised that paramedics help to ensure there is equitable healthcare for everyone. Many people do not have a primary healthcare provider and some members of vulnerable communities may not be able to access every healthcare service. Lower acuity patients may not have their own transportation to the hospital when needed. For these and other reasons, paramedics (and hospital emergency departments) have become a safety net when people are not receiving the healthcare services that they need from the rest of the healthcare system. This issue is outside of the scope of this audit but is a very important matter for the Province to continue to address and improve as it affects the resourcing and response times of paramedics.

Recommendation:

- 2. City Council request the Chief, Toronto Paramedic Services to:
 - a) Monitor and report out on performance by geographic areas to better inform future decision-making; and
 - b) Reassess the designations of priority post stations, taking into consideration hospital locations, frequent dispatch locations, and areas with greatest needs by level of acuity and the type of hospital care required.

18

B. Why is This Happening - Healthcare System Pressures, Need for Further Provincial Support, and Staffing Challenges

B. 1. In-Hospital Time Accounts for 60 Per Cent of Paramedics' Service Time and is Increasing

We found that in 2023, a paramedic unit spent two hours on average handling a call requiring transport. Of that, 71 minutes (or 60 per cent) of that unit's time was spent in the hospital. The longer paramedics spend in a hospital, the less time they have for other calls. In collaboration with hospitals, Toronto Paramedic Services has taken several steps to address the increasing amount of in-hospital time. For example, the Division met with the senior leadership of hospitals, connecting them to peers who have solved some of their patient flow issues. However, this has not reduced the time paramedics spend in hospitals while waiting to transfer patients.

In-hospital time is the largest component of the paramedics' total service time

As illustrated in **Figure 9**, the in-hospital time is, on average, the largest component of the paramedics' total service time.¹³ It is longer than the time paramedics spend assessing and treating patients at the scene. In 2023, paramedics spent about 24 minutes on average (19 per cent of their time) at the scene treating patients and waited 35 minutes (30 per cent) for hospitals to accept patients. Paramedic units waiting to transfer patients at hospitals are effectively out of service, reducing the availability of staffed ambulances in the community, and increasing response times for new emergency calls.

Figure 9: Average Paramedic Service Time



¹³ Service time is the total length of time required by a paramedic unit to service a call from the moment the unit is assigned until it returns to ambulance availability, as illustrated from point 2 to point 7 in **Exhibit 1**.

Figure 10 shows the percentage of times from 2019 to 2023, when transferring a patient to the care of hospitals took longer than 30 minutes. The percentage of times that it took paramedics longer than 30 minutes to offload patients to hospitals has increased from 33 per cent in 2019 to 42 per cent in 2023. 2020 was an outlier because fewer people were willing to visit hospitals during the onset of the COVID-19 pandemic.



Figure 10: Percentage of Time that Patient Offload Took Longer Than 30 Minutes, 2019 to 2023

We also discovered that because each hospital is unique in its size, layout, staffing level, internal processes, and the volume of patients it serves, the average time waiting to offload varies by hospital. **Figure 11** shows the average wait time to offload a patient at different hospitals in Toronto. **Figure 12** shows the location of the different hospitals in Toronto. Hospitals with an average wait time of more than 45 minutes to offload a patient are circled.



Figure 11: Average Wait Time to Offload Patient (in Minutes) by Hospital, 2022-2023





There is no provincial mandated target for wait times to offload a patient to encourage hospitals in managing offload delay According to the Paramedic Chiefs of Canada, 30 minutes is the generally accepted time it should take to offload a patient; anything greater is considered an offload delay. Currently, Ontario has not mandated any offload target for hospitals to meet. Alberta Health Services, however, has recently implemented a wait time target of 45 minutes for offloading a patient at a hospital.

Having a provincially mandated target for wait times may encourage hospital partners to offload patients faster.

B. 2. Need for Additional Provincial Support

B.2.1 Opportunity for New Patient Care Models with Provincial Support

Not all patients who call for an ambulance require transportation to a hospital and there are also times when patients would benefit from further support but refuse transportation to the hospital. Alternative facilities could deliver more appropriate healthcare services to some patients in these cases, such as those who are experiencing mental health challenges and/or substance use addiction, for those who do not require hospital care. The Ministry of Health amended the Act in 2023 to allow paramedics to treat selected patients on scene, transport patients to other destinations, or refer them to another healthcare provider. **Figure 13** provides a description of these new models of care below.

Figure 13: New Patient Care Models

Patient Care Models	Description	Toronto Paramedic Services Adopted Model
Treat and Discharge	An eligible patient may be treated on-scene by paramedics as needed and discharged with recommendations for follow-up care if needed	Implemented as of February 21, 2024
Treat and Refer	An eligible patient may be treated by paramedics on scene as needed and referred for appropriate follow-up care by a healthcare provider	Not at this time
Alternate Destination*	An eligible patient may choose to go to an alternate healthcare provider for treatment/care that is not an emergency department or a hospital-based facility (e.g., a mental health crisis centre, hospice, non-hospital affiliated urgent care centres/clinics, family practice offices, or community-based family health teams)	Not at this time

* This does not include patients taken to the Stabilization Centre at the University Health Network, which is a hospital-based alternate destination. See the last paragraph in **Section B.2.1** for more details.

The Division faces challenges in adopting the new patient care models

The flexibility of this legislated change can help reduce the amount of ambulance transports to hospitals; however, other healthcare providers or locations must have sufficient capacity in order for this change to be feasible and effective. As of February 2024, Toronto Paramedic Services has only implemented one of the three models, "Treat and Discharge". Management informed us that it has been hard to implement the other two new models of care in Toronto, as they require support for integrated healthcare from the provincial government. These challenges are discussed below.

Treat and Refer Patient Care Model

To implement the "Treat and Refer" model, paramedics need to be able to refer the patient to a healthcare provider (i.e., walk-in clinics or family doctors' offices). However, Ontario lacks a centralized database that lists all healthcare providers, including details such as contact information, services offered, availability, and other relevant data, categorized by neighbourhood. This makes it challenging for paramedics to search and identify which healthcare provider can take on a new patient or has available appointments. Currently, Toronto Paramedic Services would need to establish separate formal arrangements with each healthcare provider to work out the details of how the referral process would work. This would be a significant undertaking requiring additional resources. The Province acknowledged that many family physicians, nurse practitioners, and other primary care providers in Ontario currently operate independently or within small groups and lack connections with one another. In 2023, the Ontario government released a plan, "Your Health – A Plan for Connected and Convenient Care," that includes a key initiative for delivering the right care in the right place. By establishing connections among primary care providers, the plan aims to enhance patient access to primary care and provide the care within the patient's own community. The Province needs to provide improved healthcare integration and a centralized database listing all healthcare providers for this model to be an effective alternative solution for paramedics.

Alternate Destination Patient Care Model

Implementing the "Alternate Destination" model also requires that non-hospital-based healthcare providers have sufficient resources to accommodate the additional workload associated with accepting patients brought in by paramedics.

For example, our review of call data showed that in 2023, Toronto Paramedic Services received approximately 14,000 emergency calls of potential drug intoxication. This is an increase of 35 per cent from 2019 to 2023. Ninety-one per cent of the calls received were assigned high priority. Forty-one per cent of attended incidents did not result in a transport to hospitals; of these, 63 per cent of patients refused to go to a hospital.

Management informed us that its community paramedicine team is actively engaging with healthcare providers to establish partnerships across the city. Until these partnerships develop, and the healthcare system becomes more interconnected, there will be limited opportunities for referrals and alternate destinations.

The Stabilization Centre at the University Health Network is a hospitalbased alternate destination that provides a safe space for patients to recover from their toxified state and connect with the essential services they need. During its first full year in 2023, Toronto Paramedic Services transported patients 1,700 times to the Stabilization Centre. Given the success of this hospital-based program, there is opportunity for paramedics to explore and collaborate with other non-hospital-based destinations across the city such as drug addiction facilities that can better serve these patients' needs.

B.2.2 Further Provincial Support is Required for Additional Call Takers and Dispatchers

Toronto Paramedic Services needs 28 more call takers and dispatchers to keep up with call demand and response time targets Toronto Paramedic Services' ambulance communications centre needs further support from the Province. The Division requested additional staffing in a business case submitted to the Ministry of Health in June 2023. It requested to add 57 staff, including 36 call takers and dispatchers to address the increase in call volume.

The Province approved additional funding for 20 staff, including eight call takers and dispatchers. However, additional support is needed to address the remaining gap of 37 more staff needed, including 28 call takers and dispatchers. As discussed in the previous section, Toronto Paramedic Services has consistently been unable to meet all of its response time targets and without these additional staff, it will be challenging to improve the current level of service.

Recommendation:

- 3. City Council request the City Manager, in consultation with the Chief, Toronto Paramedic Services, to request the Ontario government to:
 - a) Consider establishing a provincial mandated target for wait time to offload a patient to encourage hospitals to better manage offload delays;
 - b) Invest in a centralized database of integrated healthcare, to facilitate paramedic referrals to alternate healthcare providers and the transport of patients to non-hospital facilities; and
 - c) Provide the requested staffing increases to address the resource needs in the Central Ambulance Communications Centre.

B. 3. Staffing Challenges

B. 3. 1. Need to Improve Staffing Plan to Determine Optimal Staffing Levels

Current staffing plan did not factor in response time targets or inactive frontline staff The 2019-2024 Multi-year Staffing Plan that Council approved for Toronto Paramedic Services outlines the required number of paramedics and is based on the anticipated increase in future call volume and the paramedics' service time. The Division, however, did not factor into the staffing plan the number of paramedics required to meet its response time targets. The Division hired a consultant in 2013 who modeled different response time scenarios to determine the required staffing resources. There has not been another detailed analysis like that since then. The staffing plan also did not account for the number of paramedics who are unable to respond to emergency calls because of workplace injury leave, modified duties, or other forms of long-term leave. We noted that about 12 per cent of paramedics are currently inactive and unavailable for frontline deployment. This places a burden on the remaining staff, potentially contributing to burnout and increased stress-related injuries.

Management informed us during our audit that they are working on a more comprehensive staffing analysis that will consider call volume, workload demand throughout the day, inactive staff, and response time targets, to determine the optimal staffing level.

Recommendation:

4. City Council request the Chief, Toronto Paramedic Services, to conduct a detailed staffing analysis that includes call volume, workload demand throughout the day, inactive staff, and response time targets to determine the optimal staffing level for frontline staff.

B. 3. 2. Increasing Use of Paramedic Staff Overtime to Manage Demand Peaks

Low Availability of Staffed Ambulances More Frequent on Weekends and after 9 p.m. on Weeknights

Low availability of staffed ambulances more frequent on weekends and weeknights starting at 9 p.m. We analyzed the frequency of having a low availability of staffed ambulances by day of the week and hour of the day for the past five years and noted the following cyclical trends:

- A low availability of staffed ambulances occurred most often from Friday to Monday (i.e., over the weekend), with Friday almost doubling that of Tuesday.
- **Figure 14** shows that low availability also occurred more often during the night shift, between 9 p.m. to midnight..



Figure 14: Frequency of Low Staffed Ambulance Availability Episodes by Hour of Day (2019-2023)

Offload delays at hospitals contribute to low availability of staffed ambulances particularly for these time periods The audit of Large Community Hospital Operations completed by the Auditor General of Ontario in 2016 found that wait times in emergency rooms usually peaked in the evening, between 7 p.m. and 11 p.m., and that the wait times are typically longer on weekends because there are fewer emergency room physicians and support staff on duty. This causes an offload delay, which exacerbates the occurrence of low ambulance availability on weeknights and weekends.

Demand Peaks During Late Spring to Summer Months and Fall to December

Low availability of staffed ambulances more frequent during late spring and summer months, continues to rise through fall and peaks in December We also analyzed the monthly occurrences of the low availability of staffed ambulances for the last five years and noted the following cyclical trends:

 As Figure 15 shows, the occurrences of low ambulance availability rise steadily as we head into the late spring and summer months. As weather warms, there are more special events requiring more first responders. Warmer weather and events also add more traffic and congestion to the roads, which contribute to slower response times. At the same time, the number of paramedics on vacation also peaks during the summer months, reducing the number of paramedics on duty. • Figure 15 also shows that the occurrences of low ambulance availability generally continue to rise from fall to December. This is due in part to respiratory illness season, which begins in the fall, and causes the hospitalization of more patients and a related shortage of hospital beds. This in turn leads to longer and more frequent offload delays for paramedics at the hospitals. In addition, we also noted that sick leave among paramedics peaks every December each year, reducing the number of paramedics on duty.

Figure 15: Frequency of Low Staffed Ambulance Availability Episodes by Month (2019-2023)



Increasing Overtime Due to Staffing Challenges and Surging Demands

To handle the increased demand at certain times of the year, week, or day, as discussed above, Toronto Paramedic Services uses overtime to manage the times when demand for its services surges.

We examined the number of overtime hours worked by frontline staff over the last five years. In 2023, each paramedic worked an average of five full weeks of overtime work, or an extra three hours per week.

- Full shift overtime, which is voluntary, increased by 169 per cent between 2019 and 2023.
- While it decreased over the last five years, end-of-shift overtime, which is not voluntary, still accounts for 38 per cent of all overtime hours from 2019 to 2023.

The significant increase in overtime could contribute to staff burnout, increased stress-related injuries, and staff turnover (see **Section B. 3. 3.** below). The Division would benefit from adopting strategies to better manage staffing the daily, weekly, and seasonal peaks in demand, factoring in estimates for staff vacation and sick leaves. This would help prevent the potential negative impacts of overtime on staff and address the surges in demand and the availability of staffed ambulances.

Recommendation:

5. City Council request the Chief, Toronto Paramedic Services, to explore and implement strategies to help manage the daily, weekly, and seasonal peaks in demand that contribute to the low availability of staffed ambulances.

B. 3. 3. Increasing Staff Turnover, Especially Among Call Takers and Dispatchers

Turnover rate for call takers and dispatchers more than tripled over the	From 2019 to 2023, the staff turnover rate more than tripled (from seven to 27 per cent) for call takers and dispatchers.
last 5 years	For frontline paramedics, the turnover rate increased from five to eight per cent during the same period. Although the percentage is not as high, this meant the equivalent of over 500 paramedics left the Division in the past five years from 2019 to 2023.
	Resignations accounted for 73 per cent (388 of 532) of the paramedic departures, and 47 per cent (55 of 117) of the call takers and dispatchers' departures for the last five years. Other reasons for departure include, for example, retirement and probationary discharges. Staff retention is an ongoing issue for the Division, leading to reduced availability of staffed ambulances.
	Figure 16 shows the number of call taker and dispatcher hires versus departures from 2019 to 2023.



Figure 16: Hires versus Departures of Call Takers and Dispatchers

* In 2023, 17 departures were resignations, and 24 departures were probationary discharges.

The consequences of the high turnover rate may include:

- fewer staff available contributing to an increased response time (refer to **Section A.1.**);
- lower morale caused by uncertainty and stress among remaining staff;
- loss of knowledge and experience in 2023, 42 per cent of call taker and dispatchers, and 27 per cent of frontline paramedics had three or fewer years of service; and
- increased costs for hiring and training while Toronto Paramedic Services hired and trained 79 new call takers / dispatchers in 2023, 46 call takers / dispatchers left the Division that year.

We noted the following factors that may have contributed to the challenges of retention:

- Paramedics may be attracted to move to paramedic services in other jurisdictions, which likely have a less demanding workload and potentially a shorter commute with lower cost for housing.
- Call takers and dispatchers may be attracted to use their transferrable skills to work in similar roles at other municipalities or non-emergency communication roles (e.g., transit agencies such as Metrolinx), which may be a less demanding work environment.
- Experienced dispatchers may be attracted to work at provincially operated ambulance communications centres due to higher wages for performing the same role.

Management advised us that they have conducted engagement surveys and exit interviews to reduce workload and retain staff, and have:

- provided more opportunities for career advancement and special projects;
- provided better equipment and facilities;
- improved the use of staff recognition;
- implemented a psychological health and wellness program in 2017 to help staff that were absent due to stress-related injuries to return to work sooner;
- made efforts to increase staff levels; and
- increased the use of community paramedics and referrals to alternate care (e.g., Health 811).

However, Toronto Paramedic Services has not evaluated the effectiveness of these initiatives and strategies and continues to be challenged with staff retention.

Recommendation:

6. City Council request the Chief, Toronto Paramedic Services, to evaluate the effectiveness of its retention strategies and initiatives and consider additional strategies if needed, to ensure it remains competitive in retaining frontline staff, including call takers and dispatchers.

Management has attempted many initiatives and strategies to retain staff but has not evaluated their effectiveness

C. Opportunities for Improvement Going Forward

C. 1. Explore Strategies to Better Address Low Acuity Calls

Given the staffing challenges at Toronto Paramedic Services, it's important to address that the use of staffed ambulances for less urgent calls limits resources that could be deployed to more critical incidents. The number of emergency calls received by Toronto Paramedic Services over the past five years increased by six per cent.

27% of calls in 2023 involved minor injuries or illnesses, with 80% of these cases not needing hospital transport Our analysis found that 27 per cent of the calls in 2023 involved minor injuries or illnesses, with 80 per cent of these cases not needing hospital transport. We estimate it costs Toronto Paramedic Services \$109 to attend a call, and \$422 when transport is required. Management noted that some callers request paramedics come for minor illnesses or injuries, even though these situations are not emergencies. Under the *Ambulance Act* and the Ministry of Health Patient Care Standards, paramedics cannot refuse the request. There is therefore a pressing need to develop strategies to manage low acuity calls more effectively to free up resources for higher acuity calls.

Toronto Paramedic Services has implemented several actions to deal with low acuity calls:

- Referring callers to Health 811, where callers can receive advice from qualified health professionals via phone, chat, or online 24/7;
- Referring additional low priority calls to Toronto Fire Services during the COVID-19 pandemic;
- Using an emergency response vehicle with a single paramedic to provide rapid assessment and stabilization of patients;
- Having the community paramedicine team conduct clinics and home visits with underserved and marginalized populations, to reduce the repeated use of 9-1-1; and
- Partnered with the City in 2018 in its "Make the Right Call" public awareness campaign to educate the public on when to call 9-1-1 for an ambulance.

While these measures have helped with the frontline workload, they also have limitations. For instance, callers may be reluctant to be transferred to Health 811, resulting in additional time to process the call. Management advised that in some cases, callers who were transferred to Health 811 ended up calling back to 9-1-1.

The arrangement with Toronto Fire Services to provide support on additional types of lower priority calls during the COVID-19 pandemic came to an end in the second quarter of 2024. According to management, during the pandemic, Toronto Fire Services assisted the Division in responding to approximately 55 requests for an ambulance per day. The fire and paramedic services have reverted back to their pre-pandemic level of about 15 requests per day. As a result, Toronto Paramedic Services is now addressing the additional lower priority calls that were previously shared with Toronto Fire Services during the COVID-19 pandemic.

We noted that many other jurisdictions are exploring innovative strategies to respond to a variety of low acuity calls. These initiatives are aimed at increasing capacity and increasing the availability of staffed ambulances for high acuity calls. A summary of these initiatives is outlined in **Figure 17**.

Initiative	Description	Example*
Mobile Integrated Healthcare	Community paramedics respond to select low acuity 9-1-1 calls and provide medical interventions to patients at their homes or preferred locations, reducing the need for ambulance transports or emergency department visits. This sometimes involves a diverse team of professionals, including paramedics, nurses, physicians, and social workers, who use mobile technology to communicate and collaborate.	 Niagara Emergency Medical Services Essex-Windsor Emergency Medical Services - Community Assessment Triage Team
Registered Nurse Working in Ambulance Communications Centre	A registered nurse works in an Ambulance Communications Centre to provide medical advice over the phone.	Niagara Emergency Medical Services
Paid Taxi Service	Local taxis transport less urgent/non-urgent patients, using strict eligibility criteria.	Niagara Emergency Medical Services

Figure 17: Initiatives Implemented by Other Jurisdictions to Help Address Low Acuity Calls

* The implementation of the initiative and eligibility criteria vary among different jurisdictions. The Ministry of Health rejected Ottawa Paramedic Service's proposal in May 2024, which would have allowed paramedics to arrange taxi services for patients who have been fully assessed by paramedics and do not require paramedic care on the way to the hospital. Niagara Emergency Medical Services follows a different model, offering taxi services at the point of call-taking in the ambulance communications centre, without assessment by paramedics.

Recommendation:

7. City Council request the Chief, Toronto Paramedic Services, to conduct a cost-benefit/risk analysis of innovative approaches for responding to low acuity calls to free up resources for higher acuity calls.

C. 2. Opportunities to Divert Some Mental Health Calls

Toronto Paramedic Services has identified the potential to divert some mental health calls to the Toronto Community Crisis Service (TCCS). As the Division and TCCS develop their plan for call diversion, we identified some opportunities for the Division to consider in their ongoing collaboration.

The Division received approximately 17,000 to 21,000 emergency calls related to mental health every year for the past five years (excluding potential drug overdoses). This represents approximately five per cent of all emergency calls Toronto Paramedic Services received.

In Toronto, there are several programs and initiatives designed to help people who suffer from mental health issues, including TCCS, as well as the Toronto Police Service's Mobile Crisis Intervention Team, and the Gerstein Crisis Centre "Crisis Call Diversion" Program. **Figure 18** provides the descriptions and launch dates of each program.

Figure 18: Mental Health Programs

Program	Launch date	Description
Toronto Community Crisis Service (TCCS)	March 31, 2022 (pilot basis in 4 communities of Toronto) Program to be rolled out to rest of Toronto by end of 2024	Mobile crisis teams from TCCS provide free, confidential, in-person mental health services. TCCS supports Toronto residents 16 years of age or older and is available 24 hours a day, seven days a week.
Mobile Crisis Intervention Team (MCIT)	Created in 2000, subsequently expanded	This collaborative partnership between Toronto Police Service and six partner hospitals, pairs a mental health nurse with a specially trained police officer to respond exclusively to situations involving individuals experiencing mental health-related crisis.
Crisis Call Worker at Toronto Police Service's 9-1-1 Communications Centre	October 2021	A Crisis Worker from Gerstein Crisis Centre works in Toronto Police Service's 9-1-1 Communications Centre to provide phone assistance to individuals, and divert non- emergency calls related to mental health away from a police emergency response.

Opportunity to potentially divert about 11,000 emergency calls annually to mental health programs Toronto Paramedic Services and TCCS identified approximately 11,000 mental health calls in 2022 that did not require medical intervention and could have potentially been diverted to TCCS. Currently, TCCS is in its pilot phase in four communities of the city and has plans to expand citywide by the end of 2024. It will take time to expand the call diversion to ensure all areas of the city have equitable access to care, consistent quality of care, and positive patient outcomes.

> Currently call-takers at Toronto Police Service Communications Centre make the decision whether to transfer calls to Toronto Paramedic Services or TCCS instead. Toronto Paramedic Services cannot currently refer calls directly to TCCS. Once a more comprehensive plan for call diversion has been developed, joint training and a formal communication channel should be considered to ensure the triage of calls succeeds in connecting patients to the appropriate agencies for the care or service they need.

Joint training should be considered to enhance the understanding of the roles, responsibilities, and limitations of services provided by respective agencies, while also increasing the awareness of the mental health resources that are available. Toronto Paramedic Services currently does not track calls where MCIT or TCCS were already at the location or where their presence could have been beneficial. Better tracking of data can help Toronto Paramedic Services identify opportunities and strategies for diverting more calls not requiring medical intervention.

Recommendation:

- 8. City Council request the Chief, Toronto Paramedic Services, to collaborate with Toronto Police Service and Toronto Community Crisis Service, to:
 - a. Improve data collection and communication channels to enable paramedics to directly refer calls that would benefit from the attendance of Toronto Community Crisis Service or alternate City agencies; and
 - b. Develop a more comprehensive plan for call diversion and consider if joint training is necessary to enhance each workforce's understanding of roles, responsibilities, limitations, and awareness of available mental health programs and resources.

C. 3. Reduce Call Volume Through Data Analysis on Frequent 9-1-1 Users

Toronto Paramedic Services uses an analysis of frequent 9-1-1 users to identify underserved and marginalized populations and determine the areas where the community paramedicine team can minimize repeat 9-1-1 calls with home visits (e.g., seniors), paramedic-led clinics, and other services. The Division also analyzes buildings to pinpoint those with a high volume of 9-1-1 calls. This enables the community paramedicine team to establish paramedic-led clinics, focusing on preventive activities, to reduce calls from these buildings. Patient care information However, Toronto Paramedic Services does not use all the patient is not used in conducting information it collects to help identify frequent 9-1-1 users. Currently, it undertakes a monthly analysis of call information using only the frequent 9-1-1 user analysis addresses. This excludes calls originating from non-residential addresses such as a public space. While paramedics on scene record other data in the ambulance call report, such as patient name, age, gender, and medical intervention performed, these details are not currently used to help identify repeat users. Management informed us that Toronto Paramedic Services uses call information instead of patient care information because it wants to avoid identifying patients when the calls are taken. This approach ensures calls are screened consistently and impartially, regardless of 9-1-1 call history.

However, incorporating additional data on patient care will improve Toronto Paramedic Services' understanding of frequent users and provide it with deeper insights into local issues and the needs of Toronto neighbourhoods, such as patterns of disease and injury and residents' access to care. This in turn will enable the Division to make more informed decisions about the location of priority post stations, needs for illness and injury prevention, and the development of targeted public education and awareness campaigns, thereby enhancing their effectiveness.

In comparison, Hamilton Paramedic Service collaborated with Hamilton Public Health Services and used call and patient care data in their 2022-2031 Master Plan to conduct an analysis of 9-1-1 users to gain a better understanding of the characteristics of patients who are frequent users of ambulance services.

Recommendation:

- 9. City Council request the Chief, Toronto Paramedic Services, to improve the analysis of data on frequent 9-1-1 users, to
 - a. Identify more patients who can benefit from the community paramedicine programs; and
 - b. Consider developing targeted public education and awareness campaigns to reduce non-emergency call volume.

C. 4. Forty-Six Per Cent of Ambulance Vehicles Are Not In Active Use

Toronto Paramedic Services has not determined the optimal number of ambulances it requires	We noted that Toronto Paramedic Services has not analyzed any data to determine the optimal level of ambulances required for its fleet. We also observed that the largest number of staffed ambulances on duty in 2023 was well below the total number that Toronto Paramedic Services has in its fleet.		
	In 2023, Toronto Paramedic Services had 234 ambulances, yet the most scheduled for duty on any given day was 126, leaving at least 108 ambulances not in active use, or 46 per cent of the ambulance fleet. We estimate the cost of maintaining these additional ambulances to be \$2.3 million annually.		
	Management informed us that the additional ambulances are budgeted for special events, disaster events, routine preventative maintenance, collisions, and other significant mechanical issues. Management also advised that ambulances are rotated in order to spread the mileage across the fleet and extend the lifetime of the vehicles.		

We sample-tested five days in 2023 when Toronto Paramedic Services experienced episodes of low availability of staffed ambulances. We noted that in all cases, there were ambulances not in active use after accounting for those out-of-service for maintenance and mechanical issues and scheduled for duty.

When asked why more ambulances were not put into service on days with low ambulance availability, and management informed us that they are constrained by:

- the shortage of paramedic staff (it typically requires at least two paramedics to operate an ambulance under normal circumstances); and
- the limited space currently available to hold ambulances in paramedic stations across the city.

We noted that the size of the current ambulance fleet is not based on call demand nor response time targets. Management has told us they purchase as many ambulances each year as their budget will allow, given the long supply lead times required, and because 90 of its ambulances are older than seven years (the average lifespan of a typical ambulance).

As part of its capital plan, Toronto Paramedic Services is planning to build new multi-function stations at key strategic locations across the city that have a capacity to accommodate approximately 100 more ambulances to meet the increase in call volume.

Recommendation:

10. City Council request the Chief, Toronto Paramedic Services to:

- a. Determine the optimal level of ambulances it requires in its fleet to meet its needs and response time targets; and
- b. Compare this to its existing fleet to determine the level of surplus and consider selling the vehicles not needed.

Current fleet level is not based on call demand or response time targets

Conclusion

Response times are increasing and legislated targets for response times not met more often for the highest acuity patients	For our first audit objective, assessing whether Toronto Paramedic Services is providing a timely emergency response, we found the response times have been increasing and that more emergency calls did not meet the legislated targets for response times for the highest acuity patients. In the face of healthcare system pressures, including hospital offload delays, we found that the city has seen more frequent and longer episodes of low availability of staffed ambulances to respond to the increasing number of emergency calls.
No monitoring or reporting of response time by geographic areas	For our second audit objective, we found that Toronto Paramedic Services is measuring, monitoring, and reporting on its performance against targets. However, we found that there was no monitoring of response time by geographic area and that average response time was slower for high priority calls outside of the downtown area.
Opportunities to improve staffing and ambulance resources and reduce future call volume	For our third audit objective, to assess whether there are opportunities for Toronto Paramedic Services to optimize its use of resources, we found that Toronto Paramedic Services can improve its use of staff and ambulances. It can also improve how it responds to low acuity calls, divert some types of mental health calls, and reduce call volume by enhancing its analysis of data on frequent 9-1-1 users.
10 recommendations to improve Toronto Paramedic Services' efficiency and effectiveness	 In our view, implementing the 10 recommendations contained in this report will help Toronto Paramedic Services improve the efficiency and effectiveness of its operations. In particular, the recommendations identify opportunities for: Reviewing response time targets, improving overall response times particularly for higher acuity calls, and monitoring response times by geographic area. Requesting further provincial support to address the healthcare autom procures. Determining antimal staffing
	and ambulance resources and implementing optimal starting help manage the daily, weekly, and seasonal peaks in demand that contribute to the low availability of staffed ambulances.
	 Implementing strategies to free up resources for higher acuity calls by employing innovative approaches to address low acuity calls, diverting some mental health calls to partners in

users better through data analysis.

the future, and understanding the needs of frequent 9-1-1

Audit Objectives, Scope, and Methodology

Audit included in the 2024 Work Plan	The Auditor General's 2024 Work Plan included an operational review of 9-1-1 emergency response services provided by the City divisions involved with responding to 9-1-1 calls, including Toronto Paramedic Services and Toronto Fire Services. This continues a series of audits by the Auditor General in the area of emergency response services, following our 2022 reports of Toronto Police Services: "Audit of 9-1-1 Public Safety Answering Point Operations", and our "Review of Opportunities to Support More Effective Responses to Calls for Service".		
	This audit is an operational review of the 9-1-1 emergency response services performed by Toronto Paramedic Services. A separate audit may be performed subsequent to this one, focused on the 9-1-1 emergency response services performed by Toronto Fire Services.		
Audit objectives	The objective of this audit was to assess whether Toronto Paramedic Services is providing ambulance emergency response services in a timely manner across the city of Toronto, while optimizing the use of its resources. In assessing this objective, our audit aimed to answer the following questions:		
	 Is Toronto Paramedic Services meeting its legislated and internally approved targets for providing a timely emergency response to persons requesting ambulance service? 		
	 Is Toronto Paramedic Services effectively measuring, monitoring, and reporting on how well it meets its targets and using these results to inform management decisions? 		
	• Are there opportunities for Toronto Paramedic Services to optimize its use of resources, including the use of vehicles and staff, to improve its performance and response time?		

	Our audit objective initially included examining whether ambulance emergency response services are delivered in an equitable manner. However, as described in Section A.3 ., Toronto Paramedic Services does not monitor or report on its response times by geographic area. When we attempted to produce the data to do this analysis, we were unable to make any conclusions related to the equitable delivery of responses. Management advised that ambulance response is based on information provided by the caller at the time the 9-1-1 call is received. We have, however, provided recommendations for continuous improvement of data collection, monitoring, and reporting, particularly to address why response times outside of the downtown area are slower and how this may impact some vulnerable communities.	
Audit scope	This audit does not review the quality of the call taking, dispatching and patient care processes, as these areas have already been reviewed by the International Academies of Emergency Medical Dispatch and the Ministry of Health.	
	The scope of this audit covered the five-year period from January 1, 2019 to December 31, 2023. Where relevant to our audit, we examined certain records and data outside this period. Our findings and conclusions are based on the information and data provided by Toronto Paramedic Services at the time the audit was completed.	
Methodology	Our audit methodology included:	
	 reviewing Acts, legislations, regulations, and any other relevant guidelines issued by the Ministry of Health; 	
	 reviewing Toronto Paramedic Services policies and procedures, and any other relevant internal guidelines; 	
	 reviewing Toronto Paramedic Services budget information, strategic plans, and internal and external reviews; 	
	• conducting site visits of Toronto Paramedic Services stations and its Central Ambulance Communications Centre;	
	 interviewing staff from various business units, including superintendents, frontline paramedics, and emergency medical dispatchers; 	
	 interviewing representatives from the unions representing paramedics and ambulance communications centre staff; 	
	 analyzing data relating to emergency calls, including incident detail reports and ambulance call reports; 	

- analyzing operational data including fleet records, ambulance availability levels, staffing and workplace injury records, and internal key performance indicator records;
- research and benchmarking with other jurisdictions; and
- conducting other procedures that were deemed relevant.

Compliance with generally accepted government auditing standards

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Exhibit 1: Journey of a 9-1-1 Call for Ambulance

A 9-1-1 call is initially answered by the 9-1-1 Public Safety Answering Point (PSAP), operated by the Toronto Police Service, which assesses if the assistance of police, fire, ambulance, or Toronto Community Crisis Service (TCCS)¹⁴ is needed. Any requests for ambulance are then transferred from Toronto Police Service PSAP to the Toronto Paramedic Services ambulance communications centre.



¹⁴ The Toronto Community Crisis Service (TCCS) provides free, confidential, in-person mental health supports from mobile crisis worker teams.

Call Taking and Dispatching at Toronto Paramedic Services' Ambulance Communications Centre

Once Toronto Paramedic Services call takers answer the phone, they use a Medical Priority Dispatch System (MPDS)¹⁵ to ask a series of essential questions such as the nature and location of the incident and pertinent details about the patient's symptoms. The MPDS enables call takers to assign a dispatch priority level to the call, ranging from referral for non-emergency matters to time-life critical emergencies, based on the information provided by the 9-1-1 caller.

If the assessment indicates that the patient does not need paramedic intervention to go to the hospital by ambulance, the call may be referred to Health 811 (previously known as Telehealth Ontario or Health Connect Ontario), which is a free service accessible to the public 24/7 through phone, chat, and online to receive advice from qualified health professionals. However, if the caller requests that a paramedic unit attend the scene, regardless of the severity of the injury or illness, paramedics must respond under the *Ambulance Act* and the Ministry of Health Patient Care Standards.

When an emergency priority rating is assigned to a call, the dispatcher assigns the closest, most appropriate paramedic unit. The most appropriate paramedic unit is defined as the type of unit equipped with the skillsets and equipment necessary to respond to the needs of the patient(s). Meanwhile, the call taker continues the call to provide further instructions to the caller to assist the patient before the arrival of a paramedic unit.

Land Ambulance Response

Upon arrival at the scene, paramedics assess the situation and initiate medical intervention based on the condition of the patient. If transport is required, paramedics will consult a dispatcher at the ambulance communications centre who utilizes an internally developed software that assists with the distribution of patients. This software aims to achieve equitable distribution of patients to the medical facility that best meets the patients' needs, taking into consideration factors such as patient acuity, distance, hospital services required, hospital preferences, and the number of patients that paramedics have previously sent to the hospital.

In-Hospital Time

Upon arrival at a hospital, paramedics register the patient with a triage nurse. Hospital staff assess the patient's conditions. Those who are fit to wait on their own are directed to the waiting area, while others remain with the paramedics until a hospital bed becomes available. Once a bed becomes available, the hospital signals readiness to accept the patient. The paramedics then transfer the patient from the stretcher to a hospital bed.

While at the hospital, paramedics document in an ambulance call report their actions, observations, and medical intervention provided in relation to the incident. Paramedics are allowed a brief period after offloading a patient to sanitize equipment. Thereafter, the paramedic unit clears the medical call and indicates to the dispatcher that they are available to respond to a new incident.

¹⁵ The Medical Priority Dispatch System (MPDS) is an internationally used dispatch tool that assigns calls into different priority codes based on urgency. This tool is approved by the Ministry of Health and endorsed to be implemented province-wide as a best practice for emergency dispatch.

Exhibit 2: Response Time Targets, Ministry Reporting, and External Accreditation

Under the *Ambulance Act*, the Ministry of Health is responsible for overseeing the provision of prehospital emergency care. This includes legislating targets for response times and requiring annual reporting from ambulance service providers and communications centres on whether they met the targets.

Response time targets differ by patient acuity level. The Canadian Triage Acuity Scale (CTAS) is a fivelevel tool used by paramedics and hospital emergency departments to assess a patient's acuity level and to prioritize the care they require.

Regulation 257/00 of the Act sets out the targets for ambulance and dispatch response times for the most severe (sudden cardiac arrest and CTAS 1) patients. **Figure 19** below displays the segments of response time that are being measured and monitored.



Figure 19: Segments of Response Time in a 9-1-1 Call for Ambulance

Each land ambulance provider has the flexibility to set its own response time targets for the other CTAS levels (patients categorized as CTAS 2, 3, 4 and 5). **Figure 20** provides a description of the urgency of each CTAS level and Toronto Paramedic Services' response time targets.

Patient Acuity Level	Urgency	Examples	Ambulance Response Time Target (minutes)*	Dispatch Response Time Target (minutes)*
Sudden Cardiac Arrest	Life-saving intervention required: resuscitation	Absence of breathing/ pulse	6	2
CTAS 1	Life-saving intervention required: resuscitation	Stabbings, head or spine injuries	8	2
CTAS 2	Emergent	Chest pain	10	N/A
CTAS 3	Urgent	Fracture, abdominal pain	15	N/A
CTAS 4	Less Urgent	Mild muscle pain	20	N/A
CTAS 5	Non-Urgent	Sore throat	25	N/A

Figure 20: Response Time Targets for All Patient Acuity Levels, 2023

*Blue shading represents legislated targets, grey shading indicates self-established targets, and "N/A" indicates that a response time target is not required under the Act; therefore, the Division did not set up any target.

Every paramedic service is required to submit a performance plan with its response time targets annually to the Ministry of Health. The Ministry also requires each service provider to regularly report back on its achievement of its annual performance plan. As a result, the Division annually reports on its compliance rates (the percentage of calls that meet the response time targets) for every patient acuity level for the preceding calendar year.

Ministry of Health Audits and External Accreditation

The Ministry of Health reviews each ambulance communications centre and ambulance services every three years. These reviews examine whether ambulance communications centres and ambulance service providers meet the legislative requirements for operating an ambulance communications centre and adhere to the land ambulance certification standards. The most recent Communication Service Review and Land Ambulance Service Review in 2020 and 2023, respectively, stated that Toronto Paramedic Services satisfied all requirements for its ambulance communications centre and for land ambulance operations.

In addition, Toronto Paramedic Services also completes a voluntary accreditation process by the International Academies of Emergency Medical Dispatch (IAED). The accreditation process includes a quality review of the call taking and dispatching processes. The Central Ambulance Communications Centre in Toronto is an accredited Centre of Excellence with the IAED.

Appendix 1: Management's Response to the Auditor General's Report Entitled: "Toronto Paramedic Services – Rising Response Times Caused by Staffing Challenges and Pressures in the Healthcare System"

Recommendation 1: City Council request the Chief, Toronto Paramedic Services to:

- a. Review its performance plan and its response time targets to see if any updates are needed; and
- b. Improve overall response times to ensure it meets its response time targets and performance plan, particularly for the highest acuity calls.

 Management Response:
 ☑ Agree
 □ Disagree

 Comments/Action Plan/Time Frame:
 •
 Toronto Paramedic Services agrees with this recommendation.

 •
 Toronto Paramedic Services has already commenced a review of the response time targets and anticipates completion by December 31, 2024.

 •
 There are a number of initiatives underway to support response time improvement. These include

• There are a number of initiatives underway to support response time improvement. These include comprehensive staffing analysis and hiring strategies, review of operational deployment, and continued mitigation of offload delays. Toronto Paramedic Services anticipates completion of this work by June 30, 2025.

Recommendation 2: City Council request the Chief, Toronto Paramedic Services to:

- a. Monitor and report out on performance by geographic areas to better inform future decisionmaking; and
- b. Reassess the designations of priority post stations, taking into consideration hospital locations, frequent dispatch locations, and areas with greatest needs by level of acuity and the type of hospital care required.

Management Response: 🛛 Agree	Disagree
Comments/Action Plan/Time Frame:	

- Toronto Paramedic Services agrees with this recommendation.
- Toronto Paramedic Services employs a dynamic deployment model and assigns the closest, most appropriate ambulance to emergency calls.
- Toronto Paramedic Services will undertake a review on how to best report out performance by geographic areas and will reassess priority post station locations.
- Toronto Paramedic Services estimates completion by June 30, 2025.
- In addition, with the support of city partners, as part of our 10-year Capital Plan, Toronto Paramedic Services is moving towards a "hub and spoke" multifunction station model which will better allow resources to be deployed and scaled to community needs.

Recommendation 3: City Council request the City Manager, in consultation with the Chief, Toronto Paramedic Services, to request the Ontario government to:

a. Consider establishing a provincial mandated target for wait time to offload a patient to encourage hospitals to better manage offload delays;

- b. Invest in a centralized database of integrated healthcare, to facilitate paramedic referrals to alternate healthcare providers and the transport of patients to non-hospital facilities; and
- c. Provide the requested staffing increases to address the resource needs in the Central Ambulance Communications Centre.

Management Response: 🛛 Agree 🔅 Disagree		
Comments/Action Plan/Time Frame:		
 Toronto Paramedic Services agrees with this recommendation and will continue to work with the City Manager's Office to advocate to the Ontario government. 		
 Toronto Paramedic Services continues to work closely with our provincial partners to support reductions in ambulance offload times, explore alternate models of patient care, and to support staffing requirements. 		
 Toronto Paramedic Services will work with the City Manager's Office to complete this by December 31, 2024. 		

Recommendation 4: City Council request the Chief, Toronto Paramedic Services, to conduct a detailed staffing analysis that includes call volume, workload demand throughout the day, inactive staff, and response time targets to determine the optimal staffing level for frontline staff.

Management Response: 🛛 Agree 🗌 Disagree
Comments/Action Plan/Time Frame:
Toronto Paramedic Services agrees with this recommendation.
 Toronto Paramedic Services is implementing the final year of the council-approved multi-year staffing plan, and work is underway to analyze and determine future staffing needs to support improved response times.
• Toronto Paramedic Services has already begun a detailed staffing analysis and estimates completion by December 31, 2024.

Recommendation 5: City Council request the Chief, Toronto Paramedic Services, to explore and implement strategies to help manage the daily, weekly, and seasonal peaks in demand that contribute to the low availability of staffed ambulances.

Mana	gement Response: 🛛 Agree 🔅 🗍 Disagree
Comm	
Comm	nents/ Action Flan/ Time Frame:
•	Toronto Paramedic Services agrees with this recommendation.
•	Toronto Paramedic Services is working on processes to further refine our ability to predict staffing
	levels. This will inform strategies to better support ambulance availability during high demand

periods.
Toronto Paramedic Services will leverage existing internal working groups to analyze factors contributing to low ambulance availability and develop an implementation plan by June 30, 2025.

Recommendation 6: City Council request the Chief, Toronto Paramedic Services, to evaluate the effectiveness of its retention strategies and initiatives and consider additional strategies if needed, to ensure it remains competitive in retaining frontline staff, including call takers and dispatchers.

Manage	m	ent	Res	spons	e : 🖂	Agree	Disagree
-					<i>(</i> —)	-	

Comments/Action Plan/Time Frame:

- Toronto Paramedic Services agrees with this recommendation.
- Toronto Paramedic Services will continue to collect and analyze feedback from current staff and those that have left the organization to determine themes which may inform new strategies and initiatives to retain staff.
- Toronto Paramedic Services will work with People and Equity to evaluate the effectiveness of our retention strategies.
- Toronto Paramedic Services anticipates completion of this recommendation by December 31, 2025.

Recommendation 7: City Council request the Chief, Toronto Paramedic Services, to conduct a costbenefit/risk analysis of innovative approaches for responding to low acuity calls to free up resources for higher acuity calls.

Management Response: 🛛 Agree	□ Disagree
Comments/Action Plan/Time Frame:	
Toronto Paramedic Services ag	rees with this recommendation.
Transite Demonstrative Constraints	

- Toronto Paramedic Services is currently undertaking work to implement an evidence-based strategy to improve the way we respond to low acuity calls with the goal to improve resource availability for higher acuity calls.
- Toronto Paramedic Services will conduct a cost-benefit/risk analysis of additional options for responding to low acuity calls. Toronto Paramedic Services anticipates completion of this work by June 30, 2025.

Recommendation 8: City Council request the Chief, Toronto Paramedic Services, to collaborate with Toronto Police Service and Toronto Community Crisis Service, to:

- a. Improve data collection and communication channels to enable paramedics to directly refer calls that would benefit from the attendance of Toronto Community Crisis Service or alternate City agencies; and
- b. Develop a more comprehensive plan for call diversion and consider if joint training is necessary to enhance each workforce's understanding of roles, responsibilities, limitations, and awareness of available mental health programs and resources.

Management Response: 🛛 Agree	Disagree
Comments/Action Plan/Time Frame:	

- Toronto Paramedic Services agrees with this recommendation.
- Toronto Paramedic Services is continuing to work with Toronto Community Crisis Service to analyze data and communication processes to support an effective, integrated and patient centric dispatch system.
- Toronto Paramedic Services will be working with Toronto Community Crisis Service to identify joint training opportunities to better understand the roles, responsibilities, limitations, and awareness of available mental health programs and resources.
- Toronto Paramedic Services will support implementation of this recommendation to align with expansion of Toronto Community Crisis Service.

Recommendation 9: City Council request the Chief, Toronto Paramedic Services, to improve the analysis of data on frequent 9-1-1 users, to

- a. Identify more patients who can benefit from the community paramedicine programs; and
- b. Consider developing targeted public education and awareness campaigns to reduce non-emergency call volume.

Manag	gement Response: 🛛 Agree 🛛 Disagree	
Comments/Action Plan/Time Frame:		
٠	Toronto Paramedic Services agrees with this recommendation.	
•	Toronto Paramedic Services is currently undertaking efforts to further identify potential patients that could benefit from community paramedicine. Toronto Paramedic Services anticipates completion of this recommendation by September 30, 2024.	
•	Toronto Paramedic Services has partnered with the City of Toronto Strategic Public & Employee Communications (SPEC) and is currently working on a targeted public education campaign. The anticipated go live date for this campaign is September 30, 2024.	

Recommendation 10: City Council request the Chief, Toronto Paramedic Services to:

- a. Determine the optimal level of ambulances it requires in its fleet to meet its needs and response time targets; and
- b. Compare this to its existing fleet to determine the level of surplus and to consider selling the vehicles not needed.

Management Response: 🛛 Agree 🛛 Disagree	
Comments/Action Plan/Time Frame:	
 Toronto Paramedic Services agrees with this recommendation. 	
 Toronto Paramedic Services is undertaking a comprehensive review to determine appropriate fleet requirements with anticipated completion by June 30, 2025. 	
 Toronto Paramedic Services will continue to work with the Ministry of Health and vehicle vendors to mitigate ambulance supply chain challenges. 	

AUDITOR GENERAL TORONTO