

To / Destinataire	Mayor and Members of Council	File/N° de fichier:
From / Expéditeur	Pierre Poirier, Paramedic Chief, Ottawa Paramedic Service	
Subject / Objet	Rural and Urban Response Time Performance for the Ottawa Paramedic Service	Date: December 20, 2024

## Executive Summary

The purpose of this memo is to address Motion No. 2024-39-03, approved at the June 25, 2024, Council meeting which requested that the Ottawa Paramedic Service report on response times by rural and non-rural areas for 2019-2023 and 2024.

Ottawa's aging and growing population, combined with healthcare system pressures, has resulted in annual call volume increases. To address these challenges, Council has invested in several strategies which are improving overall performance – including hiring additional paramedics, purchasing new emergency vehicles, and implementing a new dispatch system. Future budget plans include hiring more paramedics to continue to meet increasing demand, as noted in the Ottawa Paramedic Service 2024-2026 Investment Plan ([ACS2023-EPS-OPS-0002](#)).

The service provides patient care and emergency medical coverage to over one million residents across 2,800 square kilometres. Ottawa's rural areas face unique challenges, including longer travel times and fewer emergency calls compared to urban areas. The Province of Ontario regulates response time reporting city-wide, so analyzing rural versus non-rural performance or interpreting a sub-set of response time performance using city-wide standards requires careful interpretation.

Response time in rural areas is generally slower due to long travel distances and a lower call volume. For example, in 2023, there were 1,862 life-threatening emergency calls in urban areas compared to 107 in rural areas. Further, response time is affected by hospital offload delay which is a health care system issue. Regularly, paramedics are pulled into the core of the city where hospitals are located and become unavailable during their offload delay. Resolving offload delay would improve performance by returning paramedics back into the community and positioning the paramedic closer to calls in rural areas.

The Ottawa Paramedic Service will continue working with hospitals and the Province to reduce offload delay and advocate for healthcare system improvements to better serve

Ottawa's diverse communities. Overall, while Council's investments are beginning to show improvements to service, addressing systemic healthcare issues will be crucial in achieving further improvements.

## **Background**

The purpose of this memo is to provide Members of Council with a response to Motion No. 2024-39-03, approved at the June 25, 2024 Council meeting:

WHEREAS more than 80% of Ottawa's land mass is rural; and

WHEREAS rural communities experience different challenges and are often further from medical services; and

WHEREAS a fulsome understanding of the differences in response times could lead to better insights on how to address these differences;

THEREFORE BE IT RESOLVED THAT by August 30, 2024, the Ottawa Paramedic Service report on response time performance by rural and non-rural area (as set out in the Official Plan), as follows:

- for 2019-2023
- for 2024, as available.

Ottawa Paramedic Service response times and how they are reported are regulated by the Province.

The regulatory rules for how an ambulance service operates in Ontario are set out in Ontario Regulation 257/00, under the *Ambulance Act*. This regulation was amended in 2008 with respect to "Response Time Performance Plans." It was then further amended in 2010 to require that the Response Time Performance Plans be provided to the Ministry of Health and Long-Term Care by October 31, 2012, and annually by October 31 each year thereafter. On September 20, 2012 Council approved a new city wide Response Time Performance Plan ([ACS2012-COS-EPS-0040](#)).

These regulatory changes required the City to adapt its response time reporting with the *Ambulance Act*. Prior to 2012, the response time performance was exclusively determined by call volume in defined low- and high-density geographic areas.

Currently, the regulations under the *Ambulance Act* require the following response time performance be reported annually on a city-wide basis:

- Percentage of time that a person equipped to provide any type of defibrillation has arrived on-scene to **provide defibrillation to sudden cardiac arrest patients within six minutes** of the time notice is received.
- Percentage of time that an ambulance crew has arrived on-scene to provide ambulance services to sudden cardiac arrest patients or other **patients categorized as CTAS 1 within eight minutes** of the time notice is received respecting such services.
- Percentage of time that an ambulance crew has arrived on-scene to provide ambulance services to **patients categorized as CTAS 2, 3, 4 and 5 within the response time targets set by the municipality.**

Table 1 below displays the response time performance plan approved by Council. It also includes performance data from the past five years, as reported in the Ottawa Paramedic Service Annual Report ([ACS2024-EPS-OPS-0002](#)).

Table 1 - Paramedic response time performance 2019-2023

Category (Acuity)	Time (minutes)	Council Approved Percentile	2019	2020	2021	2022	2023
CTAS 1 (life threatening)	8:00*	75%	75.1 %	75.7 %	66.8 %	61.8 %	68.0 %
CTAS 2 (urgent)	10:00	75%	77.2 %	76.6 %	71.2 %	63.2 %	68.8 %
CTAS 3	15:00	75%	88.9 %	89.1 %	85.9 %	76.3 %	79.3 %
CTAS 4	20:00	75%	93.5 %	94.4 %	92.1 %	83.4 %	83.5 %
CTAS 5	25:00	75%	96.5 %	96.6 %	94.7 %	86.7 %	86.8 %
Sudden Cardiac Arrest	6:00*	65%	76.1 %	77.3 %	63.8 %	48.4 %	64.8 %

\*Established by regulation

**Response volume by rural and urban areas**

The Ottawa Paramedic Service provides patient care and emergency medical coverage to over one million residents of the nation’s capital across 2,800 square kilometres. The City of Ottawa Official Plan sets out the rural and urban boundaries for the City. While approximately 80 per cent of the city’s geography is rural, approximately 10 per cent of the city’s population live within the rural area. As a result, population demographics have a significant impact on response volume and response time performance. The

Ottawa Paramedic Service provides service city-wide, and its resource deployment is based on the probability of the origin of the next 9-1-1 call for service. The response priority is based on information provided by the caller and the assessed severity of the patient’s condition.

Table 2 displays the distribution of response volume by urban and rural boundaries. The response volume includes all calls for service that are located within the City of Ottawa boundaries regardless of where the responding unit originates, including those from outside the city.

Table 2 - Response volume in urban and rural areas

<b>Response Volume Distribution</b>					
<b>Year</b>	<b>Urban</b>		<b>Rural</b>		<b>Total Responses</b>
	<b>Responses</b>	<b>Percentage</b>	<b>Responses</b>	<b>Percentage</b>	
2019	136,596	94%	9,206	6%	145,802
2020	123,787	94%	8,186	6%	131,973
2021	137,785	94%	9,539	6%	147,324
2022	168,618	93%	13,310	7%	181,928
2023	179,032	94%	12,247	6%	191,279
2024**	90,349	94%	5,856	6%	96,205

\*\*As of July 20, 2024

The table above shows that a small percentage of responses originate in rural areas, even though the rural area comprises most of the City’s land mass.

The Paramedic Service deployment model balances the probability of the origin of the next 9-1-1 call for service with the expected travel time to the patient location. In Ontario, the *Ambulance Act* sets out a “balanced and integrated system of ambulance services” for paramedic service delivery. The Act requires a seamless system, whereby the closest available ambulance regardless of municipal boundary is dispatched to an emergency.

### **Response time performance by rural and urban areas**

Tables 3 and 4, display response time performance in rural and urban areas for the past five years (2019-2024). While the motion has asked staff to provide response time performance by rural and non-rural areas, interpreting a sub-set of response time performance using the city-wide performance standards requires careful interpretation.

Table 3 - Response time performance in the urban area from 2019 – 2024 as compared to Council-approved percentile

Category (Acuity)	2019	2020	2021	2022	2023	2024 Jan - Apr	2024 Apr – Jul
CTAS 1 (life threatening)	77.2%	78.2%	72.9%	65.8%	70.9%	72.1%	80.4%
CTAS 2 (urgent)	79.4%	79.3%	74.0%	67.2%	71.6%	74.3%	83.5%
CTAS 3	90.0%	90.1%	87.6%	80.5%	81.7%	82.9%	96.3%
CTAS 4	93.8%	94.5%	91.4%	85.0%	84.5%	86.0%	89.5%
CTAS 5	96.6%	96.2%	93.1%	87.6%	87.4%	90.3%	94.0%

Table 4 - Response time performance in the rural area from 2019 – 2024 as compared to Council-approved percentile

Category (Acuity)	2019	2020	2021	2022	2023	2024 Jan - Apr	2024 Apr- Jul
CTAS 1 (life threatening)	14.8%	23.6%	20.4%	8.1%	18.8%	13.8%	18.9%
CTAS 2 (urgent)	29.4%	29.7%	24.6%	22.2%	24.4%	24.5%	27.3%
CTAS 3	56.7%	59.5%	53.4%	42.7%	46.9%	49.4%	68.1%
CTAS 4	73.3%	79.3%	71.2%	62.3%	65.9%	63.5%	79.1%
CTAS 5	85.9%	87.3%	79.9%	69.2%	71.7%	70.2%	88.5%

### Investments in the Ottawa Paramedic Service to improve performance

Since the implementation of the new Medical Priority Dispatch System (MPDS) on April 10, 2024, both tables show an improvement in response time performance. On April 3, 2024, Council received a report ([ACS2024-EPS-OPS-0001](#)) detailing the Ottawa Paramedic Service implementation of MPDS. Staff anticipate that MPDS will continue to enhance response time performance. A full year of data will provide a clearer picture of MPDS's impact on response time performance, with detailed findings included in the Ottawa Paramedic Service 2025 Annual Report.

Additionally, over the past ten years, Council has invested in the hiring of 146 full time equivalents (FTEs) to address year-over-year increases in service demand and further allocated capital funding for the procurement of emergency response vehicles associated with these FTEs. As part of the Ottawa Paramedic Service 2024-2026 Investment Plan ([ACS2023-EPS-OPS-0002](#)) report, Council has directed that 23 FTEs be considered as part of the 2025 budget process and another 23 FTEs be considered as part of the 2026 budget process to address the forecasted increase in emergency calls. However, the full benefit of these investments may only be realized when systemic issues facing the Province's health care system are resolved.

### **Systemic health care pressures & other factors impacting performance**

As highlighted above, rural response time performance is lower in part due to long travel times across Ottawa's vast geographic area. For instance, in 2023, rural areas had 107 CTAS 1 calls (life-threatening emergencies), compared to 1,862 CTAS 1 calls in urban areas. In rural areas, a small number of calls can significantly impact response time performance.

However, a significant contributor to lower response time performance across the city is paramedic offload delay at Ottawa hospitals. Offload delay occurs when a paramedic is unable to immediately transfer the care of a patient to hospital staff. As a result, this severely impacts the ability of paramedics to return to service and respond to emergency calls. To address patient health and public safety risk, the Service has implemented several innovative community paramedic programs, along with the newly approved dispatch system. Staff recognize that offload delay experienced locally is the result of province-wide health care pressures; but it is staff's assertion that the resolution of offload delay would improve performance by returning paramedics back into the community, and positioning the paramedic closer to calls in rural areas.

### **Conclusion**

To further improve response times and address the diverse needs of Ottawa's communities, the Service will continue work with the hospitals to reduce offload delay, implement innovative strategies, and optimize the use of paramedic resources. The Ottawa Paramedic Service, alongside the Mayor and the Chair of the Emergency Preparedness and Protective Services Committee, will also continue advocating with the Province for healthcare system enhancements and alternative care models. These efforts aim to ease system pressures and enable paramedics to spend more time serving Ottawa residents in the community.

