



Administrative Report

To: Warden MacDonald and Members of Essex County Council

From: Justin Lammers, Chief, Essex-Windsor Emergency Medical Services

Date: Wednesday, March 19, 2025

Subject: EWEMS Operational Tempo Update

Report #: 2025-0319-EMS-R02-JL

Purpose

The purpose of this report is to provide Essex County Council with information on the current operational tempo of Essex-Windsor EMS and to highlight existing and future strategies for improvement.

Background

Call response data is reviewed utilizing ESO Medusa's electronic patient care records (ePCR) analytics platform and the Province of Ontario's Ambulance Dispatch Reporting System (ADRS). The ePCR is the document that records all relevant patient care, response, and transportation data for all EMS responses. By applying these tools, the operations of EWEMS are continually measured, reviewed, and adjusted to maintain the best performance possible in the current circumstances.

Windsor Central Ambulance Communications Centre currently directs the movement of all Essex Windsor EMS resources. The dispatch priority codes are shown in **Table 1**.

Table 1
Dispatch Priority Codes (not all inclusive)

Code	Description	Note	Percentage of Call Volume in 2024
Code 1	Deferrable	Non-life threatening or deferrable	0.10%
Code 2	Scheduled	Scheduled transfer or appointment	0.07%
Code 3	Prompt	No lights and sirens	16.44%
Code 4	Urgent	Lights and sirens	42.14%
Code 8	Standby	Emergency Coverage	41.25%

Note Government of Ontario. (n.d.). *Ambulance Call Report Codes*. Retrieved February 14, 2025, from <https://www.ontario.ca/page/ambulance-call-report-codes>

This report will provide an overview of 2024 call volumes, response times, code red and black frequency, and offload delays.

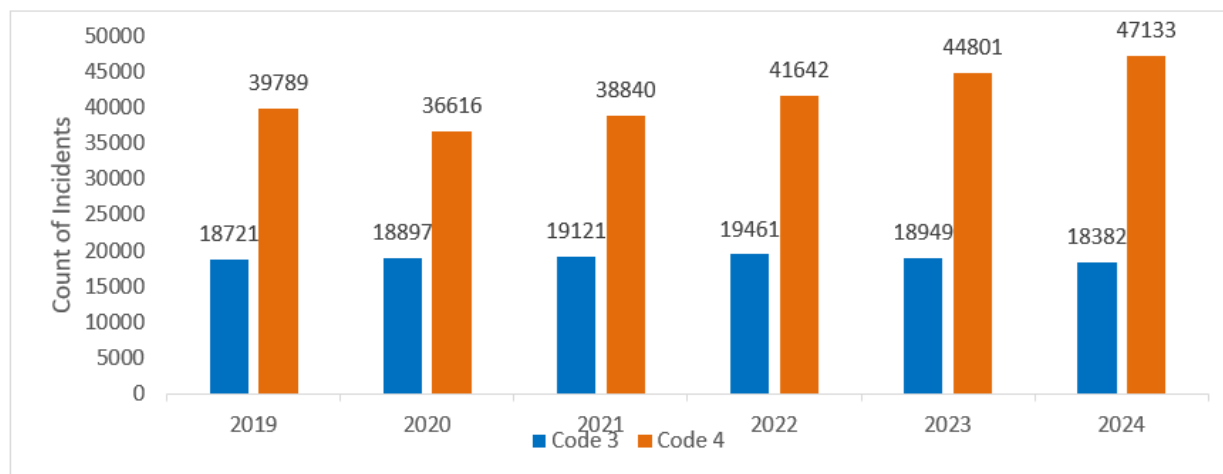
Discussion

2024 shows Essex Windsor EMS responding to 65,707 requests for Paramedic Services, with a total of 72,788 resources deployed to those requests. The variance between requests for service and resources deployed is due to either deployment plan requirements for multi-unit response (ex., obstetrical patients or Multi-Vehicle Collisions) or Paramedics on scene requiring additional resources, such as Advanced Care Paramedic level of skill or a second crew for a lift assist.

As noted in **Graph 1**, code 3 responses continue to decrease, with 2024 showing a 3% decrease. The decrease in code 3 responses can be attributed to the success of the Mobile Integrated Healthcare Community Paramedicine (MIH-CP) program within Essex Windsor EMS and the ongoing work of the Windsor Essex Ontario Health Team (WEOHT) and all of its partners. However, code 4 responses show a 5% increase from 2023.

Graph 1

Annual Count of Incidents for Codes 3 and 4, 2019 to 2024



Note The total numbers are incident counts only, not the total units that responded to all incidents.

The response time performance for 2024 improved over 2023, as seen in **Table 2**.

Table 2

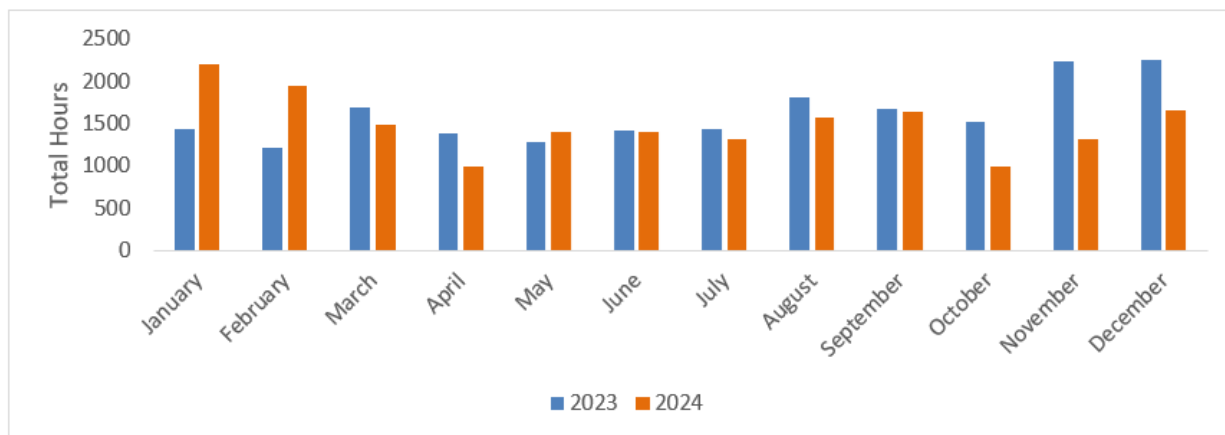
Response Times Chart 2019 to 2024

CTAS	Time Min.	Target	2019	2020	2021	2022	2023	2024
Sudden Cardiac Arrest	6	55%	62%	53%	44%	46%	59%	64%
CTAS 1	8	75%	77%	75%	69%	65%	69%	69%
CTAS 2	10	90%	85%	83%	83%	79%	80%	82%
CTAS 3	12	90%	87%	85%	88%	88%	88%	90%
CTAS 4	14	90%	91%	90%	86%	93%	92%	94%
CTAS 5	14	90%	90%	90%	86%	94%	93%	95%

Offload delays continue to occur, as shown in **Graph 2**. However, **Graph 3** shows that the total sum of offload delay hours for 2024 was less than 2023, thereby breaking the historical trend of escalation.

Graph 2

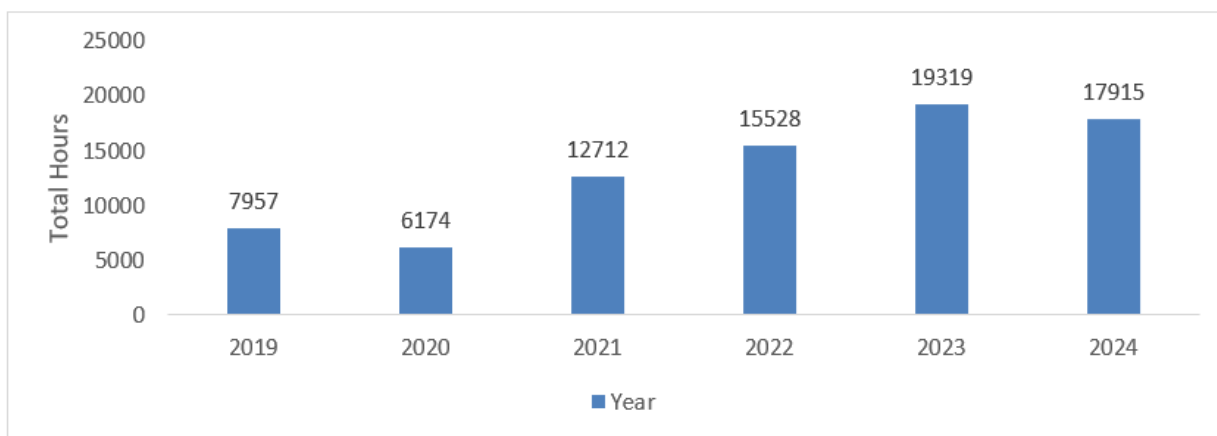
Sum of Offload Delay Hours by Month Comparing 2023 to 2024



Note The sum includes all three (3) Windsor and Essex County receiving hospitals. Offload delay includes all transports to the emergency department, where paramedics take more than 30 minutes to transfer care.

Graph 3

Sum of Offload Delay Hours by Year, Comparing 2019 to 2024



Note The sum includes all three (3) Windsor and Essex County receiving hospitals. Offload delay includes all transports to the emergency department, where paramedics take more than 30 minutes to transfer care.

As shown in **Table 3**, instances of depleted resources categorized by codes yellow, red, and black continue to trend downward.

Table 3

Percentage change of Codes Yellow, Red, and Black from 2019 to 2024

Year	Code Yellow (min)	% Change	Code Red (min)	% Change	Code Black (min)	% Change
2019	136234	-	447	-	97	-
2020	122054	-10%	767	72%	249	156%
2021	182906	50%	3234	322%	789	217%
2022	228510	25%	8086	150%	2272	188%
2023	240645	5%	8907	10%	1701	-25%
2024	231843	-4%	6231	-30%	358	-79%

Note Code yellow occurs when the number of available ambulances is between 4 and 10. Code red occurs when the number of available ambulances is between 1 and 3. Code black occurs when there are no available ambulances.

Improvement of response times, notable decreases in offload delays, and instances of codes yellow, red and black can be attributed to the ongoing support and investment from Essex County Council and the Ministry of Health, the engagement of all staff at Essex Windsor EMS, the introduction of Paramedic Patient Navigators with the Communications Centre, the collaboration of local hospitals, and operationalization of innovative models of care.

Essex Windsor EMS continues to strategize and operationalize opportunities to realize further efficiencies where possible. With the completion of the 2025 Master Plan refresh, and the upcoming Service Delivery Review, Essex Windsor EMS will be better suited to capitalize on opportunities for growth and innovation to continue improving the level of care provided to our residents while continuing to be fiscally responsible.

Financial Implications

There are no financial implications within the report.

Consultations

- Essex Windsor EMS Senior Leadership Team
- Sandra Zwiers, Chief Administrative Officer

Strategic Plan Alignment

Working as Team Essex County	Growing as Leaders in Public Service Excellence	Building a Regional Powerhouse
<input checked="" type="checkbox"/> Scaling Sustainable Services through Innovation <input checked="" type="checkbox"/> Focusing “Team Essex County” for Results <input type="checkbox"/> Advocating for Essex County’s Fair Share	<input type="checkbox"/> Being an Employer with Impact <input checked="" type="checkbox"/> A Government Working for the People <input checked="" type="checkbox"/> Promoting Transparency and Awareness	<input type="checkbox"/> Providing Reliable Infrastructure for Partners <input checked="" type="checkbox"/> Supporting Dynamic and Thriving Communities Across the County <input checked="" type="checkbox"/> Harmonizing Action for Growth <input type="checkbox"/> Advancing Truth and Reconciliation

Recommendation

That Essex County Council receive report number 2025-0319-EMS-R02-JL EWEMS Operational Tempo Update as information.

Approvals

Respectfully Submitted,

Justin Lammers

Justin Lammers, Chief, Essex-Windsor Emergency Medical Services

Concurred With,

Sandra Zwiers

Sandra Zwiers, MAcc, CPA, CA, Chief Administrative Officer

Appendix	Title
N/A	N/A