



## **Administrative Report**

### **Office of the Chief, Essex-Windsor EMS**

**To:** Warden MacDonald and Members of Essex County Council

**From:** Bruce Krauter  
Chief, Essex-Windsor Emergency Medical Services

**Date:** Wednesday, May 03, 2023

**Subject:** Essex Windsor EMS Experience 2022-2023 Projected

**Report #:** 2023-0503-EMS-R#001-BK

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#### **Purpose**

To provide Essex County Council with background knowledge and information on the ambulance call response experience and activity across the Essex-Windsor region, utilizing historical data, up to March 31, 2023. Current pressures experienced by Essex Windsor EMS and call volume projection will be identified.

#### **Background**

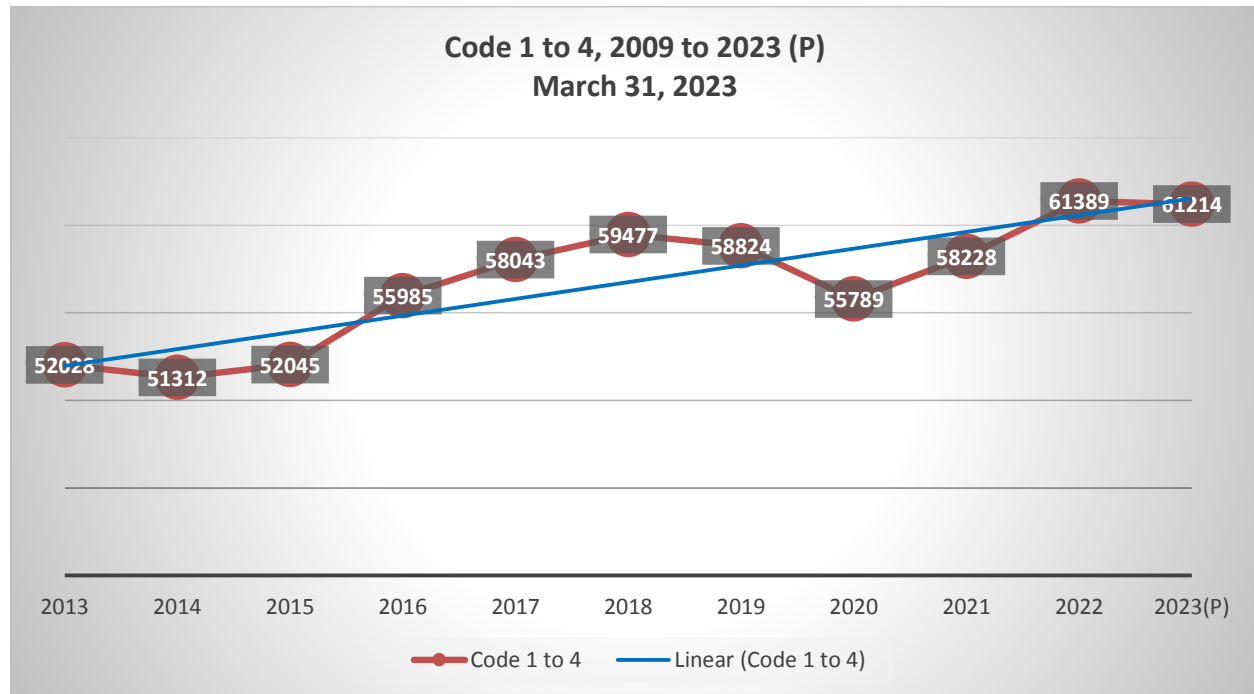
Call response data is reviewed utilizing the Interdev Technologies iMedic electronic Patient Care Record (ePCR) analytics platform and the Province of Ontario Ambulance Dispatch Records System (ADRS). The ePCR is the document that records all relevant patient care, response and transportation data for all EMS responses. By applying these tools, the operations of EWEMS are continually measured, reviewed, and adjusted to maintain the best performance possible.

In 2022, the Windsor Central Ambulance Communications Centre (CACC) began tracking the data encompassing ambulance availability, known as Code Red and Code Black status. This new tool has allowed EWEMS to monitor, adapt, and change the service practices and procedures to meet the ever-changing needs of the community.

## Discussion

### Call Volume

The following chart indicates the call volume trend from 2013 to 2023 (P).



2022 experienced the highest volume, at just above 61,000 responses. 2019 and 2020 experienced a decline in volume, which is mostly attributed to the effectiveness of the Mobile Integrated Health Community Paramedic Program (MIH-CP). 2023 is projected to see a slight decrease in response volume. This projected decline can be attributed to our continued success using MIH-CP and our increased relationships built as a result of our partnerships with the Windsor Essex Ontario Health Team (WE-OHT).

Mobile Integrated Health Community Paramedic Program began in 2018 with the Vulnerable Patient Navigator (VPN) Program. The VPN program was developed to address those patients who utilized EMS three (3) or more times a year. The program was built on a mandate, or philosophy, of Facilitating, Advocating, Collaborating and Educating, or being the FACE of the patient. Since inception the VPN program has realized a 60% to 70% reduction in repeat usage of EMS amongst this patient population.

Due to the increase in mental health responses, in 2020 we developed the Mental Health and Addictions Response Team (MHART). This team is comprised of a paramedic and a social worker provided by Hotel Dieu Grace

Hospital. This team focuses on the mental health population and utilizes the same FACE philosophy/mandate of VPN. Since inception the repeat usage of EMS by mental health clients has reduced by another 60%.

In 2021 EWEMS received 100% funding to start the Community Paramedic Long Term Care Team (CP-LTC). This team focuses on those clients that are awaiting placement to long term care, to keep them in their homes and reducing the usage of EMS and emergency departments. This team has realized fantastic results both locally and provincially. As a result, the province has recently announced that the 100% funding shall be extended by an additional two (2) years or until 2026.

The three (3) teams, VPN, MHART and CP-LTC, are the pillars of the Mobile Integrated Health Community Paramedic Program. This program is patient focused with the mandate and philosophy to be the FACE of the patient and to reduce the repeat usage of EMS to emergency departments.

## **Municipal Call Volume Distribution**

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The chart below indicates the five-year call volume experience by municipal pick-up.

<b>Municipality</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023(P)</b>
Amherstburg	2,799	2,681	2,474	2,682	2,671	2,924
Essex	2,842	2,417	2,503	2,586	2,905	2,604
Kingsville	2,659	2,789	2,369	2,805	2,724	2,936
Lakeshore	3,762	3,389	3,007	3,112	3,296	3,107
LaSalle	2,887	2,729	2,640	2,743	2,869	2,502
Leamington	4,070	4,120	4,070	4,104	4,103	4,189
Tecumseh	3,870	3,524	3,267	3,553	3,783	3,476
Windsor	<b>44,041</b>	<b>42,260</b>	<b>39,726</b>	<b>40,643</b>	<b>40,273</b>	<b>42,713</b>
Pelee Island	96	78	34	53	70	73
Chatham-Kent	348	277	258	288	336	260
Essex County	<b>22,889</b>	<b>21,649</b>	<b>20,330</b>	<b>21,585</b>	<b>22,351</b>	<b>21,738</b>

In review of the chart the following is identified:

- 1- Municipalities with a projected increase of volume are:
  - Amherstburg (8.65%)
  - Kingsville (7.23%)
  - Leamington (2.06%)
  - City of Windsor (5.71%)

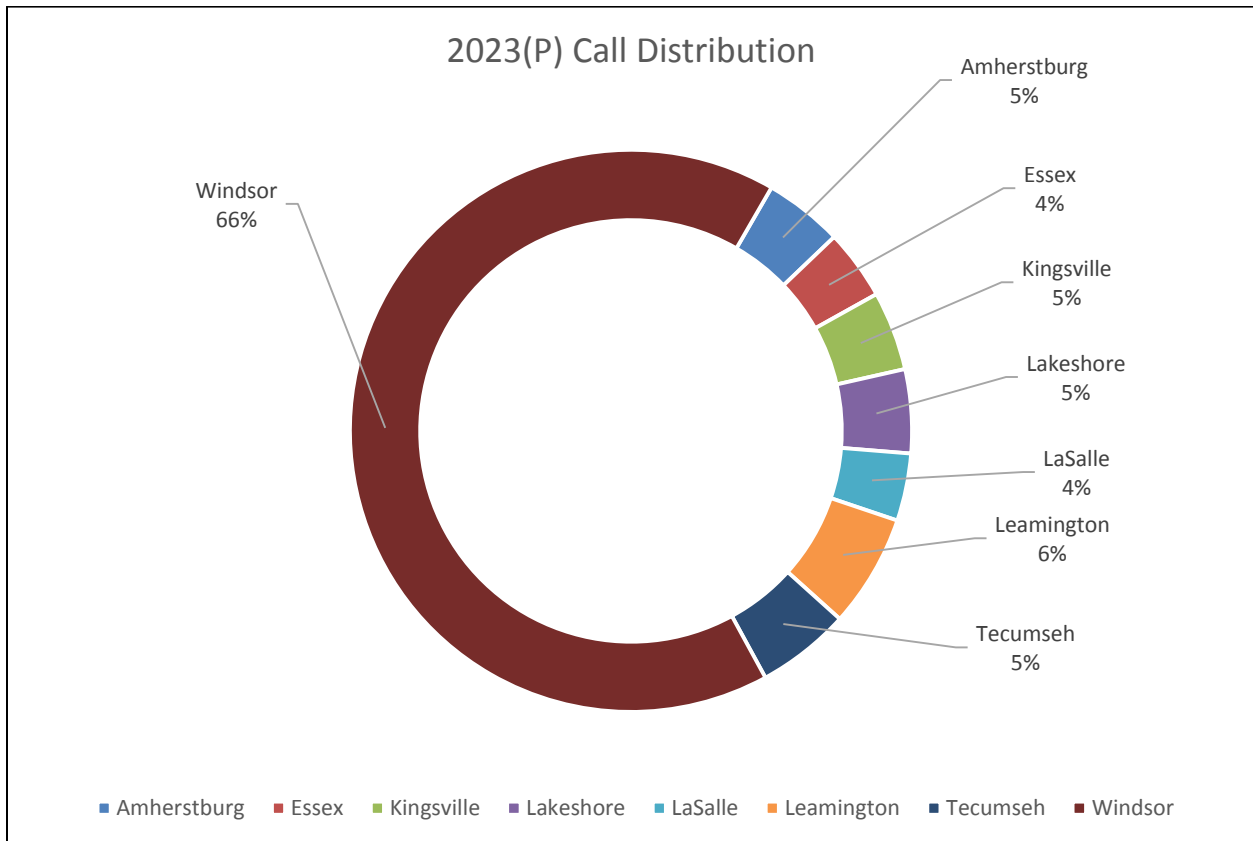
- Pelee Island (4.11%)

2- Municipalities with a projected decrease in volume are:

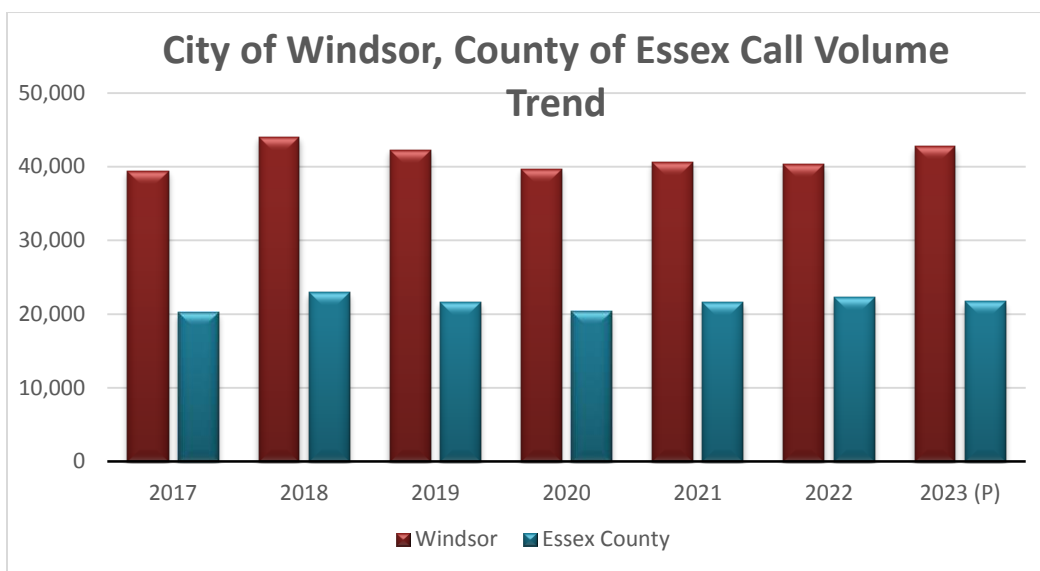
- Essex (-11.57%)
- Lakeshore (-6.1%)
- Lasalle (-14.66%)
- Tecumseh (-8.84%)
- Chatham-Kent (-29.45%)

The five-year projected average call volume trend for the County of Essex and City of Windsor is an increase of 0.5%.

The chart below indicates the call share between the Municipalities for 2023(P)



The chart below indicates the volume trend, County of Essex and City of Windsor, 2017 to 2023(P)



Although the projections indicate either a stable or slightly increasing call volume trend through 2023, the five (5) year average should be considered for future service delivery changes. The hospital and health care system continue to be strained, unseen historically, and land ambulance call volume is just one indicator. The 2018 Ten (10) Master Plan is continually referred to as the guiding document for planning, forecasting, and projecting.

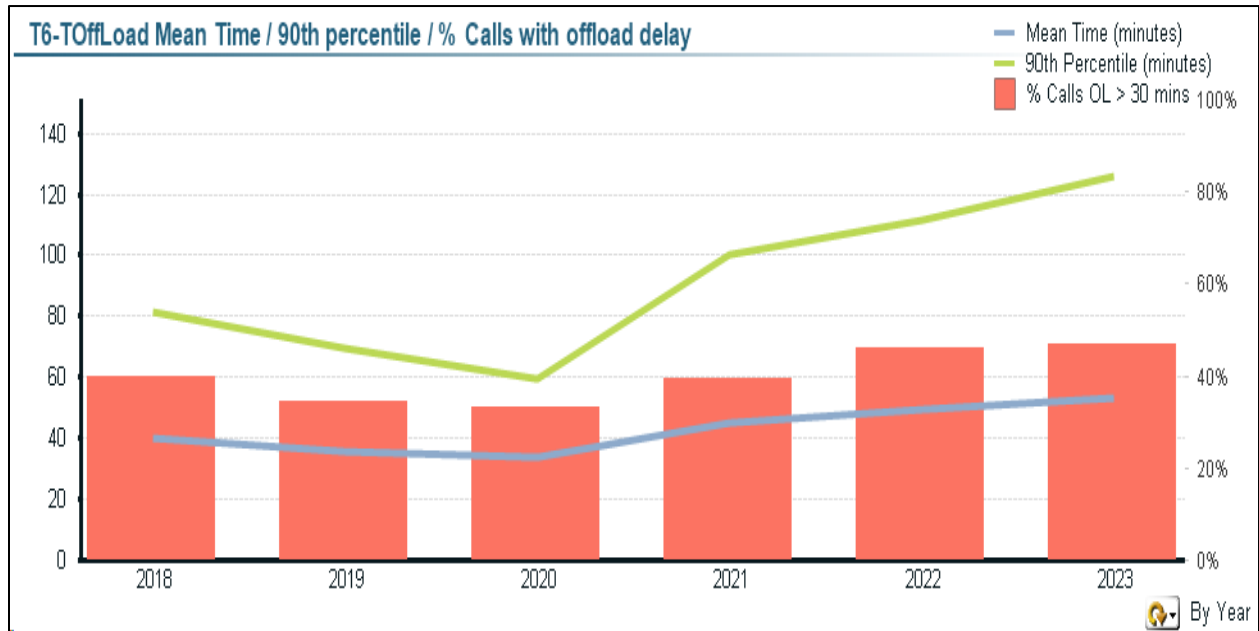
## **Ambulance Offload Delays & Hospital Volumes**

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Ambulance offload delay and hospital volumes (capacity) are two factors that impact the delivery of EMS. If an ambulance cannot offload, they are unable to respond within the community. In 2018 through 2019, EWEMS and the local hospitals made great strides in offload delay management, mitigation, and regional delivery of patients. In 2018 we began to see a decline in Ambulance Offload Delay (AOD) minutes. This continued into 2019 with a slight plateau.

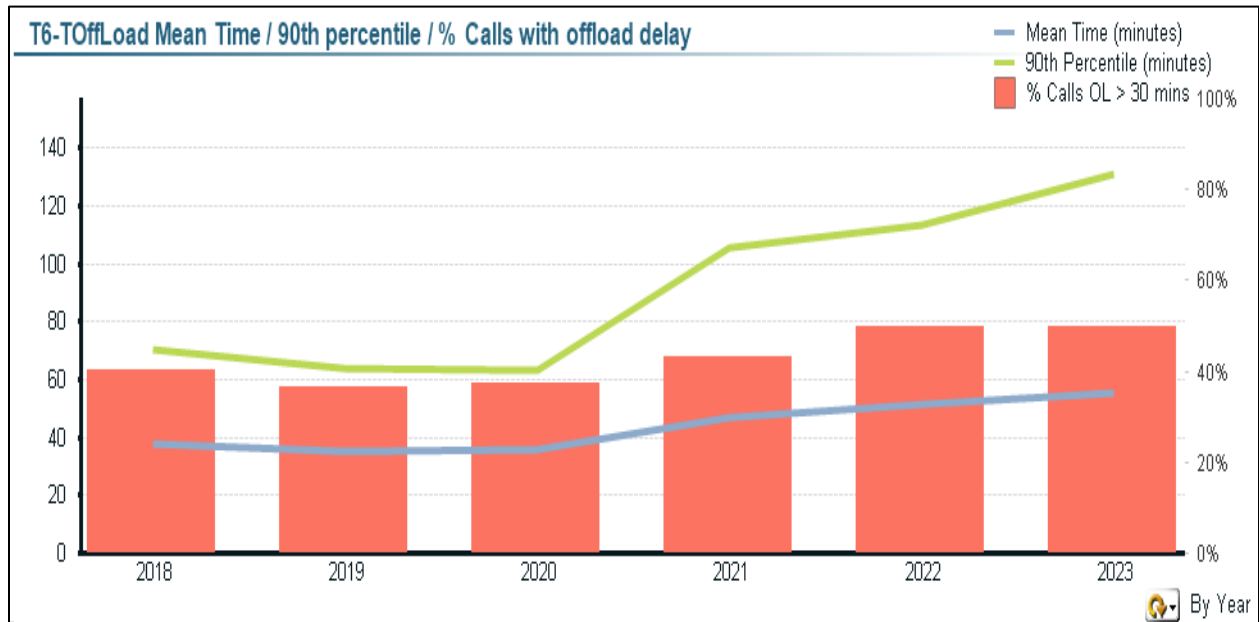
The transport volume decrease was also benefitting the AOD times. A decrease in EMS volume allows for the health system to remain ready for any influx of transports. Despite the ongoing attention, dedication, and steady ambulance transport volume, the 90th percentile of ambulance offload delays have increased two-fold.

The chart below represents the 90th Percentile (minutes) of the combined three (3) receiving facilities in our area.

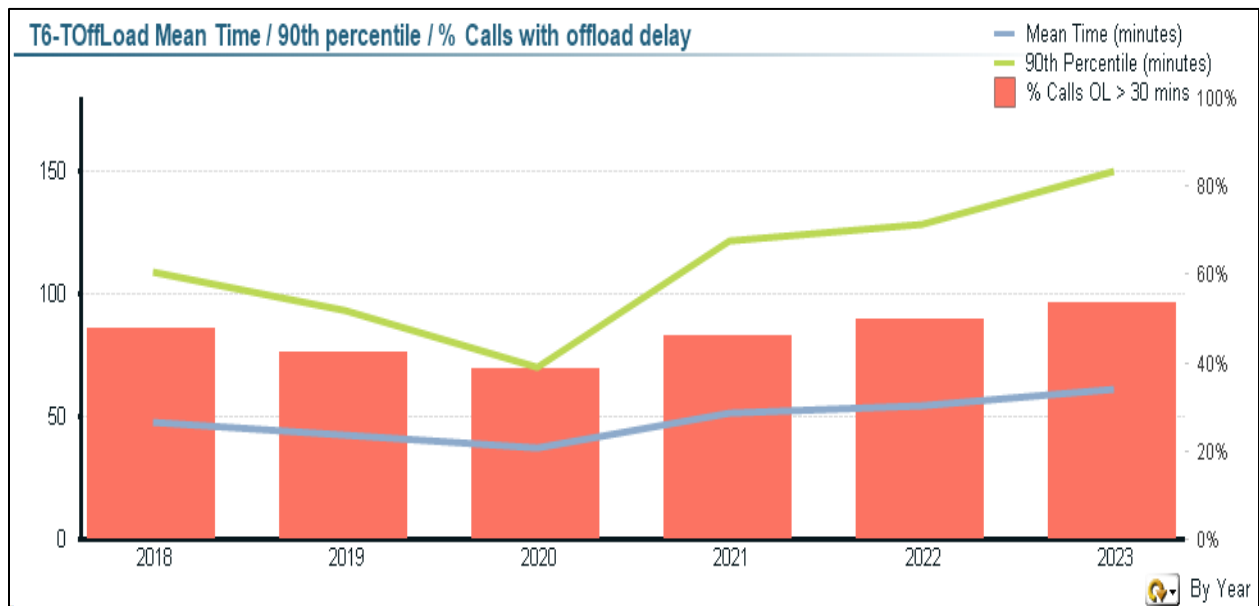


The charts below indicate the historical and actual 90<sup>th</sup> Percentile and volume to the three regional hospital sites, Windsor Regional Met Campus, Ouellette Campus and Erie Shores Health Care.

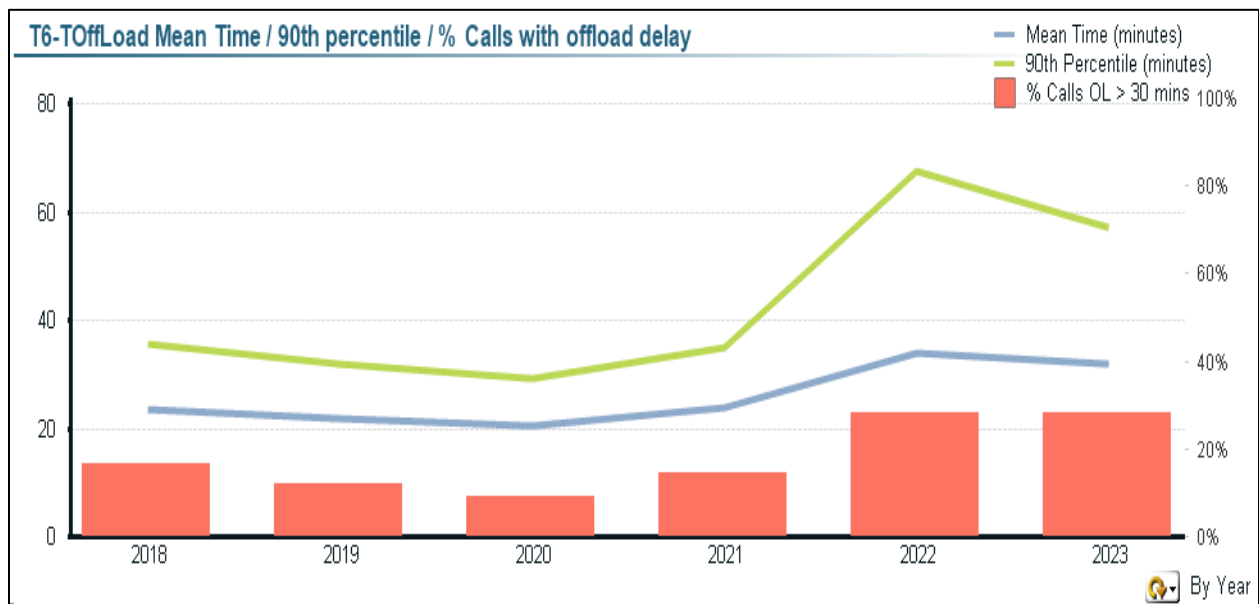
**WRH Met Campus**



### WRH Ouellette Campus



### Erie Shores Health Care



EWEMS and the hospitals continue to implement strategies to assist in offload mitigation. These strategies are, but not limited to:

- Continued diversion strategies for low acuity patient cohorts
- Daily meetings between EWEMS and hospital leaders to understand daily experiences and expected pressures

- Increased real time communication pathways between all organizations to develop action plans as soon as possible
- Dedicated Offload Nurse funding
- Offload to waiting room procedures
- Paramedic Offload Program at all three sites

EWEMS has implemented strategies to address any expected pressures. These strategies include, but are not limited to:

- New Models of Care approved by the Ministry of Health
- Utilization of MIH-CP in Emergency Department (ED) diversion strategies
- Collaborating with hospitals when organizing interfacility transfers to out-of-region destinations,
- Encouraging the use of alternate transportation models for transfers, such as private transport, or ORNGE.

It must be understood that the current issues with offload delays and hospital capacities are not isolated to the Windsor-Essex region. Across the Province and Canada, the health care system experiences similar pressures. There are multiple contributing factors that impact EWEMS and the ensuing offload delays such as decreased primary care access, the deferral of medical procedures, and human resource fatigue/limitations in the field of health.

## **Code Red and Code Black Status**

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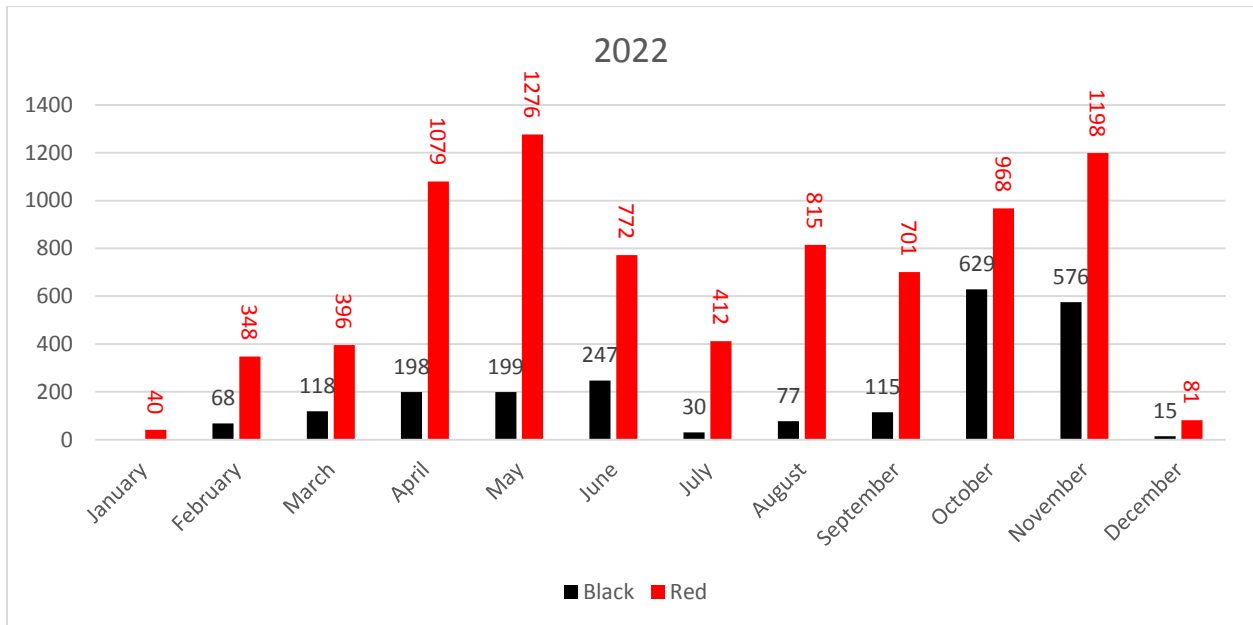
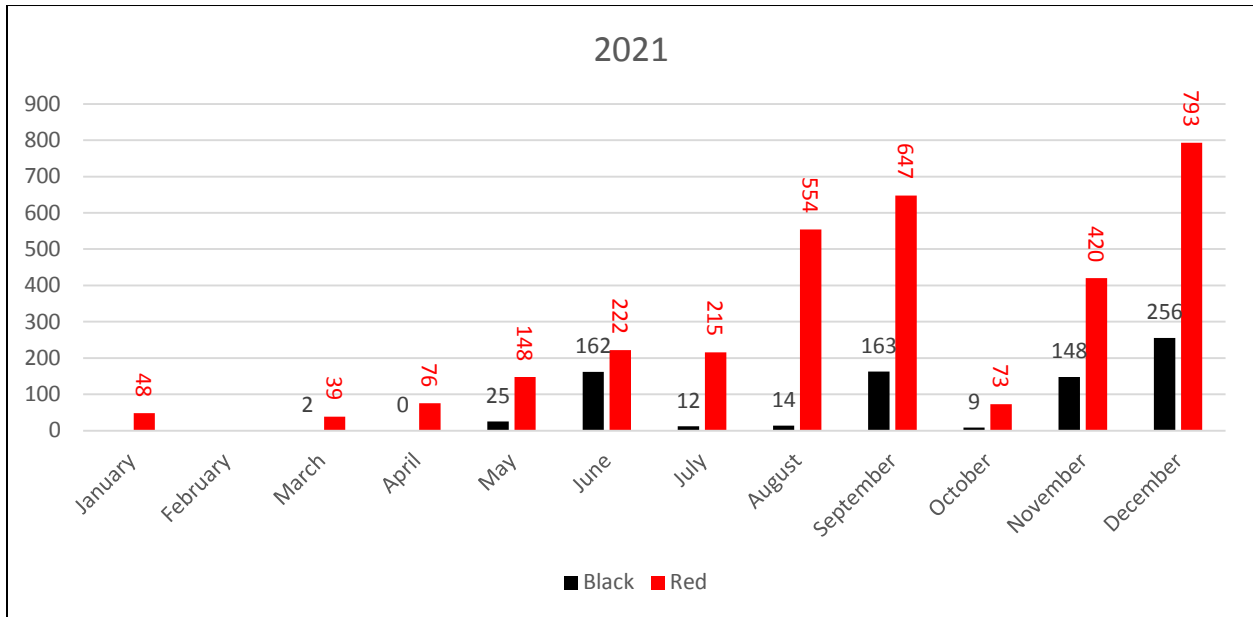
Code Red status is defined as a period of time, measured in minutes where there are only two or less ambulances available to respond to a request for service. Code Black status is defined as a period of time, measured in minutes, where there are no ambulances available to respond to a request for service.

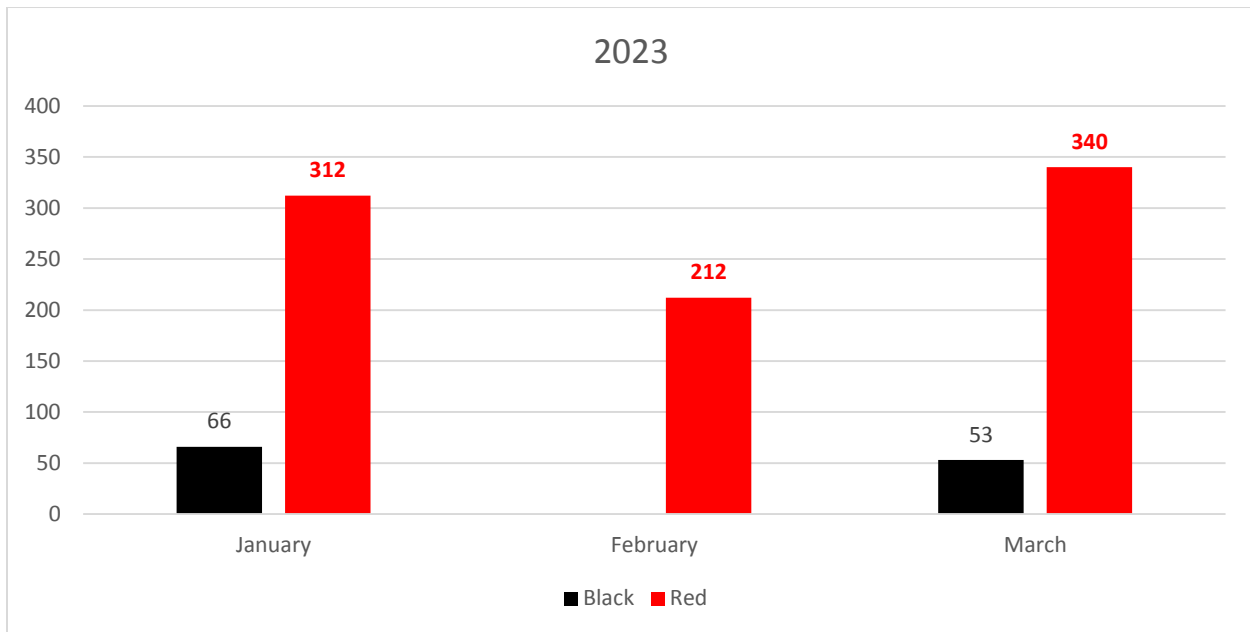
During these periods of time, resource utilization is prioritized and only the most life threatening of request is responded to. In addition, EWEMS relies on our neighbours to assist in a mutual aid capacity and our partner responders, Police and Fire assist in a medical assist capacity.

The data is collected by CACC, and forwarded to EWEMS for its use.

The graphs below indicate the number of minutes EWEMS is in Red or Black status in each month for the years 2021, 2022 and 2023 (YTD).







There are notable “Milestones” in regards to the evolutions of Code Red and Code Black status across the region. In September 2021 Warden Gary McNamara Declared an Emergency in regards to the ongoing and continued Code Blacks and Reds across Windsor and Essex County. Health care partners gathered and specific attention was given to the ongoing crisis. As a result, there was a reduction in the number of minutes in Red and Black status. But this reduction was not long lasting.

EWEMS and hospital partners began to implement a variety of initiatives to combat Code Red and Black status. Each initiative continues today, with the support of ongoing funding from the Province. If any one initiative stops or fails, an increase in Code Red and Black status is expected.

These initiatives are:

- Paramedic Offload Program: This is when one ambulance crew has the ability to monitor up to four patients waiting for bed assignment in the ED. This is occurring at all three sites. It should be noted that Windsor Regional Hospital is piloting an inhouse offload program similar in design and impact.
- Offload to waiting room: This is a process where low acuity patients are offloaded to the waiting room for assessment and triage. This frees up ambulance stretchers sooner.

- Low acuity transport diversion to another hospital ED: This is a process in which a low acuity patient will be transported to an ED that has capacity to offload quicker than those who are at capacity and placing an ambulance into offload status.
- Paramedic Patient Navigator in CACC: EWEMS has piloted placing a management staff into dispatch to navigate resources and facilities in order to deploy ambulances sooner. This system wide approach is realizing great results as it allows decisions to be made efficiently, and in less time.
- Recent announcement of new models of care: The new models of care approved by the Ministry of Health will allow some EWEMS resources to treat, assess, and refer patients to the most appropriate care in the community. This new initiative is modelled after our successful Mental Health and Addictions Response Team (MHART) and our Vulnerable Patient Navigator (VPN) team in which patients are referred and accepted by other community partners instead of being transported to a hospital ED. This is anticipated to reduce ambulance transports by approximately 40% in the low acuity patient population.

The above initiatives have numerous goals, most notably:

- Ensure patients receive the right care, at the right time, and at the right place
- Reduce the non-emergent use of ambulance transports
- Reduce or eliminate ambulance offload delays
- Increase the availability of ambulances thereby decreasing Code Red and Code Black status

There is not one solution to mitigating Code Red and Code Black status, but a multifaceted approach to a systemic issue.

## **EWEMS Human Resource Pressures**

As can be imagined, the staff of EWEMS are fatigued. This is not different than our County health partners at the Sun Parlor Home or the other County departments. In the health care sector though, which includes EWEMS, there has been an increase of resignations and retirements. The reasons for staff departures in health care professions are multifaceted, such as being closer to family, early retirement, other job opportunities, professional advancement, or a plain desire to no longer be a team member.

The latter is a phenomenon being realized across health care sectors and brings added pressures to consistent recruiting.

From 2021 to 2023 EWEMS held numerous and ongoing recruitment drives and the outcome of each was less than historical results. The decreased intake is attributed to numerous reasons such as:

- Decreased output of college graduates
- Increased intake from other services across the province

Simply put, demand has outweighed supply.

The staff remaining are experiencing fatigue.

EWEMS has put into place strategies to mitigate human resource pressures. These strategies include, but are not limited to:

- Continuing recruitment campaigns
- Implementing a Building Paramedics Team
- Streamlining orientation allowing staff to be in place sooner
- Messaging to high school students promoting paramedicine as a profession
- Re-establishing a high school Co-op program
- Attending numerous job fairs
- Partnering with other organizations making EWEMS accessible

As a result of these strategies and changes, EWEMS has increased its recruitment intake and has welcomed back some previous team members.

EWEMS is hopeful we can achieve the historic intakes we previously experienced.

EWEMS is optimistic that our continued strategies will mitigate pressures on our ambulance availability and human resources, as we strive to provide the best service to all residents and visitors of the County of Essex, City of Windsor, and Pelee Island.

## **Financial Implications**

There are no financial implications within the report.

## **Consultations**

Essex Windsor EMS Senior Leadership.

## **Recommendation**

That Essex County Council receive report number 2023-0503-EMS-R001-BK for information.

## **Approvals**

Respectfully Submitted,

*Bruce Krauter*

Bruce Krauter, Chief, Essex-Windsor Emergency Medical Services

Concurred With,

*Mary Birch*

Mary Birch, BA, CMO, Interim Chief Administrative Officer

<b>Appendix Number</b>	<b>Title</b>
N/A	N/A