



## **Staff Report**

**Meeting Date:** March 20, 2024  
**To:** Greater Peterborough Joint Services Committee  
**Report Number:** PAR-2024-01  
**Title:** Paramedics Operational Key Performance Indicators  
**Author:** Randy Mellow  
**Approved by:** Sheridan Graham, CAO/Deputy Clerk/Deputy Treasurer  
**Recommendation:** For GPJSC to receive the report for information only.

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### **Overview**

The purpose of this report is to provide an overview of a suite of operational and clinical key performance indicators (O-KPIs) collected by Peterborough County/City Paramedics (PCCP) for the purpose performance reporting to County Council, Greater Peterborough Joint Services Committee, and the public.

### **Background**

The number one priority of Peterborough County/City Paramedic Service (PCCP) is to provide the best possible prehospital clinical care to the residents and visitors of Peterborough County and City and to do so in the most effective and efficient method possible. To achieve this, PCCP administration performs annual analysis of paramedic service call volumes, response times and patient outcomes (where possible). The valuable result of this analysis is evidenced by the services ability to meet and exceed response time targets while facing disproportionately higher call volume increases and with rates of service expansion and operating costs which fall below the regional average.

While PCCP remains committed to continual response time and deployment analysis and reporting, the department has broadened the scope of its performance measurement by introducing an expanded suite of operational key performance indicators (O-KPI) that look well beyond traditional (and legislated) response time performance. The intent of O-KPIs is to provide the City, County and public with a detailed view of the paramedic service operational efficiency and to provide benchmarking that will form the basis of ongoing evaluation and performance strategy.



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### Analysis

As presented to County Council and Peterborough Regional Liaison Committee in 2018, the service has established a suite of Operational Key Performance Indicators, which built upon those created by Paramedic Chiefs of Canada.

For summary purposes, this report includes a broad sampling of O-KPI's for the paramedic service. For a full analysis, the 2023 O-KPI's Summary sheet is included as Appendix 1 of this report.

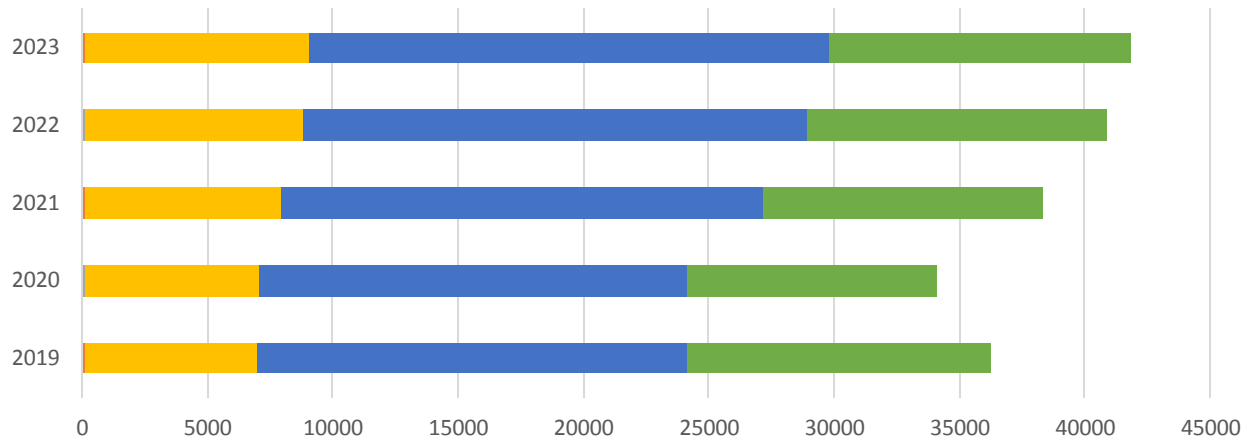
### Call Volume – Vehicle Movement (Including Cross Border Calls)

Traditionally Call Volume statistics have included all vehicle assignments in response to calls for Paramedic Service within Peterborough City & County. This statistic can be somewhat misleading when evaluating service demand and often more than one vehicle may be assigned to a response. Case in point, PCCP utilized a Paramedic Response Unit (PRU) in 2017/18 which was often assigned along with an ambulance. When the PRU program ended in 2018, there was a resultant decrease in vehicle assignments giving an appearance of decreasing demand for service. In order to more accurately demonstrate demand trends, this report provides call volume trend in both vehicle assignment and individual requests for service (patients).

In 2023, the number of Emergency/Urgent (Code 4 – Urgent/life threatening) calls dispatched was 20,809 – an increase of 3.35% over 2022 and Prompt (Code 3 – Prompt/Serious) calls was 8,897, an increase of 1.66%. **There was an overall increase of 2.26%** for all responses including incident standby calls (Code 8). The average year over year increase for the reporting period below is 3.87% for the past 5 years (Figure 1)

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### Summary of All Responses (County/City)



	2019	2020	2021	2022	2023
1-Deferrable	71	68	75	61	111
2-Scheduled	25	29	29	19	19
3-Prompt	6850	6955	7797	8752	8897
4-Urgent	17216	17048	19231	20134	20809
8-Standy-by	12074	10012	11181	11937	11992

Totals	36,236	34,112	38,313	40,903	41,828
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Figure 1

### Patient Call Volume

An analysis of individual patient call volume is represented in Figure 2, which provides a more meaningful representation of actual demand for service and includes cross border calls which were performed by another Paramedic Services within PCCP coverage area. In 2023, there was a slight increase in patient volume with a rate of **0.84%**.

It is anticipated that the mitigation strategies impacted call volume, such as the Community Paramedic Program which assists those experiencing health issues stay healthy at home and avoid trips to the emergency room as paramedics remotely monitor their health at home with the patient's healthcare team. Another mitigation strategy used was to educate the public through the "Is Your Urgency an Emergency" program.

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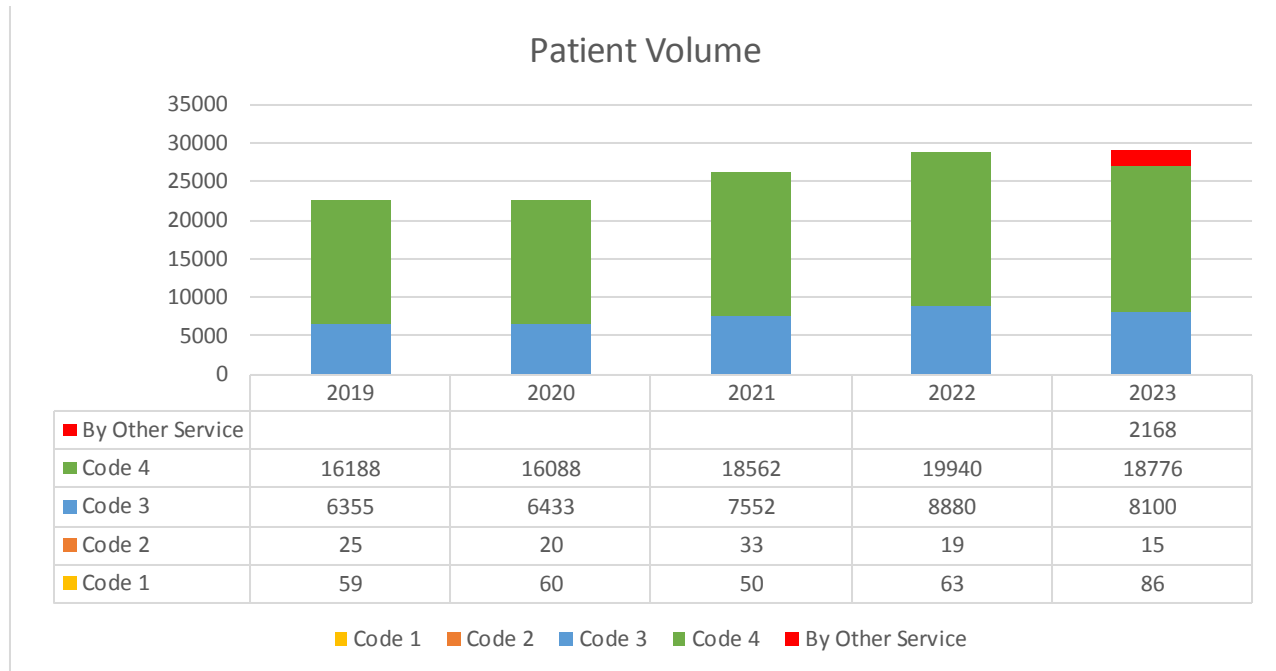


Figure 2

### Response Time Performance

O-KPI RTP-1 is a measurement of response time performance against the Council approved Response Time Performance Plan (RTPP). This measurement is also reviewed and reported annually as mandated by Reg. 257 of the Ambulance Act.

As demonstrated in Figure 3 below, PCCP performance in the combined City/County coverage area continues to exceed all targets except for CTAS 1, which was missed by one call in 2023 in our northern coverage area. Through the Master Plan and with CAO and Council, PCCP have been looking at opportunities to improve coverage in the northern region of the County to ensure response times can be improved upon.

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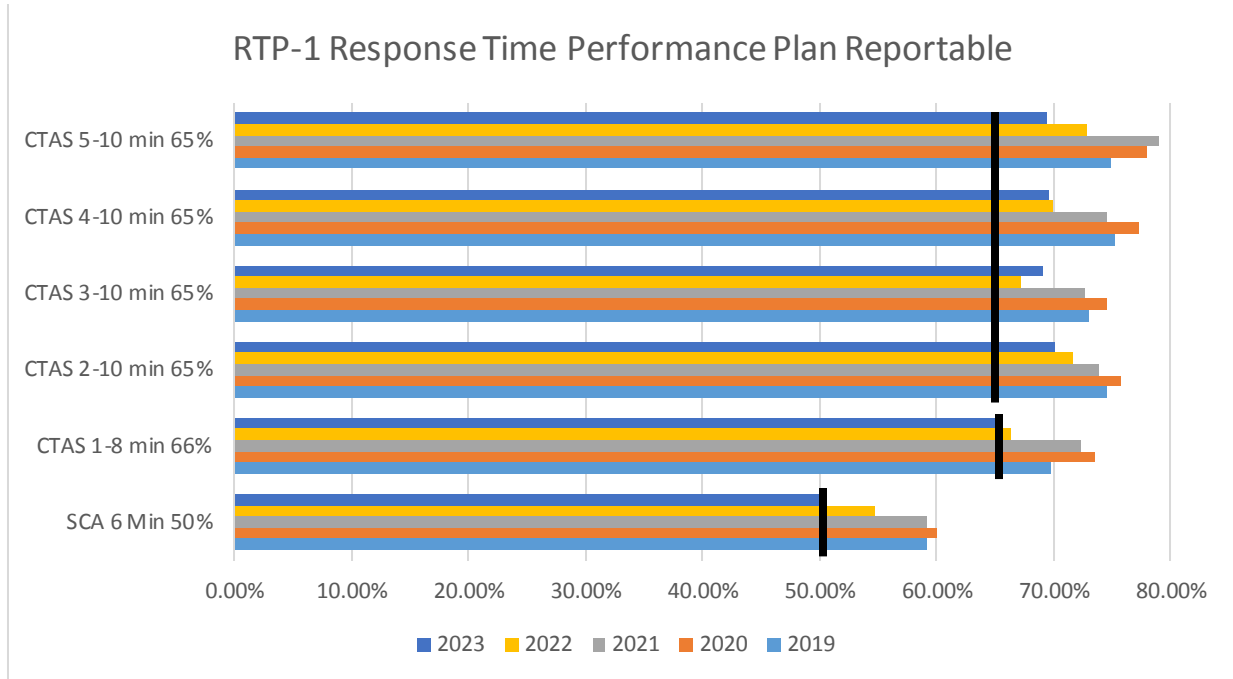


Figure 3

RTP-2 provides an analysis of urban (City of Peterborough) response time performance against the mandated (service area wide) RTPP for 2023. As demonstrated in Figure 4 below, PCCP Performance in the urban setting has exceeded targets in all categories.

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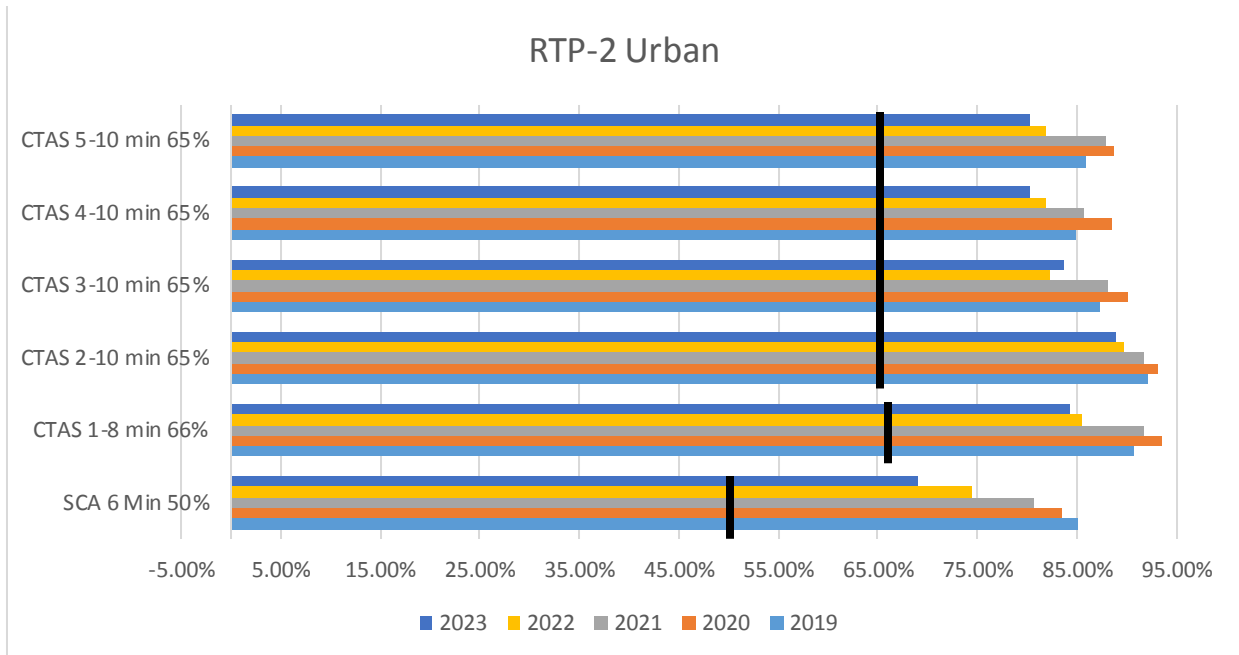


Figure 4

Figure 5 provides an analysis of Suburban/Rural (County) response time performance against the mandated (service area wide) RTPP. While overall, PCCP is meeting and exceeding the reportable Response Time Performance Targets, comparison of Suburban/Rural response performance falls far short of the targets set for the service wide area as established by the RTPP. PCCP Administration is continuing to examine Suburban/Rural response times with a goal of establishing appropriate response time targets and methods to achieve and maintain service levels.

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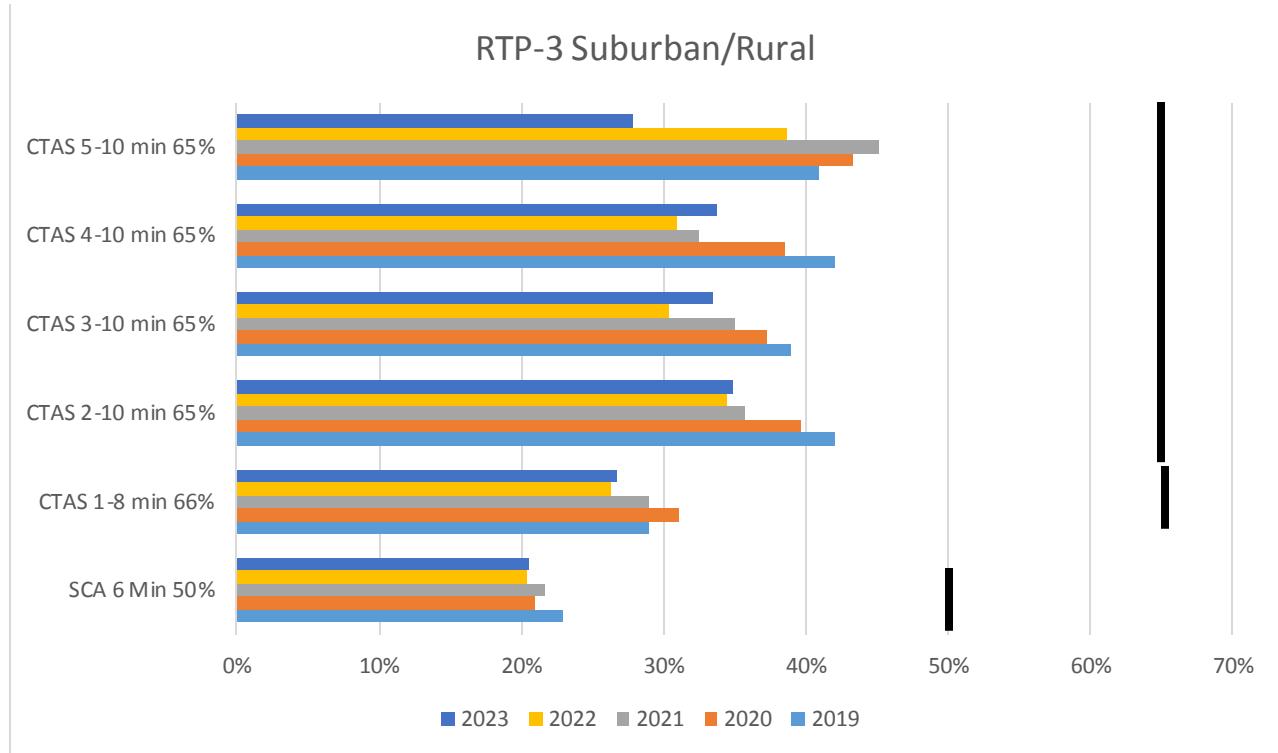


Figure 5

### Volume Measures

Figures 6 & 7 below demonstrate the volume measures for both emergency Code 3 and 4 calls (V1 - Figure 6) and non-emergency calls Code 1 and 2 (V2 - Figure 7) for City, County and Combined in 2023 (highlighted in green) over previous years. Emergency responses per capita remain significantly higher in the urban setting (255/1000 pop) as compared to the rural areas (131/1000 pop).

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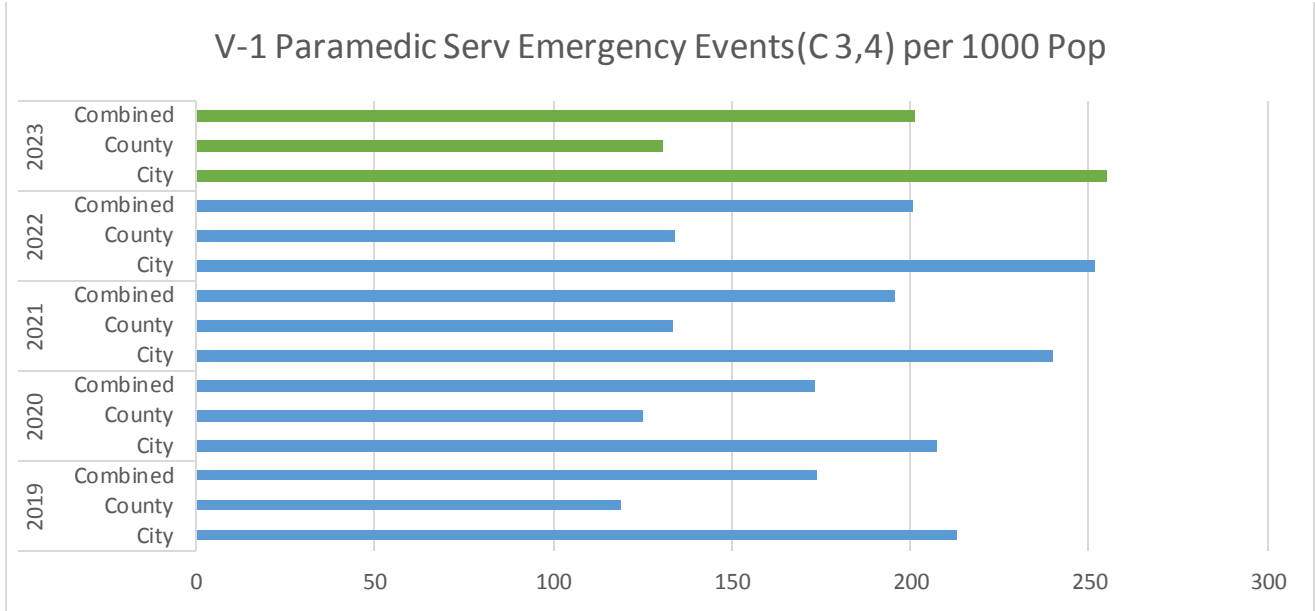


Figure 6

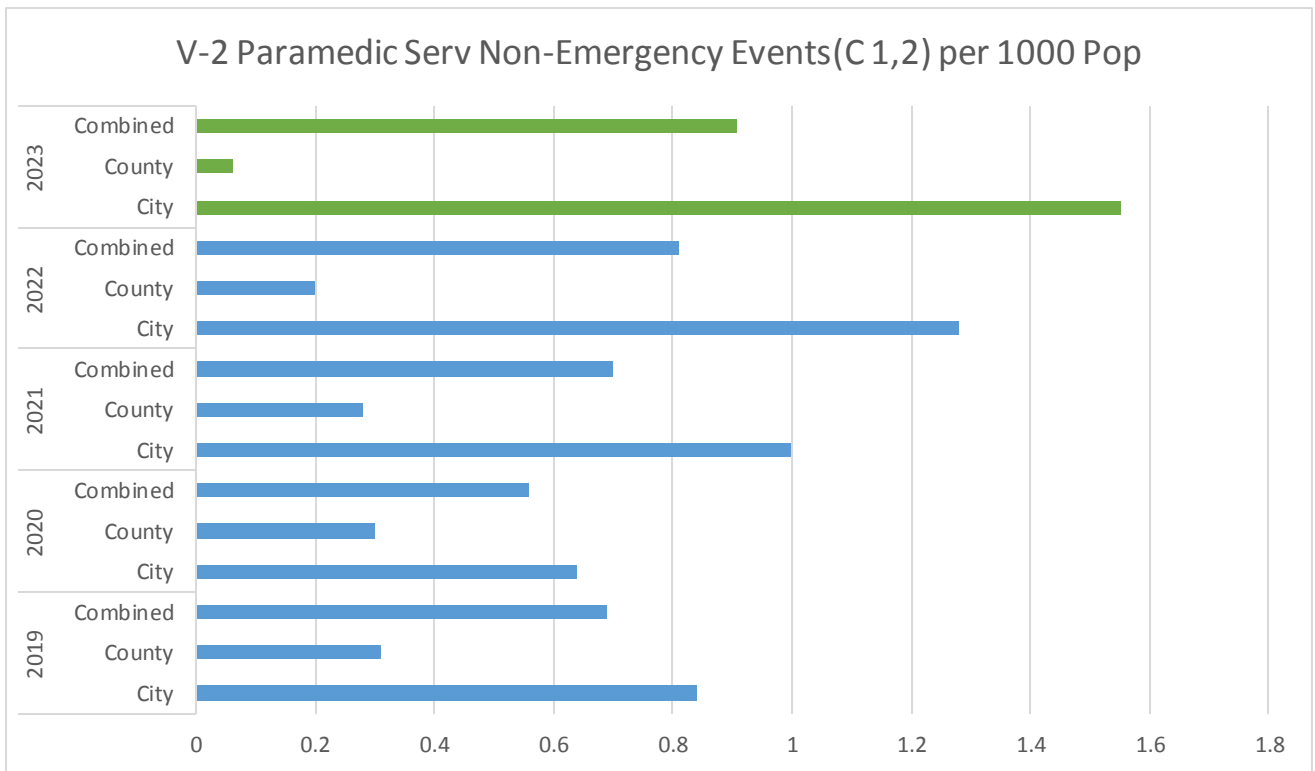


Figure 7



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### Utilization Measures

Measures U-1 and U-2 are used to demonstrate the rates of resource utilization or conversely, rates of resource availability of emergency response for the community. Unfortunately, data is not available in 2023 for zero ambulance availability as service provider database has not been updated.

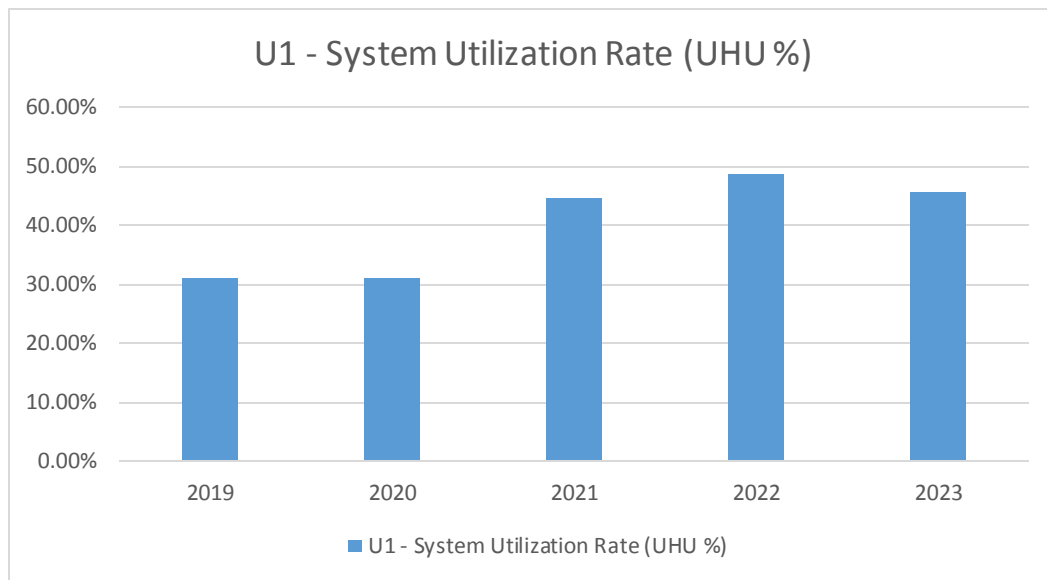


Figure 8

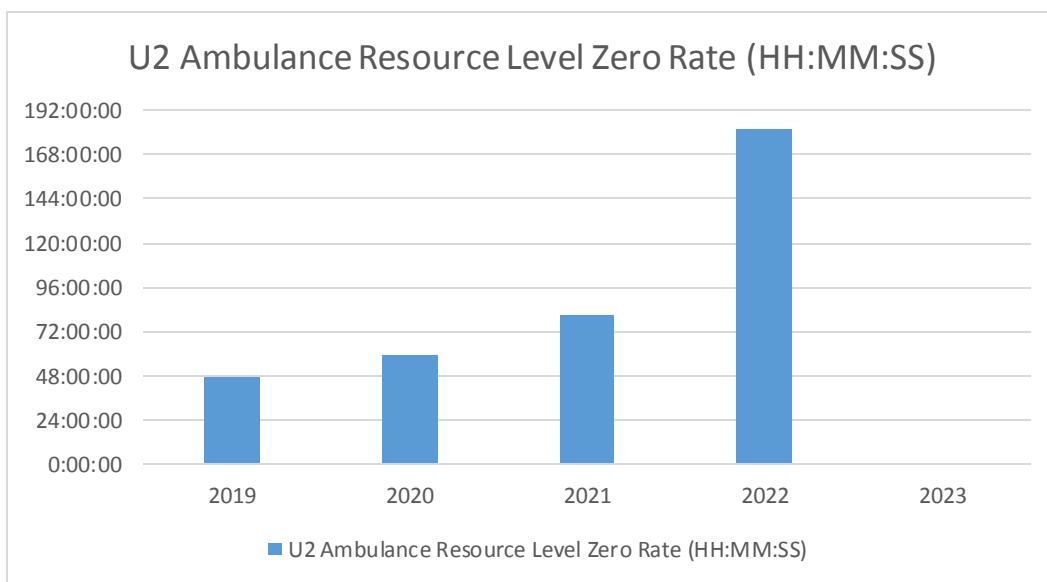


Figure 9

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U-3 is a new utilization O-KPI added in 2022. This measure compares the volume of paramedic service responses within the County & City completed by other Municipality's ambulances against the volume of response by PCCP into external municipalities. This measure is useful in evaluating the efficacy of the service level provided in meeting the current needs. As the call volumes have been increasing in an absence of service enhancement, the reliance on neighboring services has been increasing resulting in delayed responses and increased cost associated with cross-border billing agreements (displayed in differential).

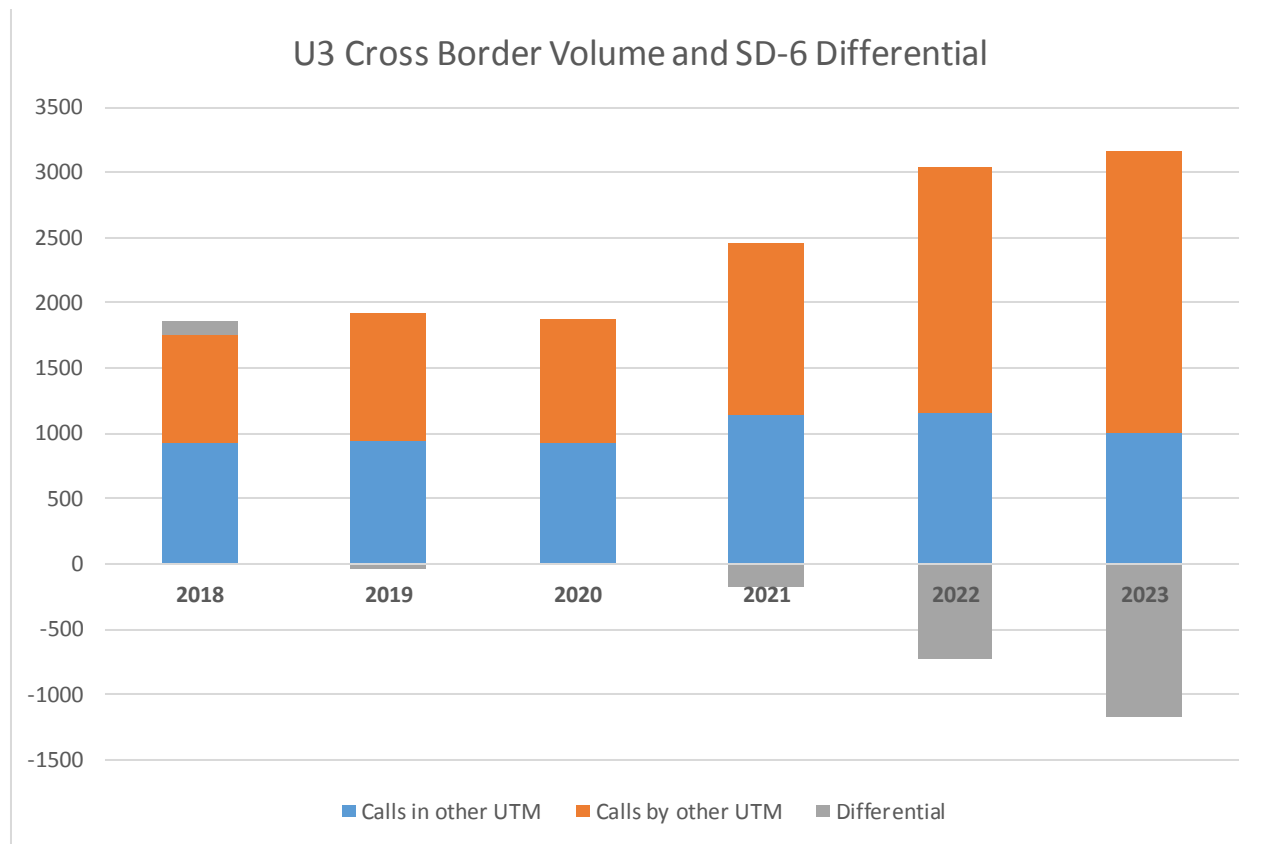


Figure 10

### System Design/Deployment Measures

Charted below are the System Design and Deployment Measures. First category shows average at hospital time. Second category is Average Offload time. The last two categories are our 90<sup>th</sup> percentile at Hospital Time and 90<sup>th</sup> percentile Offload Time.

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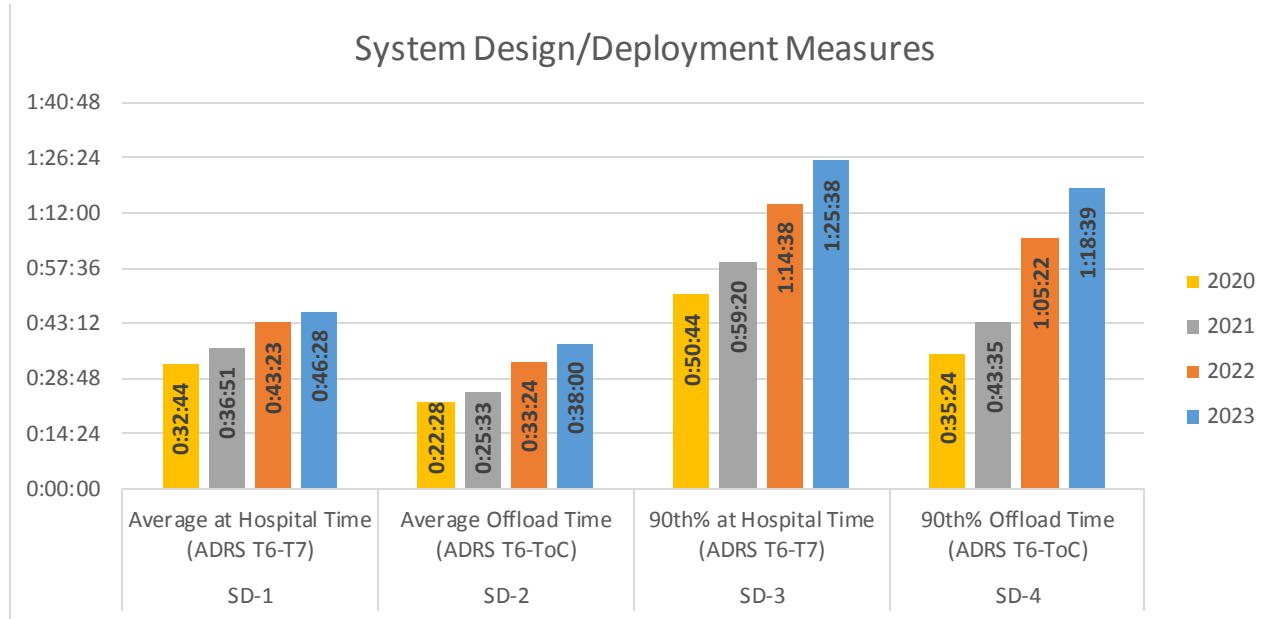


Figure 11

Figure 12 depicts the percentage of emergency responses that received Advanced Care Paramedic (ACP) response versus Primary Care Paramedic (PCP). In 2022 & 2023, as the service continues to hire additional staff to meet call volumes and attrition, most new hires are trained at the Primary Care level. Contrary to our longer tenure staff who have recently trained to Advanced Care level, however, many are Community Paramedics and would not be reflected in the percentages below. In 2023, we saw an increase of 3.61% in ACP response to the community in comparison to 2022.

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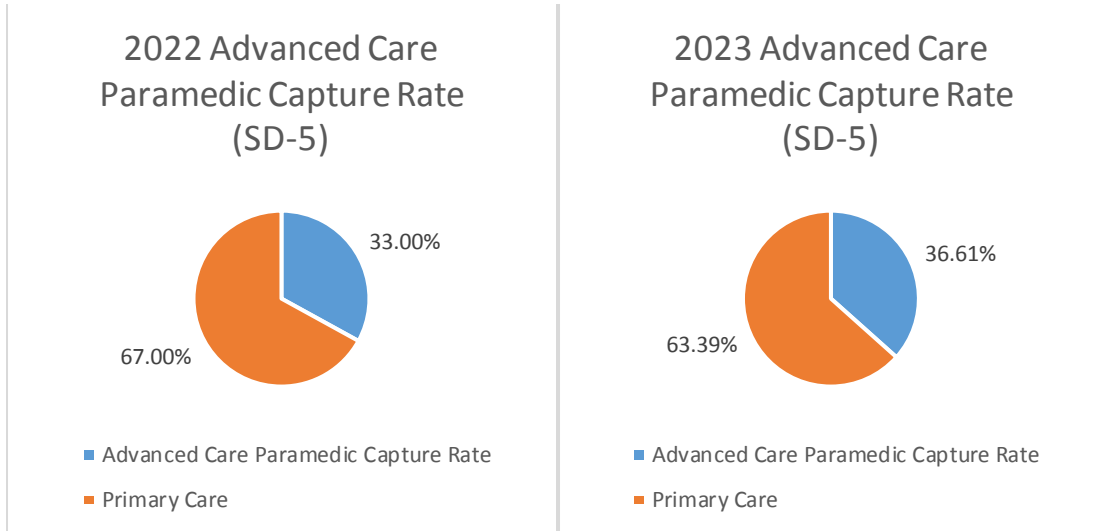
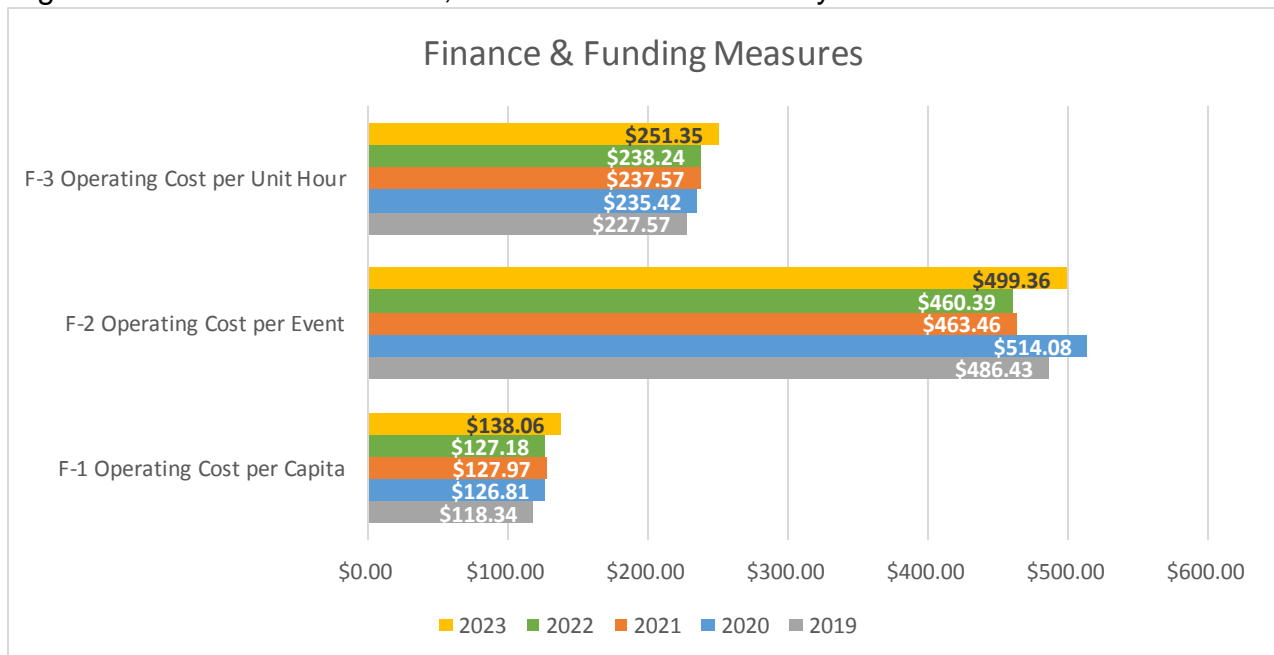


Figure 12

## Finance/Funding Measures

Figure 13 compares data for 2023 over previous years for Operating Cost per Capita, Operating Cost per Event and Operating Cost per Unit Hour. As demonstrated, despite slight increases to call volumes, costs in 2023 have mainly increased due to inflation.



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Figure 13

### Fleet Measures

Figure 14 below depicts cost per kilometer for both Fleet Maintenance and Fleet Operating (non-capital) Costs. Total fleet operating costs increased by \$0.050 per kilometer in 2023 over 2022 with total per kilometer at \$0.96 in 2023 over 2022 \$0.81.

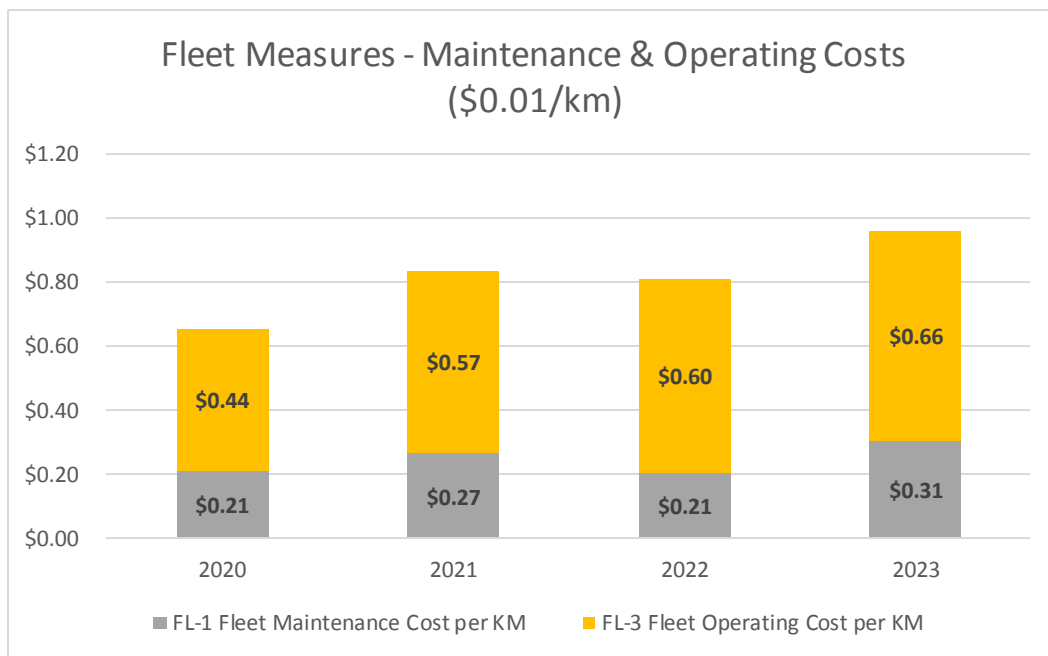
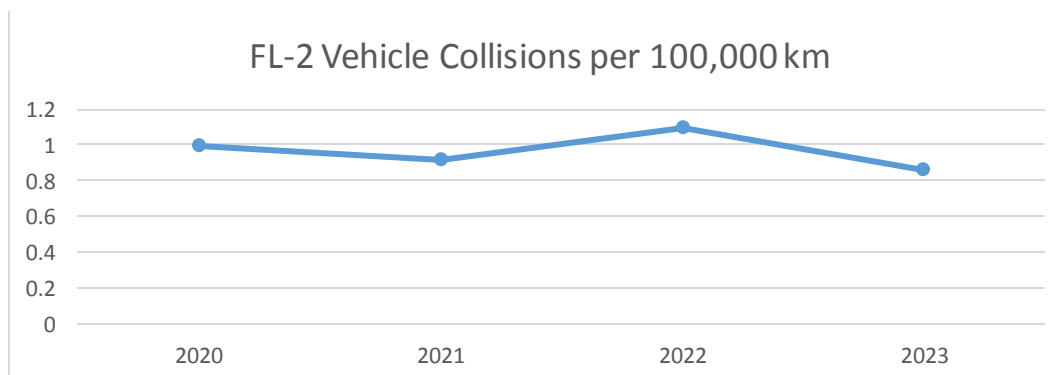


Figure 14

Figure 15 below demonstrates a rate of vehicle collisions on a downward trend per 100,000 kms. Rates indicate a reduction of collisions from 1.09 in 2022 to 0.87 instances per 100,000 kms in 2023.



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Figure 15

### Carbon Emissions Measures

All 3 measures experienced a decrease in 2023 from 2022 as we continue to ensure vehicles are more carbon neutral and implement processes to lessen the impact on the environment.

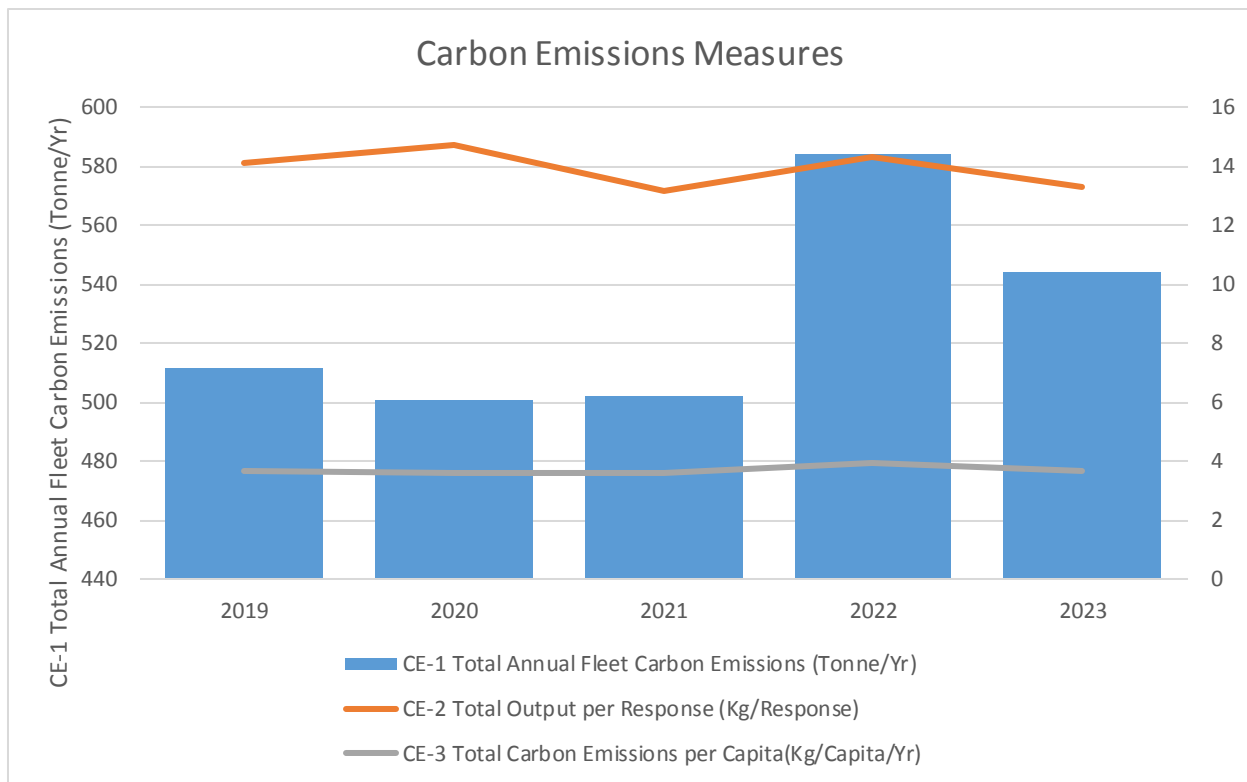


Figure 16

### Satisfaction Measures

Figure 17 shows PCCP saw a slight decrease in commendations in 2023 over 2022 with a slight increase in complaints received per 1000 responses. In addition, a slight increase was experienced in the time for Complaint Investigations. This is due to training time required as we onboarded new Management team members.

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Figure 17

The below chart summarizes the Satisfaction Measures obtained from the annual public survey. Overall, patients/family members were satisfied with Paramedic arrival time, care and have a high level of trust in service. When analyzing the data from the survey, S5- Time Taken for Ambulance to Arrive was impacted by those in rural areas who often answered that response was longer than anticipated. S4-S7 were new KPI's which were added in 2022.

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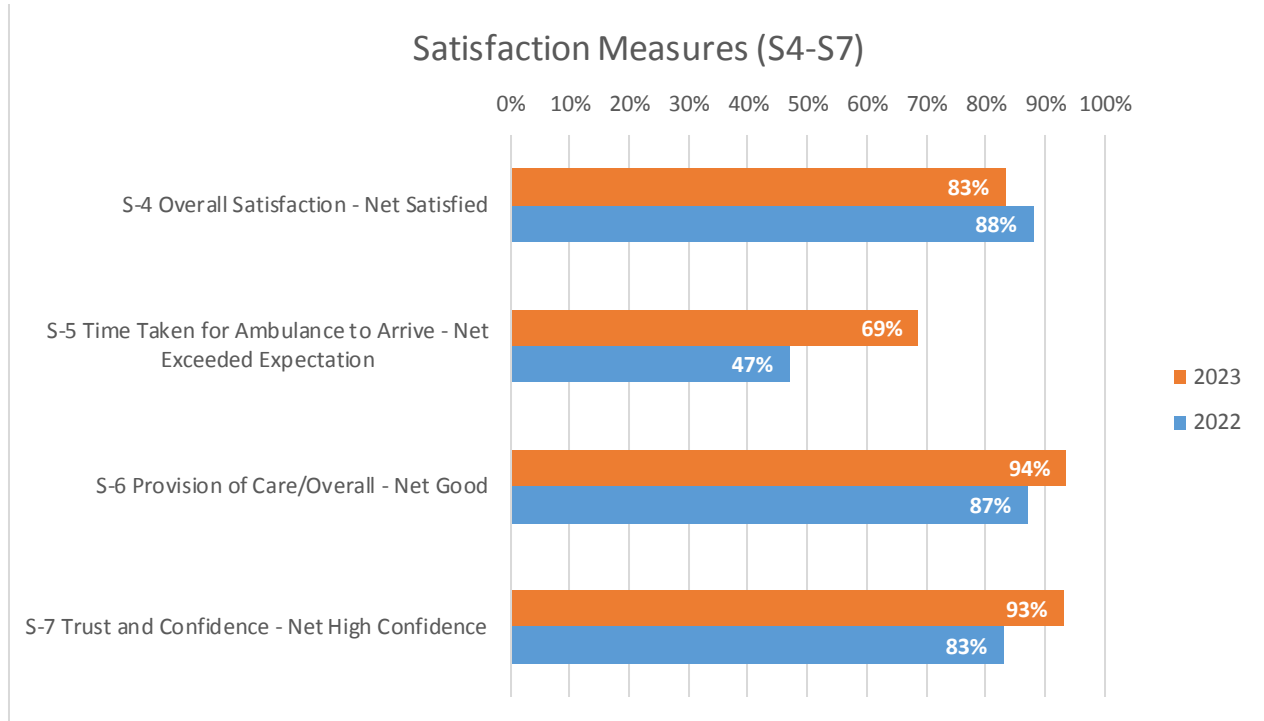


Figure 18

### Occupational Health & Safety

Figures 19-20 evaluate injury rates and resultant lost time claims. Frequency Rate for Injury and Lost Time Incidents have decreased, however lost time hours per claim have slightly increased over 2022.



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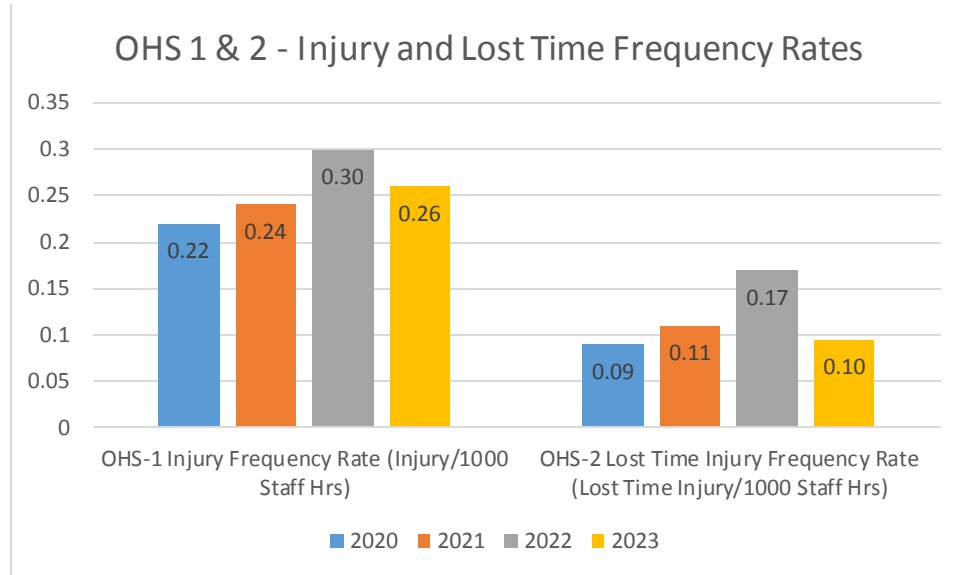


Figure 19

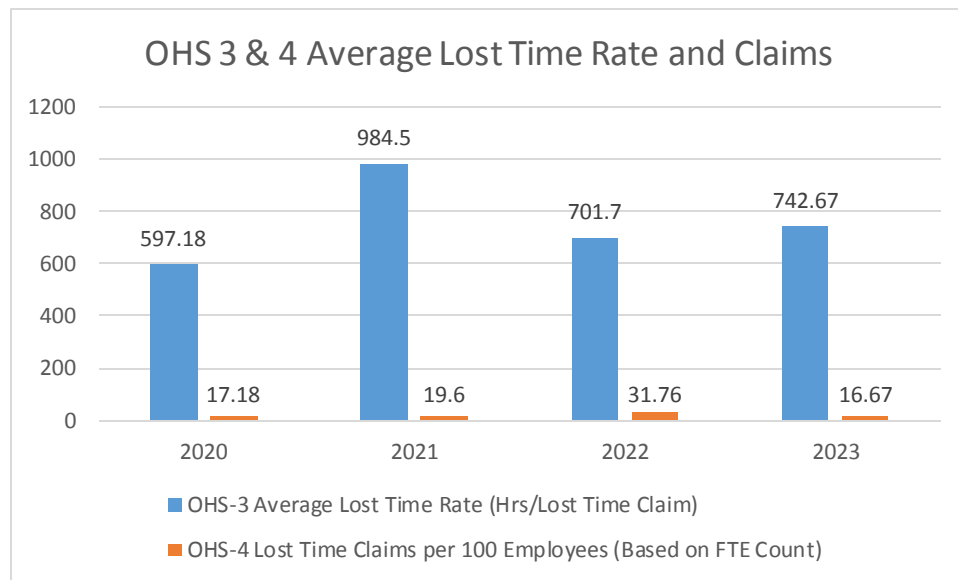


Figure 20

### Human Resource Measures

Service levels enhancements in 2023 (based on the PCCP Master Plan) resulted in improved levels of service as demonstrated in HR-1 with a slight increase in ACP staff on the 911 side, as mentioned earlier, a number of ACP staff have transitioned to the

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Community Paramedic programs. Also, an additional 2 staff are currently in training to become ACP on 911 side.

Due to lack of clarity in 2019 provincial funding and COVID-19 pandemic continuing in 2020, PCCP amended work plans to reduce expenses, which resulted in a reduction of Paramedic Continued Education hours; we have since returned to our annual 32 hours of training for Paramedic staff.

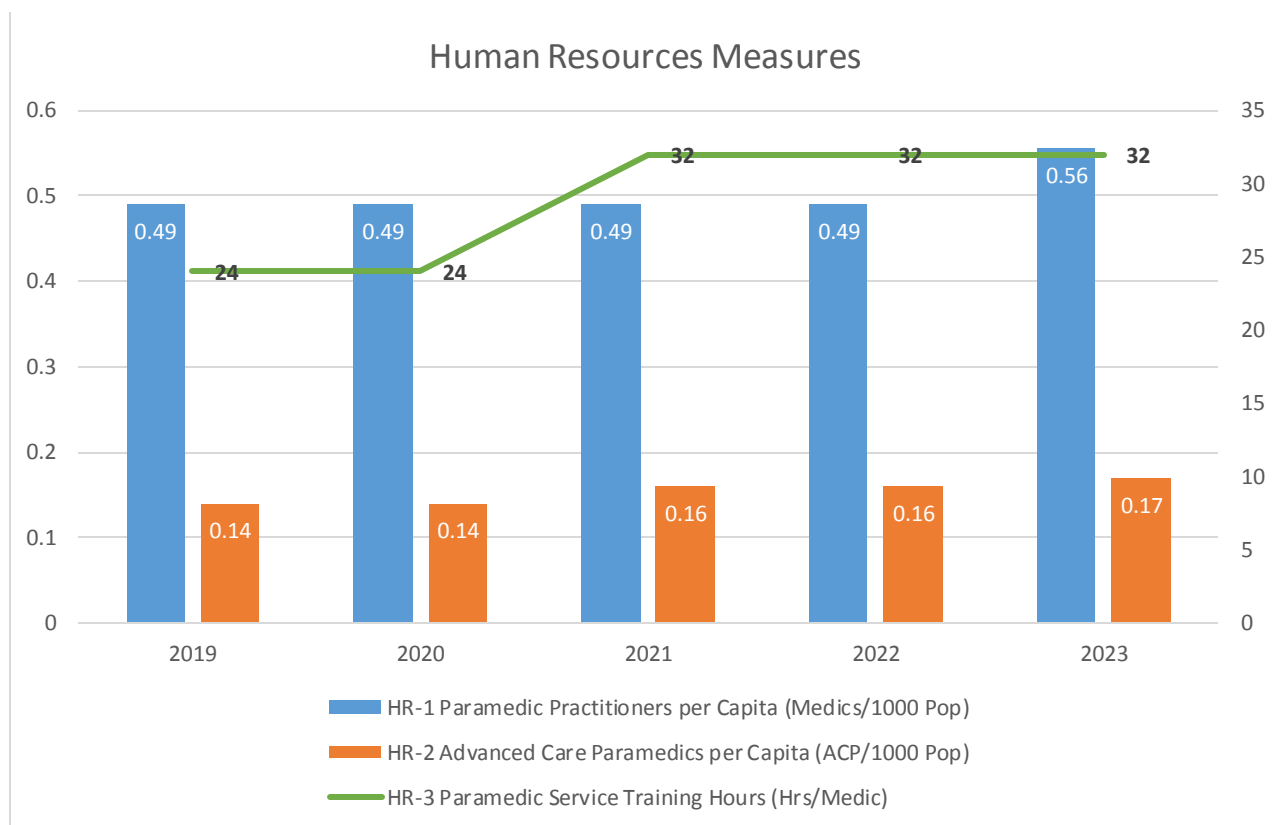


Figure 22

### Financial Impact

No additional costs are anticipated related to annual evaluation of KPIs. Data within this report will be utilized to continue strategies for operational efficiencies.

### Anticipated Impacts on Local and/or First Nations Communities

Not applicable.

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### In consultation with:

1. Sheridan Graham, CAO
2. Patricia Bromfield, Chief
3. Don Oettinger, Deputy Chief of Professional Standards

**Communication Completed/required:** None at this time.

### Attachments

1. PCCP 2023 O-KPI PowerPoint
2. PCCP 2023 O-KPI Summary, PDF

Respectfully submitted,

Randy Mellow

Director, Emergency & Shared Services & Deputy CAO

## MISSION

Peterborough County is an upper tier municipal government serving residents, visitors, and eight townships to meet the needs of our community, in consultation with First Nations. The County provides paramedic services (emergency and community); public works and land use planning services as well as partnered services including public health, economic development and tourism, municipal long-term care, social and children's services, and housing support.

## VISION

Working together with our townships and service delivery partners to provide high quality municipal services to our communities.

