



# Peterborough County/City Paramedics

Paramedic Service Operational Key  
Performance Indicators

February 11, 2020

# Overview

The purpose of this report is to provide an overview of a suite of operational key performance indicators (O-KPIs) to be collected by Peterborough County/City Paramedics (PCCP) for the purpose of performance reporting to the Peterborough City and County Peterborough Regional Liaison Committee (PRLC).



# Recommendation

Receive the report for information only.





# Background

- Priority of PCCP 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
- PCCP administration performs annual analysis of paramedic service call volumes, response times and patient outcomes (where possible).
- Broadened the scope of 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 is to provide the City, County and public a detailed view of the paramedic service operational efficiency and to provide benchmarking that will form the basis of ongoing evaluation and performance strategy.



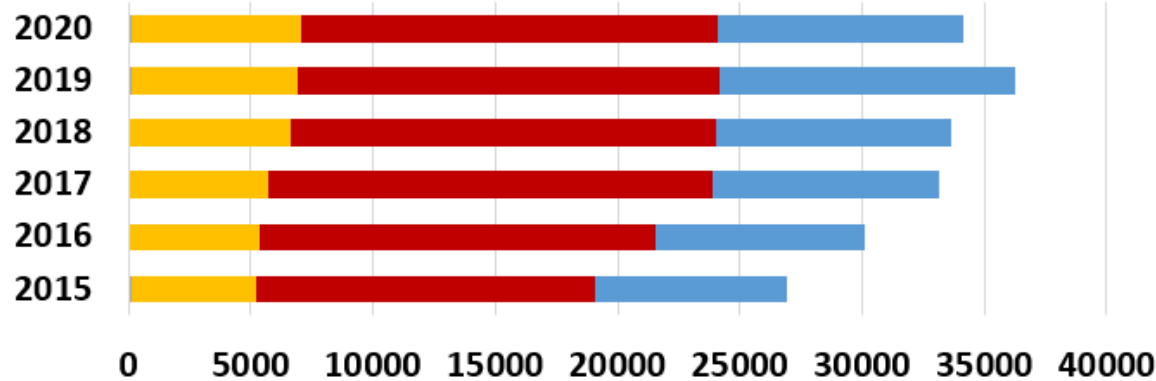
# Background

- Building on the Performance Measures Inventory created by the Paramedic Chiefs of Canada), PCCP has initiated data collection and analysis to inform reportable O-KPIs.
- These operational measures have been selected and prioritized based on universality, ease of defining and perceived funding value.
- The proposed measures will be collected and analyzed on an annual basis with year over year comparison and, where possible, performance will be evaluated against a selection of comparator Paramedic Services.
- Summary of O-KPI Measure will be reported to PRLC and County Council annually.
- Clinical Key Performance Measures (C-KPI) currently being developed by the Paramedic Chiefs of Canada and as universally applicable C-KPIs are developed, PCCP will be working to incorporate the relevant C-KPI Measures into the annual Performance Reporting.



# Call Volume – Vehicle Movement

Summary of All Responses



	2015	2016	2017	2018	2019	2020
1-Deferrable	87	51	54	47	71	68
2-Scheduled	25	26	22	41	25	29
3-Prompt	5073	5292	5616	6553	6850	6955
4-Urgent	13888	16205	18210	17357	17216	17048
8-Standby-by	7841	8516	9269	9632	12074	10012

Totals	26,914	21,575	33,171	23,998	36,236	34,112
--------	--------	--------	--------	--------	--------	--------

In 2020, the number of Emergency/Urgent (Code 4 – Urgent/life threatening) calls dispatched was 17,048 – a decrease of 0.98% over 2019 and Prompt (Code 3 – Prompt/Serious) calls was 6,955, an increase of 1.5%. **There was an overall decrease of 5.86%** for all responses including incident standby calls (Code 8). The average year over year increase for the reporting period below is 7.6%



# Patient Call Volume

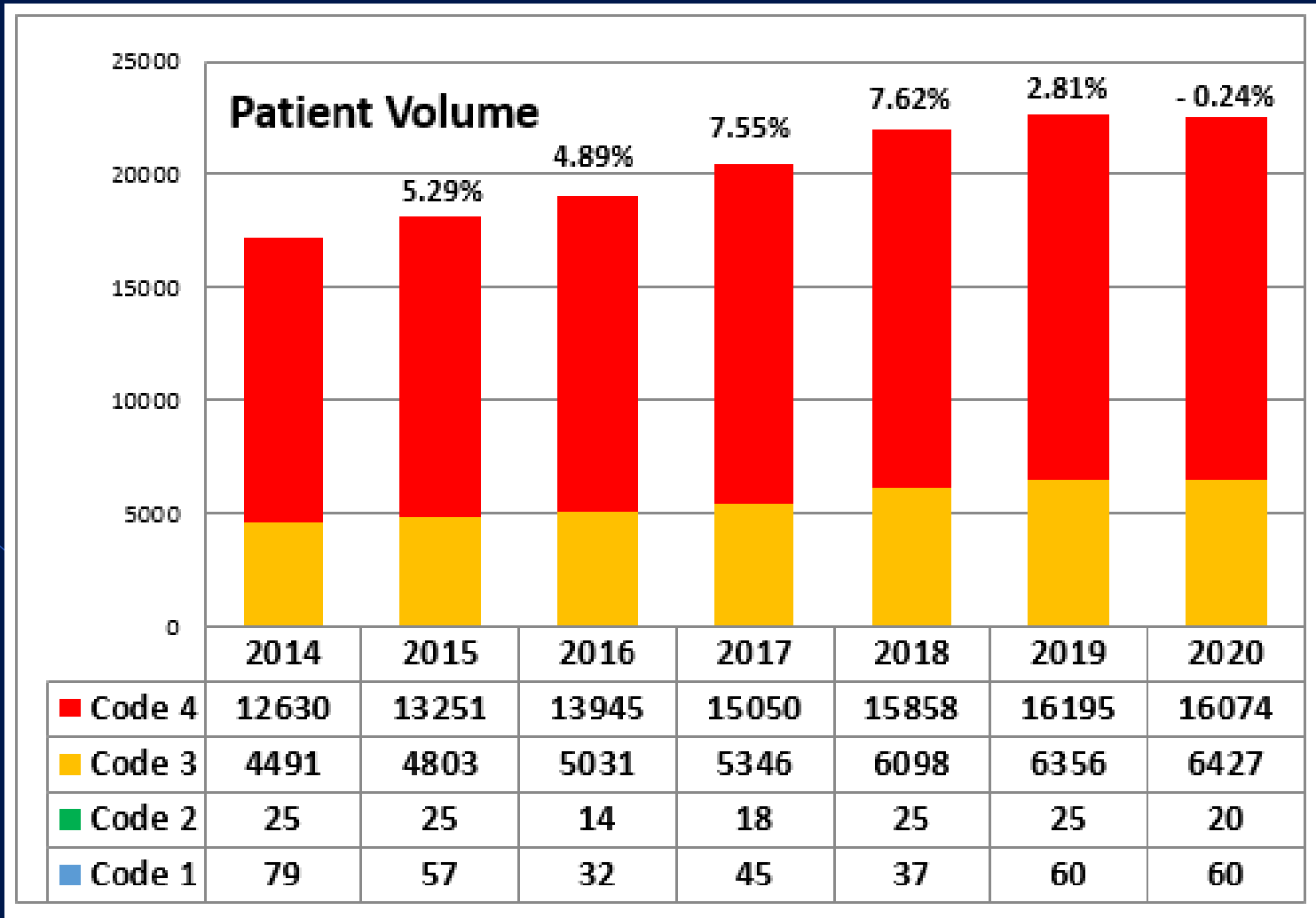


Chart provides a meaningful representation of actual demand for service.

Volume continues to increase year over year, decrease in 2020 can be attributed to the 2020 COVID-19 Pandemic which continues into 2021.

2018 saw an increase in 7.62% over 2017 and 2019 increased 2.81% over 2018.



# Response Time Performance

Response Time Performance							
	RTPP (Target)	SCA 6 min ◎ 50%	CTAS 1 - 8 min ◎ 66%	CTAS 2 - 10 min ◎ 65%	CTAS 3 10 min ◎ 65%	CTAS 4 - 10 min ◎ 65%	CTAS 5 - 10 min ◎ 65%
RTP-1	RTPP Reportable/Legislated	60	73.63	75.82	74.51	77.26	77.96
RTP-2	RTPP Urban (City)	83.56	93.48	93.19	90.21	88.49	88.76
RTP - 3	RTPP Suburban/Rural (County)	20.93	31.13	39.68	37.28	38.53	43.27
Percentile Response Time (Code 4)							
		90th%	50th%	Average			
RTP-5	90th% Response Time All	15:47	5:54	7:51	Min:Sec		
RTP-6	90th% Response Time Urban (City)	8:12	5:02	5:36	Min:Sec		
RTP-7	90th% Response Time Suburban/Rural (County)	21:57	11:58	12:46	Min:Sec		

The service continues to exceed all targets for the reportable Response Time Performance Plan as reviewed annually.

While performance in the urban setting is exceeding all targets; when differentiating areas of Urban versus Rural we are not meeting targets for Sudden Cardiac Arrest. In addition, most targets in the Rural area are not being met within the timeframe which the service set for themselves.

PCCP continues to examine response time in an effort to meet all targets while maintaining service levels.



# Call Volume Measures



	Volume Measures					
		City	County	Combined		MBN Mean
V-1	Paramedic Service Emergency Events(C 3,4) per 1000 Pop	207.24	125.27	173.32	Response/ 1000 Pop	126
V-2	Paramedic Service Non-Emergency Events (C 1,2) per 1000 Pop	0.64	0.30	0.56	Response/ 1000 Pop	
		81032	57204	138236		
	<b>Utilization Measures</b>					
U-1	System Utilization Rate (UHU)	31.06%				
U-2	Ambulance Resource Level Zero Rate (hours)	59:40:00	Hr:Min:Sec	*2020 New definition iMedic ToC+20		



## Patient Carries (City/County)

V-1 Paramedic Service Emergency Events (C-3,4) per 1000 Population	173.32
V-2 Paramedic Service Non-Emergency Events (C-1,2) per 1000 Population	0.56



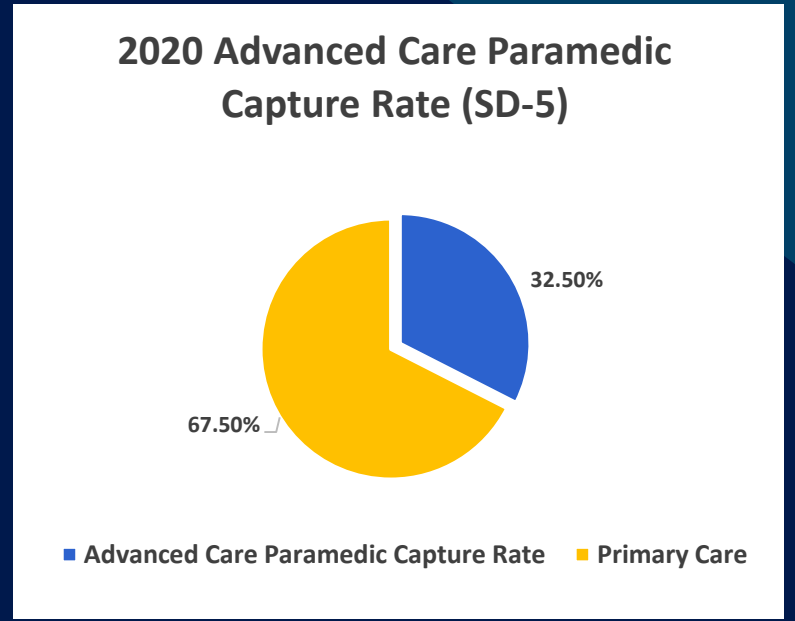
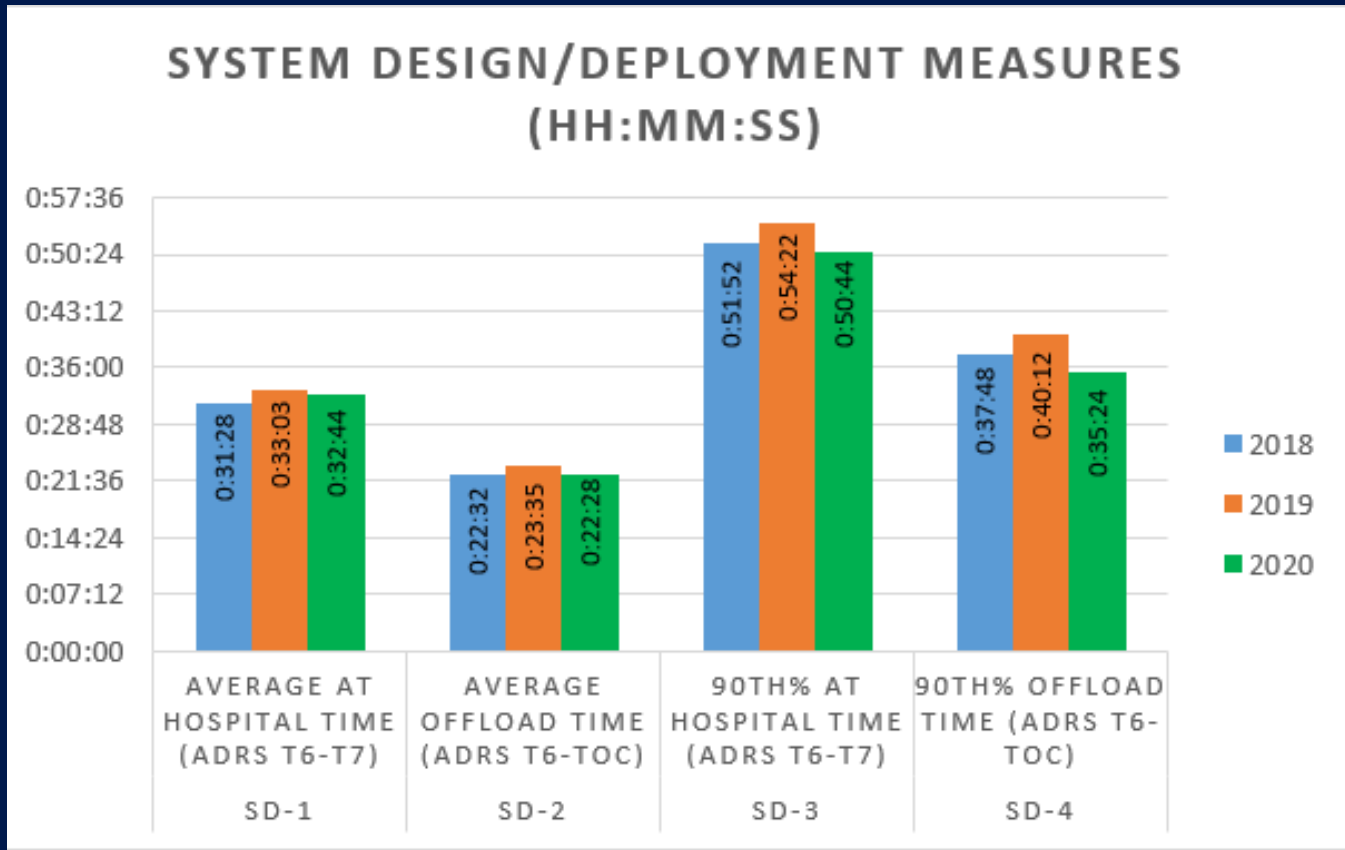
## Ambulance Availability

U-1 System Utilization Rate (UHU)	31.06%
U-2 Ambulance Resource Level Zero Rate Annual (Hours)	59:40:00



# System Design/ Deployment

2020 saw a decrease across the board in time at hospital and offload times as noted in the figure. Some of this can be attributed to change in policy at the hospital due to COVID-19 Pandemic.



Above figure depicts the percentage of ACP versus PCP staff. Although PCCP hired a number of staff in 2020 due to COVID-19 concerns, there was no significant change in staffing numbers as a number of staff retired and/or resigned in 2020.



# Finance/Cost Measures



## Fleet Measures

FL-1 Fleet Maintenance Cost per Kilometer (Cents/Km)	21.3
FL-2 Vehicle Collisions per 100,000 Kilometers	0.99
FL-3 Fleet Operating Cost per Kilometer (Cents/Km)	43.9



## Costs

F-1 Operating Cost per Capita	\$126.81
F-2 Operating Cost per Event	\$514.08
F-3 Operating Cost per Unit Hour	\$235.42

Fleet Measures graphic depicts cost per kilometer for both fleet maintenance and operating costs. Fleet operating costs decreased by \$0.13 per kilometer in 2020 over 2019 with total per kilometer at \$0.652 in 2020 over 2019's \$0.644.


Despite increased call volumes and inflation, 2020 costs did not significantly change over the 2019 rates.




# Environmental & Satisfaction Measures

Total annual fleet carbon emissions and total carbon emissions per capita measures saw a slight decrease in 2020 over 2019 however; the Total Output per Response saw a slight increase in 2020 over 2019.

PCCP saw an increase in commendations in 2020 with a slight increase in complaints received per 1000 responses. However, a significant improvement was realized in time for complaint investigations.

 <b>Carbon Emissions Measures (CO<sub>2</sub>to/e)</b>	
CE-1 Total Annual Fleet Carbon Emissions (tonne)	501.0
CE-2 Total Output per Response (Kg)	14.7
CE-3 Total Carbon Emissions per Capita (Kg)	3.6

<b>Satisfaction Measures</b> 	
S-1 Complaints Received per 1,000 responses	0.6
S-2 Commendations Received per 1,000 responses	0.88
S-3 Time for Complaint Investigation	8.24 days



# Human Resource/Safety



## Injuries/Lost Time

OHS-1 Injury Frequency Rate (per 1000 staff hours)	0.22
OHS-2 Lost Time Injury Frequency Rate (per 1000 staff hours)	0.09
OHS-3 Average Lost Time Rate (Hours/Lost Time Claim)	597.18

OHS 1-4 evaluates injury rates and resultant lost time claims. Our Frequency Rate for Injury and Lost Time remains low, however lost time hours per claim is higher due to mental health injuries experienced.



## Staffing/Population

HR-1 Paramedic Practitioners per Capita (per 1000 Population)	0.49
HR-2 Advanced Care Paramedics per Capita (per 1000 Population)	0.14
HR-3 Paramedic Service Training Hours	24

Service level enhancement in 2019 realized improved levels of services however due to lack of clarity in 2019 provincial funding and COVID-19 pandemic in 2020, PCCP had to amend work plans to reduce expenses which resulted in a reduction of Paramedic Continued Education hours.



# Summary

- Ease of data access and reporting
- Departmental efficiency and efficacy measures and performance evaluation exceeding mandated requirements
- Contributes to corporate goals (Carbon Emission, Injury Prevention, etc)
- No additional costs are anticipated related to annual evaluation of KPIs.
- Data within this report will be utilized to continue strategies for operational efficiencies.



# Thank You.



Randy Mellow, Chief of Paramedics



707 743-5263 Ext 4112



[rmellow@ptbocounty.ca](mailto:rmellow@ptbocounty.ca)



[www.ptbocounty.ca](http://www.ptbocounty.ca)