



Region of Waterloo \* Paramedic Services  
**PERFORMANCE MEASUREMENT**

**Performance Measurement Report**  
**For the Period of January – August 2018**  
**Produced on September 7<sup>th</sup>, 2018**



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

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# Region of Waterloo \* Paramedic Services

## PERFORMANCE MEASUREMENT

### Summary

#### A. Volume and Service Level Indicators

Indicator	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Total Number of Vehicle Responses	34,708	35,801	+3.1%
Rate of vehicle responses per 1,000 population*	87.8	89.5	+2.0%
Unit Utilization	40.0%	39.4%	-1.5%

#### C. Efficiency Indicators

Indicator	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Offload Delay (monthly average)*	14.2 days	22.3 days	+57.1%
Code Yellow Time	14.9%	8.9%	-40.1%
Code Red Time	0.7%	0.8%	15.7%

#### B. Compliance and Quality Assurance Indicators

Indicator	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Paramedic Services Response Time to Emergency Calls	9min 26sec	9min 16sec	-1.8%
Response Time Performance Plan Compliance Resuscitation calls (CTAS1)	73.7%	72.2%	-2.0%
Response Time Performance Plan Compliance Emergent calls (CTAS2)	81.4%	82.0%	+0.8%

#### D. Service and Quality Impact Indicators

Indicator	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Stroke Patient to Stroke Facility*	90.4%	88.6%	-2.0%
Return of Spontaneous Circulation*	11.9%	15.3%	+22.3%
Heart attack (STEMI) protocol*	74.5%	58.9%	-20.9%

\*A similar indicator is captured, with some variation in measurement units, within a portion of the MBN Canada (formerly OMBI) reporting process.



# Region of Waterloo \* Paramedic Services

## PERFORMANCE MEASUREMENT

### A. Volume and Service Level Indicators

#### Definition of Indicator Group

Quantity type indicators that show values related to work intake and work breakdown (how much did we do?).

#### Summary of Results

From January to August 2018 there have been 35,801 vehicle responses by Paramedic Services with 54,000 vehicle responses currently forecast by year-end 2018. Compared to the same time period in 2017 the number of vehicle response is up 3.1 per cent and the rate of vehicle responses per 1,000 people is up 2.0 per cent. Although the increase in the rate of vehicle responses per 1,000 people in 2018 is much lower than the average increase of 7.0 per cent experienced each over the last three years, it still nearly double the rate of regional population growth forecast for 2018 (1.1 per cent). Unit utilization for January to August 2018 was 39.4 per cent and essentially unchanged from the same time period in 2017 (40.0 per cent). Unit utilization in 2018 has ranged from an hourly low of 25.3 per cent at 5AM to an hourly high of 53.8 per cent at 9PM. For unit utilization, a decreasing trend is considered positive, while an increasing trend is seen as a negative. Paramedic Services' master plan established a benchmark of target of 35 per cent; above this threshold it becomes difficult to ensure an ambulance will be available for the next call in a reasonable time. Monitoring unit utilization allows for proactive planning to ensure community needs are met in a reasonable time while using a sustainable level of deployed staff.

Indicator Name	Indicator Definition	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Number of Vehicle Responses	A measure of service demand. The total number of ambulances or emergency response units (vehicles) that responded to calls dispatched to Region of Waterloo Paramedic Services inside or outside of Waterloo Region. More than one vehicle may respond to a single call; for example, multiple casualty incidents.	34,708	35,801	+3.1%
Rate of Vehicle Responses per 1,000 population	A measure of service demand. The rate of vehicle responses per 1,000 population to calls dispatched to Region of Waterloo Paramedic Services inside or outside of Waterloo Region. More than one vehicle may respond to a single call; for example, multiple casualty incidents.	87.8	89.5	+2.0%
Unit Utilization	Unit utilization measures the per cent of time that ambulances and emergency response units are actively engaged in responding to calls (codes 1 to 4) – as opposed to being deployed waiting for calls.	40.0%	39.4%	-1.5%



# Region of Waterloo \* Paramedic Services

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### Number and rate of vehicle responses per 1,000 population, by dispatch priority code and year

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup> to August 31<sup>st</sup>, 2013-2018

Overall priority code	Number of vehicle responses						2013→2018
	2013	2014	2015	2016	2017	2018	
1 – Deferrable	377	345	108	89	64	55	
2 – Scheduled	116	108	82	89	54	53	
3 – Prompt	7,414	7,342	8,744	8,492	9,009	9,374	
4 – Urgent	18,720	19,385	21,030	23,210	25,581	26,319	
<b>Rate per 1,000 (YTD)</b>	<b>71.0</b>	<b>71.8</b>	<b>78.3</b>	<b>82.0</b>	<b>87.8</b>	<b>89.5</b>	
Annual change (%)	-0.8%	1.0%	9.1%	4.6%	7.1%	2.0%	
<b>Total vehicle responses (YTD)</b>	<b>26,627</b>	<b>27,180</b>	<b>29,964</b>	<b>31,880</b>	<b>34,708</b>	<b>35,801</b>	
Annual change (%)	0.2%	2.1%	10.2%	6.4%	8.9%	3.1%	
<b>Total vehicle responses (annual)</b>	<b>40,238</b>	<b>42,096</b>	<b>45,344</b>	<b>48,577</b>	<b>52,982</b>	<b>*53,775</b>	
Annual change (%)	-0.6%	4.6%	7.7%	7.1%	9.1%	1.5%	

\* Forecasted

Source: ADRS (September 7<sup>th</sup>, 2018)

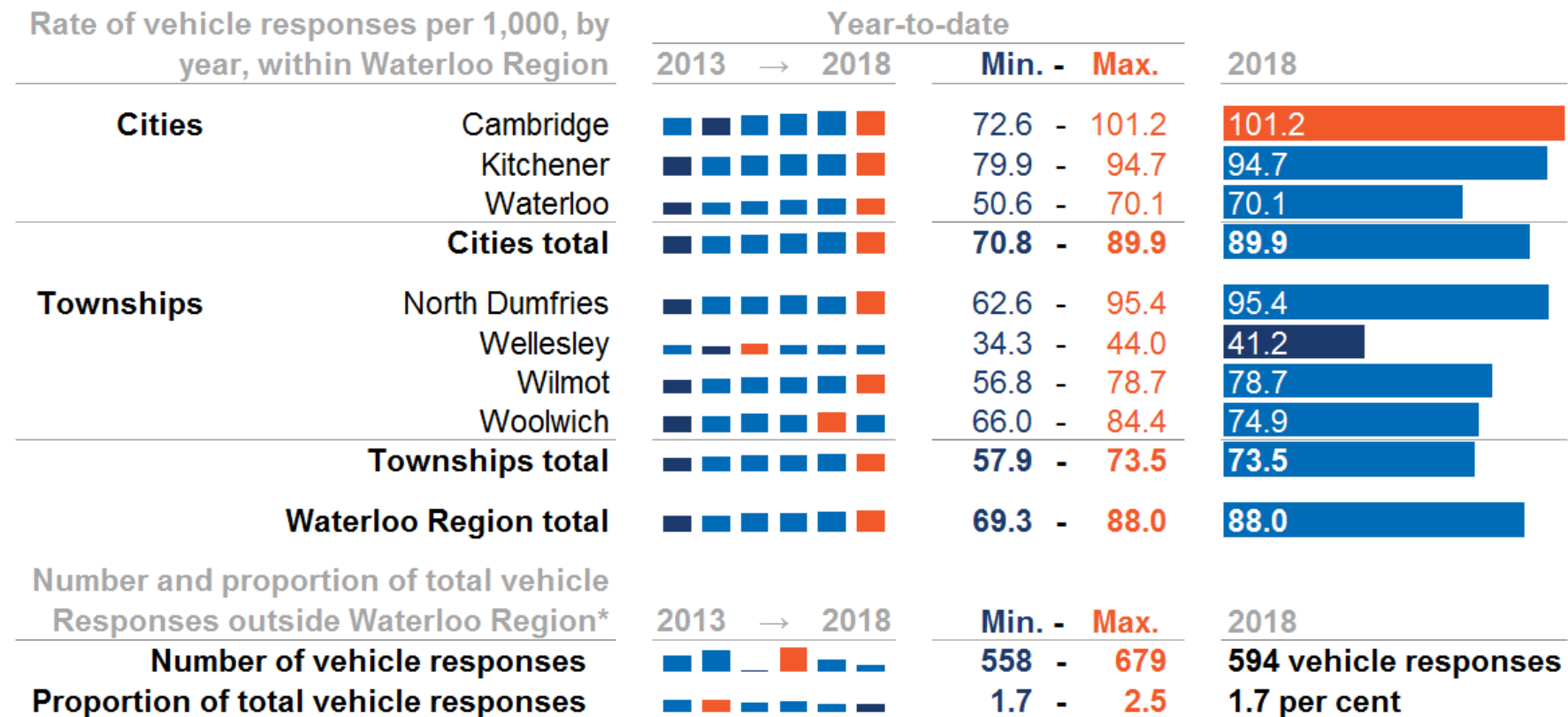
■ Lowest value    
 ■ Middle value(s)    
 ■ Highest value



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Rate of vehicle responses per 1,000 population, by municipality and year

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup> to August 31<sup>st</sup>, 2013-2018



\* A population based rate of vehicle responses cannot be accurately calculated for calls outside of Waterloo Region because it is not possible to determine an accurate service population (denominator).

Source: ADRS (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Number and rate of vehicle responses per 1,000 population, by municipality and month

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup> to August 31<sup>st</sup>, 2018

Rate of vehicle responses per 1,000, by month, within Waterloo Region

		Jan → Aug	Year-to-date (YTD)	
			Rate per 1,000	Total calls
<b>Cities</b>	Cambridge		101.2	9,199
	Kitchener		94.7	16,103
	Waterloo		70.1	6,485
	<b>Cities total</b>		<b>89.9</b>	<b>31,787</b>
<b>Townships</b>	North Dumfries		95.4	667
	Wellesley		41.2	320
	Wilmot		78.7	1,124
	Woolwich		74.9	1,309
	<b>Townships total</b>		<b>73.5</b>	<b>3,420</b>
<b>Waterloo Region total</b>			<b>88.0</b>	<b>35,207</b>
<b>Outside Waterloo Region total*</b>				<b>594</b>
<b>Waterloo Region Paramedic Services total*</b>				<b>35,801</b>

\* A population based rate of vehicle responses cannot be accurately calculated for calls outside of Waterloo Region because it is not possible to determine an accurate service population (denominator).

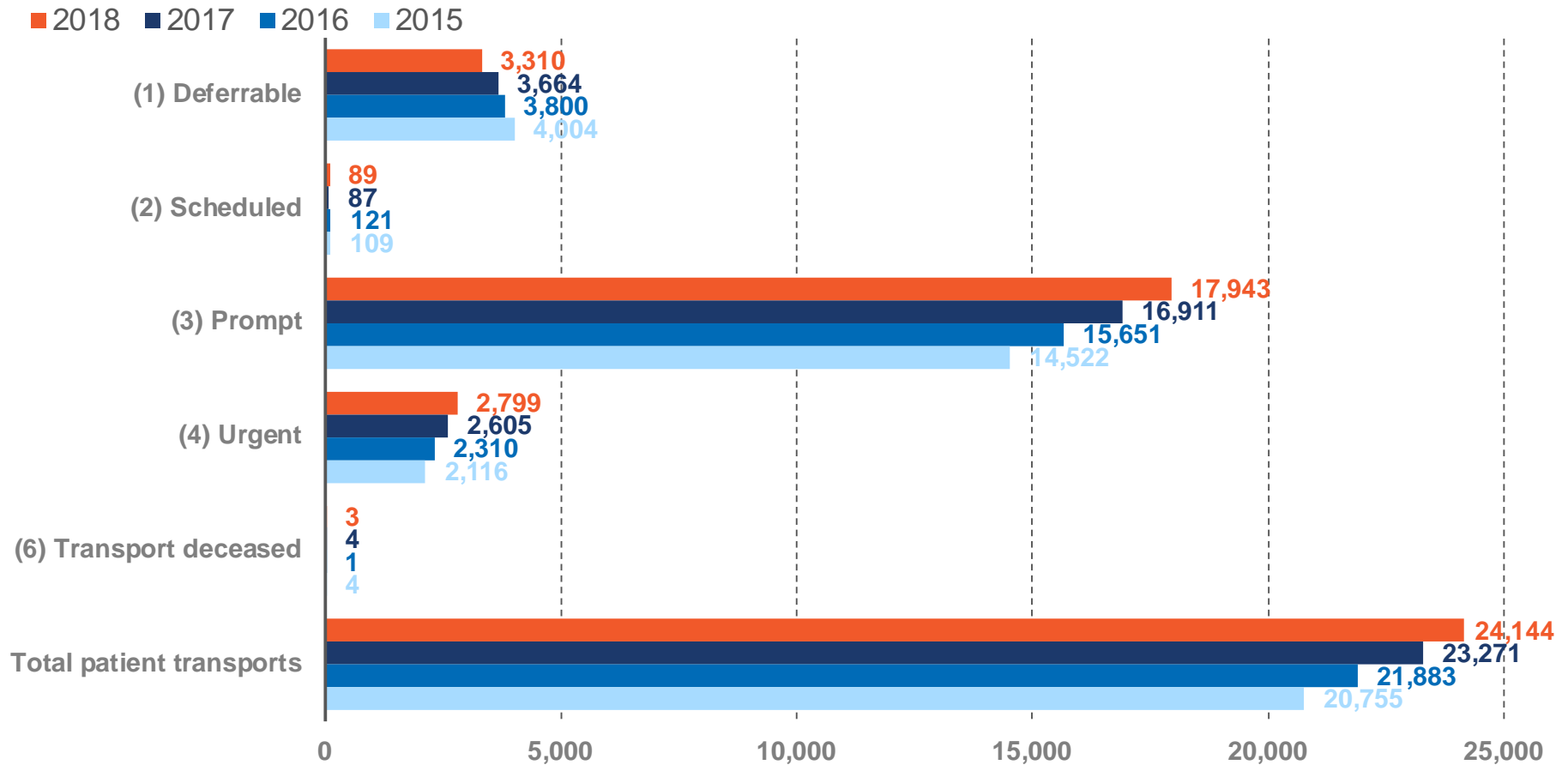
Source: ADRS (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Number of patient transports, by return priority code

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup> to August 31<sup>st</sup>, 2015-2018



Source: TabletPCR (September 7<sup>th</sup>, 2018)





# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Various measures of service provided by Region of Waterloo Paramedic Services, by year

Inside and outside of Waterloo Region, January 1<sup>st</sup> to August 31<sup>st</sup>, 2013-2018

Measure	2013	2014	2015	2016	2017	2018	2013 → 2018	Per cent change (2013-2018)
Number of unique calls (T1, code 1-4)	23,205	24,194	25,992	27,626	30,046	30,825		32.8
Number of vehicles dispatched (T2, code 1-4)	26,484	27,180	29,964	31,880	34,708	35,801		35.2
Number of vehicles arriving on scene (T4, code 1-4)	23,945	24,538	26,644	28,466	30,690	31,431		31.3
Number of vehicles transporting patients (T6, code 1-4)	18,049	19,002	20,300	21,525	22,921	23,014		27.5
Number of patients transported (T6, code 1-4)	19,271	19,175	20,520	21,750	23,015	23,118		20.0
Per cent of vehicles dispatched arriving on scene	90.4	90.3	88.9	89.3	88.4	87.8		-2.9
Per cent of vehicles arriving on scene transporting patients	75.4	77.4	76.2	75.6	74.7	73.2		-2.9

Note that due to differences between the ADRS and TabletPCR data sources, there may be variance between similar indicators.

Source: ADRS (September 7<sup>th</sup>, 2018)

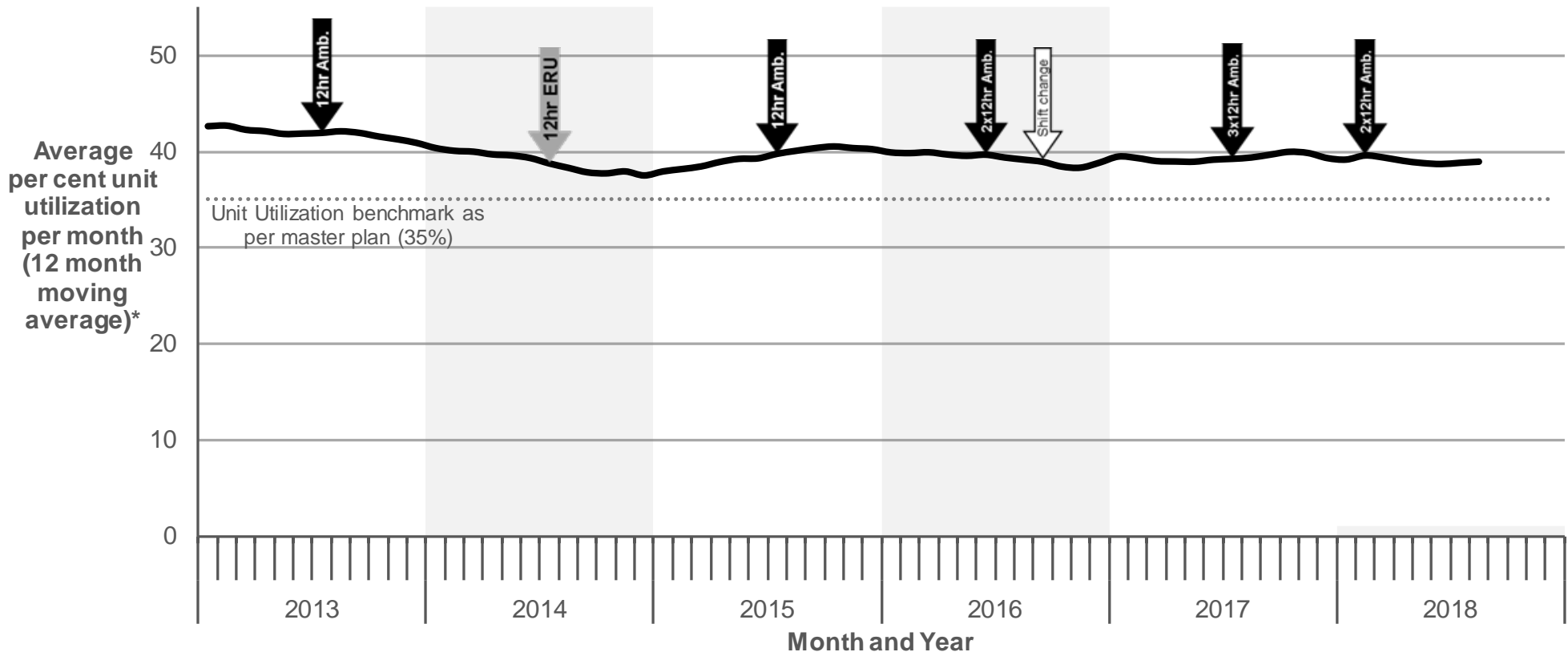
Lowest value    
  Middle value(s)    
  Highest value



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Moving 12 month average\* Unit Utilization

Region of Waterloo Paramedic Services, January 1<sup>st</sup>, 2013 to August 31<sup>st</sup>, 2018



\*On average, ambulances were in use 38.9 per cent of each month from September 2017 to August 2018 compared to 39.4 per cent from September 2016 and August 2017. For unit utilization, a decreasing trend is considered positive, while an increasing trend is seen as a negative.

Source: ADRS (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services

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### B. Compliance and Quality Assurance Indicators

#### Definition of Indicator Group

Indicators that monitor Paramedic Services' adherence to internal process, procedure, legislated mandates etc. (how well did we do it?).

#### Summary of Results

From January to August 2018 the 80<sup>th</sup> percentile response time to emergency calls (code 4) within Waterloo Region was 9 minutes and 16 seconds; 10 seconds (1.8 per cent) faster than the same time period in 2017. Paramedic Services continues to monitor response times observed from urban, suburban, and rural perspectives, as defined by call density, against informal benchmarks. Response times vary according to population and road density. Drives times are longer in rural areas. Compliance to the 2018 response time performance plan (RTPP) indicates urgent calls are being given a more appropriate priority and attended to faster. Setting faster times for more urgent calls and progressively slower times for less urgent calls is a standard approach. Except for sudden cardiac arrest (SCA) calls, all other RTPP targets are currently being met. The 50<sup>th</sup> percentile for SCA response times has improved 34 seconds, from 7 minutes 4 seconds in 2015 to 6 minutes and 30 seconds in 2018. Currently, the SCA indicator only includes Paramedic Services' response time data and is an underestimate. Including other data sources, such as fire department or public defibrillator data, would more than likely result in meeting the target. Work is on-going to incorporate fire department data into the measure.

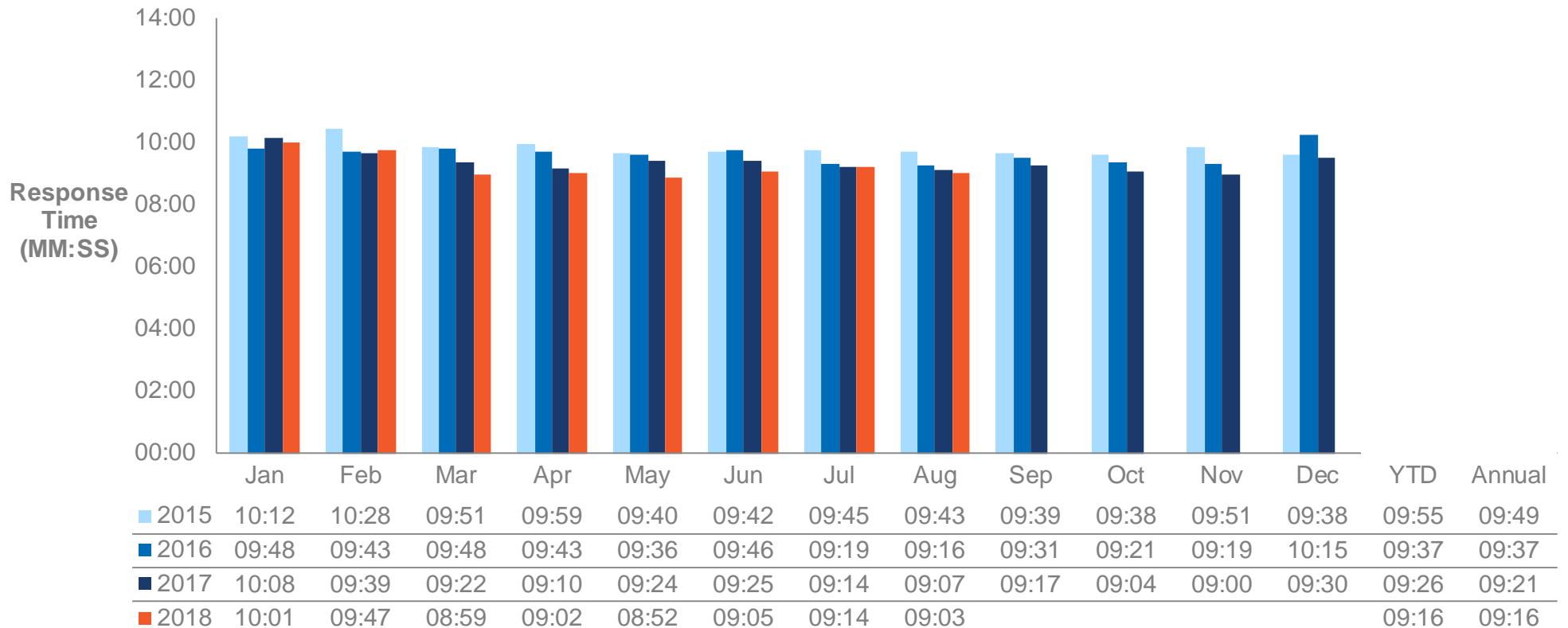
Indicator Name	Indicator Definition	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Paramedic Services Response Time to Emergency Calls	A measurement of the Paramedic Services' ability to meet performance a summary performance indicator, response time to code 4 calls, 80 <sup>th</sup> percentile.	9min 26sec	9min 16sec	-1.8%
Response Time Performance Plan Compliance Resuscitation calls (CTAS1)	Resuscitation calls involve conditions that are, or may pose, an imminent threat to life or limb or risk of deterioration requiring immediate aggressive interventions; ideal physician assessment is immediate. The current target for resuscitation calls is a response time of 8 minutes or less 70 per cent of the time or better.	73.7%	72.2%	-2.0%
Response Time Performance Plan Compliance Emergent calls (CTAS2)	Emergent calls involve conditions that potentially threaten to life, limb or function, requiring rapid medical interventions or delegated acts; ideal physician assessment is within 15 minutes. The current target for emergent calls is a response time of 10 minutes or less 80 per cent of the time or better.	81.4%	82.0%	+0.8%



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Response time to emergency calls (code 4), 80<sup>th</sup> percentile, by month

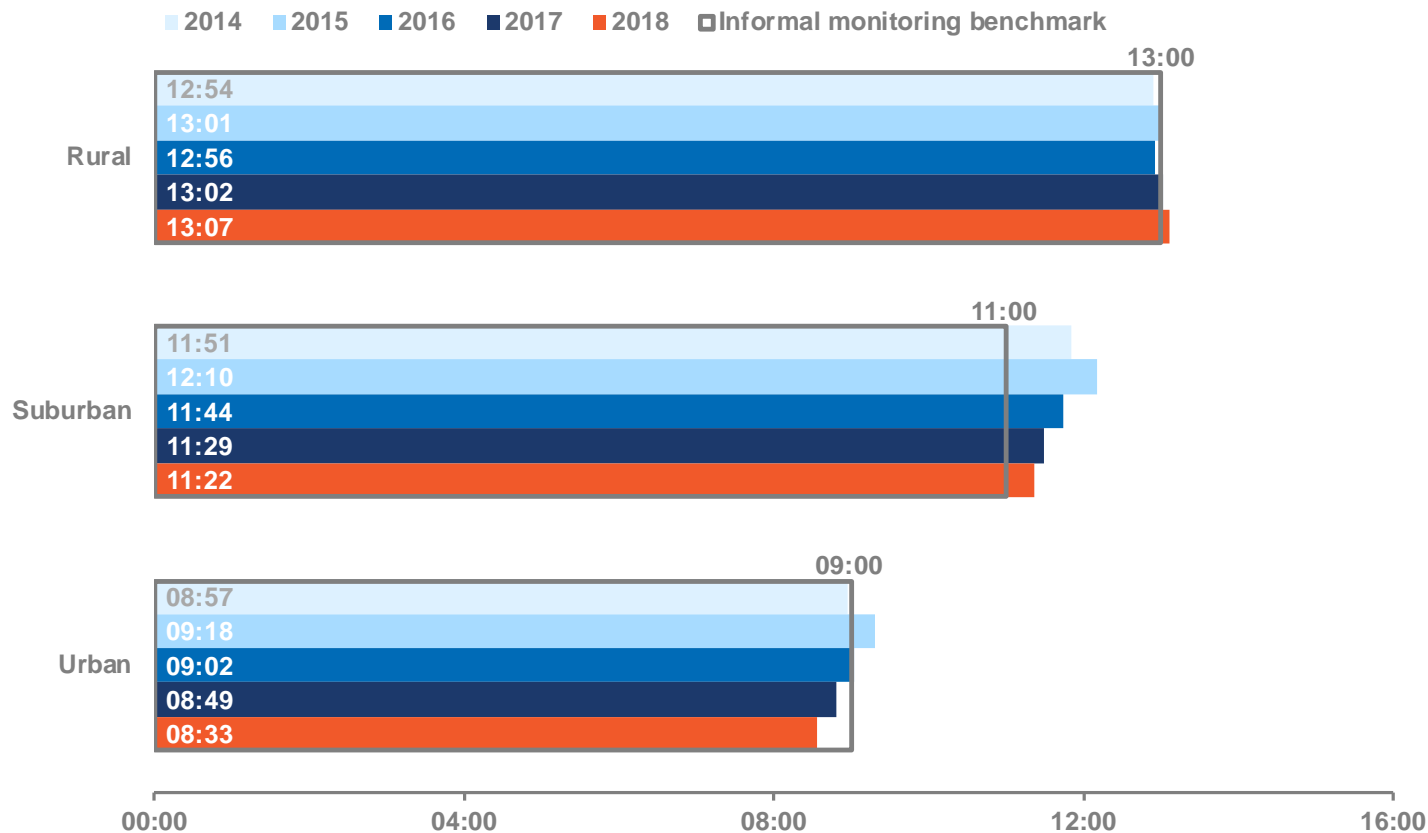
Any paramedic service, inside Waterloo Region, January 1<sup>st</sup>, 2015 to August 31<sup>st</sup>, 2018



Sources: ADRS (September 7<sup>th</sup>, 2018)

## Response time to emergency calls (code 4), 80<sup>th</sup> percentile, by vehicle response density

Any paramedic service, inside Waterloo Region, January 1<sup>st</sup>, 2014 to August 31<sup>st</sup>, 2018



Source: ADRS (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services

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### Compliance to 2018 response time performance plan, by Canadian Triage Acuity Score (CTAS)

Region of Waterloo Paramedic Services, inside or outside of Waterloo Region, January 1<sup>st</sup> to August 31<sup>st</sup>, 2017 and 2018

Type of call	Response Time Target Paramedic Services notified (T2) to arrive scene (T4)	Approved 2018 Region of Waterloo target	2017		2018	
			Per cent compliance	Percentile time (mm:ss)	Per cent compliance	Percentile time (mm:ss)
Sudden Cardiac Arrest	Defibrillator response in 6 minutes or less (set by MOHLTC)	50% or better (Paramedic Services only)	41.7%	06:33	44.1%	06:30
CTAS 1 (resuscitation)	Paramedic Services response in 8 minutes or less (set by MOHLTC)	70% or better	73.7%	07:43	72.2%	07:48
CTAS 2 (emergency)	Paramedic Services response in 10 minutes or less	80% or better	81.4%	09:49	82.0%	09:40
CTAS 3 (urgent)	Paramedic Services response in 11 minutes or less	80% or better	80.3%	10:58	82.3%	10:36
CTAS 4 (less urgent)	Paramedic Services response in 12 minutes or less	80% or better	82.6%	11:28	83.2%	11:21
CTAS 5 (non-urgent)	Paramedic Services response in 12 minutes or less	80% or better	79.5%	12:07	80.6%	11:51

Source: ADRS and TabletPCR (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services

## PERFORMANCE MEASUREMENT

### C. Efficiency Indicators

#### Definition of Indicator Group

Indicators that outline how timely Paramedic Services is being performed by staff and offered to the Region (how well did we do it?).

#### Summary of Results

Currently, an average of 22.3 ambulance days per month are lost to offload delay. A total of 206.6 ambulance days were lost to offload delay between January and August 2018. Offload delay has increased of 56.8 per cent compared the same time period in 2017 resulting in the loss of 75 additional ambulance days relative to 2017. Paramedic Services continues to work with area Emergency Departments to minimize losses due to offload delay. Relative to 2017, there were 91 fewer code yellow events and 121.5 fewer hours spent in code yellow in 2018 while there were 17 more code red events and 6.5 more hours spent in code red in 2018 compared to the same time period in 2017. The effects of two additional 12-hour ambulances, added in late February 2018, were immediately evident. Despite sustained call response volumes there were fewer events and time spent in both code yellow and code red in March. However, the effects of the new resources were short lived as time spent and number of events of code yellow and code red had returned to historical levels by May.

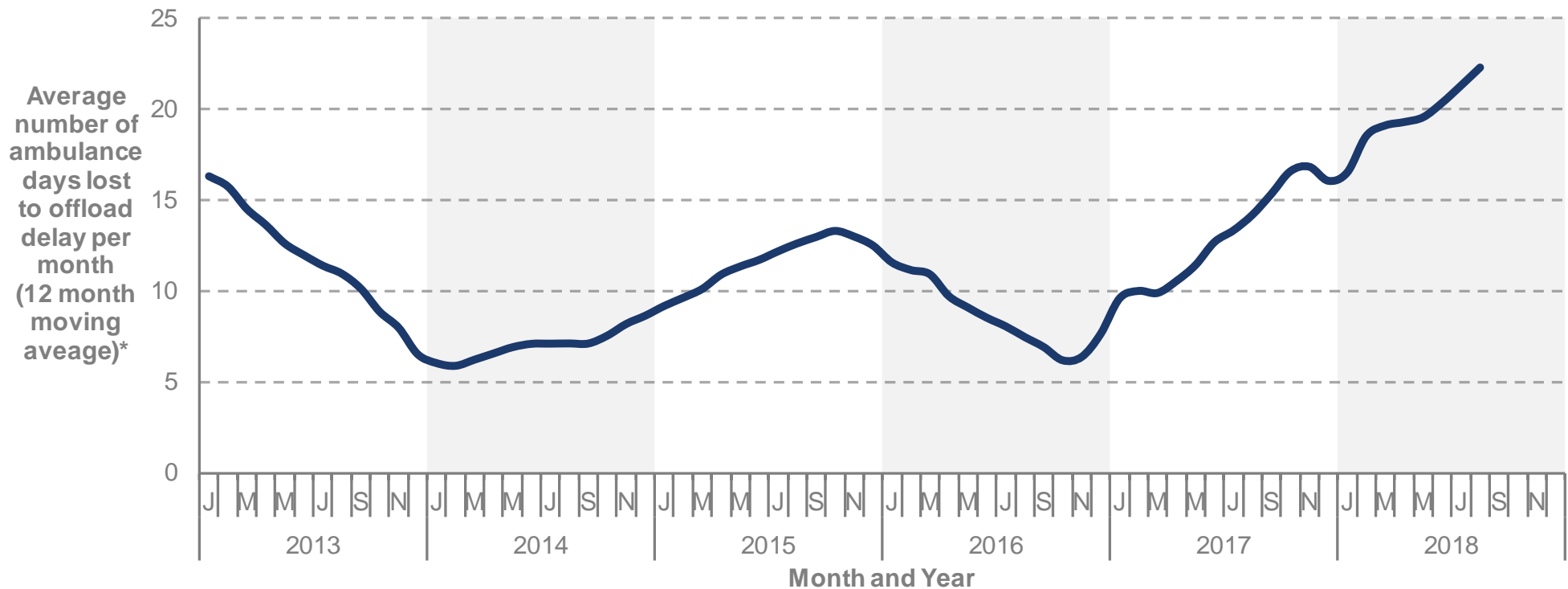
Indicator Name	Indicator Definition	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Offload Delay (monthly average)	The 12 month moving average number of 24 hour ambulance days lost to offload delay over the course of a month.	14.2 days	22.3 days	+57.1%
Code Yellow Status	The percentage of time where Paramedic Services is in a Code Yellow Status for the month (≤ three vehicles available).	14.9%	8.9%	-40.1%
Code Red Status	The percentage of time where Paramedic Services is in a Code Red Status for the month (zero vehicles available).	0.7%	0.8%	15.7%



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## 12 month moving average number of ambulance days lost to offload delay, by month

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup>, 2013 to August 31<sup>st</sup>, 2018



\*On average, 22.3 days of offload delay were experienced each month from September 2017 to August 2018, a deterioration of 57.1 per cent from August of 2017. For offload delay, a decreasing trend is considered positive, while an increasing trend is seen as negative.

Source: TabletPCR (September 7<sup>th</sup>, 2018)

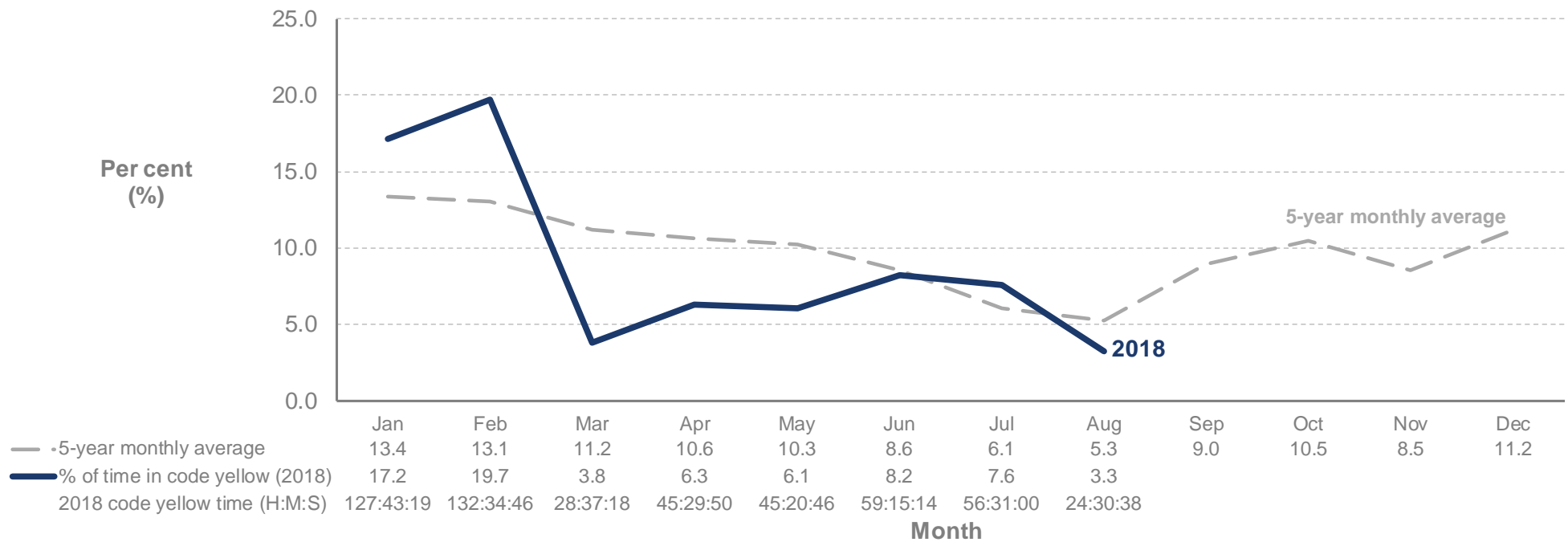




# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Percentage of time in code yellow status, by month

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup> to December 31<sup>st</sup>, 2013-2017, and January 1<sup>st</sup> to August 31<sup>st</sup> 2018



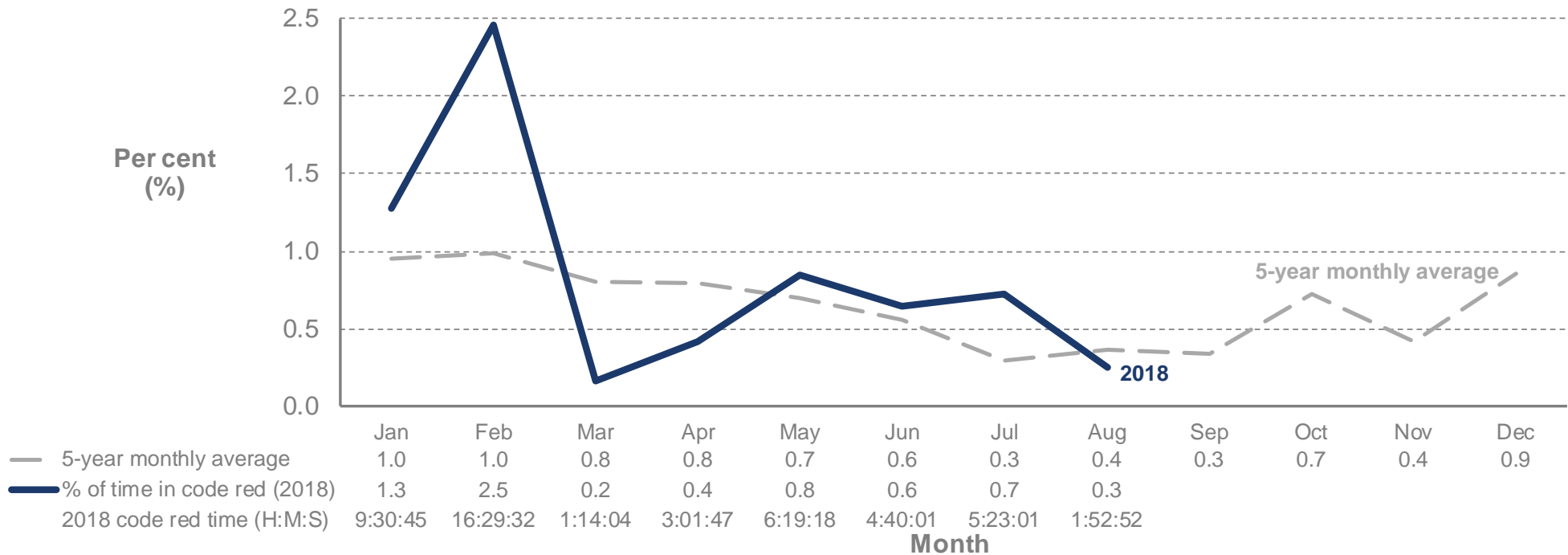
Source: CACC (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Percentage of time in code red status, by month

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup> to December 31<sup>st</sup>, 2013-2017, and January 1<sup>st</sup> to August 31<sup>st</sup> 2018



Source: CACC (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services

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### D. Service and Quality Impact Indicators

#### Definition of Indicator Group

Indicators that measure not only the timely provision of service, but how well that service is being provided by Paramedic Services' staff (How well is the service being performed?).

#### Summary of Results

From January to August 2018, 88.6 per cent of all stroke patients, and 99.5 per cent of all stroke protocol eligible patients, were transported to a stroke facility; consistent with the historical trend. The percentage of cardiac arrest patients with the return of pulse improved 22.3 per cent between January and August 2017 and 2018. As any return of spontaneous circulation is deemed to be positive, results are in an acceptable range. Heart attack STEMI (ST-segment elevation myocardial infarction) protocol compliance (providing care in less than 90 minutes) was 20.9 per cent lower from the previous year. Note that service type indicators tend to fluctuate around the average over time, due to the small number of cases and the large number of complex variables involved in these cases.

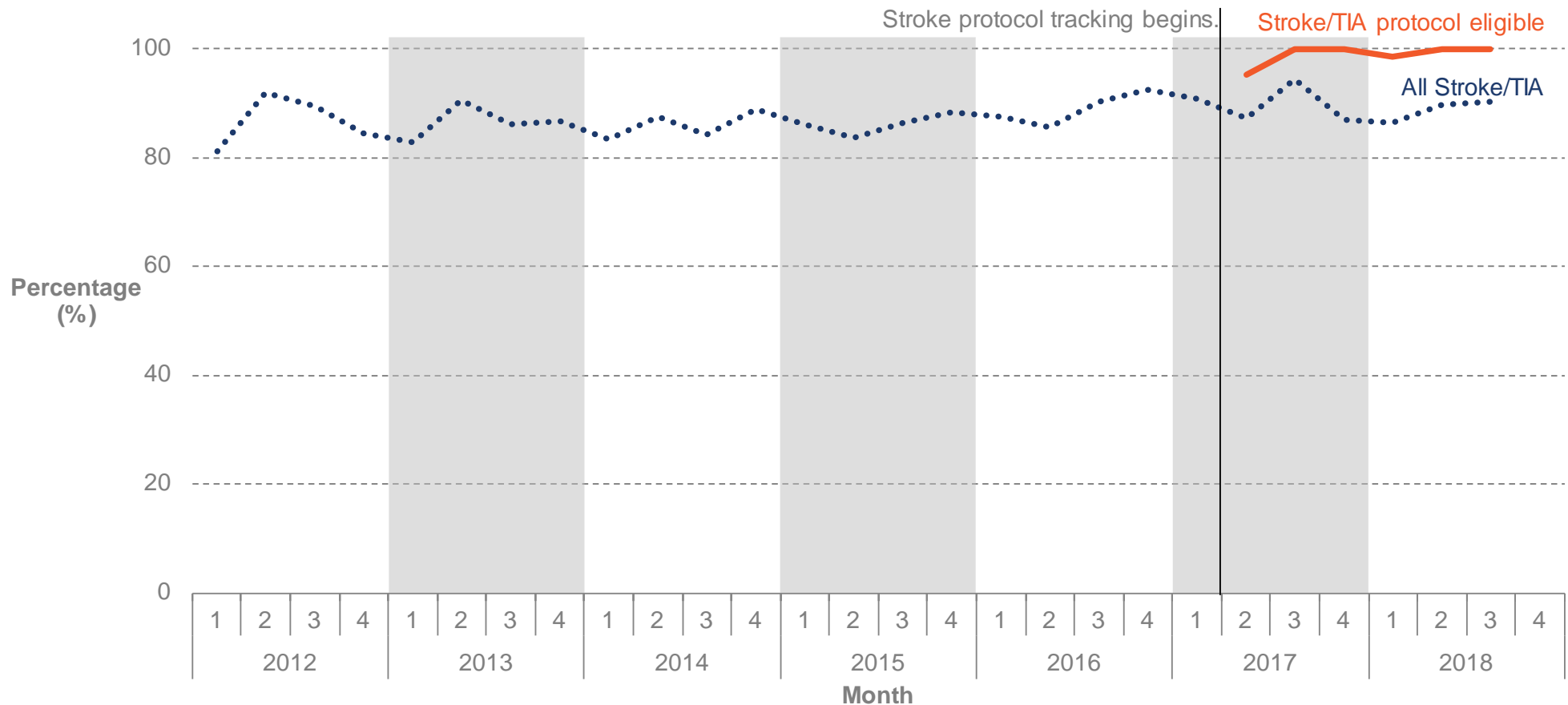
Indicator Name	Indicator Definition	Jan to Aug 2017	Jan to Aug 2018	Per cent change
Stroke Patient to Stroke Facilities	The percentage of all stroke patients, not stroke protocol eligible patients, taken to stroke facilities. The stroke protocol outlines that only patients with certain symptoms within certain timelines require transport to a stroke facility. Due to this, a value less than 100% may not represent a missed target.	90.4%	88.6%	-2.0%
Return of Spontaneous Circulation (ROSC)	The percentage of cardiac arrest patients with the return of pulse.	11.9%	15.3%	+22.3%
Heart attack (STEMI) Protocol ST-Segment Elevation Myocardial Infarction	Percentage of STEMI patients where care was provided in less than 90 minutes ('STEMI' represents a type of heart attack). *Note: indicator results are shared among Paramedic Services and St. Mary's Hospital. Paramedic Services can only control time from patient contact to arrival at St. Mary's Hospital; the remaining time to the 90 minute target is hospital dependent.	74.5%	58.9%	-20.9%



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Percentage of stroke patients transported to a stroke facility<sup>†</sup>, by quarter

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup>, 2012 to August 31<sup>st</sup>, 2018



<sup>†</sup>Stroke facilities include: Grand River, Brantford General, Hamilton General, Stratford General, and as of August 2013, Guelph General.

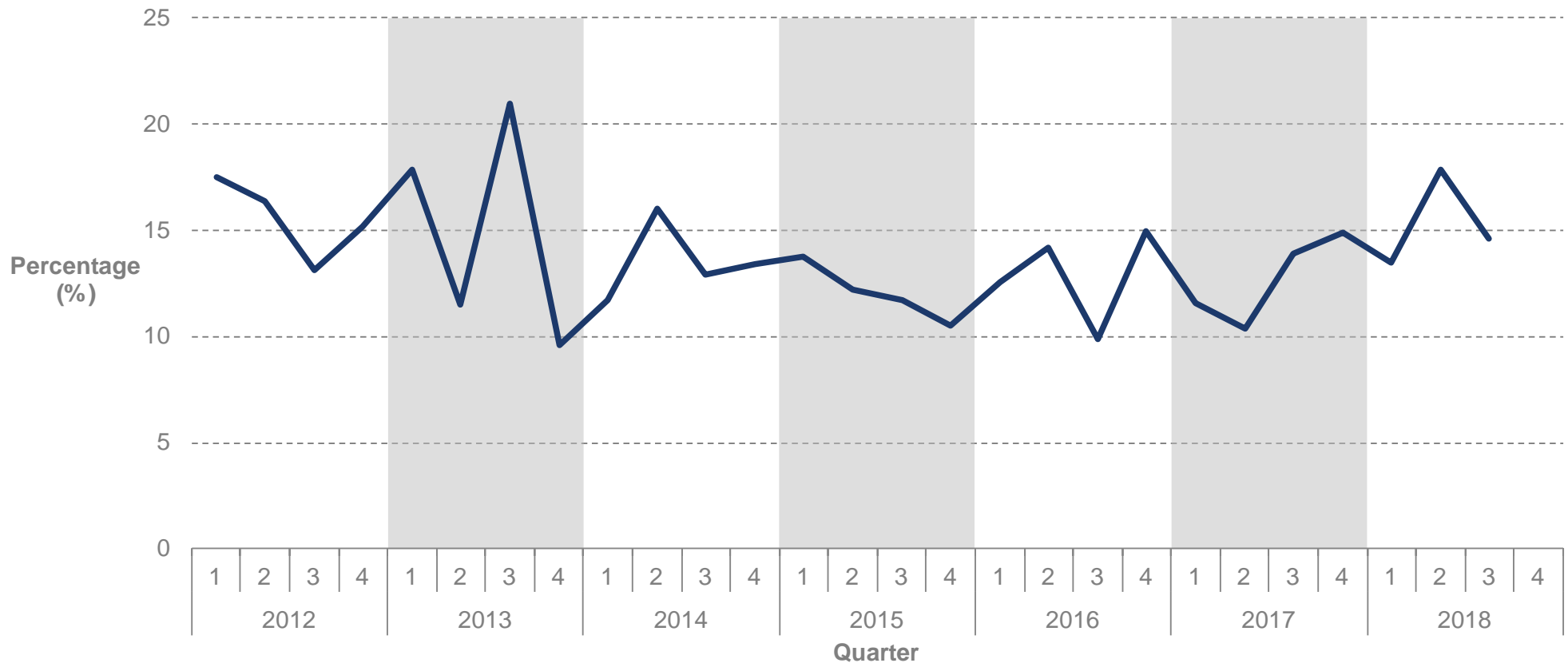
Source: TabletPCR (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Percentage of cardiac arrest patients with return of spontaneous circulation (ROSC), by quarter

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, January 1<sup>st</sup>, 2012 to August 31<sup>st</sup>, 2018



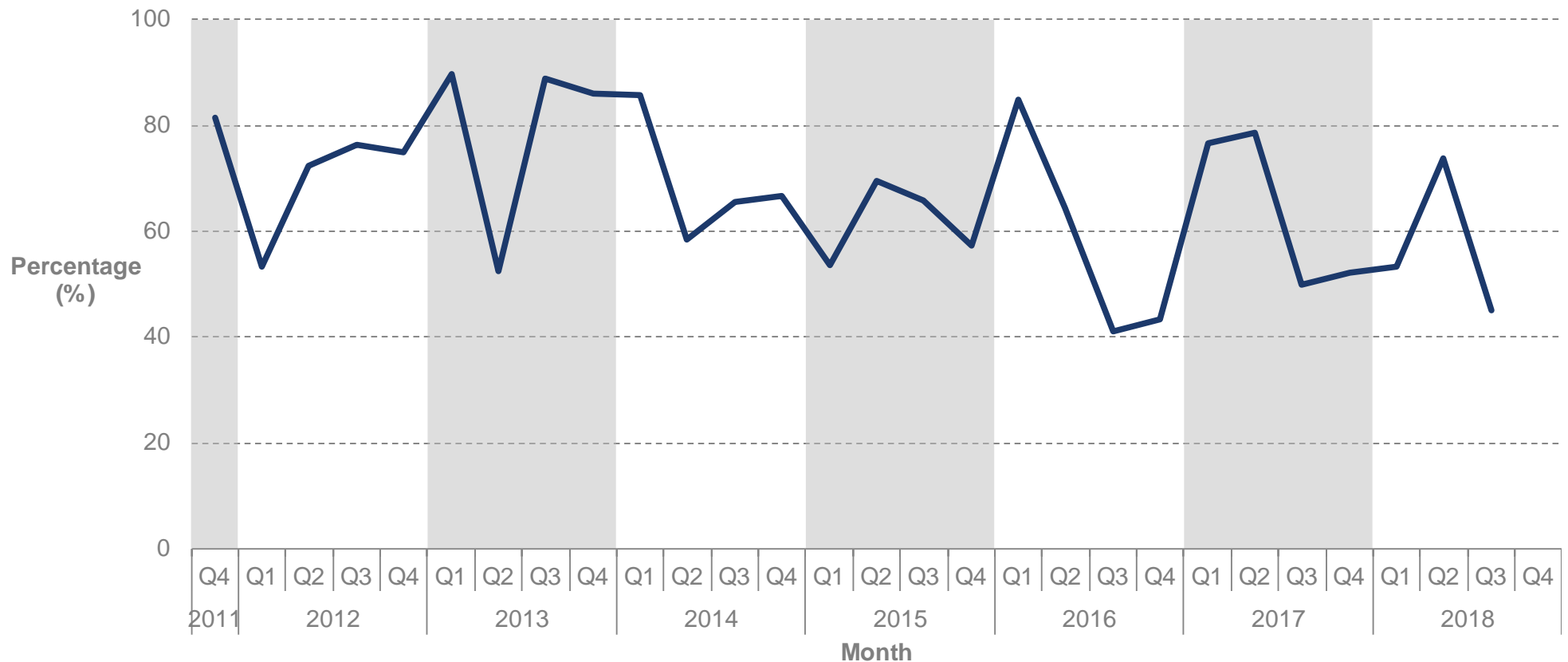
Source: TabletPCR (September 7<sup>th</sup>, 2018)



# Region of Waterloo \* Paramedic Services PERFORMANCE MEASUREMENT

## Percentage of heart attack patients where care was provided in less than 90 minutes (STEMI protocol), by quarter

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, September 1<sup>st</sup>, 2011 to August 31<sup>st</sup>, 2018



Source: St. Mary's Hospital (September 7<sup>th</sup>, 2018)

## E. GLOSSARY

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**ADRS:** Ambulance Dispatch Reporting System

**CACC:** Central Ambulance Communications Centre

**Call density:** A 1km x 1km grid was overlaid across Waterloo Region so each call could be assigned a grid square based on its location. The total number of calls and an average per month calculated for each grid square. Grid squares were then assigned one of three classes:

Urban - A grid square was classed as urban if there were more than two calls per month per square kilometer and at least half of its neighbouring grid squares were of the same density or higher.

Suburban - A grid square was classed as suburban if there were less than or equal to two calls and more than 0.5 calls per month per square kilometer and at least half of its neighbouring grid squares were of the same density or higher.

Rural - A grid square was classed as suburban if there were less than or equal to 0.5 calls and more than 0.08 calls per month per square kilometer and at least half of its neighbouring grid squares were of the same density or higher.

**Cardiac Arrest:** A sudden, sometimes temporary, cessation of the heart's functioning.<sup>i</sup>

**Code 1 (Deferrable):** A routine call that may be delayed without detriment to the patient (e.g. a non-scheduled transfer; a minor injury).<sup>ii</sup>

**Code 2 (Scheduled):** A call which must be done at a specific time, for example because of special treatment or diagnostic facility requirement (e.g. inter-hospital transfers or a scheduled meet with an air ambulance).<sup>iii</sup>

**Code 3 (Prompt):** A call that should be performed without delay (e.g. serious injury or illness).<sup>iv</sup>

**Code 4 (Urgent):** A call that must be performed immediately where the patients 'life or limb' may be at risk (e.g. Vital Signs Absent patient or unconscious head injury).<sup>v</sup>

**Code Red:** When the Region of Waterloo Paramedic Services is at a level where no ambulances are available to respond to the next emergency call and no out of town services are immediately available to assist.<sup>vi</sup>

**Code Yellow:** When the Region of Waterloo Paramedic Services is at minimum coverage of three vehicles or less.<sup>vii</sup>



# Region of Waterloo \* Paramedic Services

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**CTAS Level:** The 'Canadian Triage & Acuity Scale' is used to assign a level of acuity to a patient. Acuity refers to the gravity of the situation – the potential for death and/or irreversible illness. CTAS is a tool that more accurately defines the patient's need for care. Assignment of the CTAS level is to be based upon not only the presenting complaint identified on the initial assessment made by the paramedic, but also on their examination findings, and response to treatment.<sup>viii</sup>

**Defibrillator:** An electronic device that applies an electric shock to restore the rhythm of a fibrillating heart.<sup>ix</sup>

**Dispatch Priority Code:** The priority code number that is assigned to the call by the dispatcher. It identifies the priority under which the ambulance responds to the call location (e.g. an urgent response would be entered as Code 4).<sup>x</sup>

**Emergency Calls:** Based on dispatch priority only. Emergency calls are categorized as Code 4 (Urgent).

**Indicator:** A defined part of a program/team/system that is deemed important to measure and provide "specific information on the state or condition of", as it contributes to the efficient and effective achievement of an outcome.<sup>xi</sup>

**MBNCanada:** Municipal Benchmarking Network Canada, formerly the Ontario Municipal Benchmarking Initiative (OMBI), is a partnership between Canadian municipalities for the purpose of fostering and supporting a culture of service excellence through the identification, creation, and collection of consistent and comparable performance data, and the sharing of operational best practices and collaboration on creative solutions to improve performance.

**Offload Delay:** Offload delay measures the offload of patients at local hospitals, which can impact the resources required and availability to respond to calls.<sup>xii</sup>

**Patient Transport(s):** The total number of patients carried in the ambulance during a given call.<sup>xiii</sup>

**Performance Measurement:** A method to monitor, observe and describe program implementation. It portrays information to tell that outputs are being delivered as planned, and gives an idea of whether outcomes are occurring. It provides information to be used for evaluation.<sup>xiv</sup>

**Response:** See vehicle response.

**Response Time:** Response time means the time measured from the time a notice is received to the earlier of either the arrival on-scene of a person equipped to provide any type of defibrillation to sudden cardiac arrest patients or the arrival on-scene of the ambulance crew.<sup>xv</sup>





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**Return of Spontaneous Circulation:** Signs of the return of spontaneous circulation (ROSC) include breathing (more than an occasional gasp), coughing, or movement. For healthcare personnel, signs of ROSC also may include evidence of a palpable pulse or a measurable blood pressure.<sup>xvi</sup>

**Return Priority Code:** The priority code number that is assigned to the call by the ambulance crew. It identifies the priority under which the patient is transported (e.g. a prompt return to a medical facility would be entered as a Code 3).<sup>xvii</sup>

**STEMI:** A STEMI (ST-Segment Elevation Myocardial Infarction) is a specific type of myocardial infarction (MI), or in other words a type of heart attack, which demonstrates characteristic ECG (electrocardiogram; a tool to measure electrical activity of the heart) changes including marked elevation in the ST-segment in the cardiac cycle.<sup>xviii</sup>

**STEMI Facilities:** A hospital that houses onsite Percutaneous Coronary Intervention (PCI) facilities with an experienced interventional team.<sup>xix</sup>

**Stroke Facilities:** Stroke facilities are based on a collaborative model of 11 regional stroke networks. Each regional network is comprised of a Regional Stroke Centre (RSC), District Stroke Centres (DSCs) and community hospitals. The regional stroke networks are collaborative partnerships of care providers that span the care continuum from prevention to community re-engagement. The goal is to coordinate equitable access and improve outcomes for stroke survivors.<sup>xx</sup>

**T1:** The time point when a call is entered in to the queue at the Central Ambulance Communications Centre and is available for dispatch.

**T2:** The time point when ambulance/response unit is notified by the Central Ambulance Communications Centre of a call.

**T4:** The time point when an ambulance/response unit arrives at the dispatched call's location/scene. This is not the time point when a paramedic is at the patient's side.

**T6:** The time point when an ambulance arrives at its destination (e.g. hospital).

**TabletPCR:** An internal tool used to track information and data relevant to calls and patient care reporting.

**Unit Utilization:** Percentage of staffed vehicles utilized during any unit of time.<sup>xxi</sup> Note that when UU exceeds a value of 40 per cent, it becomes difficult to ensure an ambulance will be available for the next call in a reasonable time.



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**Vehicle response:** A vehicle response is generated when an ambulance or emergency response unit is dispatched to a call; there can be more than one vehicle response per call (multiple ambulances/emergency response units assigned to the same call; for example, multi-casualty incidents).

**YTD:** Year-to-date refers to the period extending from the beginning of the current reporting year (January 1<sup>st</sup>) to the end of the reporting period. The Mid-year report's end date is August 31<sup>st</sup>, and the mid-year report's end date is August 31<sup>st</sup>.



# Region of Waterloo \* Paramedic Services

## PERFORMANCE MEASUREMENT

### F. Contact Information

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Accessible formats of this document are available upon request. Please call the Coordinator, Health Communications at 519-575-4400 ext. 2244, (TTY 519-575-4608) to request an accessible format.

## Notes

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- <sup>i</sup> “Definition of cardiac arrest in English”. *Oxford Dictionaries*. Oxford University Press, 2013. Web. 13 August 2013.
- <sup>ii</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- <sup>iii</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- <sup>iv</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- <sup>v</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- <sup>vi</sup> Region of Waterloo. Public Health. Emergency Medical Services. 2011 EMS System Performance. Report PH-12-017. File Code P 05-80. Waterloo: Region of Waterloo, May 8, 2010. Web. 14 August 2013.
- <sup>vii</sup> Region of Waterloo. Public Health. Emergency Medical Services. 2011 EMS System Performance. Report PH-12-017. File Code P 05-80. Waterloo: Region of Waterloo, May 8, 2010. Web. 14 August 2013.
- <sup>viii</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 17.
- <sup>ix</sup> “Defibrillator”. *Merriam-Webster*. Merriam Webster, Incorporated, 2013. Web. 13 August 2013.
- <sup>x</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- <sup>xi</sup> “Definition of indicator in English”. *Oxford Dictionaries*. Oxford University Press, 2013. Web. 14 August 2013.

- <sup>xii</sup> “What is Service?”. *OMBI Ontario Municipal CAO’s Benchmarking Initiative*. Ontario Municipal CAO’s Benchmarking Initiative, 2012. Web. 13 August 2013.
- <sup>xiii</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 11.
- <sup>xiv</sup> Schacter, Mark. Kronick, Murray. “Results-Based Management 101”. *Performance and Planning Exchange*. Performance and Planning Exchange, 2010-2011. Web. 14 August 2013.
- <sup>xv</sup> “Ambulance Act”. *ServiceOntario e-Laws*. Government of Ontario, 2013. Web. 14 August 2013.
- <sup>xvi</sup> “Cardiac Arrest and Cardiopulmonary Resuscitation Outcome Reports”. *American Heart Association*. American Heart Association, Inc., 2013. Web. 13 August 2013.
- <sup>xvii</sup> Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 10.
- <sup>xviii</sup> “Cardiac Care STEMI Program Frequently Asked Questions”. *Toronto EMS News & Video*. Toronto Emergency Medical Services, 1998-2013. Web. 13 August 2013.
- <sup>xix</sup> “CCN Documents Optimizing Access to Primary PCI for ST Elevation Myocardial Infarction”. *Cardiac Care Network*. Cardiac Care Network of Ontario, 2013. Web. 14 August 2013.
- <sup>xx</sup> “The Ontario Stroke System (OSS)”. *Ontario Stroke Network Advancing the Ontario Stroke System*. Ontario Stroke Network, 2010. Web. 13 August 2013.
- <sup>xxi</sup> Region of Waterloo. Public Health. Emergency Medical Services. Emergency Medical Services (EMS) Master Plan. Report PH-07-061. File Code P 05-01. Waterloo: Region of Waterloo, August 4, 2007. Web. 14 August 2013.