



Region of Waterloo * Paramedic Services
PERFORMANCE MEASUREMENT

Performance Measurement Report
For the Period of January – March 2015
Produced on August 12th, 2015



Region of Waterloo * Paramedic Services

PERFORMANCE MEASUREMENT

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SUMMARY

A. VOLUME AND SERVICE LEVEL INDICATORS

Indicator	Current Q1 (2015)	Previous Q1 (2014)	Year-To-Date
Total Number of Calls	9,814	9,020	9,814
Rate of calls per 1,000 population*	69.1	64.3	69.1
Unit Utilization	43.4%	39.6%	43.4%

C. EFFICIENCY INDICATORS

Indicator	Current Q1 (2015)	Previous Q1 (2014)	Year-To-Date
Offload Delay (# of days)*	47.6 days	29.9 days	47.6 days
Code Yellow Time	15.6%	9.7%	15.6%
Code Red Time	1.97%	0.31%	1.97%

B. COMPLIANCE AND QUALITY ASSURANCE INDICATORS

Indicator	Current Q1 (2015)	Previous Q1 (2014)	Year-To-Date
Response Time (Code 4, 80 th percentile)*	10min 10sec	10min 02sec	10min 10sec
Paramedic Services' Warning System Use	100.0%	100.0%	100.0%
Chute Time Adherence	90.3%	91.6%	90.3%

D. SERVICE AND QUALITY IMPACT INDICATORS

Indicator	Current Q1 (2015)	Previous Q1 (2014)	Year-To-Date
Stroke Patient to Stroke Facility*	87.8%	85.0%	87.8%
Return of Spontaneous Circulation*	14.0%	13.1%	14.0%
Heart attack (STEMI) protocol*	46.4%	85.7%	46.4%

SUMMARY BY MUNICIPALITY

		Municipality						
		Cambridge	Kitchener	Waterloo	North Dumfries	Wellesley	Wilmot	Woolwich
Response Times (code 4, 80th percentile)	Current Q1 (2015)	10min 28sec	09min 21sec	09min 51sec	15min 03sec	18min 13sec	16min 51sec	14min 04sec
	Previous Q1 (2014)	10min 16sec	09min 28sec	09min 12sec	16min 34sec	20min 11sec	19min 28sec	13min 25sec
	Year-To-Date	10min 28sec	09min 21sec	09min 51sec	15min 03sec	18min 13sec	16min 51sec	14min 04sec
Total Call Volume	Current Q1 (2015)	2,385	4,718	1,810	160	85	251	405
	Previous Q1 (2014)	2,225	4,349	1,686	148	73	233	306
	Year-To-Date	2,385	4,718	1,810	160	85	251	405

*Indicator is also captured in a similar fashion (with some variation in measurement units) within a portion of the OMBI reporting process.



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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

For the first quarter of 2015, there were 9,814 calls for paramedic service responded to in Waterloo Region which projects 39,801 calls on the year and would be the third year in a row of record call volume. The rate of calls per 1,000 was up 7.4 per cent from the first quarter of 2014, continuing to greatly outpace population growth, and was likely influenced by an aging population. Unit utilization ranged from a low of 27 per cent at 4AM, generally increased to peak at 8am at 58 per cent, before gradually decreasing much of the rest of the day. Unit utilization was up 9.6 per cent from the same time last year (2014-Q1) and 8.6 per cent from the previous quarter (2014-Q4). Staffing is partly based on patterns and predictions seen in unit utilization, and monitoring unit utilization allows for proactive planning to alter the deployment of staff to reach an appropriate unit utilization level. Note that a 12-hour ambulance was added in each July of 2011, 2012, 2013, and 2015, and an emergency response unit was added in 2014.

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Indicator Name		Indicator Definition	Rolling Quarterly Results		
			Current Q1 (2015)	Previous Q1 (2014)	Current Year-To-Date
Number of Calls	The total number of calls responded to within Waterloo Region year-to-date.*		9,814	9,020	9,814
Rate of calls per 1,000 population	The rate of calls per 1,000 population responded to within the Waterloo Region.*		69.1	64.3	69.1
Unit Utilization	Unit utilization measures the per cent of an hour that ambulances are actively engaged in responding to calls (codes 1 to 4) – as opposed to being deployed waiting for calls. It is used to monitor resource deployment, allowing for planning to ensure sufficient staff to meet community needs. Note that when unit utilization exceeds a value of 40 per cent, it becomes difficult to ensure an ambulance will be available for the next call within a reasonable time.		43.4%	39.6%	43.4%

*Note that due to differences between the ADRS and TabletPCR data sources, there may be variances with numbers.



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Number and rate of calls per 1,000 population, year-to-date, by dispatch priority code and year

Waterloo Region, January 1st to March 31st, 2010-2015[†]

Dispatch priority code	Number of calls						2010→2015
	2010	2011	2012	2013	2014	2015	
1 – Deferrable	377	391	329	256	245	77	
2 – Scheduled	107	84	146	97	87	67	
3 – Prompt	4,790	4,943	5,217	4,540	4,774	5,405	
4 – Urgent	10,471	11,220	11,719	12,288	13,028	13,739	
Rate per 1,000 (YTD)	58.4	60.9	63.0	61.6	64.3	67.5	
Annual change (%)	1.0%	4.2%	3.5%	-2.2%	4.4%	4.9%	
Total calls (YTD)	15,745	16,638	17,411	17,181	18,134	19,288	
Annual change (%)	2.7%	5.7%	4.6%	-1.3%	5.5%	6.4%	
Total calls (annual)	31,281	33,370	35,067	34,736	37,274	38,896*	
Annual change (%)	1.5%	6.7%	5.1%	-0.9%	7.3%	4.4%	

* Projected

[†] Due to a slight change in methodology, such as including the student population in the denominator, results may differ from previous reports.

Source: ADRS (July 6th, 2015, revised: October 19th, 2015)

Lowest value Middle value(s) Highest value



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Rate of calls per 1,000 population, year-to-date, by municipality and year

Waterloo Region, January 1st to March 31st, 2010-2015[†]

Rate per 1,000 by year		Year-to-date		Min. - Max.	2015
		2010	→ 2015		
Cities	Cambridge	■ ■ ■ ■ ■ ■ ■ ■		58.8 - 71.7	71.7
	Kitchener	■ ■ ■ ■ ■ ■ ■ ■		68.2 - 79.6	79.6
	Waterloo	■ ■ ■ ■ ■ ■ ■ ■		43.7 - 54.8	54.8
	Cities total	■ ■ ■ ■ ■ ■ ■ ■		59.3 - 71.0	71.0
Townships	North Dumfries	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■	56.7 - 67.4	65.7
	Wellesley	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■	19.9 - 31.1	31.1
	Wilmot	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■	39.7 - 49.7	48.7
	Woolwich	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■	50.3 - 65.6	65.6
	Townships total	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■	43.7 - 54.6	54.6
Waterloo Region total		■ ■ ■ ■ ■ ■ ■ ■		58.2 - 69.1	69.1

[†] Due to a slight change in methodology, such as including the student population in the denominator, results may differ from previous reports.

Source: ADRS (July 6th, 2015)

Lowest value
 Middle value(s)
 Highest value



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Number and rate of calls per 1,000 population, year-to-date, by municipality and month

Waterloo Region, January 1st to March 31st, 2010-2015[†]

Rate per 1,000 by month		Jan → Mar	Year-to-date (YTD)	
			Rate per 1,000	Total calls
Cities	Cambridge		71.7	2,385
	Kitchener		79.6	4,718
	Waterloo		54.8	1,810
	Cities total		71.0	8,913
	Townships	North Dumfries		65.7
Wellesley			31.1	85
Wilmot			48.7	251
Woolwich			65.6	405
Townships total			54.6	901
Waterloo Region total			69.1	9,814

[†] Due to a slight change in methodology, such as including the student population in the denominator, results may differ from previous reports.

Source: ADRS (July 6th, 2015)



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Use of Region of Waterloo Paramedic Services outside of Waterloo Region, by year

Region of Waterloo Paramedic Services, January 1st to March 31st, 2010-2015

	2010	2011	2012	2013	2014	2015	2010 → 2015
Number of calls dispatched (codes 1-4)	341	205	209	245	249	220	
Number of calls cancelled before arrival at scene (codes 1-4)	59	74	65	68	66	73	
Number of patient transport trips (codes 1-4)	230	76	107	118	127	92	
Ambulance use (days) (codes 1-4)	20.9	6.4	9.6	10.4	10.6	8.3	

Use of other paramedic services inside of Waterloo Region, by year

Waterloo Region, January 1st to March 31st, 2010-2015

	2010	2011	2012	2013	2014	2015	2010 → 2015
Number of calls dispatched (codes 1-4)	227	118	62	100	260	219	
Number of calls cancelled before arrival at scene (codes 1-4)	110	26	18	23	28	57	
Number of patient transport trips (codes 1-4)	77	64	31	45	155	83	
Ambulance use (days) (codes 1-4)	5.5	4.8	1.7	3.1	10.4	6.3	

Source: ADRS (July 6th, 2015)

Lowest value Middle value(s) Highest value

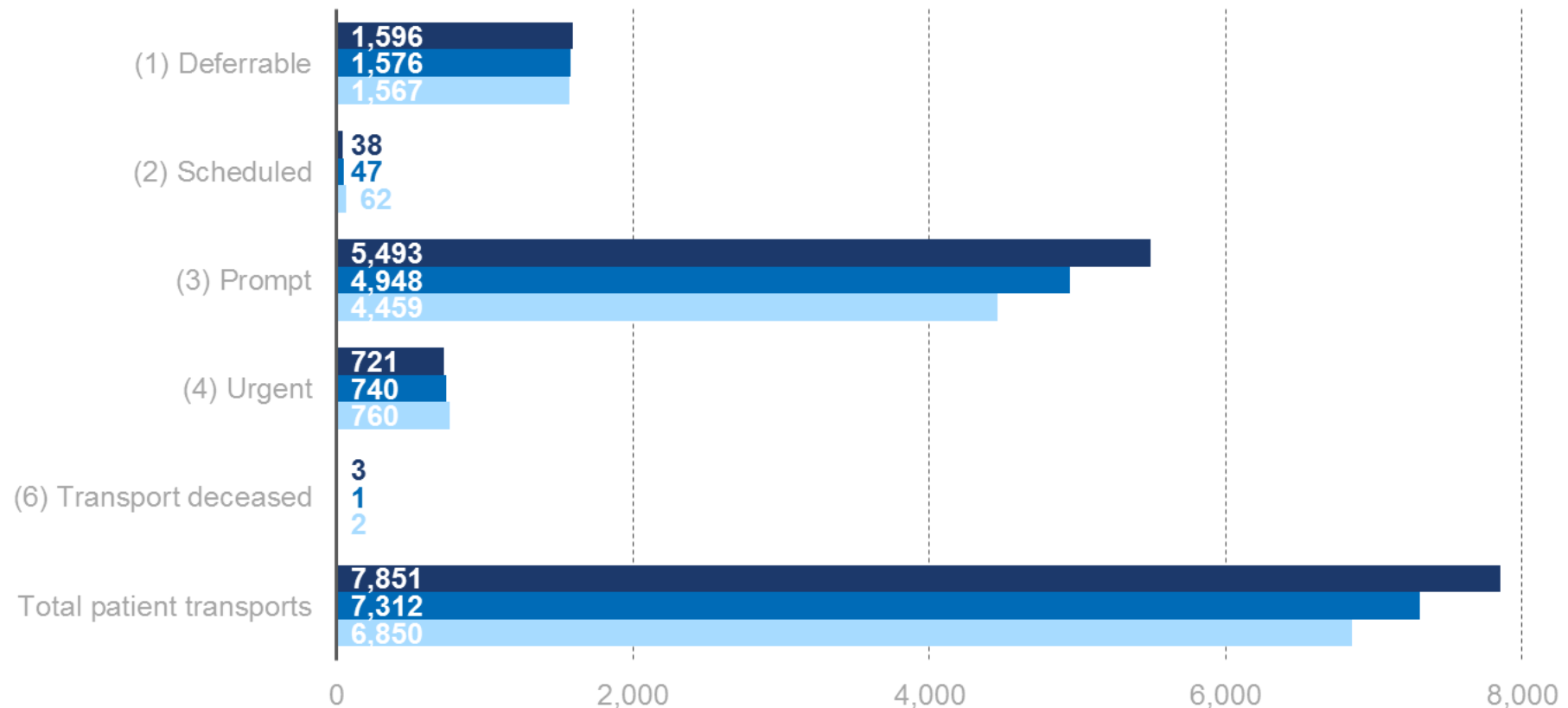


Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Number of patient transports, year-to-date, by return priority code

Region of Waterloo Paramedic Services, January 1st to March 31st, 2013-2015

■ 2015 ■ 2014 ■ 2013



Note: Indicator is based on all calls that Region of Waterloo Paramedic Services responds to both within and outside of Waterloo Region.

Source: TabletPCR (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

All calls served by Region of Waterloo Paramedic Services, year-to-date, by year

Inside and outside of Waterloo Region, January 1st to March 31st, 2013-2015

Measure	2010	2011	2012	2013	2014	2015	2010 → 2015
Number of unique calls (T1, code 1-4)	7,957	8,600	8,923	8,760	9,069	9,930	
Number of units dispatched (T2, code 1-4)	9,085	9,974	10,272	10,281	10,398	11,853	
Number of units arriving on scene (T4, code 1-4)	8,026	8,671	8,992	8,986	9,104	10,128	
Number of units transporting patients (T6, code 1-4)	6,165	6,452	6,698	6,699	7,092	7,729	
Number of patients transported (T6, code 1-4)	6,232	6,552	6,771	6,763	7,161	7,818	
Ratio of units dispatched to unique calls	1.14	1.16	1.15	1.17	1.15	1.19	
Proportion of units dispatched arriving on scene	88.3	86.9	87.5	87.4	87.6	85.4	
Proportion of units dispatched transporting patients	67.9	64.7	65.2	65.2	68.2	65.2	
Proportion of units arriving on scene transporting patients	76.8	74.4	74.5	74.5	77.9	76.3	

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

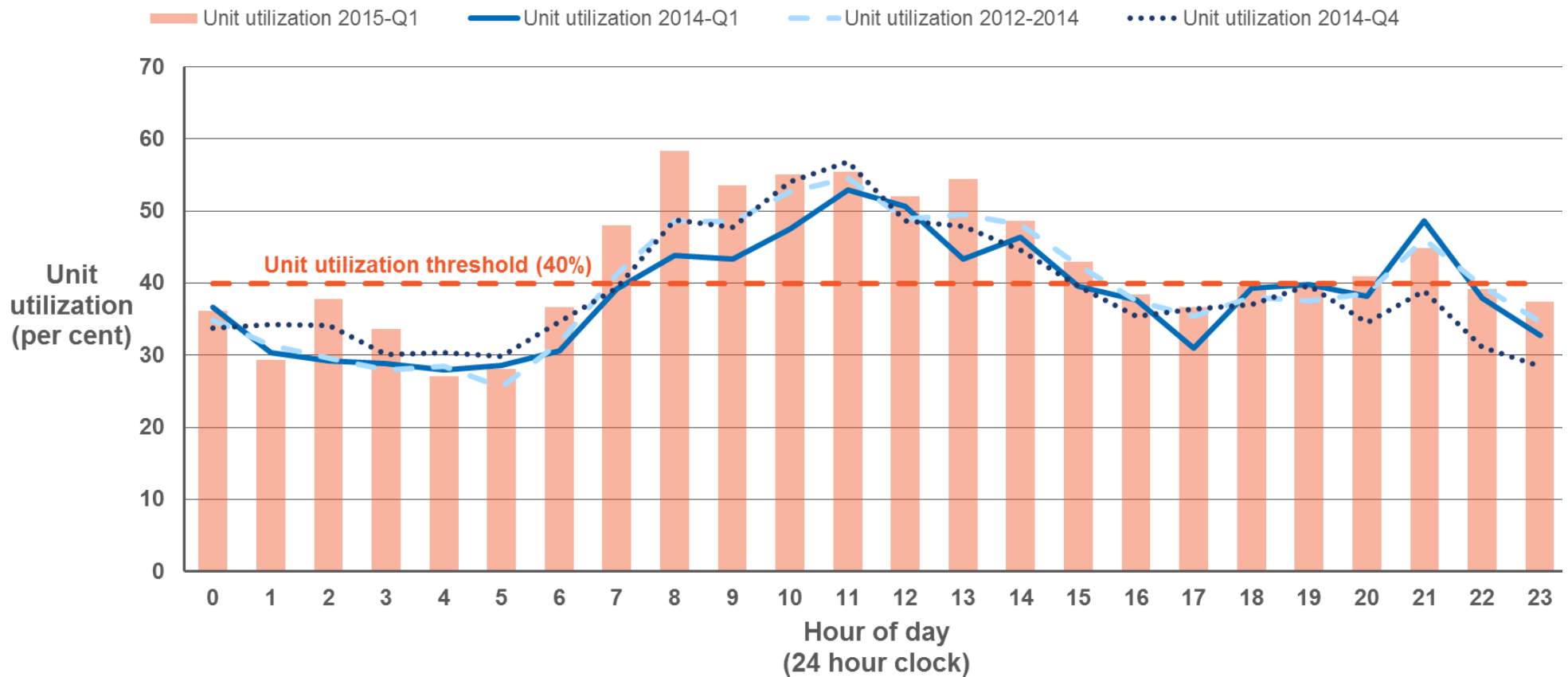
Source: ADRS (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Unit Utilization, by hourly average (24 hour clock)

Region of Waterloo Paramedic Services, January 1st, 2012 to December 31st, 2014, October 1st to December 31st, 2014, and January 1st to March 31st, 2014 and 2015



Source: ADRS (July 6th, 2015)



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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

In the first quarter of 2015, response times to emergency calls (code 4) within Waterloo Region was 10 minutes and 10 seconds, 1.3 per cent slower than in the first quarter of 2014. From the fourth quarter of 2014 to the first quarter of 2015 the 80th percentile response time to emergency calls slowed 4.5 per cent likely due to unprecedented call volume increases being experienced, as well as the start of an intense influenza season, and winter road conditions. Paramedic Services has begun monitoring response parameters observed from urban, suburban, and rural perspectives, using an 80th percentile response time informal benchmark. Response times vary according to population and road density. Drives times are longer in rural areas. Internal reviews identified warning system use compliance of 100 per cent in the last quarter. Chute time adherence remained below the historical average for the second quarter in a row as Region of Waterloo Paramedic Services continues work to improve compliance on this metric. Note that a 12-hour ambulance was added in each July of 2011, 2012, 2013, and 2015, and an emergency response unit was added in 2014.

Performance Report

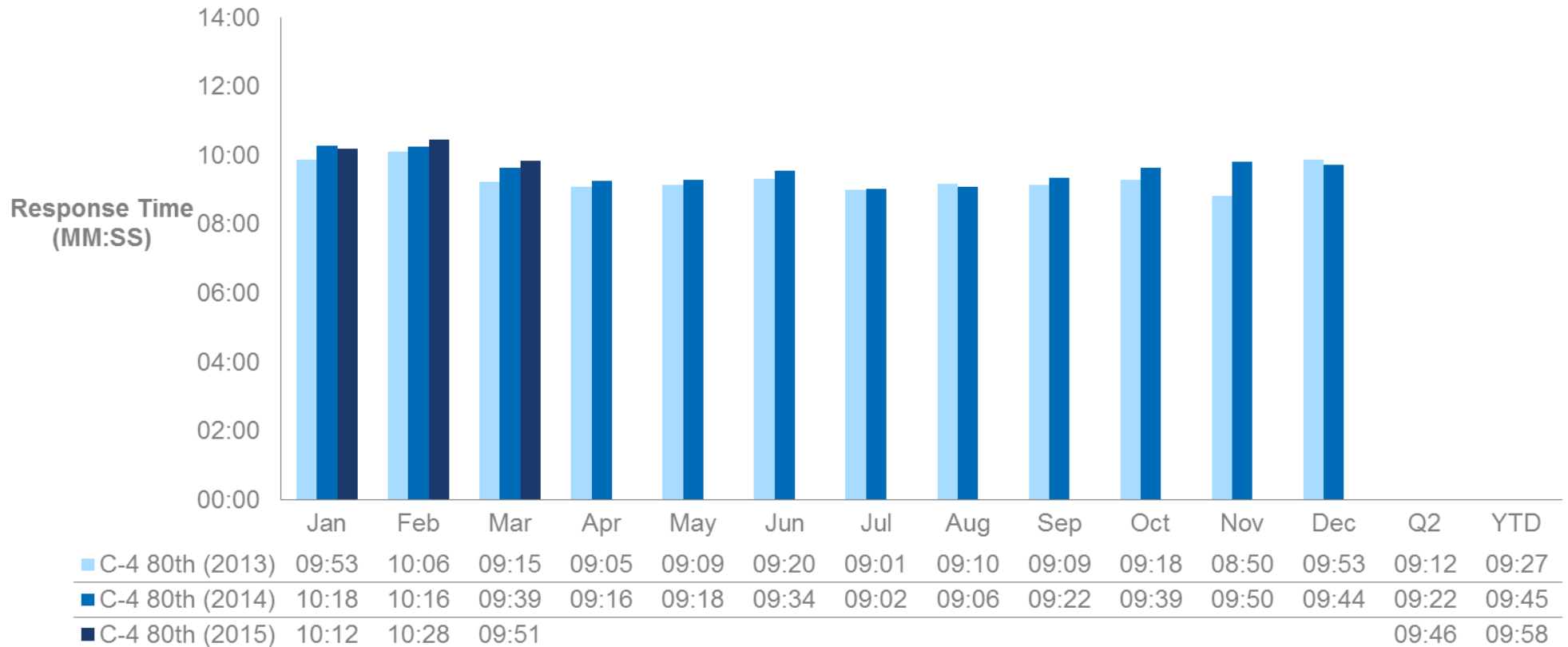
Indicator Name		Indicator Definition	Rolling Quarterly Results		
			Current Q1 (2015)	Previous Q1 (2014)	Current Year-To-Date
Paramedic Services Response Time to Emergency Calls	A measurement of the Paramedic Services' ability to meet performance a summary performance indicator, response time to code 4 calls, 80 th percentile.	10min 10sec	10min 02sec	10min 10sec	
Paramedic Services' Warning System Use	A measurement of compliance with the appropriate use of warning systems by Paramedic Services staff (based on a review of internal audits conducted on calls flagged for review during the month).	100.0%	100.0%	100.0%	
Chute Time Adherence	The percentage of calls where the timeframe from crew notification to when they are enroute is within protocol (Policy #4.3) of 2 minutes.	90.3%	91.6%	90.3%	



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Response time to emergency calls (code 4), 80th percentile, by month

Waterloo Region, January 1st, 2013 to March 31st, 2015[†]



[†] Due to a slight change in methodology results may differ from previous reports.

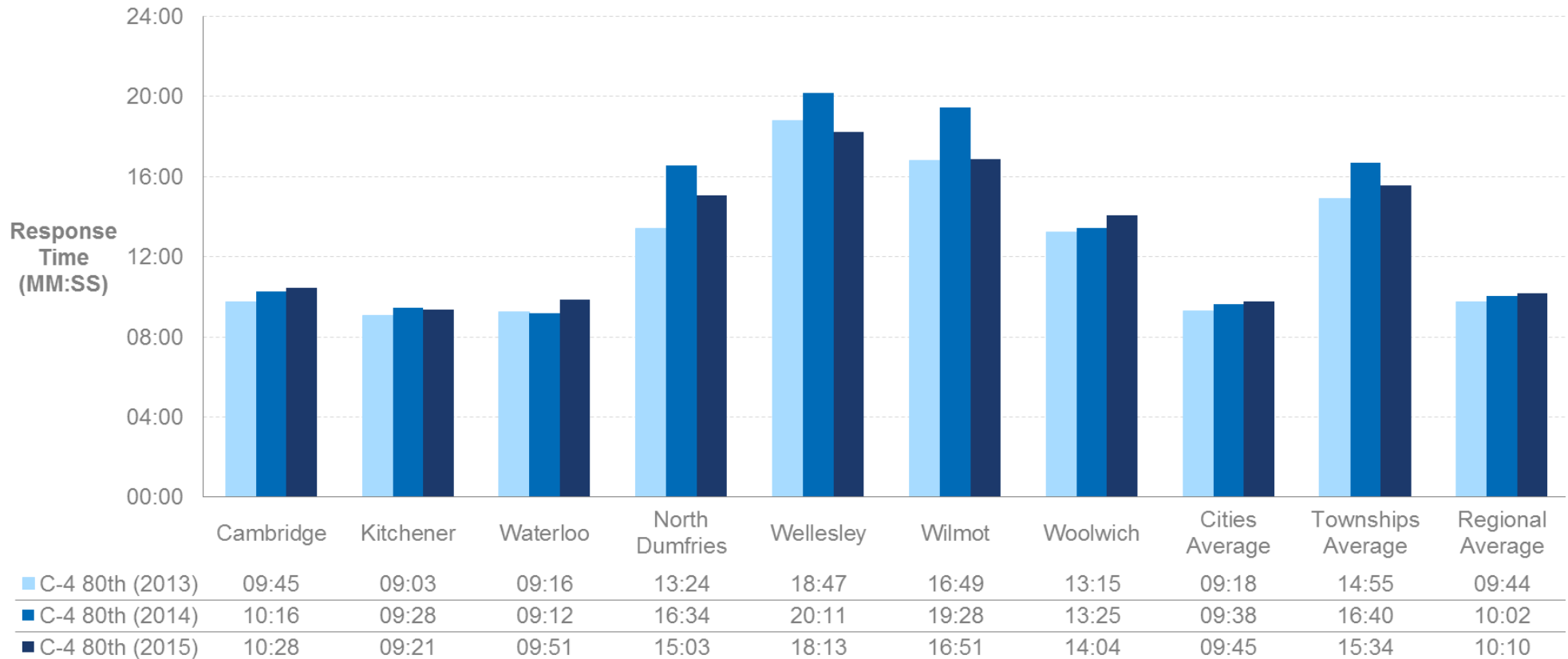
Sources: ADRS (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Response time to emergency calls (code 4), year-to-date, 80th percentile, by municipality

Waterloo Region, January 1st to March 31st, 2012-2015[†]



[†] Due to a slight change in methodology results may differ from previous reports.

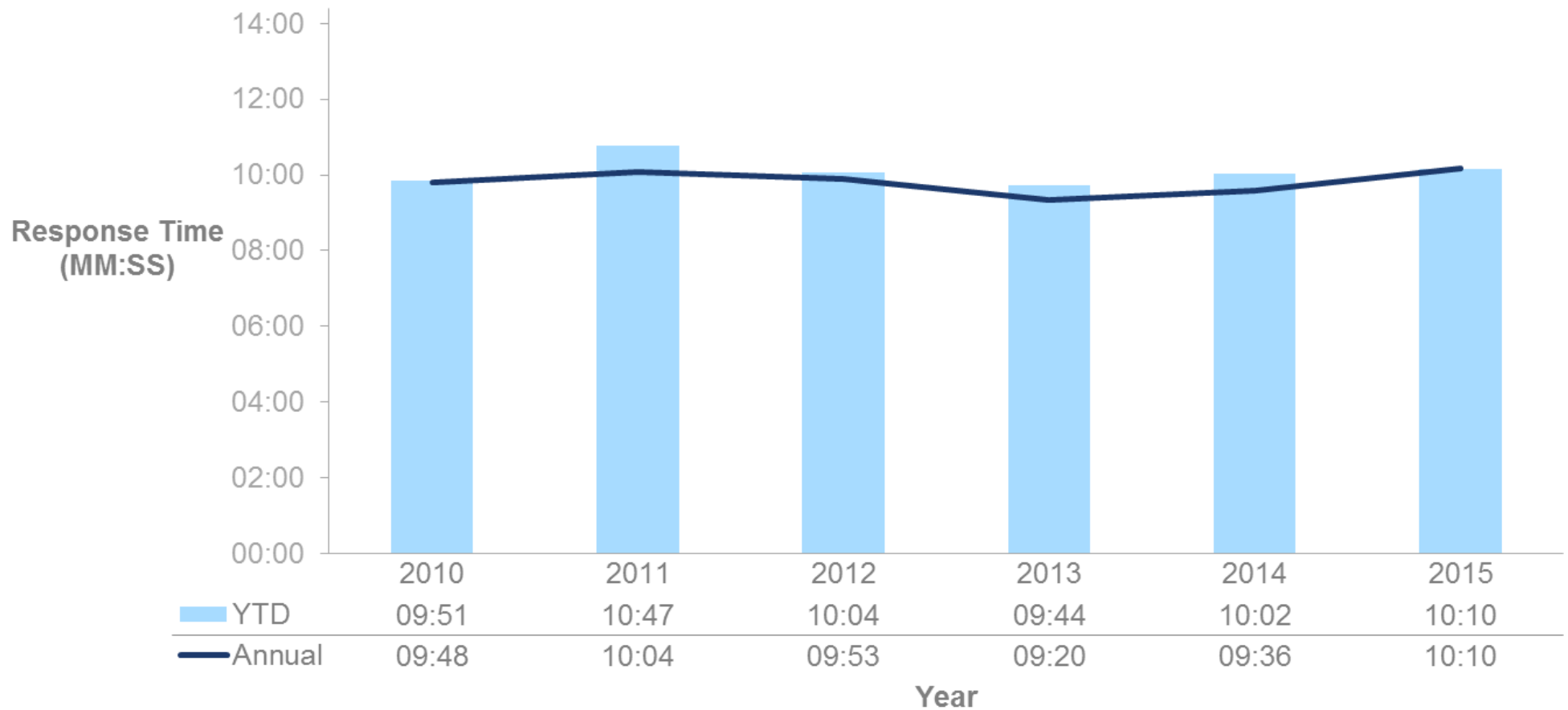
Source: ADRS (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Response time to emergency calls (code 4), 80th percentile, by year

Waterloo Region, January 1st to March 31st, 2010-2015 and January 1st to December 31st, 2010-2014[†]



[†] Due to a slight change in methodology results may differ from previous reports.

Source: ADRS (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Compliance to 2015 response time performance plan, by Canadian Triage Acuity Score (CTAS)

Waterloo Region, January 1st to March 31st, 2015

Type of call	Response Time Target Paramedic Services notified (T2) to arrive scene (T4)	Approved 2015 Region of Waterloo target	2015 (first quarter)		2015 (year-to-date)	
			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)	32%	07:17	32%	07:17
CTAS 1	Paramedic Services response in 8 minutes or less (set by MOHLTC)	70% or better	71%	07:55	71%	07:55
CTAS 2	Paramedic Services response in 10 minutes or less	80% or better	77%	10:41	77%	10:41
CTAS 3	Paramedic Services response in 11 minutes or less	80% or better	75%	11:51	75%	11:51
CTAS 4	Paramedic Services response in 12 minutes or less	80% or better	78%	12:36	78%	12:36
CTAS 5	Paramedic Services response in 12 minutes or less	80% or better	77%	12:29	77%	12:29

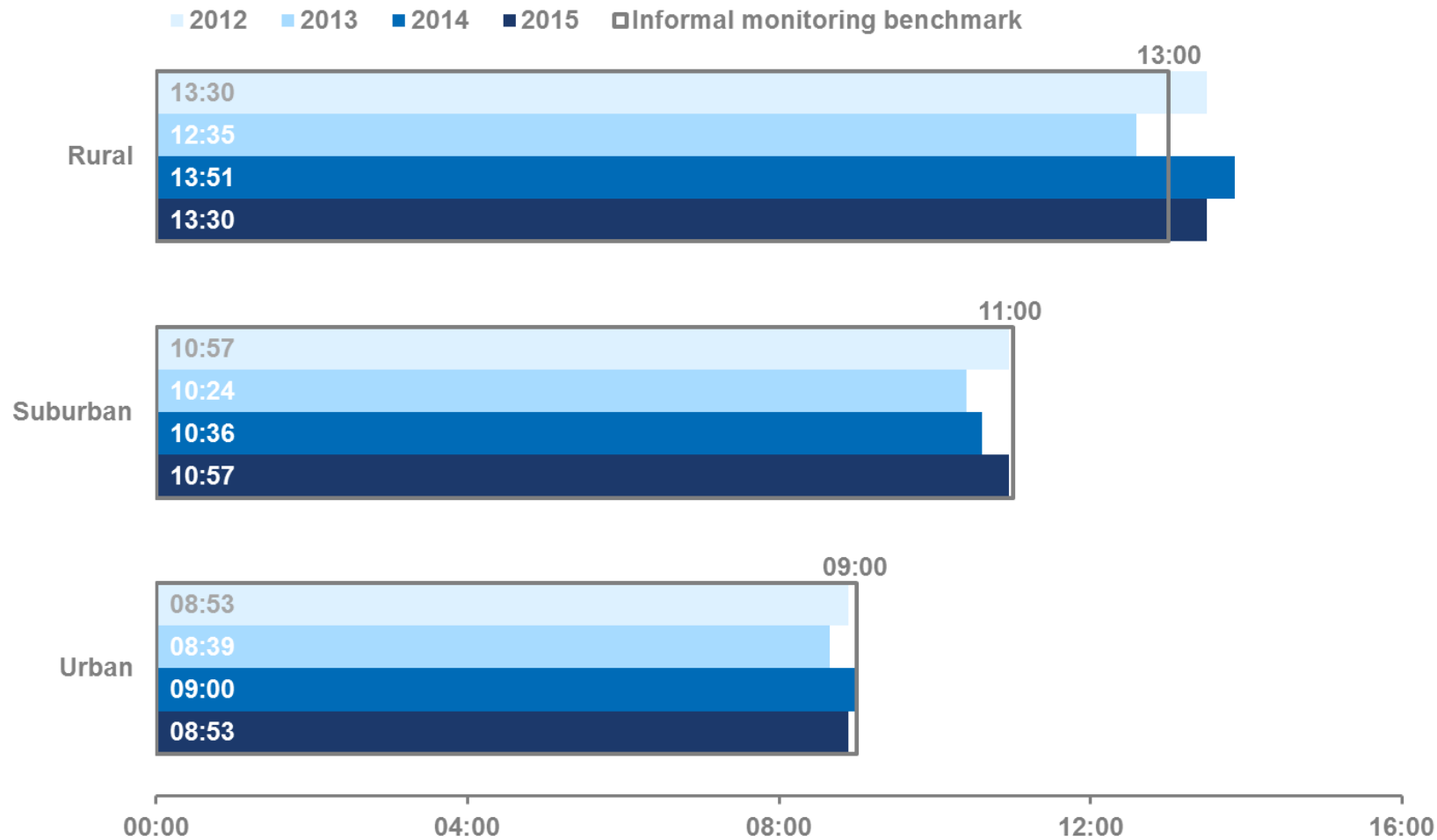
Source: ADRS and TabletPCR (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Response time to emergency calls (code 4), 80th percentile, by population density

Waterloo Region, January 1st to March 31st, 2012-2015



Source: ADRS (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Paramedic Services' warning system use of audited calls, by month

Waterloo Region, January 1st, 2013 to March 31st, 2015

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	100.0%	100.0%	100.0%									
2014	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2013	100.0%	100.0%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Results presented are a representative sample of calls audited, not a review of all calls.

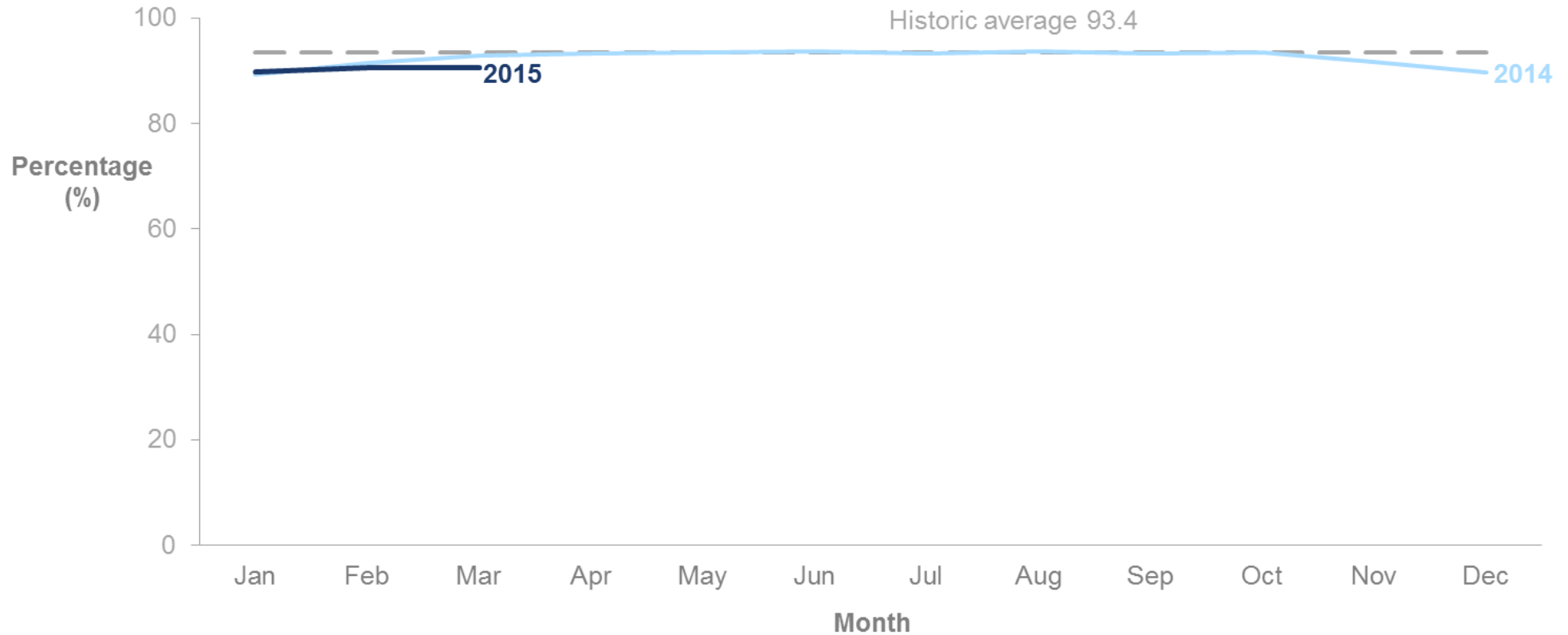
Source: TabletPCR (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Percentage of calls with crew chute adherence (meets two minute policy), by month

Region of Waterloo Paramedic Services, January 1st, 2014 to March 31st, 2015



Source: TabletPCR (July 6th, 2015)



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

Across the quarter Offload Delay losses have continued to trend up slightly, continuing a trend that began in the second half of 2013. Year-to-date Offload Delay is well above the previous first quarters of 2013 and 2014. Close collaboration between Paramedic Services and local hospitals continues to focus on addressing the issue of Offload Delay to limit the effects of Offload Delays on Paramedic Services. Collaboration on new and innovative strategies to address Offload Delay and return crews to the public for re-assignment is assisting in limiting our Offload Delay losses. Time spent in Code Yellow and Code Red increased greatly in the first quarter, following an already large increase in the fourth quarter of 2014, and is now well above the historical average.

Performance Report

Indicator Name	Indicator Definition	Rolling Quarterly Results		
		Current Q1 (2015)	Previous Q1 (2014)	Current Year-To-Date
Offload Delay Measurement	The amount of 24 hour ambulance days lost to offload delay over the course of a month.	47.6 days	29.9 days	47.6 days
Code Yellow Status	The percentage of time where Paramedic Services is in a Code Yellow Status for the month (≤ three vehicles available).	15.6%	9.7%	15.6%
Code Red Status	The percentage of time where Paramedic Services is in a Code Red Status for the month (zero vehicles available).	1.97%	0.31%	1.97%

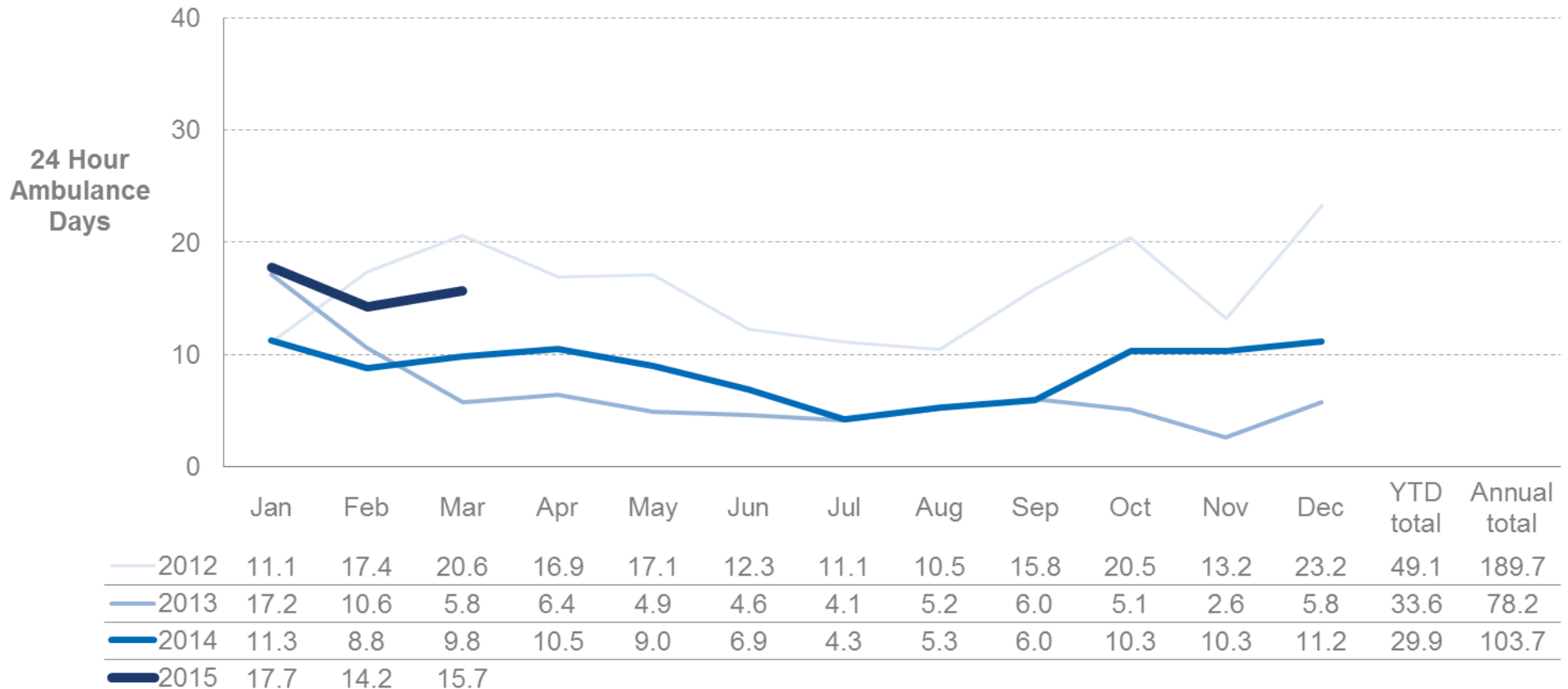
† Less than three years of data available.



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Number of ambulance days lost to offload delay, by month

Region of Waterloo Paramedic Services, January 1st, 2012 to March 31st, 2015[†]



[†] Currently **offload delay time** is reported, which is defined as the time beyond 30 minutes that a crew waits at the hospital, as a maximum 30 minute wait time per call is deemed to be acceptable. Previously, the total amount of **offload time of calls experiencing offload delay** (greater than 30 minutes) was reported, these are not the same indicator. As a result, trends remain identical to previous reports, but the totals are lower.

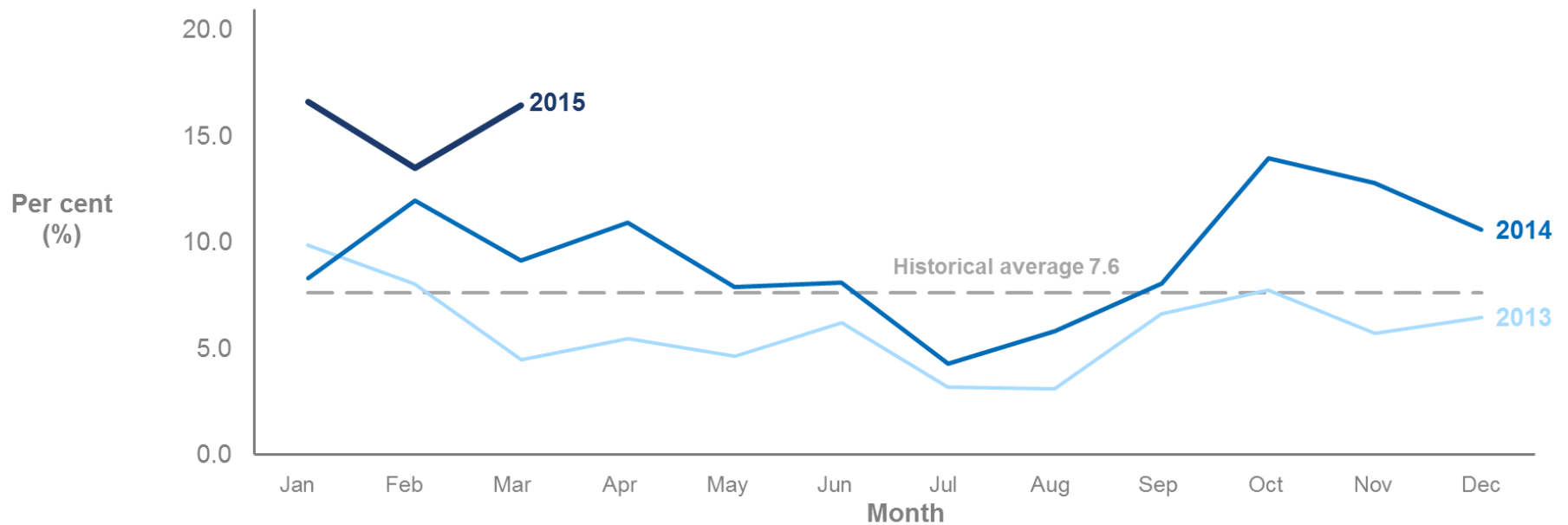
Source: TabletPCR (July 6th, 2015)



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Percentage of time in code yellow status, by month

Waterloo Region, January 1st, 2013 to March 31st, 2015



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
% of time in code yellow (2013)	9.9	8.0	4.5	5.5	4.6	6.2	3.2	3.1	6.6	7.8	5.7	6.5
% of time in code yellow (2014)	8.3	12.0	9.2	10.9	7.9	8.1	4.3	5.8	8.1	14.0	12.8	10.6
% of time in code yellow (2015)	16.6	13.5	16.4									
2015 code yellow time (H:M:S)	123:47:02	90:52:37	122:19:32									

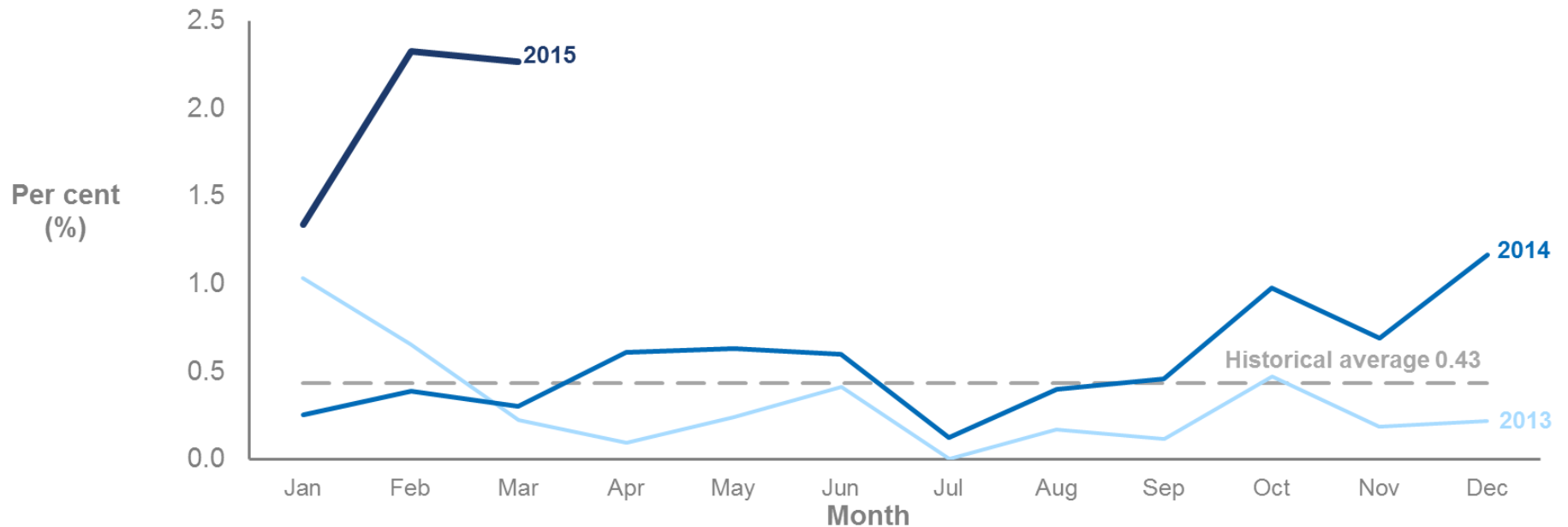
Source: CACC (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Percentage of time in code red status, by month

Waterloo Region, January 1st, 2013 to March 31st, 2015



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
% of time in code red (2013)	1.03	0.65	0.22	0.09	0.24	0.41	0.00	0.17	0.12	0.47	0.19	0.22
% of time in code red (2014)	0.25	0.39	0.30	0.61	0.63	0.60	0.12	0.40	0.46	0.97	0.69	1.16
% of time in code red (2015)	1.34	2.33	2.27									
2015 code red time (H:M:S)	9:56:23	15:38:2	16:52:1									

Source: CACC (July 6th, 2015)



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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

Note that service type indicators tend to fluctuate around the average over time, particularly when a small number of cases are involved. The percentage of stroke patients taken to stroke facilities was above the historical average for the quarter finishing the quarter slightly above the monthly average. As any Return of Spontaneous Circulation (ROSC) is deemed positive, results for ROSC continued fluctuate near the historical average, and are in an acceptable range (variation is normal due to the small numbers in cases). Heart attack STEMI (ST-Segment Elevation Myocardial Infarction) Protocol was lower than the historical monthly average, providing care in less 90 minutes 46.4% of the time this quarter (variation is expected for heart attack STEMI due to the numerous variables involved).

Performance Report

		Rolling Quarterly Results		
Indicator Name	Indicator Definition	Current Q1 (2015)	Previous Q1 (2014)	Current Year-To-Date
Stroke Patient to Stroke Facilities	The percentage of stroke patients taken to Provincial Stroke Facilities. <i>*Note that 'stroke protocol' outlines that only patients with certain symptoms and within certain timelines are transported to a stroke facility. Due to this, a variance under 100% may not necessarily represent a missed target.</i>	87.8%	85.0%	87.8%
Return of Spontaneous Circulation (ROSC)	The percentage of cardiac arrest patients with the return of pulse.	14.0%	13.1%	14.0%
Heart attack (STEMI) Protocol ST-Segment Elevation Myocardial Infarction	The percentage of STEMI patients where care was provided in less than 90 minutes ('STEMI' represents a type of heart attack). <i>*Note that 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.</i>	46.4%	85.7%	46.4%

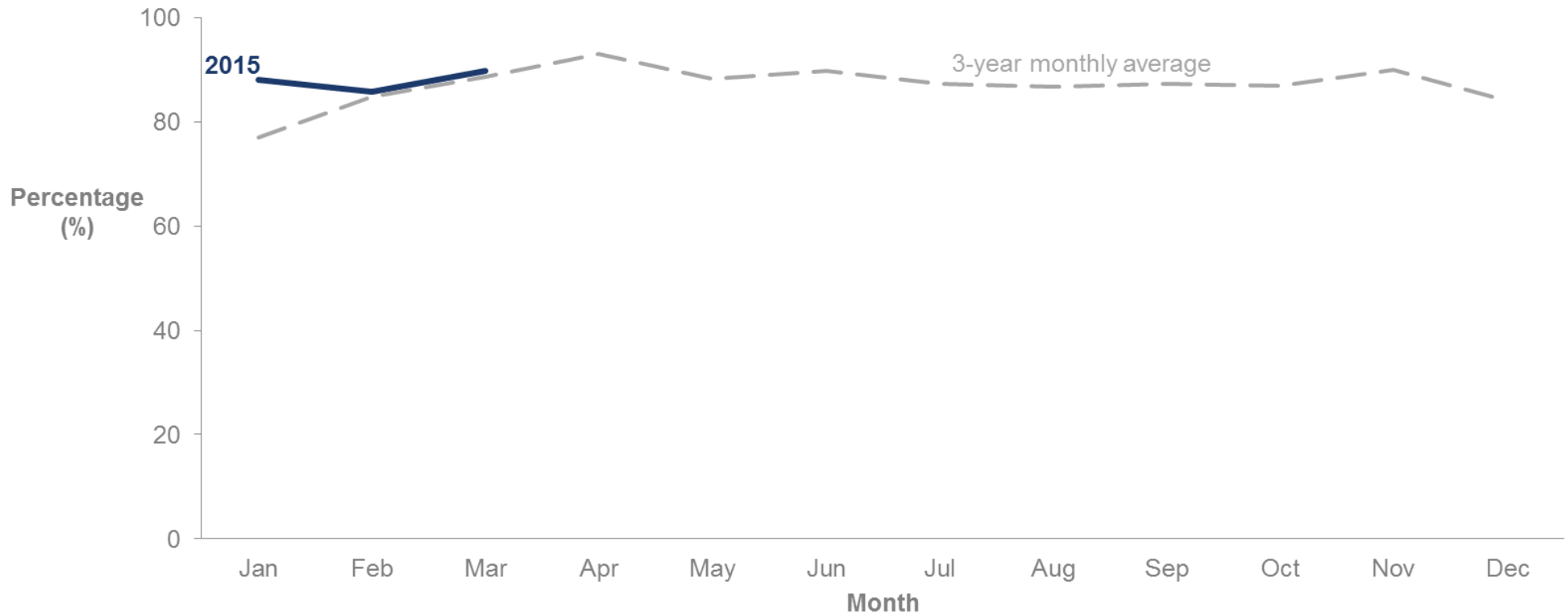
† Less than three years of data available.



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Percentage of stroke patients transported to a stroke facility[†], by month

Region of Waterloo Paramedic Services, January 1st, 2015 to March 31st, 2015



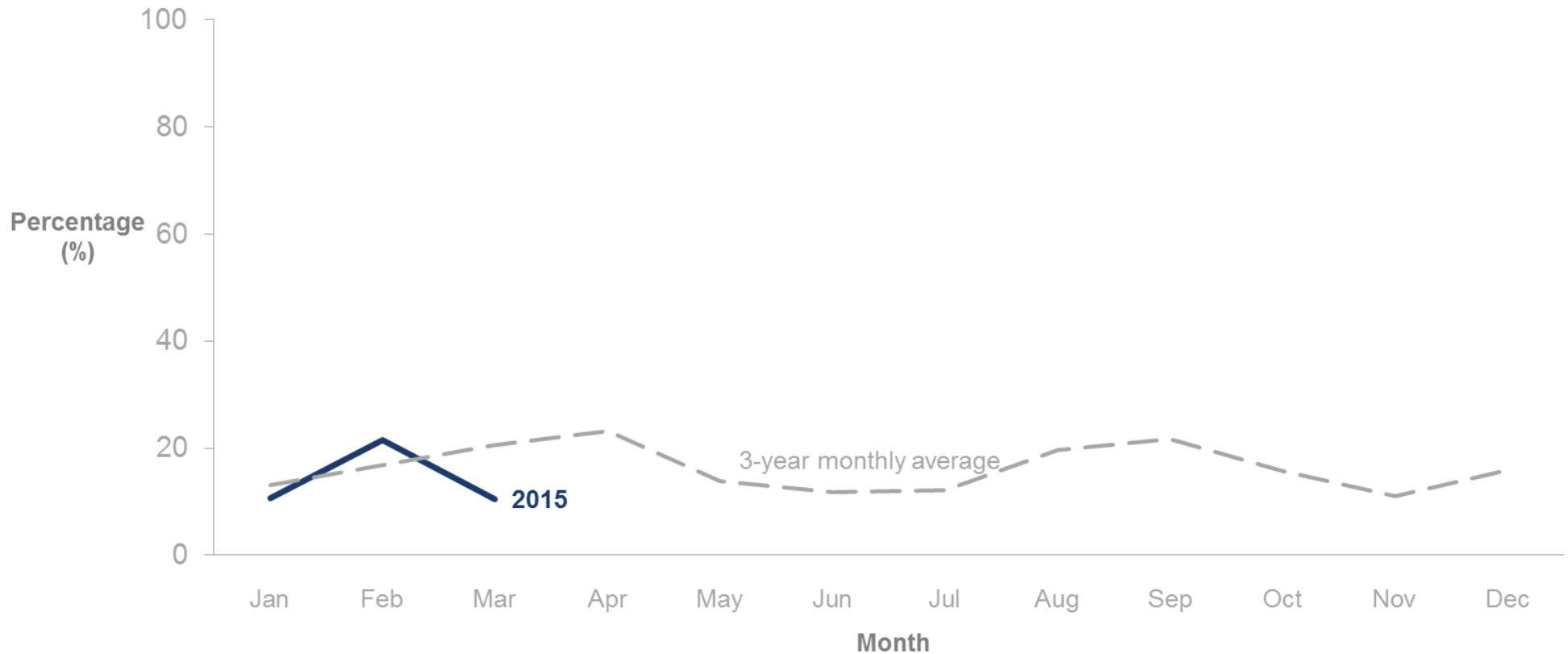
[†]Stroke facilities include: Grand River, Brantford General, Hamilton General, Stratford General, and Guelph General.

Source: TabletPCR (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

Percentage of cardiac arrest patients with return of spontaneous circulation (ROSC) by month, Region of Waterloo Paramedic Services, January 1st, 2015 to March 31st, 2015



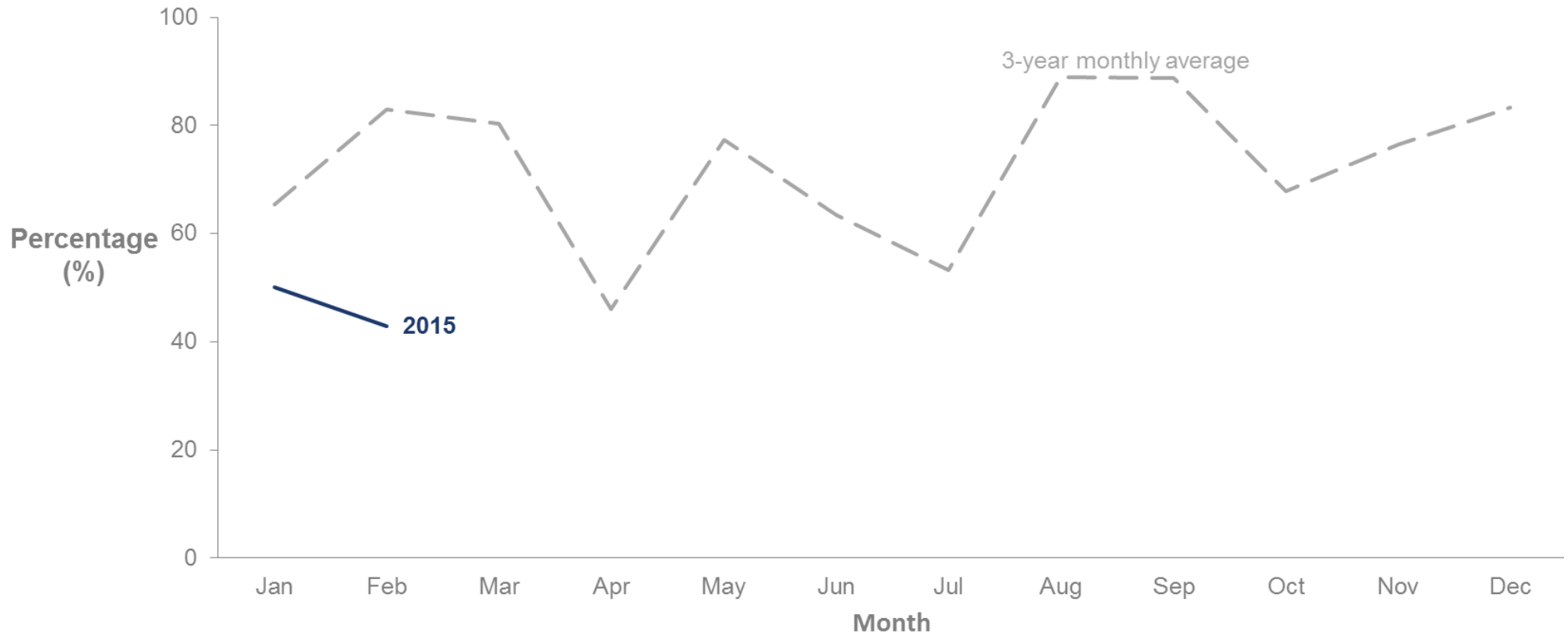
Source: TabletPCR (July 6th, 2015)



Region of Waterloo * Paramedic Services PERFORMANCE MEASUREMENT

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

by month, Waterloo Region, October 1st, 2011 to March 31st, 2015



**Note that in June 2013 and March of 2015, there were 0 STEMI cases recorded. The dashed line does not represent an adherence percentage for the month.

Source: St. Mary's Hospital (August 12th, 2015)

E. GLOSSARY

ADRS: Ambulance Dispatch Reporting System

CACC: Central Ambulance Communications Centre

Cardiac Arrest: A sudden, sometimes temporary, cessation of the heart's functioning.ⁱ

Chute Time: The time it takes an ambulance to depart once notified of a call (Outlined in Paramedic Services Policy #4.3).ⁱⁱ

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

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).^{iv}

Code 3 (Prompt): A call that should be performed without delay (e.g. serious injury or illness).^v

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).^{vi}

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.^{vii}

Code Yellow: When the Region of Waterloo Paramedic Services is at minimum coverage of three vehicles or less.^{viii}

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.^{ix}

Defibrillator: An electronic device that applies an electric shock to restore the rhythm of a fibrillating heart.^x

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).^{xi}



Region of Waterloo * Paramedic Services

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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.^{xii}

Offload Delay: Offload delay measures the offload of patients at local hospitals, which can impact the resources required and availability to respond to calls.^{xiii}

Patient Transport(s): The total number of patients carried in the ambulance during a given call.^{xiv}

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.^{xv}

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.^{xvi}

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.^{xvii}

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).^{xviii}

Rolling Quarterly Results: Reviewing the previous three months data as a snapshot of the indicator’s performance over a period of time.

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.^{xix}

STEMI Facilities: A hospital that houses onsite Percutaneous Coronary Intervention (PCI) facilities with an experienced interventional team.^{xx}



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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.^{xxi}

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

Unit Hour Utilization: Percentage of staffed vehicles utilized during any given hour of the day.^{xxii} Note that when UHU 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.

Warning System(s): Depending on the priority of the call, Warning Systems represent emergency lights and/or sirens that may be activated.



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

- ⁱ “Definition of cardiac arrest in English”. *Oxford Dictionaries*. Oxford University Press, 2013. Web. 13 August 2013.
- ⁱⁱ 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, December 4, 2007. Web. 14 August 2013.
- ⁱⁱⁱ Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- ^{iv} Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- ^v Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- ^{vi} Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- ^{vii} 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.
- ^{viii} 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.
- ^{ix} Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 17.
- ^x “Defibrillator”. *Merriam-Webster*. Merriam Webster, Incorporated, 2013. Web. 13 August 2013.
- ^{xi} Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 9.
- ^{xii} “Definition of indicator in English”. *Oxford Dictionaries*. Oxford University Press, 2013. Web. 14 August 2013.

- ^{xiii} “What is Service?”. *OMBI Ontario Municipal CAO’s Benchmarking Initiative*. Ontario Municipal CAO’s Benchmarking Initiative, 2012. Web. 13 August 2013.
- ^{xiv} Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 11.
- ^{xv} Schacter, Mark. Kronick, Murray. “Results-Based Management 101”. *Performance and Planning Exchange*. Performance and Planning Exchange, 2010-2011. Web. 14 August 2013.
- ^{xvi} “Ambulance Act”. *ServiceOntario e-Laws*. Government of Ontario, 2013. Web. 14 August 2013.
- ^{xvii} “Cardiac Arrest and Cardiopulmonary Resuscitation Outcome Reports”. *American Heart Association*. American Heart Association, Inc., 2013. Web. 13 August 2013.
- ^{xviii} Government of Ontario, Ministry of Health and Long-Term Care, Ambulance Call Report Completion Manual (Ontario: Government of Ontario, 2003) 10.
- ^{xix} “Cardiac Care STEMI Program Frequently Asked Questions”. *Toronto EMS News & Video*. Toronto Emergency Medical Services, 1998-2013. Web. 13 August 2013.
- ^{xx} “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.
- ^{xxi} “The Ontario Stroke System (OSS)”. *Ontario Stroke Network Advancing the Ontario Stroke System*. Ontario Stroke Network, 2010. Web. 13 August 2013.
- ^{xxii} 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, December 4, 2007. Web. 14 August 2013.