



EDMONTON POLICE SERVICE

REPORT TO THE EDMONTON POLICE COMMISSION

DATE: 2019 February 11

SUBJECT: 2018 EPS Response Time and Dispatch Call Volumes

RECOMMENDATION:

1. That this report be accepted by the Edmonton Police Commission for information purposes.

BACKGROUND:

The Edmonton Police Commission has received an update of EPS's dispatch Response Time and Dispatch Call Volume statistics since late 2013.

This semi-annual report, to be presented at the February 21, 2019, provides statistics for Dispatch Call Volume and Response Time Performance for Priorities 1 through 5 for the years 2009 to 2018. In addition, this report provides information pertaining to:

- How Response Time Performance varies at the patrol division level
- How Response Time Performance varies by time of day, and day of week
- How the introduction of the P7 'Hold Event' code in September 2017 has impacted the calculation of P5 Response Time Performance
- Recent actions, and upcoming developments, to improve response times

CONCLUSION:

For review, consideration, and discussion.

ADDITIONAL INFORMATION ATTACHED:

- Attachment 1 – 2018 EPS Dispatch & Response Time (PowerPoint)

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Corporate Services Bureau 2019.02.11

Chief of Police:  Greg Preston
Acting Chief of Police 

Date: 2019 FEB 12



2018 EPS Response Time and Dispatch Call Volumes

Presented to the Edmonton Police Commission
February 21, 2019

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Purpose



- To provide and discuss patrol workload and response times (2009 – 2018).
- Content here includes:
 - City-wide: Priority 1-5 Response Time Performance and Dispatch Call Volume
 - Impact of Priority 7 "hold event" on P5 response time calculations
 - Division-level: P1-5 Response Time Performance
 - Response Time Performance by time of day, day of week
 - Recent actions to help address response times

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Summary



- Dispatch Call Volume increased 1.8% in 2018 (3,036 more calls).
- P1 response times have improved slightly, but is still below target.
- P4 / P5 response times are challenge areas and worsened in 2018.
- Much of the recent deterioration in P5 response times is due to improved data collection.

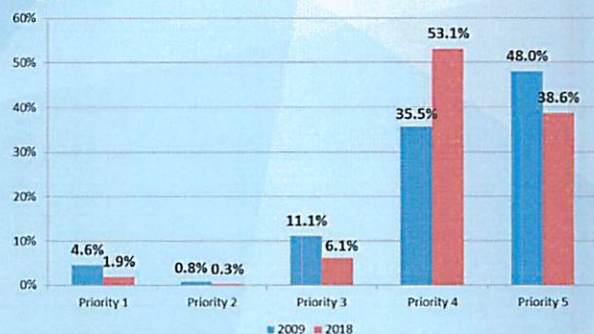
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Distribution of Calls by Priority Level



- The majority of dispatch call events are low urgency (P4,P5).
- Only 8.3% of calls in 2018 were highly urgent (P1-P3). In 2009, this was 16.5%.
- All growth in calls since 2009 have been in low priority (P4,P5), while volume for P1-P3 calls has fallen.

EPS Dispatch Calls by Priority Level
% of total calls

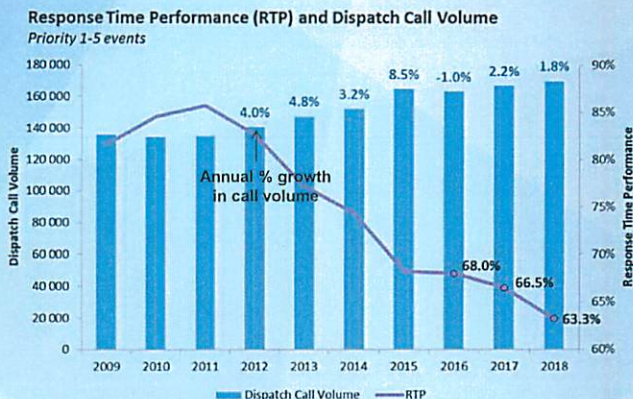


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P1-P5 Response and Dispatch Call Volume



- P1-P5 Dispatch Call Volume up 1.8%
- P1-P5 Response Time Performance declines since 2011
- P1-P5 Response Time Performance at 63.3%, compared to 66.5% in 2017



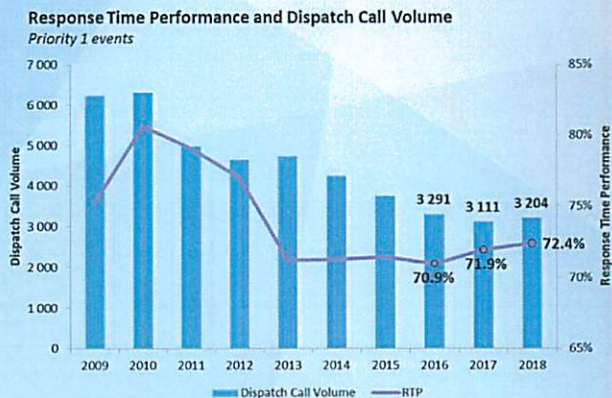
Response Time Performance: % of events with Dispatch Time + Travel Time ≤ Priority Target Time

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P1 - Response and Dispatch Call Volume



- P1 Dispatch Call Volume up 3.0%
- P1 Response Time Performance at 72.4%, compared to 71.9% in 2017



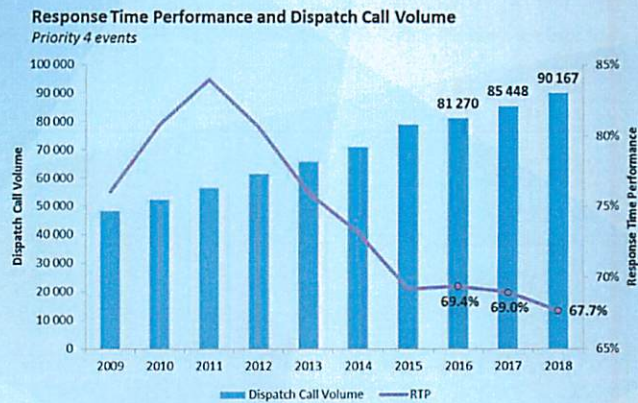
P1 Response Time Performance: % of events with Dispatch Time + Travel Time ≤ 7 min

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P4 - Response and Dispatch Call Volume



- P4 Dispatch Call Volume up 5.5%.
- P4 Response Time Performance at 67.7%, compared to 69.0% in 2017.



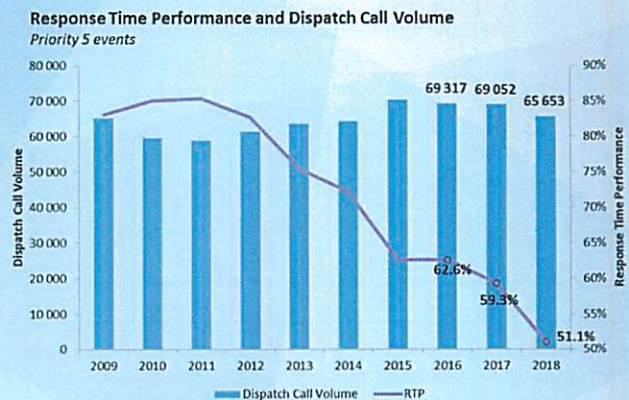
P4 Response Time Performance: % of events with Dispatch Time + Travel Time \leq 40 min

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P5 - Response and Dispatch Call Volume

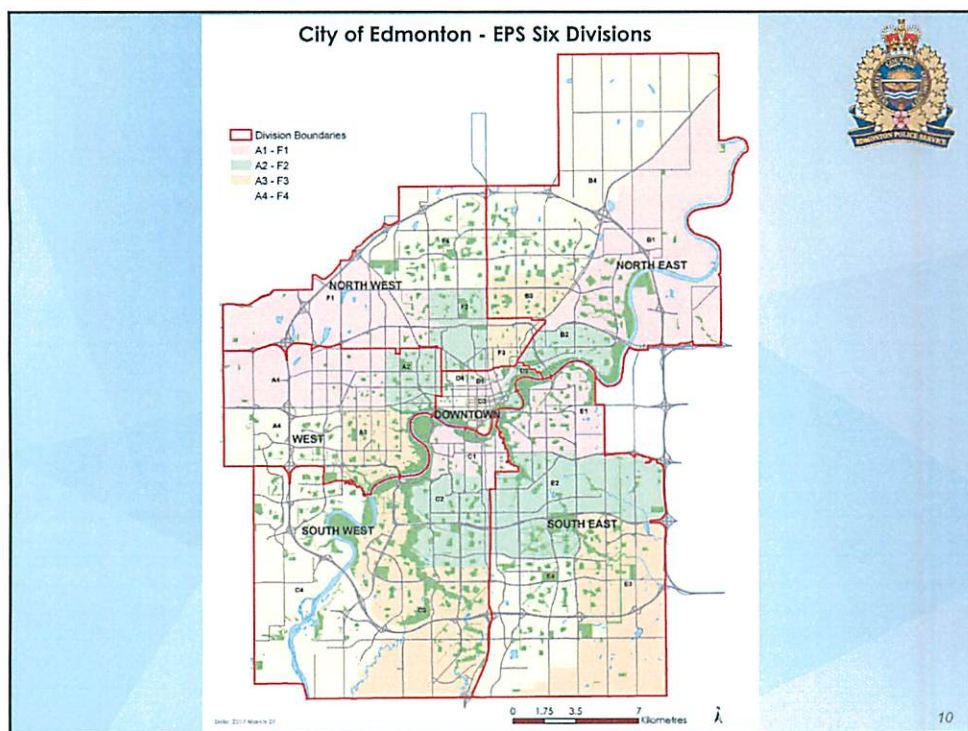
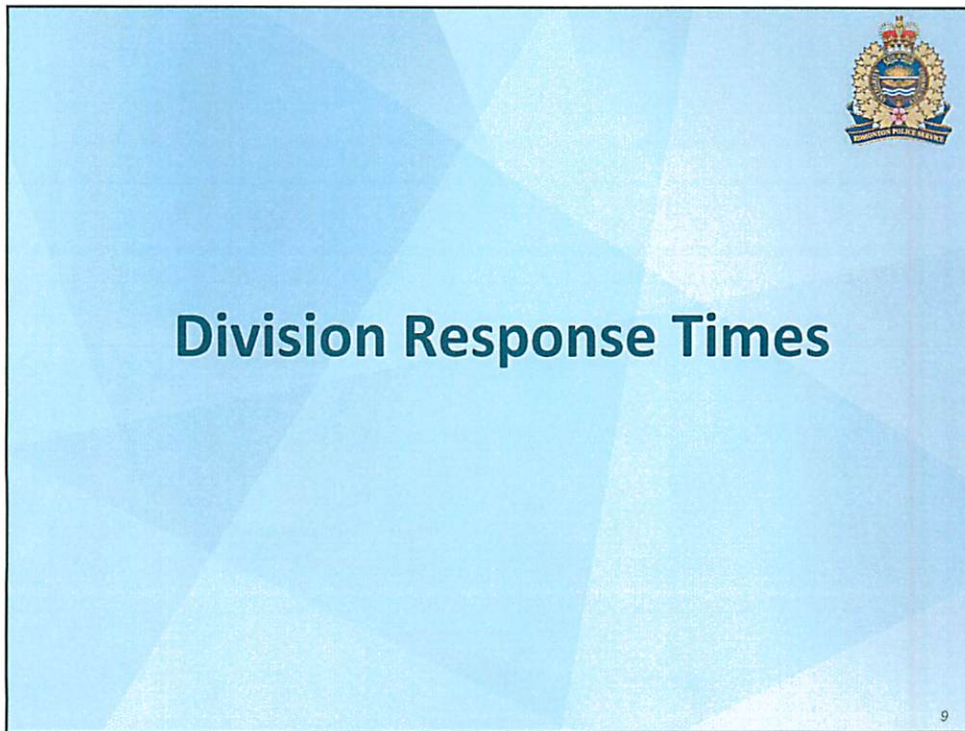


- P5 Dispatch Call Volume down 4.9%.
- P5 Response Time Performance at 51.1%, compared to 59.3% in 2017.
- Much of this drop is due to more accurate time-tracking of P5 response times



P5 Response Time Performance: % of events with Dispatch Time + Travel Time \leq 180 min

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Response Time Summary – Divisions



Response Times Performance (%), 2018

	P1	P2	P3	P4	P5
Downtown	91	100	97	78	70
North East	73	96	96	65	43
North West	70	96	95	67	55
South East	64	98	95	71	63
South West	59	87	87	62	34
West	72	93	96	60	39

Green: $\geq 80\%$ of events met timed target
 Orange $\geq 70\%$
 Red: $< 70\%$

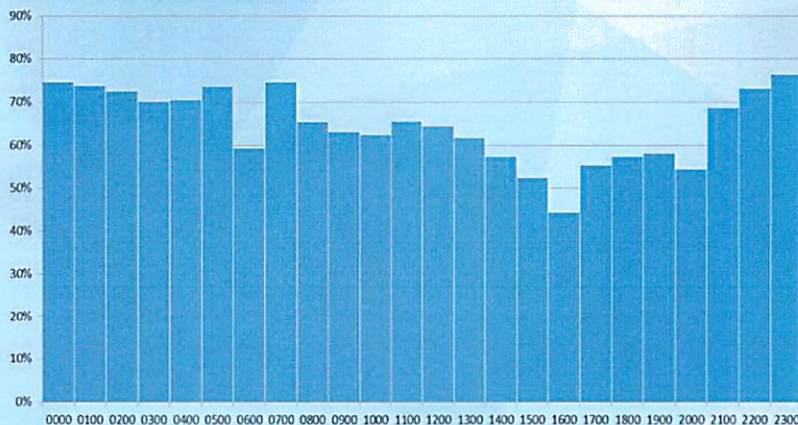
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Additional Analysis



At our last presentation, EPC expressed some interest in viewing how response times are impacted by the time of day, or day of week

How Overall Response Times Vary Throughout the Day
 % of P1-P5 calls meeting their time target, 2018 data

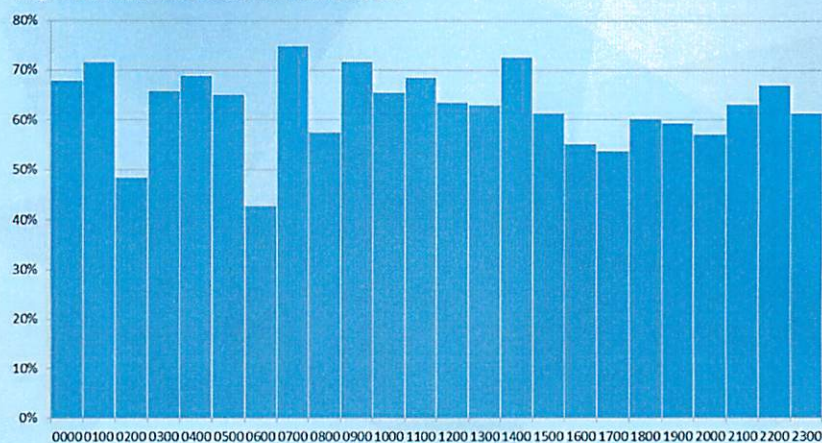


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Additional Analysis



How Priority 1 Response Times Vary Throughout the Day
% of P1 calls responded to within 7 minutes, 2018 data

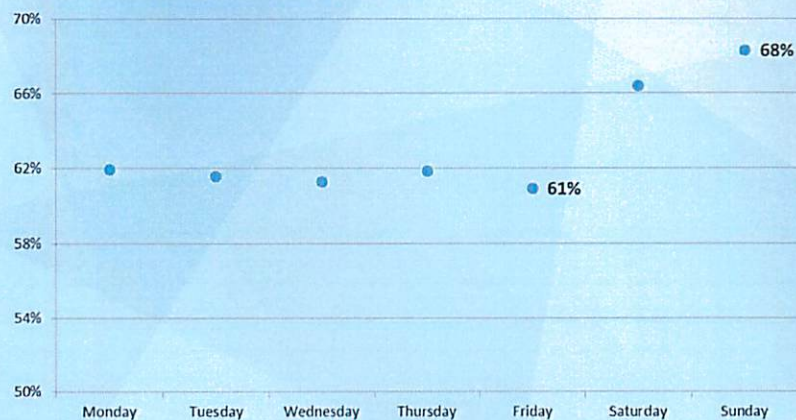


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Additional Analysis



How Overall Response Times Vary Throughout the Week
% of P1-P5 calls meeting their time target, 2018 data

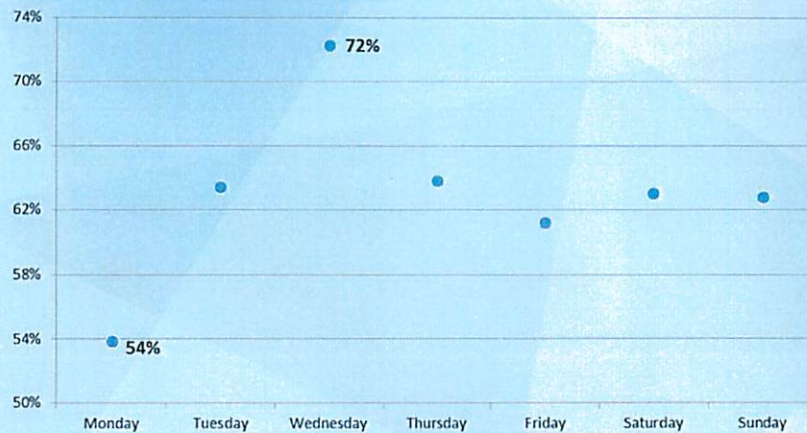


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Additional Analysis



How P1 Response Times Vary Throughout the Week
 % of P1 calls responded to within 7 minutes, 2018 data



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Addressing Response Times



Recent Actions – Communication

“Tell dispatch where you’ll be” intranet article (Oct 2018)

- This communications article reminded patrol members to mark themselves on-scene as soon as they arrive to events (“10-3”). 911 Dispatchers were observing cases where patrol were only marking themselves on-scene after a lengthy delay, or not at all
- Dispatch will also serve as a back-up to log members as 10-3 during high-risk situations where the member needs to focus their attention on other matters
- The desired outcome of this communications initiative is more accurate real-time information of member’s locations and their status, and more accurate time-tracking for response time purposes



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Addressing Response Times



Recent Actions – Technology

911 Event Matching

- Since June 2018, CAD "Event Matching" has given the ability for the 911 Dispatcher to view the information of a 911 call while it resides with the 911 Operator
- For unambiguous high-risk events, the Dispatcher can be on alert and prepare patrol in advance while the call continues to be evaluated
- Event Matching allows more data to carry over from the 911 Operator to the Evaluator, which expedites call evaluation by eliminating certain repetitive questions

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Addressing Response Times



Recent Actions – Technology

Online Crime Reporting – Retail Theft

- Online Crime Reporting for retail theft launched Jan 21, 2019
- Currently, 60 retail stores (primarily liquor stores) have "invite" status to access an alternative version of our Online Crime Reporting platform to report retail thefts
- The scope of this online reporting is for non-violent, non-custody incidents
- Digital evidence for these online reports is submitted via cloud-based DropBox. Digital submission is currently restricted to photos
- A desired outcome of this initiative is to reduce the need for report-writing for patrol and their attendance to retail stores purely for evidence pick-up

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Addressing Response Times



Recent Actions - Operational

Alberta Sheriff Detainee Transport Pilot

- Since September 4, 2018, Alberta Sheriffs have been providing daytime detainee transports to the detainee facilities (e.g., Remand Centre, Edmonton Young Offenders Centre)
- In turn, our Detainee Management Unit (DMU) has more capacity to increase the pick up of arrested persons from patrol divisions
 - DMU conducted 40 pickups from patrol divisions to DMU cells at Police HQ in the first four days of the pilot. This compares to 48 for the entire month of July (pre-pilot)
- In turn, patrol is being freed up from detainee transport to DMU, and can focus more on calls for service and proactive work

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Addressing Response Times



Next Steps

- New patrol positions are being added in 2019, as per the 2019-2022 Business Plan. Where they need to be prioritized will be determined in the near future
- EPS is conducting statistically modelling that will determine if there are alternative patrol shift schedules that better match the daily pattern of call workload
- SW & SE patrol divisions are conducting a 10 squad model pilot, which will improve supervisor span of control and allows more flexibility to match shift schedules with call workload patterns
- An evaluation of our patrol deployment model will be completed by the end of 2020 via a Research Agreement with Macewan University (satisfying a City Auditor recommendation). Early findings are promising, and have already found several modelling improvements that could be adopted

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QUESTIONS ?

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Appendix

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Background on our metrics

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Priority Levels & Response Time Targets

Priority Code	Definition/Example	Response Time Target (80% of the time)
0	Officer in Distress / Officer Needs Assistance	
1	In Progress Person At Risk - Response will likely prevent or reduce further harm to a person e.g., assault with a weapon <i>in progress</i>	Dispatch Time + Travel Time ≤ 7 minutes
2	In Progress Property At Risk - Immediate response will likely prevent or reduce the further loss of property e.g., a neighbour observing an auto theft <i>in progress</i>	Dispatch Time + Travel Time ≤ 12 minutes
3	Just Occurred - Immediate response will increase the likelihood of locating a suspect e.g., mischief that occurred very recently	Dispatch Time + Travel Time ≤ 17 minutes
4	The Nature of the Occurrence is Time Sensitive e.g., a shoplifter is in-custody with security and is cooperative	Dispatch Time + Travel Time ≤ 40 minutes
5	General Service - The nature of the offence is not time sensitive e.g., a business finds that they were vandalized the night before (i.e., the absence of <i>in progress</i> or <i>just occurred</i>)	Dispatch Time + Travel Time ≤ 180 minutes
6	The Occurrence is Minor in Nature (eg.) Bylaw	
7	Hold Event - A general service call put on-hold until the EPS and the caller are available to resume e.g., putting a general service call on-hold until the next morning	
9	Broadcast - Information only	

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What is included in our Statistics



Dispatch Call Volume (workload)

- Priorities 1-5
- On-view calls (< 30 second response time)
- Pre-empted calls (where we were redirected from going to a call)

169,887 records (2018)

Excludes:

- Follow-up calls, Traffic Stops
- Priority 0 (officer in distress), 6 (bylaw), 9 (general information)



Response Time Performance

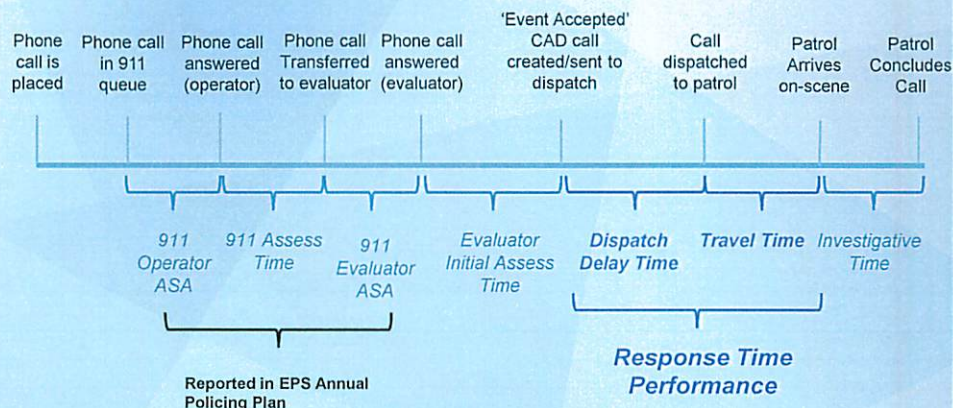
Calculates using the above, but excludes:

- Priority 1 impaired driving calls
- Pre-empted calls
- On-view calls
- Calls where the final priority level was more urgent than the original level (~2.5% of calls in 2016)

143,963 records (2018)

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Steps to Complete a 9-1-1 Emergency Call



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Response Time Drivers



Response time is driven by a number of factors:

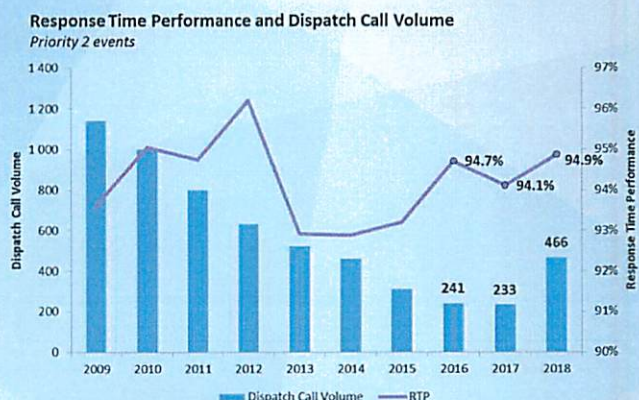
- **Police strength**
 - Number of resources
 - Resources committed to other calls
- **Dispatch Call Volume**
- **Geographic size**
 - Travel distances
 - Urban sprawl
- **Population growth**
- **Environmental factors**
 - Traffic conditions
 - Construction zones
 - Weather
 - Travel Speeds

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P2 - Response and Dispatch Call Volume



- P2 Dispatch Call Volume up 100%
- P2 Response Time Performance at 94.9%, compared to 94.1% in 2017



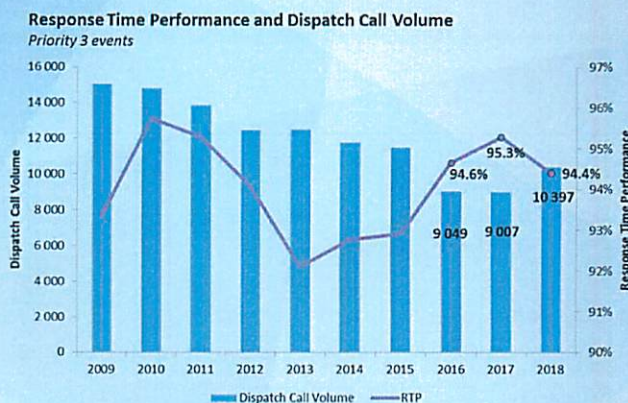
P2 Response Time Performance: % of events with Dispatch Time + Travel Time ≤ 12 min

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P3 - Response and Dispatch Call Volume



- P3 Dispatch Call Volume up 15.4%.
- P3 Response Time Performance at 94.4%, compared to 95.3% in 2017.



P3 Response Time Performance: % of events with Dispatch Time + Travel Time ≤ 17 min

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Priority 7 HOLD EVENTS



Background – Pre Sept 2017

- In some instances patrol would cancel P5 calls when there was a delayed response, and create a new call record when later available to resume. E.g., late evening calls where EPS and the caller agree to resume the call in the morning.
- The result was incomplete and inaccurate P5 time-tracking. P5 response time calculations would be based on the 2nd call record, failing to capture the time that had passed when the call first originated. Unknowingly, our P5 response times appeared better than what the caller was in fact experiencing.

Solution – Post Sept 2017

- P5 calls facing a delayed response can now be coded as a P7 "hold event", and switched back to P5 when patrol is available to respond. This insures only one call record is created, and in turn correct time tracking.
- Use of P7 must meet established policy & procedures, including consent from the caller.
- EPC was briefed on this operational change Sept 8 2017 (TS # 9989)

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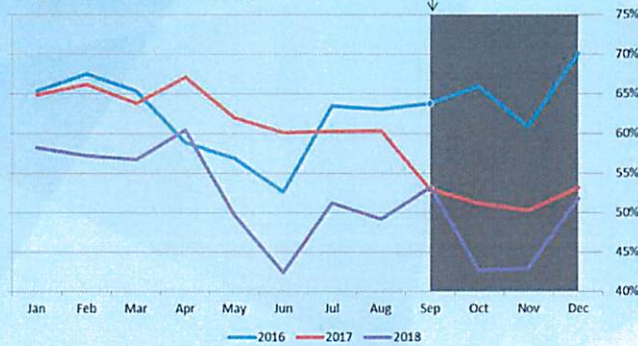
Priority 7 HOLD EVENTS



Post Sept 2017, P5 performance immediately dropped, better reflecting what citizens were already experiencing

P5 Response Time Performance
% of calls responded to within 3 hours

Priority 7 "on-hold"
deployed Sept 2017

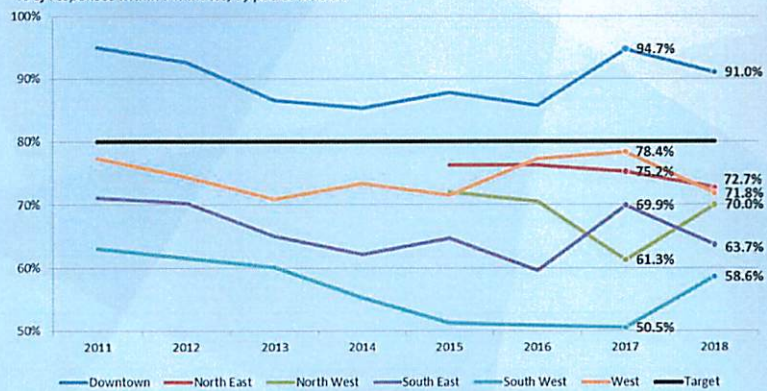


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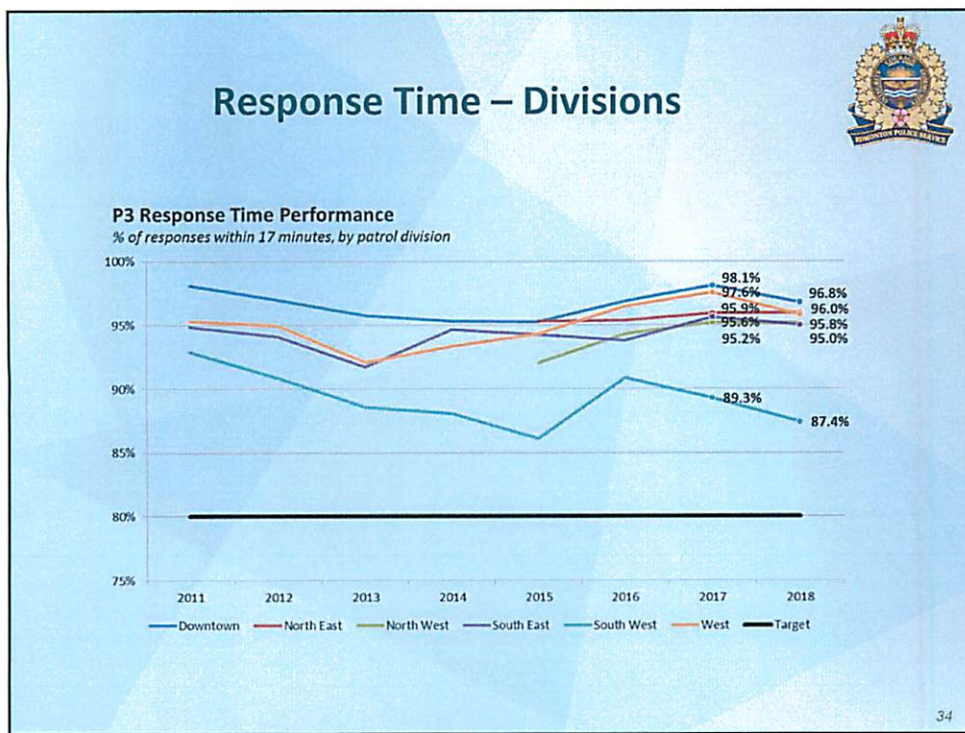
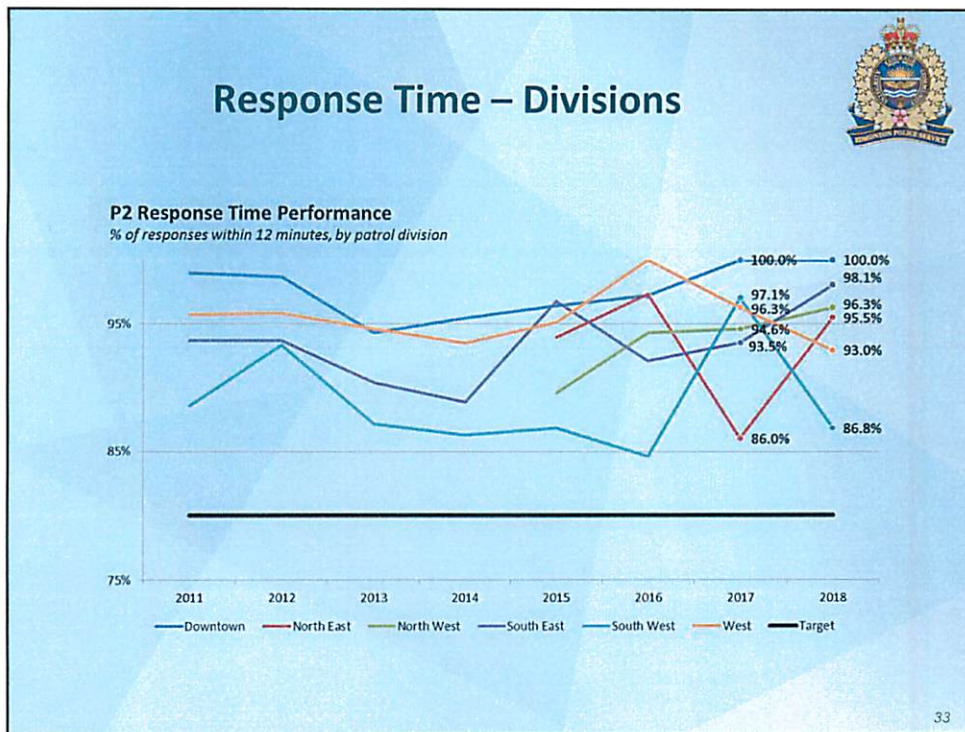
Response Time – Divisions



P1 Response Time Performance
% of responses within 7 minutes, by patrol division



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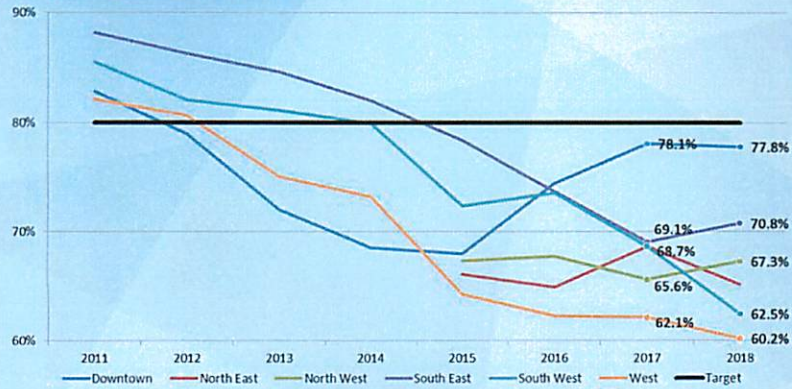


Response Time – Divisions



P4 Response Time Performance

% of responses within 40 minutes, by patrol division



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Response Time – Divisions



P5 Response Time Performance

% of responses within 180 minutes, by patrol division



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Summary City-wide Stats



EPS Response Time Performance and Dispatch Call Volume		2009	2010	2011	2012	2013	2014	2015	2016	2017	2017 YTD	2018 YTD
Priority 1	Performance	75.3%	80.6%	79.1%	77.0%	71.2%	71.3%	71.4%	70.9%	71.9%	71.7%	72.5%
	# Calls	6 238	6 315	4 977	4 634	4 718	4 238	3 754	3 291	3 110	1 461	1 488
Priority 2	Performance	93.6%	95.1%	94.8%	96.2%	92.9%	92.9%	93.2%	94.7%	94.1%	94.6%	94.9%
	# Calls	1 143	1 003	802	631	525	459	311	241	233	103	211
Priority 3	Performance	93.4%	95.7%	95.3%	94.1%	92.1%	92.8%	92.9%	94.6%	95.3%	70.3%	95.0%
	# Calls	15 039	14 798	13 843	12 472	12 494	11 782	11 490	9 049	9 004	4 372	4 974
Priority 4	Performance	76.0%	80.8%	83.9%	80.6%	76.0%	73.2%	69.2%	69.4%	69.0%	63.8%	68.0%
	# Calls	48 261	52 355	56 489	61 436	65 949	71 130	78 978	81 270	85 407	40 693	43 103
Priority 5	Performance	83.1%	85.1%	85.4%	82.7%	75.4%	72.2%	62.6%	62.6%	59.3%	69.0%	53.8%
	# Calls	65 172	59 665	58 939	61 344	63 629	64 393	70 347	69 317	69 034	33 297	31 692
Total # Dispatched Calls		135 853	134 136	135 050	140 517	147 315	152 002	164 880	163 168	166 788	79 926	81 468

Data source for this presentation: Cognos R15-091. Generated January 15, 2019