

INFORMATION REPORT

TO: Chair and Members Emergency & Community Services Committee	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: February 13, 2012	
SUBJECT/REPORT NO: EMS Monthly Response Time Performance Report – January 1, 2011 to December 31, 2011 (HES12003) (City Wide)	
SUBMITTED BY: Brent Browett Director, Emergency Medical Services Paramedic Chief Hamilton Emergency Services	PREPARED BY: Brent Browett (905) 546-2424 ext. 7741
SIGNATURE:	

Council Direction:

On April 23, 2008, Council approved Item 6(h) of the Emergency & Community Services Committee Report 08-006 (HES08006 – Resource Limitations and Hospital Emergency Department Off-Loading), directing Emergency Medical Services to provide regular reports.

Information:

This report updates performance for the calendar year of 2011.

1. Summary Demand and Performance (see Table 1)

From January 1, 2011 to December 31, 2011 paramedics experienced the following **demands**;

- An increase of approximately 9 minutes in the average call duration (1 hour 38 minutes vs. 1 hour 29 minutes in 2010). During this period the hospital portion of the paramedic call increased by 9 minutes.
- An increase in the number of paramedic service calls per day; 200 (vs. 184 in 2010).

From January 1, 2011 to December 31, 2011 paramedics realized the following **performance**;

- The paramedic emergency response time for the first unit to arrive on scene was 10 minutes 48 seconds or less in 9 of 10 calls (vs. 10 minutes 15 seconds in 2010).
- The paramedic emergency response time for the first transport ambulance to arrive on scene was 12 minutes 35 seconds (vs. 11 minutes 54 seconds in 2010).

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- The frequency of the first EMS unit being on scene >20 minutes was 166 (vs. 165 in 2010).
- The variance across the six (6) communities ranges from a low of 11 minutes 14 seconds to a high 19 minutes 35 seconds in 9 out of 10 calls.
- 223 Code Zero Ambulance Events YTD, or 1 every 1.6 days (vs. 1 every 3.9 days 2010).

Table 1: Summary of Data from 2007 to December 31, 2011

	2007	2008	2009	2010	2011
Frequency of Paramedic Calls					
Average number calls per day	185	172	174	184	200
Calls Dispatch Emergency or Urgent Request (i.e. Unconscious or Fracture Arm)					
% of Total Calls	93%	98%	98%	98%	99%
Paramedic Time in the Hospital Emergency Department - "Wheels Stop and Wheels Start"					
Average elapsed time	44 min	53 min	51 min	52 min	61 min
Code Zero Ambulance Event (CZAE) – One or less ambulance(s) available					
No. of CZAE	44	66	82	94	223
Average No. of Paramedic ERVs available during CZAE	2	5	7	6	7
Average No. of Ambulances in hospital during a CZAE	4	5	5	6	7
Paramedic Emergency Response – First vehicle - transport or emergency					
Greater than 20 minutes	247	239	165	166	165
Paramedic Emergency Response – First Vehicle – Provincial Target 10 min. 3 sec.					
90 th percentile time city-wide (9 of 10 responses)	11 min 49 sec or LESS	10 min 42 sec or LESS	10 min 17 sec or LESS	10 min 15 sec or LESS	10 min 48 sec or LESS
First Ambulance Transport 9 out of 10 calls					
90 th percentile time city-wide (9 of 10 responses)	11 min 49 sec	11 min 37 sec	11 min 25 sec	11 min 54 sec	12 min 35 sec
Paramedic Forced Overtime					
Average Hours per Day	15	18	22	21	24
Paramedic Missed Meal Breaks					
Average Missed per Day	NA	23	22	27	41

See Appendix A attached to Report HES12003 for historical patterns.

Note: The primary data source is the Ministry of Health and Long-Term Care (MOHLTC). The MOHLTC continuously update the fields and there may be adjustments in recent months.

Code Zero Ambulance Events

The term "Code Zero Ambulance Event" is a term used to identify an interval when one (1) or less transport ambulances are available to respond to an emergency and the Hamilton Paramedic Service relies on the MOHLTC Central Communication Centre for this data point.

In 2011 there were 223 Code Zero Ambulance Events (CZAE) and the average time paramedics spent in hospital emergency departments (EDs) was 61 minutes (vs. 52 minutes in 2010, 53 minutes in 2008, 44 minutes in 2007, and 33 minutes in 2000). During these events on average of seven (7) Hamilton ambulances were at hospital EDs and the Paramedic Service utilizes Paramedic Emergency Response Vehicles (ERVs) and Paramedic Supervisors to provide a paramedic first response. On average, seven (7) ERVs were available while ambulance transport capacity was being recovered.

Summary of Changes in Demands and Impacts in 2011

The number of ambulance calls and the call duration are two key factors that determine the consumption of paramedic unit hours and as a consequence, the capacity to respond to medical emergencies and maintain response time performance. In 2011 there has been an increase in the number of ambulance calls and the duration of the calls. During the same period the Paramedic Service has experienced an increase in paramedic emergency response times.

Conclusion

In 2000, Hamilton Paramedics serviced an average of 158 calls per day; 76% were dispatched as emergent or urgent. The average time paramedics spent in hospital emergency departments to transfer care was 31 minutes, and the response time was 10 minutes 12 seconds or less in 9 of 10 calls. In recent years the Paramedic Service has observed a consistent increase in hospital emergency department time and requests for paramedic service from the community, and today 99% of the paramedic calls are dispatched as an urgent or an emergent event. Adding resources, leveraging technology, and embracing efficiency system designs have helped the paramedic service to continue to meet community expectations.

Throughout 2011 Hamilton Paramedics once again made commendable efforts to protect the public safety needs of Hamilton's citizens supported by their managers and allied agencies including the MOHLTC CACC, the hospitals, and Police and Fire Services.

To contain the demands on the Paramedic Service and contribute to maintaining a healthy community a top priority for the Paramedic staff in 2012 is to explore various diversion and alternative care strategies beyond facilitating a trip to a hospital emergency department. The partners in this review include the LHINS, the Community Care Access Centre, Community Services, Public Health and the Hamilton Police Services.

Appendix A

**HAMILTON EMERGENCY MEDICAL SERVICES
GENERAL STATISTICS**

	2008	2009	2010	2011
EMS CALL VOLUME				
EMS Calls Dispatched Priorities				
Non-Emergency Calls(1 & 2's)	1,471	1,422	1,343	1,092
3 - Urgent	13,164	16,502	19,000	19,449
4 - Life Threatening	48,160	45,739	46,834	52,320
Emergency Calls Priority 3 & 4's	61,324	62,241	65,834	71,769
TOTAL CALLS (1, 2, 3 & 4)	62,795	63,663	67,177	72,861
EMS Patients Transported with High Return Priority (Criteria: PickupUpperTier=38)				
Transported Life Threatening (Priority 4)	3,854	3,900	3,862	4,229
EMS RESPONSE TIMES				
CACC Response (MOHLTC Dispatch) Provincial Standard is 120 seconds or less for 90th percentile				
Seconds CCAC Call Rec'd to Paramedic Notified	179	189	181	189
HES EMS Response - Provincial Standard is 10 minutes 3 seconds or less for all of Hamilton 90th percentile First				
City of Hamilton (amal.) minutes	10:42	10:17	10:15	10:48
HES EMS Response Time - Average Paramedic Notified to First Arrived Unit - ERV/Transport				
City of Hamilton (amal.) minutes	06:20	06:27	06:25	06:46
- Ancaster	08:23	08:03	08:00	08:30
- Dundas	05:56	07:30	06:12	06:14
- Flamborough	10:53	10:30	10:31	10:45
- Glanbrook	09:46	09:18	09:34	09:52
- Hamilton	05:47	05:54	05:57	06:20
- Stoney Creek	07:29	07:15	06:59	07:15

HAMILTON EMERGENCY MEDICAL SERVICES GENERAL STATISTICS

	2008	2009	2010	2011
OTHER EMS TIME STATISTICS				
Avg. Chute Time (Notified-Enroute) minutes	01:11	00:54	00:56	00:57
Avg. Time-on-Task (Enroute-ClearDest.) minutes	88	87	88	97
Avg. Scene Time (ArriveScene-DepartScene) minutes	17:01	17:39	17:56	17:58
EMS-Hospital Off-load/Transfer of Care Time (All Return Codes)				
Transfer of Care Monitor - All Calls - Paramedic ED Triage Desk to Stretcher Clear				
90th Percentile (Arrive-End of ToC) minutes	97	105	102	144
Average (Arrive-End of ToC) minutes	49	53	53	69
EMS-Hospital ED Time - Ambulance Stops at Hospital ED to Ambulance Leaves Hospital ED				
90th Percentile (Arrive-End of ToC) minutes	95	87	87	112
Average (Arr_Dest-ClrDest) minutes	53	51	52	61
EMS OPERATIONS				
Code Zero Ambulance Events of one or less ambulances	95	82	94	223
Hours spent in ED (Emerg. calls)	29,338	29,109	30,473	37,351
Hours spent on Calls (Emerg. calls)	50,339	50,764	53,344	61,990
Total street hrs (incl. overruns)	350,657	367,315	373,782	371,711
Street Hours/Day	961	1,006	1,024	1,018
All Patients transported, all return priorities	40,426	41,371	42,031	44,119

Source: ADDAS Data Warehouse, Transfer of Care, EMS Scheduling.

Note: Data is subject to change as updates are received from the MOHLTC. November 2011's data is incomplete.

Updated: 26 Jan 2012