



INFORMATION REPORT

TO: Chair and Members Emergency & Community Services Committee	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: June 11, 2012	
SUBJECT/REPORT NO: EMS Monthly Response Time Performance Report – January 1, 2012 to March 31, 2012 (HES12012) (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 first three months of 2012.

1. Summary Demand and Performance (see Table 1)

From January 1, 2012 to March 31, 2012 paramedics experienced the following **demands**;

- An average call duration of ~95 minutes (vs. ~98 minutes in 2011).
- An average of 191 paramedic service calls per day (vs. 200 in 2011).

From January 1, 2012 to March 31, 2012 paramedics realized the following **performance**;

- The paramedic emergency response time for the first unit to arrive on scene was 10 minutes 38 seconds or less in 9 of 10 calls (vs. 10 minutes 48 seconds in 2011).
- The paramedic emergency response time for the first transport ambulance to arrive on scene was 12 minutes 26 seconds or less in 9 of 10 calls (vs. 12 minutes 35 seconds in 2011).

SUBJECT: EMS Monthly Response Time Performance Report – January 1, 2012 to March 31, 2012 (HES12012) (City Wide) – Page 2 of 3

- The frequency of the first EMS unit being on scene >20 minutes was once every 2.0 days in the first three months of the year or the first 91 days (vs. 149 in 2011 or once every 2.4 days).
- 61 Code Zero Ambulance Events or 1 every 1.5 days (vs. 1 every 1.6 days 2011).

Table 1: Summary of Data from 2007 to March 31, 2012

	2007	2008	2009	2010	2011	2012 Jan - Mar
Frequency of Paramedic Calls						
Average number calls per day	185	172	174	184	200	191
Calls Dispatch Emergency or Urgent Request (i.e. Unconscious or Fracture Arm)						
% of Total Calls	93%	98%	98%	98%	99%	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	58 min
Code Zero Ambulance Event (CZAE) – One or less ambulance(s) available						
No. of CZAE	44	66	82	94	223	61
Average No. of Paramedic ERVs available during CZAE	2	5	7	6	7	7
Average No. of Ambulances in hospital during a CZAE	4	5	5	6	7	7
Paramedic Emergency Response – First vehicle - transport or emergency						
Greater than 20 minutes	247	232	165	166	165 1 in 2.4 d	46 1 in 2.0 d
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	10 min 38 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	12 min 26 sec
Paramedic Forced Overtime						
Average Hours per Day	15	18	22	21	24	24
Paramedic Missed Meal Breaks						
Average Missed per Day	NA	23	22	27	41	38

See Appendices A, B, and C attached to Report HES12012 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 the first three months of 2012, there were 61 Code Zero Ambulance Events (CZAE). The average time paramedics spent in hospital emergency departments (EDs) from the time the vehicle arrived in the emergency department until the vehicle left was 58 minutes (vs. 61 minutes in 2011, 52 minutes in 2010, 53 minutes in 2008, 44 minutes in 2007, and 33 minutes in 2000).

During the Code Zero Ambulance Events, an average of seven (7) Hamilton ambulances were at hospital EDs. The Paramedic Service utilizes Paramedic Emergency Response Vehicles (ERVs) and Paramedic Supervisors to provide a paramedic first response and on average, seven (7) ERVs were available while ambulance transport capacity was being recovered.

Conclusion

The number of ambulance calls, the call duration, and the urgency of a call are three 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 the first three months of 2012, there has been a slight decrease in the number of ambulance calls per day and the duration of the calls, and the response time performance for January, February and March 2012 in some metrics was reduced and elongated in others.

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 and this year the Paramedic Service has observed increases in hospital emergency department time, an increase in paramedic service calls from the community, and today 99% of paramedic calls are dispatched as an urgent or an emergent event.

To contain the emerging demands and to contribute to maintaining a healthy community the Paramedic Service continues to explore diversion and alternative care strategies while we maintain our emergency response transport medicine functions. The partners in this broader review include the LHINS, the Community Care Access Centre, Community Services, Public Health and the Hamilton Police Services. In recent months the Paramedic Chief–Director and the City Manager have been meeting with senior hospital officials on a regular basis and based on that work it is anticipated that a number of pilot interventions to assist with reducing ambulance offload will be implemented in the months ahead.

Appendix A
Appendix B
Appendix C

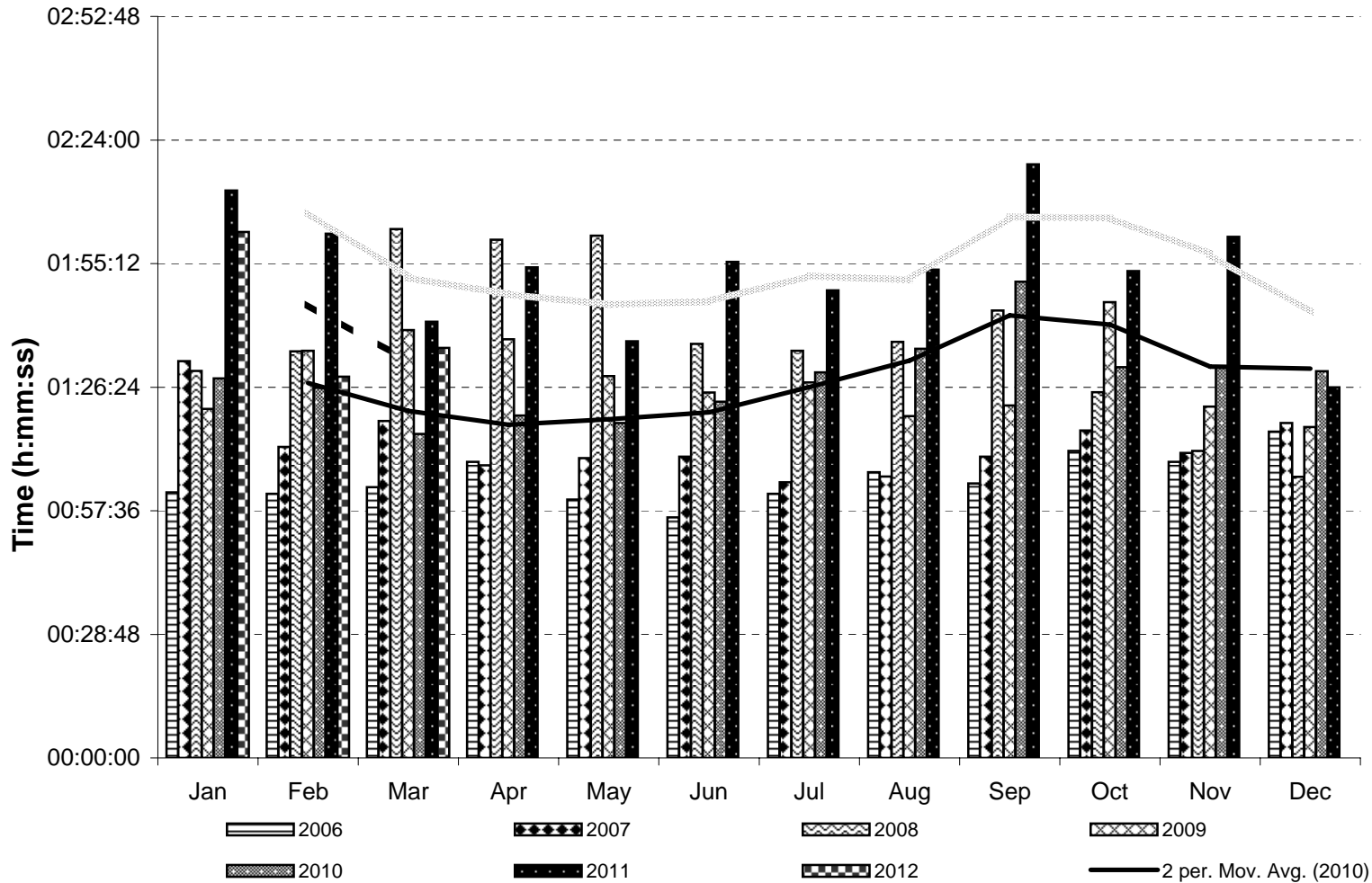
HAMILTON - EMERGENCY MEDICAL SERVICES
Code Zero Ambulance Events and EMS-Hospital Emergency Department Time

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Code Zero Ambulance Events - One or less Ambulances Available for Emergency Response in Hamilton													
2006	Data tracking began in May			→	1	0	0	3	1	3	0	5	13
2007	10	5	7	0	2	4	4	3	1	0	0	8	44
2008	0	8	10	3	17	5	12	16	6	6	8	4	95
2009	1	10	12	13	6	7	9	7	2	8	5	2	82
2010	6	9	9	3	7	7	12	6	10	4	11	10	94
2011	23	16	16	13	7	32	16	13	35	15	22	15	223
2012	26	15	20										61
EMS Hospital ED Time - Arrive Hospital ED to Ambulance Clear Hospital ED (90th percentile)													
2006	01:01:53	01:01:33	01:03:06	01:08:58	01:00:12	00:56:04	01:01:34	01:06:34	01:03:57	01:11:32	01:09:01	01:16:03	
2007	01:32:30	01:12:30	01:18:31	01:08:11	01:09:52	01:10:13	01:04:16	01:05:36	01:10:11	01:16:17	01:11:06	01:18:03	
2008	01:30:10	01:34:43	02:03:16	02:00:45	02:01:43	01:36:29	01:34:51	01:36:59	01:44:15	01:25:15	01:11:32	01:05:29	
2009	01:21:20	01:34:51	01:39:42	01:37:33	01:28:59	01:25:08	01:27:29	01:19:41	01:22:10	01:46:13	01:21:54	01:17:05	
2010	01:28:28	01:26:14	01:15:30	01:19:48	01:18:03	01:23:01	01:29:52	01:35:20	01:50:57	01:31:04	01:31:21	01:30:07	
2011	02:12:12	02:02:09	01:41:39	01:54:21	01:37:04	01:55:38	01:48:58	01:53:47	02:18:19	01:53:26	02:01:27	01:26:21	
2012	02:02:36	01:28:52	01:35:35										

Source Data: MOHLTC ADDAS for 90th Percentile

Updated: 17 May 2012

Hamilton Emergency Medical Services 2006-2012 EMS Hospital Time in Emergency Department (90th Percentile)



Data Source: ADDAS 2 per. Mov. Avg. (2011) 2 per. Mov. Avg. (2012)

**HAMILTON EMERGENCY MEDICAL SERVICES
GENERAL STATISTICS**

	2008	2009	2010	2011	2012	Jan
EMS CALL VOLUME						
EMS Calls Dispatched Priorities						
Non-Emergency Calls(1 & 2's)	1,471	1,422	1,343	1,092	209	97
3 - Urgent	13,164	16,502	19,000	19,449	4,821	1,682
4 - Life Threatening	48,160	45,739	46,834	52,320	12,312	4,257
Emergency Calls Priority 3 & 4's	61,324	62,241	65,834	71,769	17,133	5,939
TOTAL CALLS (1, 2, 3 & 4)	62,795	63,663	67,177	72,861	17,342	6,036
EMS Patients Transported with High Return Priority (Criteria: PickupUpperTier=38)						
Transported Life Threatening (Priority 4)	3,854	3,900	3,862	4,229	962	336
EMS RESPONSE TIMES						
SUDDEN CARDIAC ARREST STATISTICS - Confirmed on arrival - From Time Paramedic Notified Until Arrive Scene						
Response in 6 mins or less		69.9%	64.8%	75.1%	85.8%	76.7%
- CTAS 1 Confirmed on arrival at scene - From Time Paramedic Notified Until Arrive Scene						
Response in 8 mins or less		83.8%	85.3%	84.0%	88.6%	80.9%
CACC Response (MOHLTC Dispatch) Provincial Standard is 120 seconds or less for 90th percentile						
Seconds (T ₀ _TimeZero-T ₂ _Notified)	179	189	181	189	189	190
HES EMS Response - prov. std is 10:03 or less for Hamilton 90th percentile (T₂_Notified-T₄_ArriveScene) First Unit						
City of Hamilton (amal.)	10:42	10:17	10:15	10:48	10:38	10:47
HES EMS Response Time - Average (T₂_Notified-T₄_ArriveScene) First Arrived Unit - ERV/Transport						
City of Hamilton (amal.)	06:20	06:27	06:25	06:46	06:48	06:53
- Ancaster	08:23	08:03	08:00	08:30	08:06	08:09
- Dundas	05:56	07:30	06:12	06:14	05:38	05:42
- Flamborough	10:53	10:30	10:31	10:45	10:57	11:20
- Glanbrook	09:46	09:18	09:34	09:52	10:29	10:47
- Hamilton	05:47	05:54	05:57	06:20	06:23	06:27
- Stoney Creek	07:29	07:15	06:59	07:15	07:16	07:20
OTHER EMS TIME STATISTICS						
Avg. Chute Time (Notified-Enroute)	01:11	00:54	00:56	00:57	01:02	01:03
Avg. Time-on-Task (Enroute-ClearDest.)	88:40	87:20	88:45	97:53	95:08	101:42
Avg. Scene Time (ArriveScene-DepartScene)	17:01	17:39	17:56	17:58	18:14	18:30
EMS-Hospital Off-load/Transfer of Care Time (All Return Codes)						
Transfer of Care Monitor - All Calls						
Average (Arrive-End of ToC)	49:35	53:55	53:49	69:45	71:14	77:25
EMS-Hospital ED Time						
90 th percentile	95:14	87:31	87:53	112:40	101:12	122:36
Average (Arr_Dest-ClrDest)	53:07	51:20	52:13	60:47	58:16	63:38
EMS OPERATIONS						
Hours spent in ED (Emerg. calls)	29,338	29,109	30,473	37,351	8,765	3,302
Hours spent on Calls (Emerg. calls)	50,339	50,764	53,344	61,990	14,816	5,429
Total street hrs (incl. overruns)	350,657	367,315	373,782	371,711	93,402	31,933
Street Hours/Day	961	1,006	1,024	1,018	1,026	1,030
All Patients transported, all return priorities	40,426	41,371	42,031	44,119	10,763	3,717

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

Note: Data is subject to change as updates are received from the MOHLTC. All time is displayed as mm:ss.