INFORMATION REPORT

TO:	Chair and Members Emergency & Community Services Committee
COMMITTEE DATE:	December 8, 2015
SUBJECT/REPORT NO:	Hamilton Paramedic Service – Service Delivery Update November 2015 (Period January 1 through September 30, 2015) (CES15059) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Michael Sanderson 905-546-2424 Ext. 7741
SUBMITTED BY: **SIGNATURE:**	Joe-Anne Priel General Manager Community and Emergency Services Department

Council Direction:

On April 8, 2015, Council approved General Issues Committee Report 15-004 – Budget which included enhancements to Paramedic Service staffing and directed staff to report back as outlined below:

Item B24, respecting Additional Ambulances - to manage response volumes and improve response times and additional Supervisor to assist in managing hospital offload delays and front line supervision, was amended to reflect a 2 year phase in, as follows:

B24 - Option 1 Phased in over 2 years	2015 (Phases 1&2)	2016 (Phase 3)	2017	2018
Cumulative Gross Costs	963,729	3,281,636	3,570,955	3,570,955
50 % Subsidy		(481,864)	(1,640,818)	(1,785,478)
Funded from Reserve	(481,864)	(1,158,954)	(144,660)	-
Cumulative Net Levy	481,864	1,640,818	1,785,478	1,785,478
Increase in Net Levy	***481,864***	***1,158,954***	***144,660***	-
Capital	762,534	508,356	-	-

Staff were directed to report back to Emergency and Community Services Committee in six months with respect to the implementation, operational performance, and with recommendation regarding the additional supervisor position approved for November 2015 implementation.

Information:

The full council approved enhancement implementation is on track. Completed and planned steps following approval of the staged budget and staffing enhancement outlined above are as follows:

Completed

1. May 1, 2015 – Added 10 full time paramedics:
   Two additional 12 hour shifts, providing one additional ambulance 24 hours a day, seven days a week in downtown Hamilton. All new full time paramedics were placed from existing part time paramedic staff.

2. November 1, 2015 – Added 10 full time paramedics:
   Two additional 12 hour shifts, providing one additional day shift ambulance at the Limeridge station and one additional night shift ambulance at the Upper Sherman station, seven days a week. All new full time paramedics were placed from existing part time staff.

3. Three new ambulances, and all related equipment, were ordered and have been received in accordance with the approved capital plan.

Sufficient part time staff were recruited and fully oriented in May, June, and September, to cover annual attrition and to replace part time staff that were successful in attaining full time positions.

Planned and on track in accordance with Council approval:

1. November 2015 - Addition of one full time supervisor
   Decision pending

2. April 1, 2016 – Addition of 10 full time paramedics:
   Scheduled addition of two additional 12 hour shifts, providing one additional peak period day shift ambulance in downtown Hamilton and implementing night shift ambulance coverage at the Greensville station.

3. The remaining two ambulances, and all related equipment, will be ordered for receipt in early 2016 in accordance with the approved capital plan.

While the council approved enhancements are on track, the impact of the activity are not yet fully reflected in the year to date observations. While our operational report covers the 9 month period January through September there was only one 24 hour ambulance added to the resources for the last five months of that period. The November 2015 and April 2016 enhancements were not yet undertaken for this reporting period.

For the reporting period despite increases in service demand we have noted improvements in performance in almost all key reporting areas.

Code Zero Events

In comparing the frequency of Code Zero events over the same 9 months of the year Figure 1 demonstrates that they have decreased 75% from the 2014 level and are now at the lowest reported level since 2007.

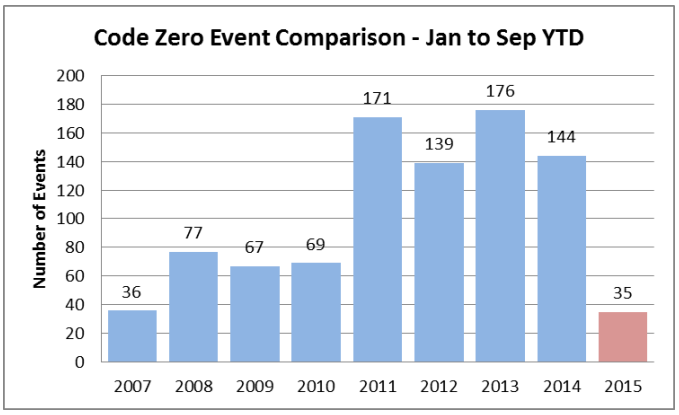

Figure 1 – Comparison of Code Zero Events Year to Date

Placing this in perspective, the frequency has gone down from an average of 4.5 events per week in 2013, and 3.7 events per week in 2014, to just under one event per week.

Further, the average duration of Code Zero events has reduced from 1.2 hours per event to 0.87 hours per event.

While Code Zero events continue to be a challenge, and we have noted a slightly increasing frequency over the months of September and October, we are continuing to work to reduce them and the approved staffing enhancements are an important part of that strategy.

Service Demand (Event and Response Volumes):

As expected our event volume continues to increase. As outlined in Figure 2 below we project responding to 2,700 more events in 2015 than we did the prior year, an increase of 4.7% and a cumulative 24.8% increase since 2008.

Approximately 99% of all calls continue to be dispatched by the Ministry of Health as either a Code 3 (urgent) or Code 4 (life-threatening, lights and siren response).

As previously described, some events require more than one (1) resource to respond due to the nature and type of event. Responses are a count of the number of ambulance resources assigned to respond to events. We project around 73,400

paramedic responses to the 911 events, a response to event ratio of just over 1.2, which remains down slightly from prior years due to the reduction in use of single paramedic Emergency Response Vehicles.

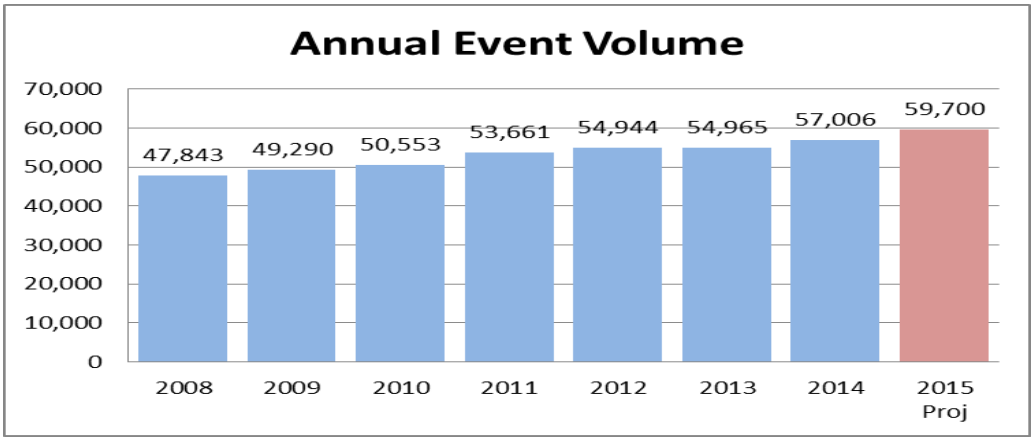

Figure 2 – Number of Events responded to

Time on Task

The length of time that an ambulance and paramedic crew are occupied on a call has significant impact on that ambulance's availability for both responses and response coverage. The longest portion, approximately 60% of the average call duration for Hamilton Paramedic Service continues to be the time period from arrival at the receiving hospital through clearing the hospital after getting the required equipment available for another response. This period has improved slightly from the 62% reported in 2014.

While the time spent at hospital by paramedic staff continues to be a significant issue, and we have noted a downwards shift in performance over the months of September, we continue to work closely with our partners at Hamilton Health Sciences and St. Joseph's Healthcare to improve the process.

A commitment is in place by the hospitals to achieve the performance target of 90% of arriving ambulances having Transfer of Care (TOC) occur within 60 minutes of arrival, and as demonstrated in Figure 3 this target is achievable.

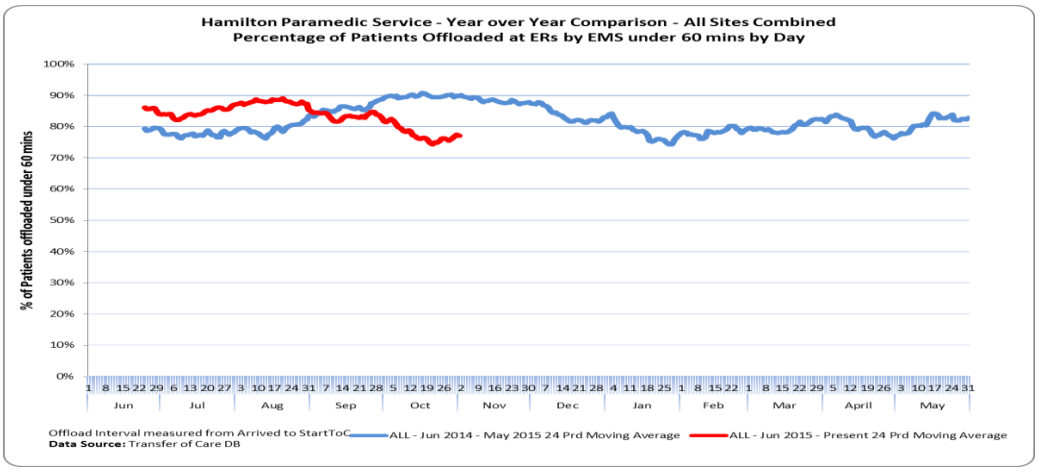

Figure 3 - Year over Year Trend TOC Performance to Target

While we are seeing improvement in the TOC process year to date, we continue to be challenged with long offload delays. Last year we reported that TOC was longer than two hours for about 8% of all patients transported to hospital. In the first nine (9) months of this year we can report the frequency of this has decreased somewhat to 4.3% of patients. This however represents a total of 1,500 patients on ambulance stretchers in the Emergency Department (ED) for more than two hours year to date, and the episodic or clustering nature of these very long delays is a significant contributor to the remaining Code Zero events.

Hospitals have identified that one of the issues contributing to longer delays is the clustering of ambulance arrivals at an individual site rather than a more broad and equitable distribution. While some of this clustering is clearly due to the unique patient destination guidelines for some patient conditions as requested by the hospitals we agree that there is an opportunity for some improvement.

Accordingly, we are now in the process of modifying the Hamilton Paramedic Service Transfer of Care tracking software to provide some visual tools and summary information to the Ministry of Health Central Ambulance Communications Centre (CACC) to support decision making. We are also engaging the CACC management in discussions about how their dispatch staff can contribute to the data and information available to all parties in a transparent manner to reduce friction at times of system pressure.

The modifications to our offload delay escalation action process, combined with an enhanced supervisory presence at hospitals to support front line paramedic staff in the management of longer delays, has been effective in dealing with these longer delays. We plan to continue on the current course of action, engaging in the escalation process,

providing supervisory focus and attention, and continued daily reporting and trend tracking of the transfer of care issues.

Offload Nurse Funding:

The MOHLTC restricted grant funding, continues to cover 100% of the cost of providing additional nursing staff at hospitals to take over responsibility for incoming ambulance patients. Funding for the 2015-16 Ministry fiscal year is unchanged from the previous two years and provides for the equivalent of one nurse 22 hours per day at each of the Hamilton General, Juravinski, and St. Joseph's Emergency Departments.

The 2016-17 MOH fiscal year funding request for continuation of the Offload Nurse Program will be put forward this month including a request to extend the coverage to 24 hours per day at each site to provide continuity of coverage.

Available Ambulances:

As noted in the introduction to this report at this point the first two phases of the 2015 Budget enhancement have now been implemented and the third phase is scheduled for action on April 1, 2016. A summary of staffing activity levels over the past 3 years is provided in the following table:

Peak Staffing Levels

	DAYS		NIGHTS	
	Transport Ambulance	1 Person ERV	Transport Ambulance	1 Person ERV
2013 Baseline	21	7	12	7
Jan 2014 Internal Adjustment	23	4	13	4
Apr 2014 Budget Enhancement	24	4	14	4
May 2015 Budget Phase 1 Enhancement	25	4	15	4
Nov 2015 Budget Phase 2 Enhancement	26	4	16	4
Apr 2016 Budget Phase 3 Enhancement	27	4	17	4

Figure 4 - Staffing Levels

From an employee wellness perspective, directly related to the three) key metrics of resources, volume, and call duration, one of the measures utilized over time has been the ability to provide paramedics two half-hour meal breaks in a 12 hour shift. Despite the previously noted increase in event and response volumes the frequency of claimed missed meal breaks continues to decrease, currently averaging around 922 per month

or approximately 29% of meals. The year to date budget impact of required payment for missed meals is just over $107,000. We are continuing efforts to improve this.

Response Time Performance

Response time is the time period from when a Hamilton Paramedic Service ambulance or ERV is first notified of a potentially life threatening emergency call (Code 4) by the MOHTLC CACC until the first ambulance resource arrives at the scene of the incident. It does not include the time it takes for the MOHLTC CACC to assess the call request, determine which resource should be assigned, and the actual assignment of the call. Ambulance response time is directly related to the availability of an ambulance resource to respond to an incident within the desired time frame.

The originally established city-wide response time benchmark for a paramedic resource to be on scene of a life-threatening emergency call was 10 minutes and 3 seconds (10:03) from when the call was assigned to the crew 90% of the time.

For 2015 year to date, the MOHLTC CACC records indicate that our first ambulance resource arrived on scene in 11 minutes and 16 seconds (11:16) or less nine (9) times out of ten, an improvement of almost half a minute over 2014. Further, as is demonstrated in Figure 4 the majority of the improvement follows the implementation of Phase 1 of the enhancement.

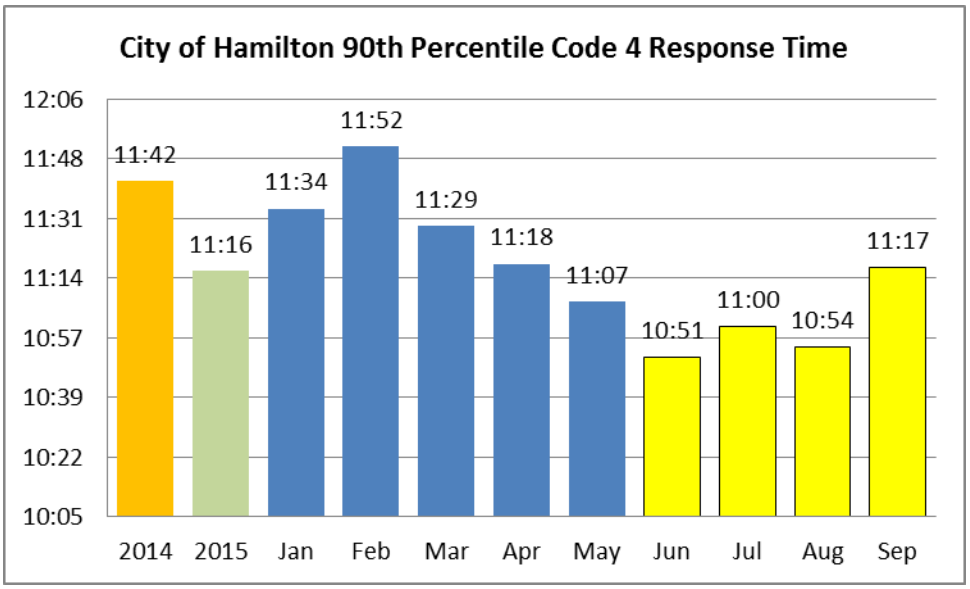

Figure 5 - Response Time Comparison

For 2015, the noted response time improvement has been geographically distributed in the old City of Hamilton, Ancaster, Glanbrook, Dundas, and Stoney Creek. Response times have not yet changed in Flamborough.

Of further note, our analysis of the MOHLTC dispatch records shows that the number of responses to Code 4 (life threatening) calls longer than 20 minutes has decreased to 235 calls, or 1% of emergency response volume, over the past year.

This compares favourably with 1,457 long responses (4.9%) in 2013 and 1,110 long responses (3.8%) in 2014.

We continue to have response pressures for Code 3 (Prompt) calls which are classified as non-life threatening emergencies. These calls, which do not receive a "lights and siren" response, constitute approximately 31.5% of our response volume this year. For about 1.9% of these calls it took more than 30 minutes for the first ambulance resource to arrive on scene. This frequency is not statistically different than last year.

Dispatch

Key to the successful operation of a direct service delivery program such as Paramedic Service is the ability of the service provider to direct and manage the staff in accordance with policies, procedures, and operational requirements. This direction of the workforce in a timely and responsive manner is essential for both cost controls and service quality.

Operation of ambulance dispatch in Ontario is tightly controlled under the Ambulance Act with management and oversight by the MOHLTC and fully funded by the Province. The CACC dispatching all of the Hamilton area, plus Haldimand, Norfolk, Brantford, and Six Nations, ambulance operations is directly operated by the Ministry of Health and Long Term Care utilizing their own management and staff.

We have been in discussion with knowledgeable subject matter experts, and expect to engage in a consultant process in the very near future, to provide a report outlining the benefits of direct operation of the dispatch service, other potential dispatching opportunities including shared management, and to outline a proposed course of action to move this agenda item forward.

Conclusions

Hamilton Paramedic Service, and our front line paramedics and supervisors, continue to make commendable efforts to protect the public safety needs of Hamilton's citizens. For 2015, we are projecting an average of 201 responses to 163 events per day, with 127 patients per day transported to hospital. Our work in doing this is supported and assisted by allied agencies including the MOHLTC CACC, the hospitals, and most notably the Hamilton Fire Department and Hamilton Police Service.

We continue to experience success in the implementation of LEAN value stream mapping and process improvement activities and are working aggressively to sustain the time improvements that have been realized. Reduction of transfer of care time, and the total ambulance time at hospital remains essential to minimizing required staffing

resource increases. While work remains underway we are not moving forward on the already approved addition of one supervisor dedicated to offload delay management.

We anticipate continuation of the MOHLTC Offload Nurse Funding initiative will help mitigate against ongoing offload delays, and are continuing to work with our paramedics, and our partners at Hamilton Health Sciences and St. Joseph's Healthcare, in the implementation of that program to improve transfer of care times.

We also anticipate continuation of community based activities focussed on demand mitigation, particularly in our work with high risk and frequent user clients. In 2014, the MOHLTC provided one time grant funding for a one (1) year period to develop a Community Paramedic program in co-operation with other community agencies and health care support systems. The success of this program will be subject of a separate report to Council.

Other demand mitigation programs will continue to include the Community Health Assessment by Paramedics (CHAP) program, Community Referral by Emergency Medical Services (CREMS), and of course the Social Navigator program which includes a dedicated paramedic resource working closely with police on a select client group.