

The County of Peterborough
Joint Services Steering Committee

To: Chair and Members of Committee
From: Bob English, Chief, Emergency Medical Services
Date: February 10, 2011

**Subject: Ambulance Offload Business Case
Funding for Peterborough County/City EMS - 2011/2012**

Recommendation: Received For Information Only

Financial Impact: MOHLTC 2011/12 Funding

Executive Summary:

The County of Peterborough, being responsible for ensuring the proper provision of land ambulance services within the County and City of Peterborough, has been identified as one of several Upper-Tier Municipalities and Designated Delivery Agents (UTM/DDAs) affected by significant and persistent ambulance off-load delay pressures. In 2008 the impact of this off-load delay situation was examined and, through a memorandum of understanding with the Ministry of Health and Long Term Care, the Ministry agreed to provide temporary funding to the County of Peterborough on the condition that the County enter into an agreement with the local hospital to provide a nurse within the ER who would be solely dedicated to receive, treat and manage patients in non-life threatening conditions that have been brought to hospital by ambulance. In the County of Peterborough, a memorandum of understanding was established with Peterborough Regional Health Centre (PRHC), being the sole hospital within the UTM contributing to significant and persistent off-loads pressures.

On November 17, 2008, utilizing funds provided by the Ministry, the Ambulance Off-load Nurse program was initiated at PRHC. Those funds provided for off-load nurse coverage for 8 hours per day, 7 days per week. The peak period of off-load pressure was examined and time period of 12:00 PM - 8:00 PM. was identified as being the period of off-load coverage that would have the most positive impact utilizing the funds provided.

During the initial implementation phase of the off-load nurse program, PRHC experienced human resource issues causing difficulty filling the off-load nurse position on a consistent basis. The issues described as contributing to the difficulty filling the position included; lack of certainty of length of program, nurse shortage and difficulty scheduling due to shifts being only 8 hours.

Throughout the first 12 – 18 months of implementation, Peterborough EMS continually monitored the effects that the Off-load nurse program on service delivery. Considering the aforementioned difficulties and the limited time period that this program has been in place, there existed tangible evidence of the value of this program as it relates to the cost and efficiency of Land Ambulance Service Delivery in the form of;

- Reduction in the number of hours of up staffing EMS vehicles to meet deployment requirements to respond to emergencies.
- Reduction in Transfer of Care Time Reported by PRHC
- Reduction in the number of missed or delayed paramedic meal breaks.
- Reduction in the number of incidents of off-load delay
- Reduction in the total number of ambulance off-load hours.

While the first year of data derived from the program indicated that there was a positive impact, Peterborough EMS expressed its opinion through numerous avenues that the full potential could not be realized without enhancement. Subsequently Peterborough EMS was provided increased funding, to allow for the Offload Nurse Program to operate twelve (12) hours per day, seven (7) days per week beginning on April 1st, 2010. The daily hours of operation for the program being 9:00 AM - 9:00 PM.

The result of the increased funding and expansion of the program has been continually monitored and the results have proven to be positive in further relief from all aspects of the ambulance offload delay pressures.

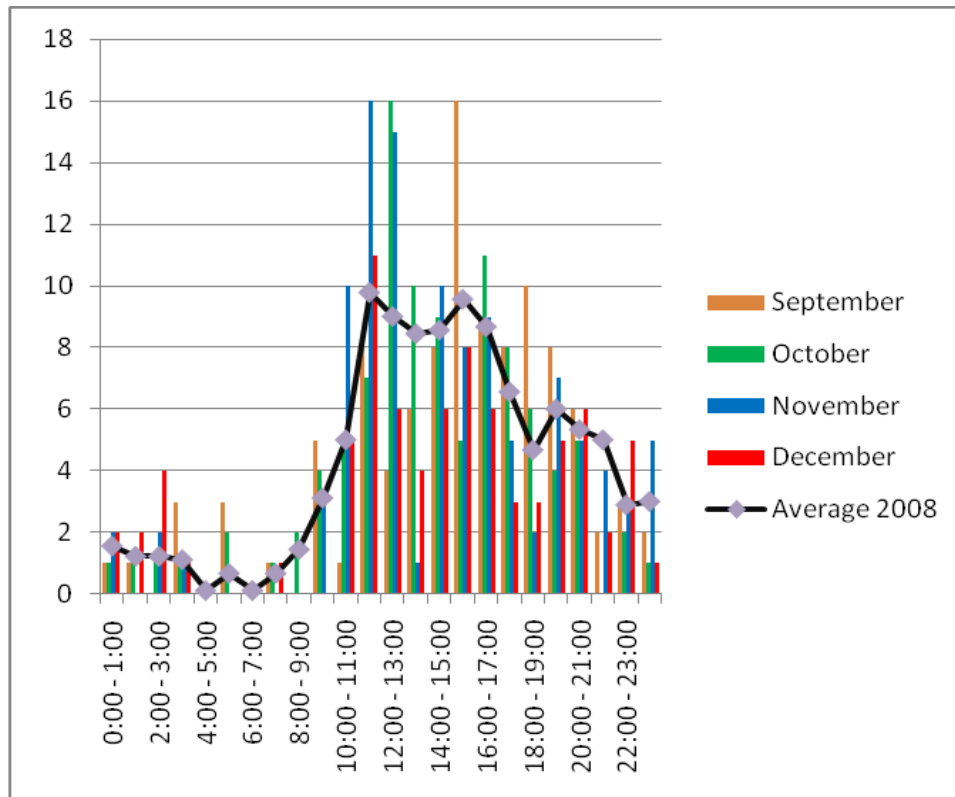
2011/2012 Program Requirements:

Based on the performance measured in the previous operating period of the Ambulance Offload Program, Peterborough EMS proposes to continue with the program utilizing the same staffing for the 2011/12 period as follows;

- **Hospital Selection:**
 - ▶ PRHC being the only hospital within the UTM experiencing substantial and persistent off-load delays and as such is the only hospital considered in this proposal.
- **Staffing Requirements:**
 - ▶ 4380 hours for the period of March 31/11 to April 1/12
 - ▶ Off-load nurse coverage 12 hours per day, 7 days per week.

- **Off-load Delays per Time of Day:**

- ▶ In order to determine the schedule of coverage of the offload nurse program that would have the maximum impact on mitigating offload delay pressures, a retrospective review of offload cases was examined (see graph below). Further consideration was given to the unit hour staffing/shift pattern for Peterborough EMS. The result of this analysis indicates that for the subject ED, the program would have the greatest impact with the available twelve (12) hours of Offload Nurse coverage being schedule from 09:00 to 21:00 each day.



2011/2012 Projected Costs:

Cost assumptions for costs of this proposal are based on the following:

- 12 hours per day coverage X 365 days per year = 4380 hours
- The rate of pay \$55.93 per hour
 - ▶ Hourly average inclusive of applicable benefits, shift premiums and holiday pay
 - ▶ Based on 2010 cost of \$54.84 + projected 2% increase.
- **Total cost of wages = \$244,973.40**

Operational Monitoring:

Over the past 3 operational periods for the Offload Nurse Program, Peterborough EMS has successfully negotiated a Memorandum of Understanding with PRHC which includes all expectations and deliverables of the facility in regards to the Offload Nurse Program. These deliverables include hours of operations, duties and assignments for the position and reporting requirements of the facility. Further, PRHC and Peterborough EMS have established a working group consisting of Senior EMS Management and Senior PRHC Staff from the hospital including the ED Manager. This working group meets regularly with a standing agenda item to monitor and review operation of the Offload Nurse Program.

Record Keeping/Documentation Requirements:

A template for consistent tracking of ambulance off-load times has been developed and implemented by the ambulance off-load nurse in order to provide accurate data as mandated by the MOA with the Ministry. This data captures ambulance arrival, disposition and offload times during the hours of Offload Nurse coverage. This data is forwarded by PRHC staff to Peterborough EMS at regular intervals.

To further add to the accuracy of the data, Peterborough EMS has included a Transfer of Care time field and record within our iMedic electronic Ambulance Call Report (ACR). It has been found that this data source is far more reliable and accurate in establishing true impact of the Offload Nurse Program. The electronic ACR now captures true arrival, triage and offload times for each patient carried. *Historically, ADDAS T6-T7 intervals have been used however Peterborough EMS feels that this data does not project a true image of the actual loss of available ambulance times caused by offload delay pressures.*

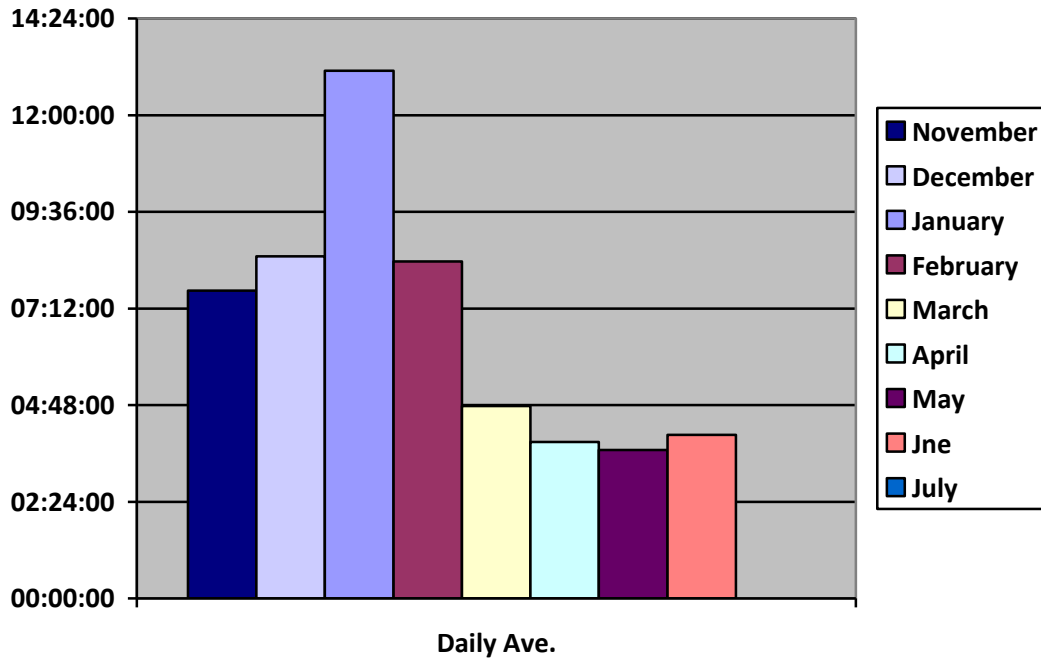
Through collection of this data by the aforementioned means, Peterborough EMS will ensure accurate collection that will be utilized to provide reporting and program feedback to the ministry as required.

Program Justification:

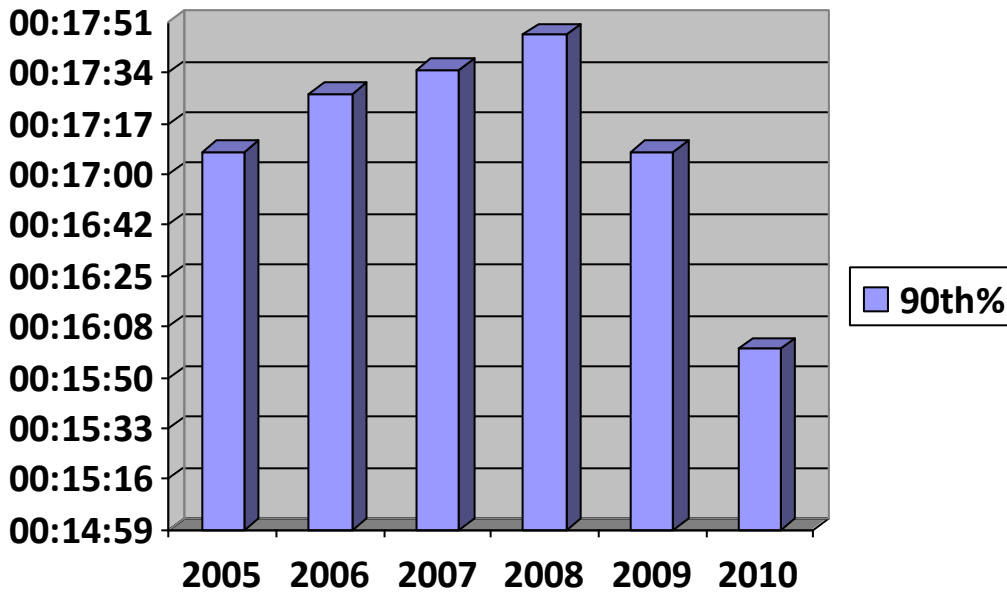
As stated above, there are number pieces of tangible evidence of the value of this program as it relates to the cost and efficiency of Land Ambulance Service Delivery in the form of;

- A reduction in the number of hours of up staffing EMS vehicles to meet deployment requirements to respond to emergencies.
- A reduction in Transfer of Care Time Reported by PRHC
- A reduction in the number of missed or delayed paramedic meal breaks.
- Decrease in over-time paid out due shift over run.
- A reduction in the number of incidents of off-load delay
- A reduction in the total number of ambulance off-load hours.
- A reduction in the 90th% Response Time for Peterborough County

The following graph indicates the reduction in average daily offload hours following the enhancement of the program to 12 hours per day.



Graph 2 indicates the reduction in response time witnessed over the term of the offload nurse program.



Call Volume and Hospital Activity Assumptions:

Peterborough EMS has continued to utilize call volume data collected through ADDAS and iMedic Patient Charting software. The review data indicates a trend of approximately 2 to 3% increase in patient carried calls per year. Of those calls, approximately 90% of the patients transported by Peterborough EMS are taken to the ED at PRHC. This accounts for a patient load of 34 patients per day delivered to PRHC. All indications are that this trend will continue.

Summary:

Through the cooperative and collaborative relationship established with PRHC the application of the funding provided by the Ministry for the Offload Nurse has had a very positive impact on our community. The benefits realized include a number of efficiencies and improvements in EMS response and operations as well as improved patient flow and care within our health care facility.

Respectfully submitted,

Robert S. English, Chief