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**d'esperanza**



MANITOULIN HEALTH CENTRE



Conseil des Services du District de  
**Manitoulin-Sudbury**  
District Services Board

## **Request for Proposal – Expression of Interest North East Local Health Integration Network Demonstration Pilot Project: Non-Urgent Inter- Facility Patient Transportation**

Jointly prepared by: Espanola Regional Hospital and Health Centre & Manitoulin Health Centre & Manitoulin-Sudbury District Services Board

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## **Introduction**

We are very pleased to submit a joint proposal on behalf of the Espanola Regional Hospital & Health Centre (ERHHC), Manitoulin Health Centre (MHC), and the Manitoulin-Sudbury District Services Board (DSB).

We appreciate and applaud the North East Local Health Integration Network's decision to establish this one-time initiative that will help inform the creation of a more permanent strategy for non-urgent patient transportation across Northeastern Ontario. We hope that you will find our proposal to be innovative and effective, and that our model be considered for funding as a demonstration-pilot project.

The decision to create a partnership between our three organizations was supported by the fact that there is a natural patient transportation flow in and out of our hospital catchment areas that both hospitals and the DSB currently interact. Our partnership builds on existing capacity (anchored by the Manitoulin-Sudbury DSB EMS Department) and will further support/promote a critical mass that already exists. Our model will result in enhanced quality of care and better/safer health services to the residents of Manitoulin and Espanola-LaCloche.

## **Executive Summary**

This expression of interest is based on the original Manitoulin-Sudbury DSB Non-Urgent Patient Business case (submitted to the Ministry of Health and Long-Term Care on October 25, 2011), which had formal written support from several hospitals in the Sudbury-Manitoulin Hub including the North East Local Health Integration Network.

A reliable patient transportation network, both to and between hospital sites, is a major system component of a modern, integrated health care delivery network. The current state of patient transport capacity within the Manitoulin-Espanola-Sudbury region is principally the responsibility of the EMS service, as administered by the Manitoulin-Sudbury DSB. The ability of EMS to respond to emergency, urgent and non-urgent patient transportation requests is severely taxed.

This proposal focuses on expanding capacity in a cooperative, collaborative and integrated manner and is predicated on the following components:

- 1) three recently decommissioned and suitably prepared ambulances will be used as transport vehicles – two will operate at any one time (the third will be held in reserve), with one car stationed in Mindemoya and the second vehicle in Espanola;
- 2) part-time patient transfer attendants will be hired and trained by Manitoulin-Sudbury DSB to provide 80 hours/week of non-urgent transport of patients between the region's hospital sites;
- 3) appropriate and standardized triage of patient transport needs will be accomplished by the hospitals;

- 4) Manitoulin-Sudbury DSB will collect all required statistical reports to measure the degree of success of the demonstration project over the six month period;
- 5) Dispatch services will remain with the Central Ambulance Communication Centre (CACC); and
- 6) Funding will transfer from the NELHIN to one of the participating hospitals, who shall act as the administrative lead/paymaster for the six-month demonstration pilot project.

As the new service would be established through existing non-profit organizations, it can be operated at a lower cost than that of a private sector that is profit motivated. By our estimates, we see an hourly ongoing cost of \$63.96 whereas the private industry rates range from \$100.00 to upwards of \$150.00 per hour. Additionally, by building on existing infrastructure, services and processes, we are not reinventing the wheel. As each organization already meets rigid quality standards (e.g. infection control), there will be synergistic benefits of aligning these standards across each sector. This too will further support the work being undertaken to implement the Excellent Care for All Act. Ultimately, all organizations would achieve improved response times/reduced wait times by working together to better coordinate drop-offs and pick-ups to achieve better scheduling thus avoiding duplication of service and related multi-trips to and from Sudbury.

**The budget required for the project is \$184,078.10**

## Project Detailed Description

### **The Historic Problem**

Historically, non-urgent patient transfers have been completed by Ambulance Services. In the somewhat distant past when private operators ran the service for the MOHLTC, completing non-urgent transfers was a normal occurrence. For many services in rural Northern Ontario, it is still the case, despite municipal download in 2000.

Many previous reports and documents have dealt with this matter from an ambulance service perspective. Below is a timeline summary of just some of the pertinent information available on this topic.

- 1991 Emergency Medical Services (EMS) Review “Swimmer Report”, noted a 40% increase in non-urgent transfers in the 1980’s. Additionally noted was the inappropriateness and inefficiency of local Ambulance services to provide this service.
- 1999 The Ontario Hospital Association (OHA) produced a paper that questions the efficiency and appropriateness of ambulances performing non-urgent transfers. Calling on the MOHLTC to take action on 8 issues relating to the impending Ambulance download, one of said recommendations was that “the MOHLTC should designate non-emergency inter-facility transfers as part of the ambulance service system and that continuum of care and the costs of these transfers should be funded accordingly”
- 2002 The MOHLTC itself commissions a study by the well respected IBI Group entitled, “Non-Urgent Inter-facility Patient Transfers. While the final report was not originally released it was made public through a freedom of information request. Four major themes were drawn out of that report:
1. Patient Transfer Arrangements Need to be Improved
  2. Mode Choice Should Reflect Patient Care Needs
  3. Ambulances Should be Used Predominantly for Emergencies
  4. MTS Operations need to be regulated.
- 2004 The Ontario Hospital Association (OHA) produces a second paper entitled “*Non-Emergency Ambulance Transfer Issues for Ontario’s Hospitals*”. Within that paper, the OHA produced results of a survey of hospitals on their current experiences with local ambulance services in relation to non-urgent transfers. 84 surveys were returned and 91% of respondents indicated that they had experienced delays or difficulties with non-urgent EMS Transfers, 97% cited delayed departures, and 87% cited this as an inefficient use of resources due to missed/delayed departure and late/missed appointments.
- 2005 & 2007 This topic was reviewed by the Auditor General of Ontario in the annual reports.

- 2010 Position papers to deal with this issue were created by both the Northwestern Ontario Municipal Association (*NOMA*) and Northern Ontario Service Deliverers Association (*NOSDA*).
- 2011 In April, the President of then the Association of Municipal Emergency Medical Services of Ontario (AMEMSO), *Norm Gale* spoke at the NOSDA Annual General Meeting on the topic. Many issues were detailed including:
1. Increased demands on EMS – emergency call volumes are rising as indicated previously mainly due to an aging population not due to increased population levels
  2. Providing a service not within the legislated mandate – Ambulances are meant for emergency use. When considering usage for transfers the person should have been judged by a physician to be in an unstable medical condition **and** to require, while being transported, the care of a physician, nurse, other health care provider, emergency medical attendant or paramedic **and** the use of a stretcher. Often times these factors are not met and performing these non legislated requests hinders our ability to meet our legislated demands.
  3. Inefficient, ineffective – cannot guarantee that EMS will be on time, cannot guarantee that EMS can bring the patient or nurse escorts back, paying highly trained well paid professionals for something that does not require their skills.
  4. Comes at the expense of emergency coverage (the legislated mandate) – when an ambulance is out of the rural community emergency coverage is almost always sacrificed. Crews sit on standby to balance the issue.

It is understood that for the most part the issue of Non-Urgent Patient Transportation has been largely rectified in the larger urban centres of the province. The private industry Medical Transportation Services (MTS) have found a niche in major parts of Ontario but there are minimal to no private-for-profit MTS in the rural, remote areas of Northern Ontario.

MTS is not without its controversy however, as the issue of regulation within the industry has come up, culminating in an investigation by the Special Ombudsman Response Team (SORT) in 2011. The Premier of Ontario at the time announced that this topic would be reviewed by the appropriate ministries with the intention of introducing legislation to regulate the industry, at the earliest opportunity.

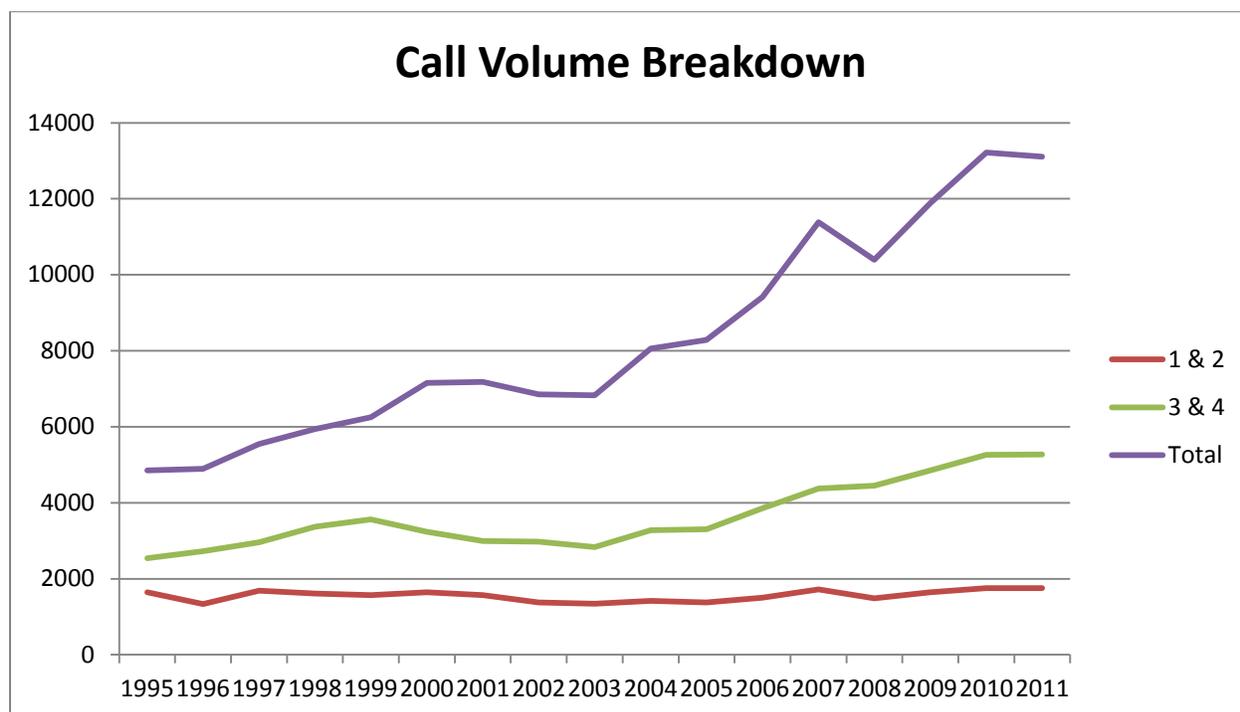
The Local Health Integration Networks (LHIN's) in south and central Ontario have analyzed this issue and found how ineffective and inefficient current EMS operators are in providing non-urgent patient transportation. Interestingly, an IBI study commissioned by the Central East LHIN found that EMS in that area are still providing 18% of non-urgent transfers. That 18% was noted as a "relatively heavy reliance". In the Manitoulin-Sudbury DSB jurisdiction, with no MTS, we are performing 100% of the non-urgent patient transfers. It is with all of the above in mind that a different approach should be taken by leaders in Northern Ontario.

## Description of the Current Problem

Throughout this document this issue can be looked at from different stakeholder perspective. The three main stakeholders that this issue effects are: EMS, the Hospitals, & the Patients. The description of the current problem will be broken down into the three points of view with many other sections of this document relating back to those exact perspectives.

### EMS

The reality of EMS in the province of Ontario is that there is a disproportionate increase in call volumes in comparison to an ability to provide the service. Call volumes are on the increase, rising at an astronomical pace. For instance, call volumes have risen nearly 50% in the past 6 years within Manitoulin-Sudbury DSB to a total of over 13,000 calls for service in 2011. It is not necessarily the calls categorized as non-urgent transfers that are rising but with an older, sicker population there is an increase in calls for medical emergencies. While ambulances are performing relatively the same number of non-urgent transfers, the ability to respond to the increasing number of true medical emergencies is compromised.



The role of EMS with respect to non-urgent transfers is somewhat unclear. While the Ambulance Act does not outright prohibit the use of Ambulances for non-urgent transfers (it does not prohibit the use of an Ambulance for any purpose), it does define ambulance to be *“a conveyance used or intended to be used for the transportation of persons who;*

- a) *have suffered a trauma or an acute onset of illness, either of which could endanger their life, limb or function;*
- b) *have been judged by a physician or a health care provider designated by a physician to be in an unstable medical condition **and** to require, while being*

*transported, the care of a physician, nurse, other health care provider, emergency medical attendant or paramedic, and the use of a stretcher.”*

A significant number of patients being transferred by Manitoulin-Sudbury DSB EMS from one facility to another do not fall within the criteria as listed above.

When faced with an increasing difficulty to provide a timely response to medical emergencies EMS is forced to re-evaluate its responsibilities. The situation in the Manitoulin-Sudbury DSB area cannot be understated. There are 12 EMS stations over a 42,000 square kilometer area. The closest distance between any 2 stations is 30km (Espanola & Massey), with the largest distance between stations being 168km (Foleyet & Gogama). With the exception of one station, staffing is comprised of only one ambulance in any community at any given time. That means when that one ambulance is occupied, for whatever reason, there is no immediate coverage for the area. EMS is either at minimum or maximum capacity at any given time. There is **no** middle ground.

When EMS is performing a non-urgent patient transfer it often occurs from one of three local hospital facilities situated in Espanola, Little Current, and Mindemoya to Health Sciences North in Sudbury. The following table provides a time breakdown indicating how long current resources are out of their communities when performing a non-urgent patient transfer to Sudbury.

<b>Task</b>	<b>Espanola</b>	<b>Little Current</b>	<b>Mindemoya</b>
Travel Time to Hospital	5	5	5
Prepare Patient	15	15	15
Travel Time to HSN	64	105	143
Wait Time	90	90	90
Prepare Patient	15	15	15
Return Travel Time	64	105	143
Unload Patient	10	10	10
Total Time (min)	263	345	421
<b>(Hours:Minutes)</b>	<b>4:23</b>	<b>5:45</b>	<b>7:01</b>

Adding to the issue of “adequately” responding to medical emergencies in the area is the concept of the newly established MOHLTC Ambulance Response Time Performance Plan. In keeping with the concept of transparency and public reporting, EMS in Ontario will be required to develop response time plans and report their achieved times on a yearly basis. The new response time strategy categorizes all emergency responses on basis of patient acuity. One of such categories entails reporting on ability to respond to Sudden Cardiac Arrest patients within 6 minutes and another one deals with responses to Canadian Triage and Acuity Scale (CTAS) 1 patients within 8 minutes. Understanding the aforementioned geographical and staffing situations within Manitoulin-Sudbury DSB, it will be extremely hard to meet this standard within a reasonable percentage of time, even under optimally deployed circumstances. Regardless, an attempt must be made to perform as best as possible and as such any unnecessary usage of Emergency Medical Services minimizes the ability to do so.

Reviewing statistics from 2010 in Northern Ontario the volume of non-urgent activity in comparison to emergency calls reveals that Manitoulin-Sudbury DSB is performing not only the second most proportionate number of non-urgent calls, but also the second most overall number of non-urgent calls in the North.

Service	2010 Call Volume (excluding emergency standbys)	Non-Urgent Transfers	%
Cochrane DSSAB	14532	5168	36%
<b>Manitoulin-Sudbury DSB</b>	<b>7014</b>	<b>2251</b>	<b>32%</b>
Algoma DSSAB	6711	1974	29%
Parry Sound	7712	965	13%
Nipissing DSSAB	13841	1166	8%

Essentially the system has now come to a point where capacity planning for all types of inter-facility transfers must be undertaken, to ensure that safe and effective patient transport exists across the spectrum of acuity. The current issue for EMS in Northern Ontario is that they can no longer support the dual role of providing emergency medical services and non-urgent inter-facility transport.

## Hospital

The hospital system also experiences the pressures of the current state. EMS response to non-urgent transportation is not always consistent and is dependent upon the transport requirements at any given time.

Under the province's system of regionalized healthcare, many patients require the services of specialized diagnostics or care that is only available at a regional health care centre; in this case HSN in Greater Sudbury. In today's approach to medicine, equipment such as a CT Scan is now considered part of the standard of care and is seen as a primary diagnostic tool. The closest Diagnostic Imaging Department with a CT Scan is at HSN and to compound the issue the cost of the actual CT Scan for in-patients is borne by the rural sending facility which places additional pressures on the hospital's existing global budget. There is a clear need for responsible and reliable patient transportation under the province's model of an integrated health system.

Due to their legislated requirements of emergency response, EMS cannot always be present when the hospitals see the need to move a patient. Currently, appointments are booked and often delayed or missed altogether. The uncertainty and unreliability of EMS to respond to a non-urgent transfer may cause a backlog of appointments. If EMS were able to concentrate on their core mandate of emergency medical response services (both within the community and to the hospitals for urgent transfers), less delays in care would be realized on all levels. The current system design and capacity is not designed to appropriately respond to non-urgent transfers throughout the day, causing a backlog of patient transportation in the hospitals and the communities.

While the delayed or missed appointments are inefficient, the core mandate of EMS causes problems not only in the local hospitals but strains systems at the regional site as well. If EMS is performing a transfer to HSN in Greater Sudbury, regardless of

priority, and balanced emergency coverage becomes compromised in their home area, they will return immediately to their home area once the patient and/or escort are dropped off. Understanding that the total number of non-urgent transfers to HSN was 646 from the 3 local facilities and the number of return transfers was 588 it becomes evident that some patients are being left behind and not returned via same means. This approximate difference of 10% more people going to HSN than coming from HSN may be attributed at least in part to patients being left behind at HSN and not returned by local EMS crews. These “stranded” patients need to wait for alternate means to be returned to their home facility, creating substantial return time delays and causing strain on the patient, the escort, HSN and Greater Sudbury EMS.

Overall, from a hospital standpoint the unreliability of EMS when it comes to non-urgent transportation is affecting their ability to treat their patient effectively and in a timely fashion.

## **The Patient**

The effect of the current system is felt by the one party who is essentially the number one priority and also in the most vulnerable position: the patient. All of the above mentioned factors create an unnecessary strain on the patient. To summarize, the patient often does not get the diagnostic treatment they require in a timely fashion, they are delayed in getting back to their own community, they sometimes miss meals and are relegated to accepting return trips at all hours of the day and night. This is a far from an optimal situation.

To put it simply, the emergency response demands on the EMS system no longer allows it to meet the needs of the rural hospital system in regards to non-urgent patient transportation with the detrimental effects being felt not only across the patient care continuum but felt by the patient themselves.

## **Description of Proposed Strategy**

The following proposed strategy attempts to seek equity with the rest of the province in terms of ability to provide emergency response/coverage combined with support of non-urgent transport capacity. Furthermore, this strategy builds on existing capacity and the strength of three organizations to better leverage synergistic benefits of improved services at an affordable/reasonable cost. The EMS Department of Manitoulin-Sudbury DSB understands the current culture and needs of the hospitals and patients to be able to seek medical treatment that they do not have access to within their rural setting. Manitoulin-Sudbury DSB is also cognizant of the hospitals longstanding reliance on EMS to provide this transportation.

A little over one year ago Manitoulin-Sudbury DSB produced a Business Case for the Minister of Health on this topic. The findings within that document are the driving force behind this submission. At the time, the topic of non-urgent patient transportation in totality, and through consultation with other stakeholders, one recommendation was thought to fit the needs of all those involved. That recommendation involves the establishment of a separate level of non-urgent transportation within the current EMS

structure. That second tier would be operating as a distinct division within the Manitoulin-Sudbury DSB. The overall general composition of this entity will include:

- 2 online transportation vehicles with 1 operational spare for breakdowns and maintenance coverage
- 2 transfer attendants per online vehicle
- 6-8 Part Time employees covering 80 hours of vehicle utilization hours per week

## **Responsibilities**

Because this proposal is for a time limited period, the responsibilities are a little different than laid out in the original Business case (A copy of which is included within this package for review) The new detailed responsibilities are as follows:

Manitoulin-Sudbury DSB will:

- a) provide its expertise in running medical transportation services on a 100% cost recovery basis for the duration of the trial.
- b) provide the actual mode of transportation by providing suitable decommissioned ambulances for this endeavour at no cost other than to ready the vehicle for this project (de-stripping, start-up maintenance).
- c) hire & appropriately train employees to provide this level of non-urgent activity, creating a cost differential versus the EMS level of competencies.
- d) operate this alternative transportation model in alignment with all applicable MOHLTC acts and standards and best practices. A Job Description and Policy & Procedure manual will be developed with this in mind.

Sponsoring Hospitals will:

- a) develop and utilize a decision making tree (algorithm) throughout the course of the project to determine whether their patients should be transported by the Non-Urgent Transportation Department or via ambulance.
- b) make every attempt to transfer each and every patient being deemed as not requiring an ambulance via the Non-Urgent Transportation Department during its hours of operation.
- c) Continue to provide staff, as needed, to accompany patient transfers;
- d) work together to achieve efficient usage of resources by consulting with each other over the timing of patient transportation.
- e) enter into agreement with Manitoulin-Sudbury DSB to flow funding from the NE LHIN for the costs associated with this endeavour.

Ministry of Health & Long Term Care will:

- a) recognize the establishment of this enhanced medical transportation system within Manitoulin-Sudbury DSB to promote improved patient care and flow between facilities.
- b) continue to allow the Central Ambulance Communication Centre (CACC) to be the agency booking the appointments and dispatching the non-urgent transport crews for the duration of the demonstration pilot project, understanding that in a permanent situation there will be the need to evaluate the continued ability of CACC to provide such service without additional assistance.

North East LHIN will:

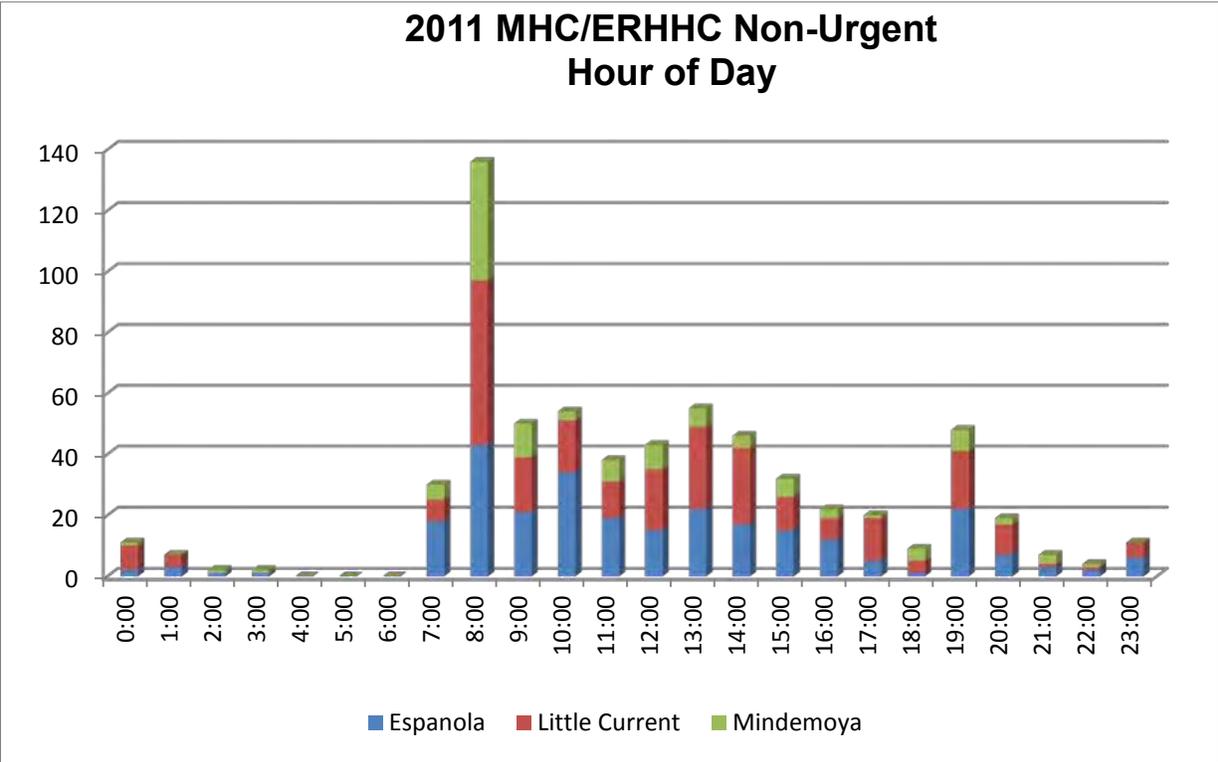
- a) support this project through 100% funding of this project based upon projections detailed in the budgetary portion of this document.
- b) Work with the three organizations to evaluate this method of transportation on the merits of the end results understanding that some of the modalities of this project would be different, and possibly more cost effective under a permanent solution.

Generally, this system is available for primary use in picking up patients at the 2 Manitoulin Health Centre facilities and the Espanola Regional Hospital and Health Centre and facilitating their transportation to and from Health Sciences North in Sudbury.

During the course of the trial in an effort to attempt full utilization of the new transfer vehicle, EMS will cease to regularly perform non-urgent transportation of patients deemed to have been candidates for transfer by the non-urgent transportation department. Any request for non-urgent transportation by EMS will be vetted through the EMS Field Superintendents. This will ensure that EMS resources for non-urgent transfers are coordinated with EMS, and will give a better indication of the success of this endeavour. Furthermore, all urgent inter-facility transfers will be reviewed by a committee of EMS & Hospital staff to ensure the appropriate mode of transportation was used and that the patient met the threshold for an Ambulance transport. These reviews will occur every 6 weeks with the goal of learning from actual calls and looking at possible solutions or education for all involved

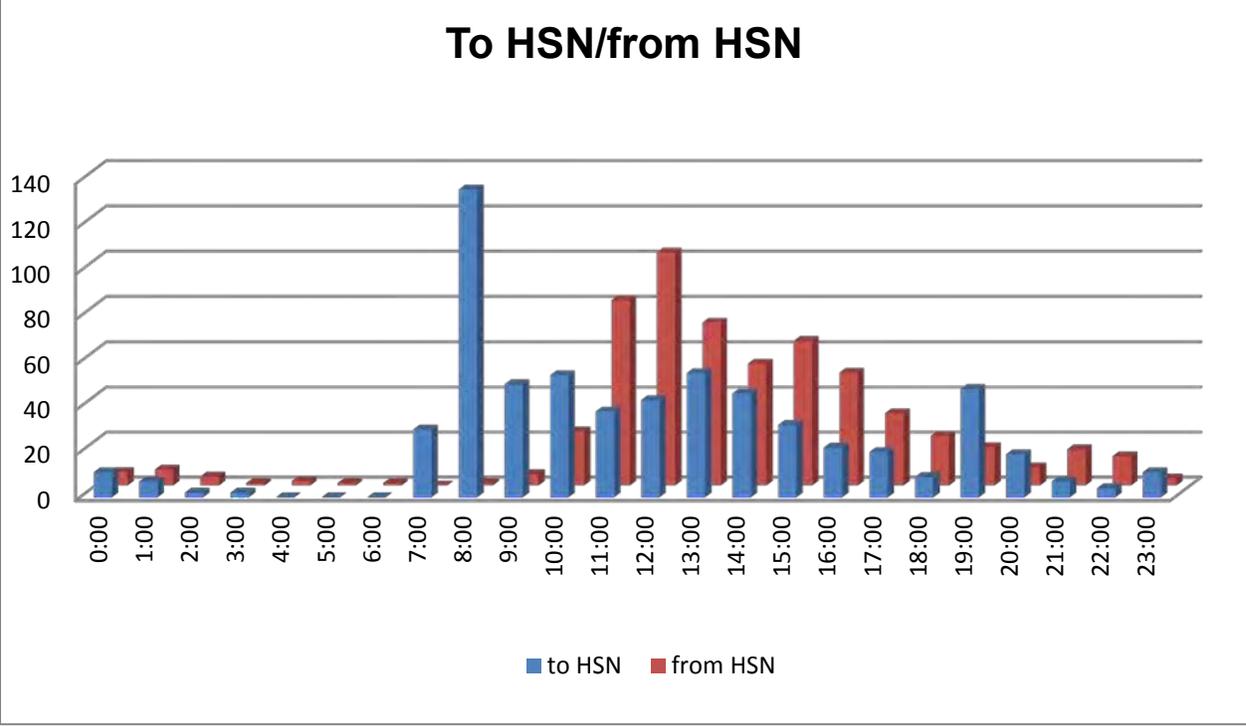
## **Operations**

Reviewing internal statistics for 2011 we can see just how much non-urgent patient transportation is being performed out of the 3 facilities listed in this project. In evaluating the best use of new resources, time of day non-urgent transportation was reviewed.

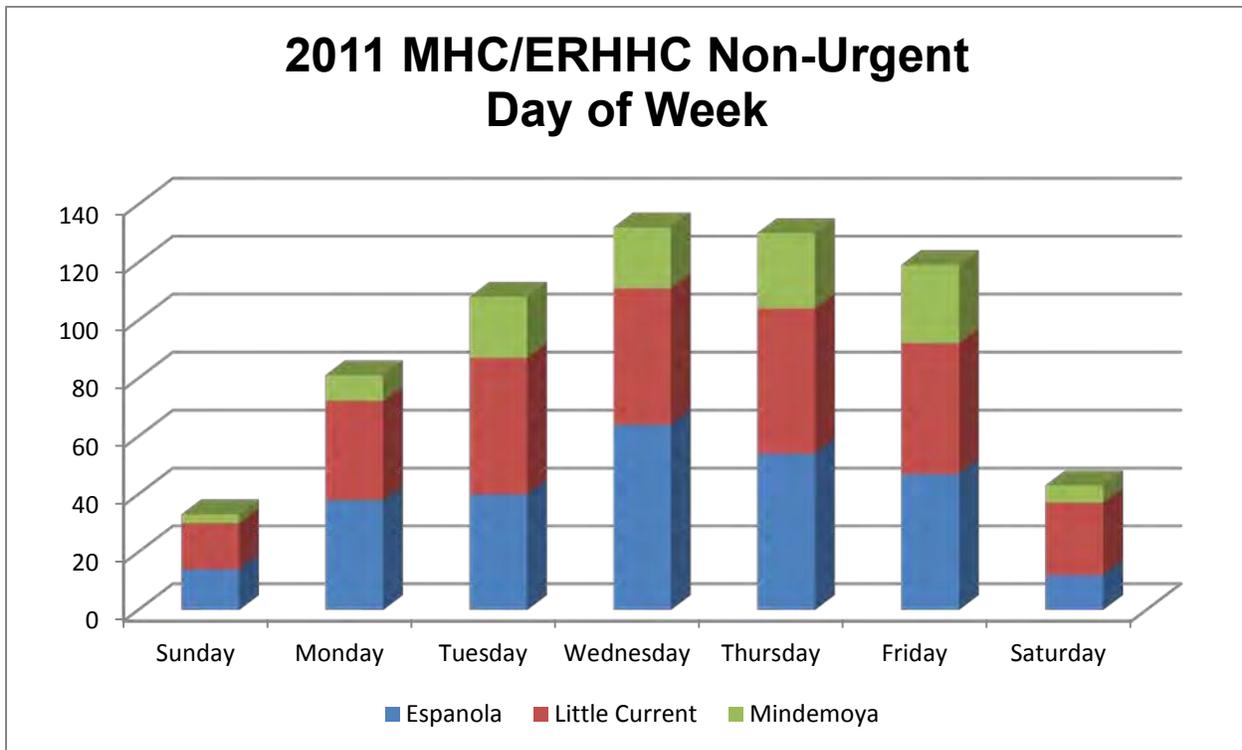


It becomes evident by looking at the above chart that most non-urgent transportation occurs between the hours of 7 am and 5 pm.

Furthering the point about time of day transfers the chart below details the relationship between transfers from our local rural hospitals to transfers back to our area from the regional health centre HSN in Sudbury. There is clearly a relationship between “to and from”.



Additionally, day of week information was also reviewed and is displayed below.



Looking at this information it is evident that the weekdays are by far the busiest for non-urgent transportation. You will note that Monday is the quietest day of the week and that is attributable to the fact that Statutory Holidays typically occur on Mondays so scheduled diagnostics are not booked.

Reviewing both charts and understanding that the 3 hospital facilities are currently optimally booking patient appointments for between the hours of 10am and 1pm at HSN, the non-urgent transportation vehicle should be scheduled Monday to Friday from 8am to 4 pm.

### Staffing

The proposal includes 2 online vehicles being in service each weekday between the hours of 8am and 4pm. In order to staff the units effectively for the trial program, we are proposing that staffing be accomplished by hiring part time employees exclusively to cover all hours. The proposed rate of pay for such position is \$14.00/hr plus 4% vacation pay and mandatory employee/employer deductions. Understanding that this is a trial project and that we are unwilling to lower any standards in care, we are aware that the wage being offered is superior to most other privately run MTS. This is purposeful in order to garner the proper and appropriate applicants. Based on our review of MTS services the highest hourly rate is \$13.00/hr.

## **Booking & Dispatching**

Understanding that this is a trial project for a very short period of time there is little to no ability to seek an alternative format for the booking and dispatching of transfers other than to use the current structure as established by the Central Ambulance Communication Centre (CACC). Leveraging their expertise in this field we should be able to see the best possible impact of such a service by using CACC. Currently Sudbury CACC is the only entity that has the infrastructure in place to evaluate the locations and coordinate the availability of a resource such as a transfer vehicle. Their support for this project on a limited basis is essential to the success of the project. Should this project be deemed a success at the end of the trial and if future trials or a permanent model were to be sought, there would need to be a rationalization of services in order to ensure a permanent booking/dispatching coordinator or a service that could provide such, or the continued use of CACC as the dispatch resource for the North East region as a whole.

## **Expected Volume & Anticipated Impact**

It is expected that through coordinated booking to HSN, deployment of these resources should garner at least 3 transfers to HSN in the morning in the 2 transfer vehicles and at least the same being returned from HSN in the afternoon. That would total 6 transfers per day. As mentioned this would require a coordinated approach, one that both MHC and ERHHC are keen to attempt. As with the discussion of the problem the anticipated impact would be different dependent on the stakeholder involved.

In realizing this volume of patient movement Manitoulin-Sudbury DSB would expect to see an improvement in emergency response times. Additionally, a more responsive system in terms of responding to urgent transfer requests should be realized. This impact should positively be portrayed in the evaluation of statistical analysis.

From the hospital perspective there should be a new level of certainty in terms of response to their needs for patient movement. They will have the ability to know that barring any unforeseen traffic issues or vehicular failure their patient will be moved as booked. They will receive timely diagnostics which will help them to better serve and treat their patients. They will also have a level of certainty over the return of their patient. Patients should no longer be “stranded” for hours on end and they will be returned quicker and will not have been subjected to missed meals, medications and an overall uncomfortable position. Hospitals will not be subjected to having to send nursing escorts in many of the proposed non-urgent transfers performed by the new service. There is no uncertainty over whether the transfer crew will have to respond to a greater emergency call because they are not required to and as such they can provide the escort care required. Reducing the number of nursing escorts required for non-urgent transport will not affect patient care, and may result in some cost savings for the hospitals. This would need to be monitored and measured throughout the demonstration period.

Lastly, from the patient perspective there should be a noticeable improvement on the timeliness of receiving their diagnostic care and treatment. Not having to excessively wait for a return trip to their home hospital bed will help to alleviate stress and will

minimize the chances of missing a meal or required medications. Patients will be treated with the dignity and respect that they deserve within our health care system. A structure such as this will ensure that the patients diagnostic and treatment needs within the regionalized healthcare system become a priority.

## **Evaluation Criteria**

Statistical gathering will be an essential component of this six-month pilot project. Baseline data has been established and will be referenced as we review indicators such as, but not limited to: quicker response times, reduced drop-off wait times and improved patient satisfaction. It will be expected that the patient transfer attendant will complete a patient transfer report for each patient movement. A variety of times and essential patient information will be tracked and stored in a secure manner. This information will then be available for review after the program.

In assessing the level of success there needs to be a comparison of before and after data. Statistics will be evaluated from an EMS perspective. A review of call volumes and response times on a time over time basis will be evaluated. Improved performance in terms of responsive to emergency calls will be a critical measure of success for EMS.

An evaluation of the responsiveness to the needs of the hospitals will also be completed. For each call for service it will be expected that the transfer attendant will complete a patient transfer report. It is proposed that critical data entered will include time of booked pick-up and time of booked appointment which will be cross referenced to actual pick up time and actual arrival at appointment. It is believed that this proposed system will produce a more accurate level of certainty in the timing of appointments. Additionally, time of completed appointment and the time they leave the treatment facility will be entered. The greatest measure of success from a hospital perspective will be the efficiencies of this system as they relate to time.

Lastly, from a patient perspective the greatest measurement tool would be the feeling of being treated properly while in the care of the patient transfer attendants. The best way to measure that would be through the use of a patient satisfaction survey that will be conducted with affected patients. Some patients may have experienced an inter-facility transfer in the past and can relate how their experiences differed but some will never have experienced this process before. For the latter it would be important to measure how they felt about their overall treatment while in the care of the transfer attendants. The thought is that the greatest measurement for patient success would be the feeling of being treated with respect and dignity and any comment card/suggestion web portal would aim to quantify that.

## **Barriers to Project Success**

While it is truly believed that this initiative will be a resounding success there are a few items that deserve noting as barriers to this success. Since success in this project means different things to the different stakeholders, barriers to said success are varied.

If the additional capacity is not utilized appropriately, EMS will not be able to refocus its capacity on urgent and emergency transport to the fullest degree. If transfer times and

utilization were not maximized, EMS may only see a negligible difference in the volume of non-urgent activity therefore seeing a minimal change to response times. While the following is not anticipated, other possible barriers revolve around the unpredictable nature of the EMS business regarding the volume, location and times of day for emergency calls. If the Manitoulin-Sudbury DSB area experiences an unexpectedly high volume of calls, possibly in remote locations or possibly at a time of day where the trial vehicles are not available, improved response times even with a lower volume of non-urgent activity may not be fully realized. Lastly, the short 6 month trial duration does not garner a lot of time to fully experience the model so the fullest extent of utilization may not be realized.

From the hospital perspective, barriers to success revolve around not being able to see an improvement in timely and efficient patient transportation. This would be particularly evident when attempting patient transport for advanced diagnostic procedures at HSN. This would include the inability of the non-urgent transportation team to transfer their patients as expected due to weather, road/traffic conditions, staffing issues, or vehicle breakdown. Of course weather and road conditions would be the same for EMS if they were the ones performing the transfer, these conditions will still end up being perceived as barriers. If during the course of the trial there happens to be fewer patients on the lower end of the acuity scale, there would not be as many eligible patients to be transported by the unit.

From the patient experience, barriers to success revolve around believing that they were not transferred appropriately. This could involve an uncomfortable ride, which realistically would be the same in an ambulance. The difference would be that the level of comfort could be noted on a comment card/suggestion web portal. Additional feelings of not being treated respectfully at any point of their transfer, including in areas beyond the scope of the patient transfer attendants, could possibly negatively impact their experience with the transfer as a whole.

### **Budgetary Consideration**

The table on the following page represents a budgetary estimate for the costs of operating the service as mentioned above for a period of 6 months.

From a budgetary point of view it is our understanding that the private MTS systems are charging upwards of \$100 per hour for service on a contract to hospitals. A breakdown of our costs reveals an ongoing hourly charge of \$63.94 per hour for the service offered as detailed within this document (does not include start-up costs). As indicated in the table below, there are obvious additional startup costs associated with the current proposal but those costs are spread out over the length of time of the project. If this system were to be set up on a permanent basis the impact of the startup costs are lessened. Additionally, if this project were implemented on a permanent ongoing basis, other costs would need to be factored in to meet a full-time commitment. Those costs would include the replacement of patient moving equipment, defibrillators, tires, uniforms etc. on an as needed basis, and the replacement/lease of a permanent vehicle. Other costs requiring consideration include housing the vehicles in a permanent indoor location, ongoing staff development, and ongoing supervisory oversight.

## Estimated Budget Table

Cost Centre	Item		Start-up	Ongoing Monthly
<b>Vehicle Operations</b>	Unit	Donated	\$ 10,000.00	\$ -
	Fuel		\$ -	\$ 3,844.25
	Insurance	\$298/mth	\$ -	\$ 596.00
	Maintenance		\$ -	\$ 1,700.00
	<b>Vehicle Operations sub-total</b>			<b>\$ 10,000.00</b>
<b>Attendants</b>	Hourly Wage	\$14.00		
	Wages	40hr/wk	\$ -	\$ 9,706.67
	Training/Orientation		\$ 1,200.00	\$ -
	lead hand driver	\$1/hr extra	\$ -	\$ 173.33
	Shift Overtime/OT		\$ -	\$ 728.00
	other benefits & deductions	19%	\$ -	\$ 2,045.22
	<b>Attendants sub-total</b>			<b>\$ 1,200.00</b>
<b>Medical Supplies</b>	Oxygen		\$ -	\$ 600.00
	Defibrillator (2)	Donated	\$ -	\$ -
	First Aid Supplies		\$ 2,000.00	\$ 200.00
	Main Stretcher (2)		\$ 9,158.40	\$ -
	Power Stretcher upgrade (2)		\$ 11,193.60	\$ -
	Second Stretcher (2)		\$ 7,530.24	\$ -
	Stair Chair (2)		\$ 2,544.00	\$ -
	#9 Stretcher (2)		\$ 2,035.20	\$ -
	Pedi-Mate		\$ 315.46	\$ -
	Supply Bag (2)		\$ 732.67	\$ -
	Other misc.		\$ -	\$ 200.00
	<b>Medical Supplies sub-total</b>			<b>\$ 35,509.57</b>
<b>Other Supplies</b>	Linen	Donated	\$ -	\$ 100.00
	Cleaning Supplies		\$ -	\$ 100.00
	Uniforms (6)		\$ 2,912.37	\$ -
	Tablet (2)		\$ 1,424.64	\$ 20.35
	Cellular Phone (2)			\$ 142.46
<b>Other Supplies sub-total</b>			<b>\$ 4,337.01</b>	<b>\$ 362.82</b>
<b>Admin fee</b>	10% of total ongoing cost		\$ -	\$ 2,015.63
<b>Monthly Cost Total</b>			<b>\$ -</b>	<b>\$ 22,171.92</b>
<b>6 Month Sub-Totals</b>			<b>\$ 51,046.58</b>	<b>\$ 133,031.52</b>
<b>6 Month Total</b>			<b>\$184,078.10</b>	

## Conclusion

The issue of non-urgent patient transfers had been ongoing for many years and remains unsolved in Northern Ontario. As pressures mount on EMS to respond to an increasing number of emergency calls, the ability of EMS to continue with its historical assistance in inter-hospital transportation is decreased. Areas in Southern Ontario, where the private sector has established their presence, do not have as great an issue with non-urgent transfers due to the abundance of MTS. While the MTS is unregulated and presently under scrutiny, it does allow for EMS to concentrate on its core mandate: emergency medical transportation.

In seeking an internal solution and allowing the current medical transportation experts to run a secondary system, there can be confidence that appropriate standards are being maintained the many issues regarding the unregulated MTS are offset. This is a significant risk mitigation strategy and a major feature of this proposal. Additionally, it is anticipated that savings can be realized in comparison to the ongoing rates for the private-for-profit MTS services.

By adopting our proposed model, both the rural northern health care facilities and rural northern EMS can achieve their goals of providing the right care to the right patient at the right time. Northern Ontario is like any other area of the province dealing with an aging population and increased demands for EMS; however there appears to be no common solution in place to deal with non-urgent transportation in the North. We are confident that our proposal is both innovative and unique and will provide the most effective and efficient model to help inform the NELHIN as it reviews and develops a “made in the Northeast” strategy for non-urgent inter-facility patient transportation.