



Report To: Manitoulin-Sudbury DSB Program Planning Committee
From: Michael Maclsaac, Director of EMS
Date: June 17, 2010
Re: New Ambulance Response Time Standard

RECOMMENDATION

That the EMS Department of the Manitoulin-Sudbury DSB adopt a new ambulance response time standard in accordance with Ambulance Act, Response Time Performance Plans. The EMS Department develop a Response Time Standards Plan for the Manitoulin-Sudbury DSB that reflects the realities our Ambulance Service for review in September 2010.

REPORT

Purpose

The purpose of this report is to provide the DSB Program Planning Committee with pertinent information regarding the above topic in anticipation of accepting the proposed standards in time for submission to the MOHLTC by October 31, 2010.

Back Ground

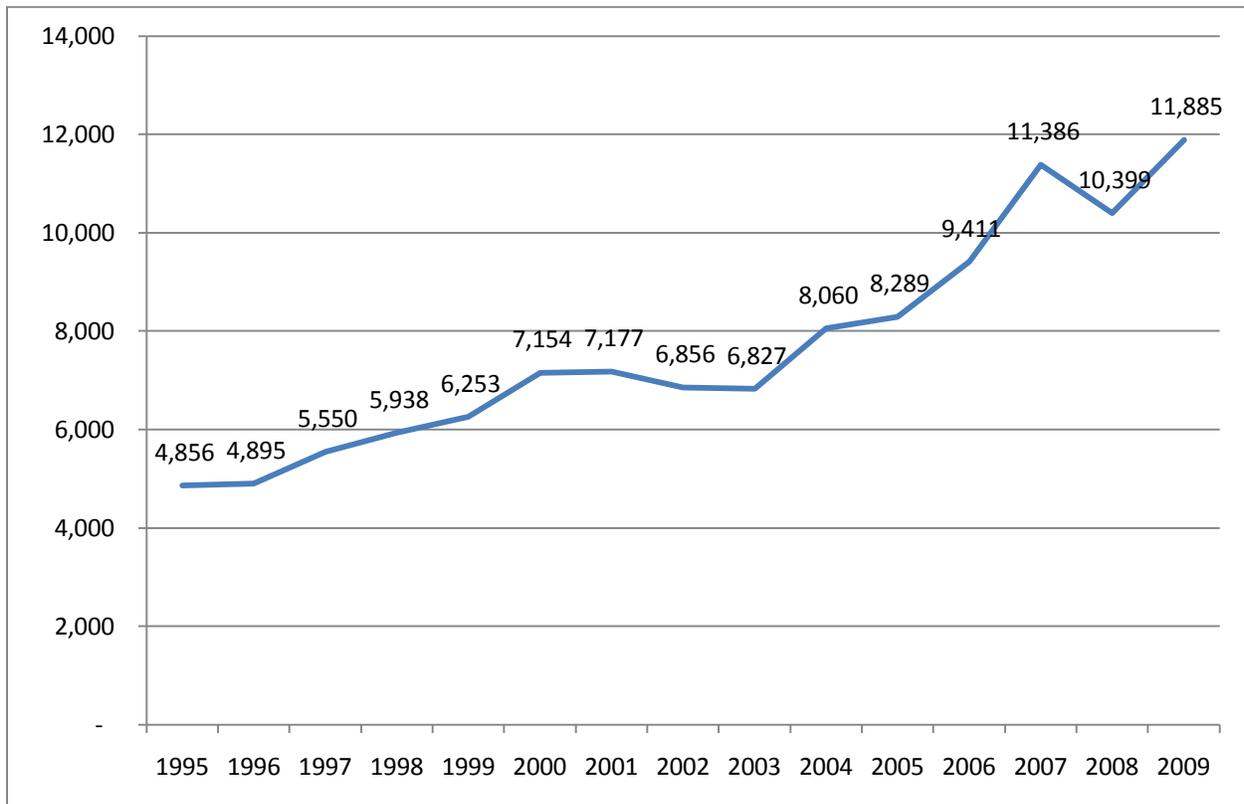
In 2006 the provincial government established in conjunction with the Association of Municipalities of Ontario (AMO), a Land Ambulance Committee (LAC), to review a number of subjects including ambulance response time standards. Arising from that work on July 31, 2008 the provincial government made changes to the Ambulance Act, Response Time Performance Plans. These changes were to be phased in over three years and will be fully in effect in 2011 with reporting requirements starting in October 2010.

Specifically, each Direct Delivery Agent (DDA) will send their response time plan to the Ministry of Health and Long-Term Care, Emergency Health Services (MOHLTC EHS) Branch Director through their local Field Office no later than October 31 of each year. The report will detail responses with targets for sudden cardiac arrest, and patients presenting on the "Canadian Triage and Acuity Scale" (CTAS) 1, 2, 3, 4, & 5. Then, by

March 31 of each year the DDA will submit the same table completed with the actual times achieved in the year previous.

History

The previous emergency response time standard had been based on 1996 performance. The 1996 standard does not properly reflect today's patient demographics, does not account for growth and does not consider medical-based evidence regarding enhancements in patient care. Emergency call volumes and stresses on the ambulance services have steadily increased. The following chart provides a breakdown of Manitoulin-Sudbury DSB call volumes from 1995 to 2009.



The new response time standard regulation is supported by the best available medical evidence and provides flexibility for each DDA to establish the percentage of time they expect to meet certain targeted times based on their local resources and in some categories allows each DDA to establish fully their own targets.

For the first time, under this regulation DDA's will be allowed to count the time that any defibrillator was used to assist a victim of sudden cardiac arrest. This includes any public access defibrillator or fire service defibrillator. Additionally, although not currently utilized by Manitoulin-Sudbury DSB as part of typical deployment, Emergency Response Vehicles with one paramedic will continue to be calculated in the response time calculations.

Under the new standard response times will be measured against the severity of the patient condition as found by the paramedic as opposed to how the call was dispatched by local Central Ambulance Communication Centres (CACCC's). The rationale for this

methodology reflects a change in thinking towards focusing on patient outcomes as opposed to assigned dispatch priorities. Whereas the 90th percentile response time focuses on all calls dispatched as priority 4's, the new response time differs depending on the patient condition measured at scene. Using this measurement is similar to how medical evaluations are conducted and it is intended to propel all the stakeholders to continue the pursuit of system improvements that more accurately identify the patients in the greatest need.

The MOHLTC concurrently will be holding themselves accountable to a two minute target to dispatch emergency calls.

To appreciate the diversity in the new response time standard it is essential to understand the concept of the Canadian Triage and Acuity Scale (CTAS). CTAS is a method for grouping patients according to the severity of their condition as follows:

CTAS 1: Severely ill, requires resuscitation

- Requires resuscitation and includes conditions that are threats to life or imminent risk of deterioration, requiring immediate aggressive interventions (for example, arrest, and major trauma or shock states).

CTAS 2: Requires emergent care and rapid medical intervention

- Requires emergent care and includes conditions that are a potential threat to life or limb function, requiring rapid medical intervention or delegated acts (for example, head injury, chest pain or internal bleeding).

CTAS 3: Requires urgent care

- Requires urgent care and includes conditions that could potentially progress to a serious problem requiring emergency intervention, such as mild to moderate asthma, moderate trauma or vomiting and diarrhea in patients younger than 2 years.

CTAS 4: Requires less-urgent care

- Requires less-urgent care and includes conditions related to patient age, distress or potential for deterioration or complications that would benefit from intervention, such as urinary symptoms, mild abdominal pain or earache.

CTAS 5: Requires non-urgent care

- requires non-urgent care and includes conditions in which investigations or interventions could be delayed or referred to other areas of the hospital or health care system, such as sore throat, menses, conditions related to chronic problems or psychiatric complaints with no suicidal ideation or attempts.

Currently paramedics assess patients utilizing the CTAS scale and report such to receiving facilities. Doctors and nurses also use CTAS ratings as a method to prioritize the order in which patients are seen in Emergency Departments.

Objectives

Manitoulin-Sudbury DSB is required to report our new response time standard to the MOHLTC by October 31st of this year. The following table represents a listing of what Manitoulin-Sudbury DSB will be required to report as our standard to the MOHLTC with each X being a reportable target.

EMS RESPONSE TIME TARGETS

Type of Call	Type of Provider and Response Time Target (From paramedic notified of call to arrive site)	Target Percentage of time achieved
Sudden Cardiac Arrest	Defibrillator Response within Six (6) minutes as set by the MOHLTC	X %
CTAS 1	Paramedic Response within Eight (8) minutes as set by the MOHLTC	X %
CTAS 2	Paramedic Response within X minutes as set by Manitoulin-Sudbury DSB	X %
CTAS 3	Paramedic Response within X minutes as set by Manitoulin-Sudbury DSB	X %
CTAS 4	Paramedic Response within X minutes as set by Manitoulin-Sudbury DSB	X %
CTAS 5	Paramedic Response within X minutes as set by Manitoulin-Sudbury DSB	X %

Challenges & Process

The change in Response Time Standard presents a different way of looking at ambulance responses in the province of Ontario. While it appears to improve on an antiquated method of tracking ambulance response, it conversely provides new challenges to many land ambulance providers. Establishing 6 different standards in place of one necessitates a more dynamic approach and analysis.

The establishment of a *response time target* based upon defibrillator application presents a unique issue to rural Ontario. A greater reliance on allied agencies, tiered agreements and public access defibrillator programs will increase an ambulance services chance of producing better responses to these types of calls. However, the

remoteness of our geographic area presents less opportunity to call upon these services than would be available in a denser population area.

In establishing a set *response time target* for response to CTAS 1 patients, the time standard is aggressively set in the best interests of patient outcome. However, the ability of a remote rural land ambulance service to achieve this timeframe a high percentage of the time is poor for a couple of factors. First, by nature rural communities in Ontario do not have the abundance of resources to allow for inherently quick responses. Second, the call volumes for these types of calls are small and having just a few responses not meet the time criteria, can drastically impact upon the overall *target percentage of time achieved*.

Allowing DDA's to choose both the *response time target* and the *target percentage of time achieved* for CTAS 2, 3, 4, & 5 emergency calls, presents a unique challenge in that we must determine both sets of numbers. We suggest starting by ascertaining the *response time target*. In evaluating our data it is suggested that we should look at the 90th percentile from the previous year for each response CTAS based response. A percentile approach seems to be the most logical as opposed to a simple average because it eliminates extremes.

It is suggested that the EMS Department research all of the calls for the previous year to evaluate response times in relation to CTAS level. It must be noted that while the MOHLTC ADDAS data has long been found to be flawed, in the particular case it should be sufficient to create a large enough database to enable a valid estimation.

Once the 90th percentile time is established it is suggested that the *target percentage of time achieved* actually be set that is lower than 90%. The rationale behind this suggestion is that we know call volumes are rising. As they rise, the chance of having an available ambulance in any one community is lessened. As such, under the current staffing and funding models, response times will become greater. Establishing a *target percentage of time achieved* on the actual times from the previous year would not allow for the natural increase in call volumes nor would it allow for any other imminent response challenges such as increases in ambulance offload delays and the increase in inter-facility patient transfers.

The reality is that while more rigorous *response time targets* and *target percentage of times achieved* based on 2009 numbers could be set, this is not recommended as it is likely to set community expectations at levels that may not be achievable or sustainable with existing resources. Additionally, there are many factors effecting response times that are out of the control of the land ambulance service provider are not easily predictable.

Funding Parameters

No implications financially to Manitoulin-Sudbury DSB.

CONCLUSION

Keeping in mind the factors above it is the desire of the EMS Department of Manitoulin-Sudbury DSB to establish *response time targets* and the *target percentage of times achieved* that are attainable by this department with the resources that we currently have. A conservative approach is essential especially during the first time these standards are set. Many other DDA's are setting goals that are reasonable and attainable. It is important to note that the first report to the MOHLTC sets the standards and the second report deals with actual achievements. Both these reports will be posted publicly by the MOHLTC. It is not yet known in what format they will be posted however it does no service to residents of Manitoulin and Sudbury for their EMS provider to be setting standards that cannot be attained. A conservative approach therefore is the only valid approach in the first year of this new standard. The EMS Department would like to present the DSB with an actual statistical report and recommendation for the response time standard in September.