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Report To:	DSB Program Planning Committee
From:	Michael MacIsaac Chief of Paramedic Services
Date:	March 23, 2016
Re:	Response Time Standard - Issue Report

Recommendation

That this report be taken by the Program Planning Committee as information on the Ontario Ambulance Response Time Standard (RTS) and how Paramedic Services has performed over the last year.

Purpose

The purpose of this report is to provide the DSB Program Planning Committee with background on the Ontario Ambulance RTS and detail the results of our 2015 Response Time Performance Plan. A letter detailing our performance is being submitted to the Ministry of Health & Long Term Care (MOHLTC) Emergency Health Services Branch (EHSB) Director as dictated in the Ambulance Act O. Reg. 257/00 by the March 31st deadline.

Background

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 were expected to be fully in effect in 2011 however a series of delays caused the new standard to actually take effect in 2013.

Specifically relating to the standard, each Direct Delivery Agent (DDA) is to send their response time **plan** to the MOHLTC EHSB Director through their local Field Office no later than October 31 of each year. The report is to detail responses with targets for patients in sudden cardiac arrest, and patients presenting on the “Canadian Triage and Acuity Scale” (CTAS) 1, 2, 3, 4, & 5. Then, by March 31st of each year the DDA will submit the same table completed with the actual **results** achieved in the year previous.

As in the past, these response times are based upon district not on Ambulance Service. In other words, data is reported for all calls within the Manitoulin-Sudbury DSB area regardless of which ambulance service performed the call.

Greater details on the RTS have been documented in previous reports on the DSB website including EMS 2016 Response Time Standard – Issue Report and Ambulance Response Time Standard – Issue Report.

CTAS Reaffirmed

To understand the RTS it is essential to re-affirm 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, cardiac 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.

The CTAS scale is a medically validated scale used by a myriad of emergency health professionals including Doctors and nurses in Emergency Departments.

2015 Response Time Standard Targets

As mentioned above Manitoulin-Sudbury DSB is required to report the targeted response time standard to the MOHLTC by October 31st of each year. 2016 targets were submitted on October 28, 2015. Additionally, there is a requirement to submit

actual results by the following March 31st for each previous year. The following table represents Manitoulin-Sudbury DSB results which are to be submitted to the EHSB Director for the 2015 calendar year.

Patient Severity	Target Time	Actual Time	Percentage of Time Met Target	Call Volume
Dispatched SCA	6 minutes, **20%** of time	6 minutes, **32.1%** of time	100%	28
CTAS 1	8 minutes, **25%** of time	8 minutes, **35.7%** of time	100%	56
CTAS 2	25 minutes, **80%** of time	25 minutes, **86.1%** of time	100%	734
CTAS 3	25 minutes, **80%** of time	25 minutes, **89.3%** of time	100%	2,053
CTAS 4	25 minutes, **80%** of time	25 minutes, **88.9%** of time	100%	1,042
CTAS 5	25 minutes, **80%** of time	25 minutes, **88.9%** of time	100%	269

*data derived from MOHLTC ADRS Database

Current Issues

It is understood industry wide that the current RTS, while better than the previously enacted antiquated 1996 90th percentile model, is still fraught with challenges.

The establishment of a response time target based upon defibrillator application under the Sudden Cardiac Arrest section of the RTS 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. Conversely, 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 the 8 minute timeframe a high percentage of the time is naturally poor due to the lack of abundant resources to allow for intrinsically quick responses.

The inherent volumes for SCA and CTAS 1 calls are not great and just a few responses that do not meet the time criteria can drastically impact upon the overall percentage response. Historic figures point to volumes in the range 1% of overall call volumes for SCA and CTAS 1 calls. Having just a couple of responses outside the response time target can really account for big changes in the 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 internally on how to determine both sets of numbers. Additionally, with this part of the standard featuring a double variable, each DDA can report differently which makes a

comparison of services extremely impractical, if not impossible. It must also be understood that as part of the RTS, all targets and actual performances are being publicly posted by the MOHLTC website. It has become truly evident that the MOHLTC is interested in measuring services against the SCA and CTAS1 data entirely. Otherwise we assume there would have been a standard time set for each of the other CTAS levels.

Currently, the only way to measure our responses in a manner that the MOHLTC wishes is to use their ADRS data. It has been highly noted by many industry experts as well as independent consultants that the ADRS data is severely flawed with much missing data. We have however utilized this data instead of our own ZOLL EPCR data due to the fact that we are responsible for all calls in our area and we do not have access to other ambulance service data through an internal PCR method. With this being noted a review of PCR documentation has been completed to compare against the MOHLTC ADRS data. Post review, we believe the statistics for SCA and CTAS 1 calls to be reliable. Data for CTAS 2-5 is being taken as is due to the volume of calls and our inability to devote the time for a fulsome review of calls numbering in the thousands

Reporting based on the unique features of the DDA is not a part of the current reporting structure. It has been noted that there are differences between DDA's in terms of population density. Basically, there needs to be a methodology to denote urban, suburban, rural and remote services so that not all are painted with the same brush in the eyes of the public. If a population is spread out it becomes more difficult to focus limited resources in optimal locations in an effort to achieve the aggressive response times detailed within the provincial RTS. The vast difference between an urban and remote response needs to be factored into the RTS equation.

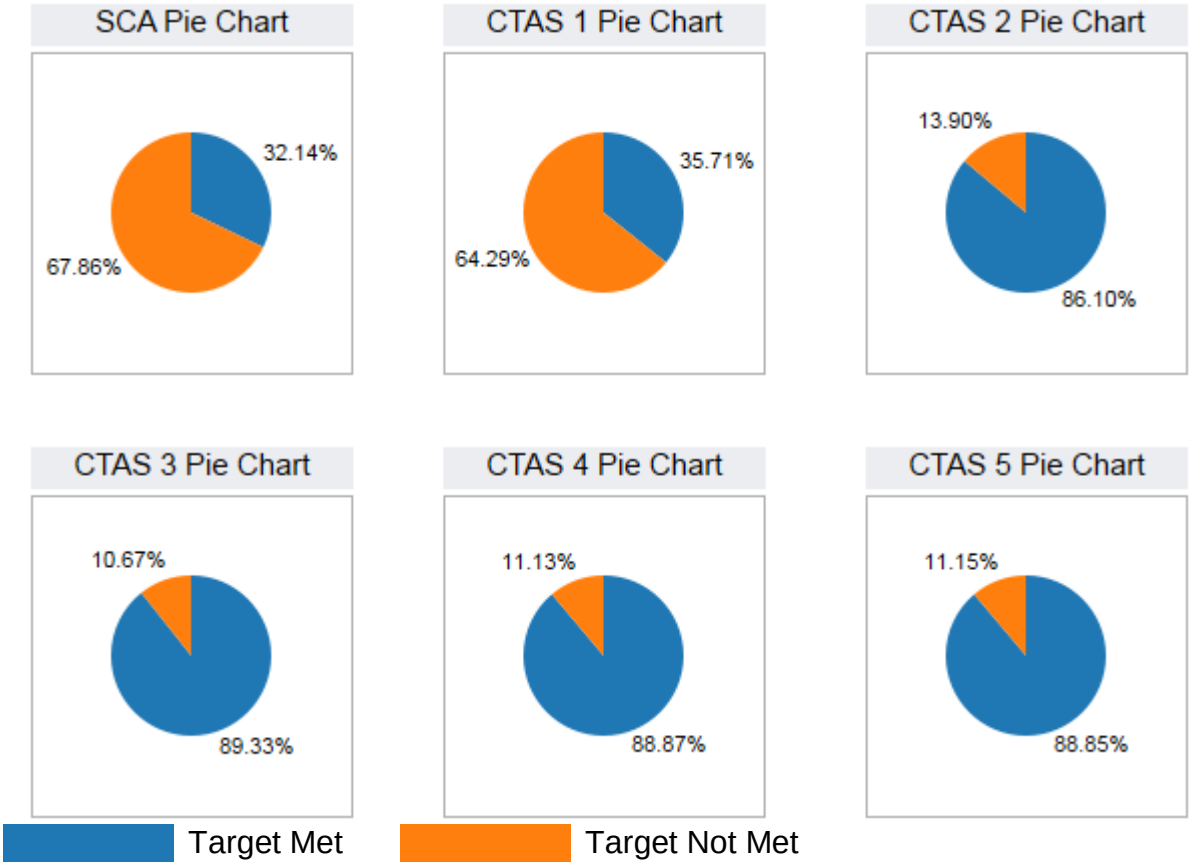
One last item that needs reiteration is that on both the 6 and 8-minute response times the time starts from the moment the paramedics receive the call for service. There is a MOHLTC standard allowance of 2 minutes to receive the call and be mobile to the call. So in essence the 6 and 8 minutes are really 4 and 6 minutes of actual travel time. Basically, travelling at a very fast 80 km/h, the cardiac arrest would have to occur within 8 km of the station for the ambulance to get there in 6 minutes. Understanding that most ambulance stations are based in residential or populated areas travelling that fast would be quite dangerous.

Conclusion

With 3 years' worth of data to review it has become evident that our response times for 2015 are generally the most successful (as depicted in the table below).

	Time	2013	2014	2015
SCA	6 minutes	16.8%	21.7%	**32.1%**
CTAS 1	8 minutes	32.1%	28.3%	**35.7%**
CTAS 2	25 minutes	85.5%	83.6%	**86.1%**
CTAS 3	25 minutes	87.7%	84.0%	**89.3%**
CTAS 4	25 minutes	88.5%	83.6%	**88.9%**
CTAS 5	25 minutes	93.5%	88.7%	**88.9%**

The following charts reveal visually the success and failures for each of the response time targets.



It is yet to be determined how much greater success can be made with such urban based, population dense standards. Community programs such as Public Access Defibrillation and Tiered Response programs can go a long way in assisting where resources are just not close enough. This past autumn an example was brought to the Board whereby bystander CPR and application of an AED from the Wikwemikong Police tiered response program had a positive outcome and a life was saved.

Regardless of recent success we need to continue to review staffing levels to assess if enhancements could improve responsiveness. The new PRU program in the busiest areas of the service should lead to a further improvement when we evaluate the 2016 RTS performance. A recent review of the Paramedic Service Deployment Plan will also help ensure the proper deployment of resources in the most effective and efficient manner possible. The current pilot project performing non-urgent patient transportation has shown continued success in the provision of an alternative model of transportation that allows Paramedic Services to remain within their communities providing a more rapid emergency response.

Recurrent review of unique and opportunistic programs will only help in the betterment of response times. With the continued support of the Board, Paramedic Services will continuously strive to improve services to all its citizens.