Committee Report

To:	Warden Halliday and Members of Grey County Council
Committee Date:	August 09, 2018
Subject / Report No:	PSR-CW-09-18
Title:	Grey County Paramedic Services Response Time Performance Plan
Prepared by:	Kevin McNab
Reviewed by:	Kim Wingrove, Kevin Weppler
Lower Tier(s) Affected:	All
Status:	Recommendation adopted by Committee of the Whole as presented per Resolution CW202-18; Endorsed by County Council on September 13, 2018 per Resolution CC85-18.

Recommendation

1. **That Report PSR-CW-09-18 be received and that the 2019 Response Time Performance Plan outlined in the report be approved by October 01, 2018 and submitted to the Ministry of Health and Long-Term Care by October 31, 2018.**

Executive Summary

Grey County Paramedic Services (GCPS) is required under current legislation to submit annually a Response Time Plan to the Ministry of Health and Long-Term Care (MOHLTC) related to ambulance response time targets within the County. The 2018 submission will cover the 2019 operational year.

There are six set criteria that will be measured under the Response Time Target Plans. Five of the performance targets are measured by response times related to patient presentation as indicated by the Canadian Triage and Acuity Scale (CTAS) however, one of the six criteria is based on community response to patients in cardiac arrest.

Based on the 2017 response time performance and the 2018 response time performance to June 30th, the same targets continue to be recommended for the 2019 year with a review of deployment modelling to improve the Sudden Cardiac Arrest and CTAS 2 response time target.

In 2017 the total patient call volume increased 9.8% with code 4 emergency calls increasing by 11.4%. The 2017 service call volume now matches the number of calls when the original response time targets were developed for the County in 2012. In 2018 the call volume to date is indicating another 9.0% increase in call volume. To meet response time targets in the setting of

continual yearly increases in call volumes will require additional resources, changes in targets or system service delivery.

Background and Discussion

Grey County Paramedic Services (GCPS) is required under current legislation to submit annually a Response Time Plan to the Ministry of Health and Long-Term Care (MOHLTC) related to ambulance response time targets within the County. The 2018 submission will cover the 2019 operational year.

Response Time Targets

There are six set criteria that will be measured under the Response Time Target Plans. Five of the performance targets are measured by response times related to patient presentation as indicated by the Canadian Triage and Acuity Scale (CTAS) however, one of the six criteria is based on community response to patients in cardiac arrest. The response time targets and criteria are described below:

1. The percentage of times that a person equipped to provide any type of defibrillation has arrived on-scene to provide defibrillation to sudden cardiac arrest patients within six (6) minutes of the time notice is received.

2. The percentage of times that an ambulance crew has arrived on-scene to provide ambulance services to sudden cardiac arrest patients or other patients categorized as CTAS 1 within eight (8) minutes of the time notice is received respecting such services.

3. The percentage of times that an ambulance crew has arrived on-scene to provide ambulance services to patients categorized as CTAS 2, 3, 4 and 5 within the response time targets set by the upper-tier municipality or delivery agent under its plan established under subsection (2). O. Reg. 267/08, s. 1 (2); O. Reg. 368/10, s. 1 (2).

CTAS is described as:

CTAS I: 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 II: requires emergent care and includes conditions that are a potential threat to life or limb functions, requiring rapid medical intervention or delegated acts (for example, head injury, chest pain or internal bleeding).

CTAS III: requires urgent care and includes conditions that could potentially progress to a serious problem requiring emergency intervention, such as mild to moderate breathing problems, resolved seizure with normal level of alertness, moderate anxiety /agitation.

CTAS IV: requires less-urgent care and includes conditions related to patient age, distress or potential for deterioration or complications that would benefit from intervention or reassurance, such as urinary symptoms, laceration requiring stitches, upper extremity injury.

CTAS V: 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, minor bites, dressing change.

Percentile Response Time Measurement:

An important measurement of how a paramedic system is performing is indicated in the time in which it responds to emergencies. The response time is measured from the time the crew is first notified until the paramedic radios that they arrived at the scene of the emergency. A percentile response time measurement is the percentage of calls where paramedics arrive at the scene of an emergency in a specified time frame. For example if the response time performance plan was to arrive on scene within 15 minutes 90 percent of the time and it was measured against 1000 calls, 900 calls would have to be under 15 minutes to meet the target.

Grey County Response Time Performance

The following chart reflects the set service response time targets, service performance for the 2017 calendar year, service performance for 2018 to June 30th as well as a 5 year average. All aspects of services response time performance are currently exceeding the targets set except for the paramedic response to Sudden Cardiac Arrest and CTAS 2 calls.

Call Type	Response Time Target	2018 Target	2017 Results	2018 Results To June 30th	5 Year Average
Sudden Cardiac Arrest	Six (6) minutes or less	40%	38.33%	36.84%	46.19%
CTAS 1	Eight (8) minutes or less	60%	68.42%	67.86%	63.56%
CTAS 2	Fifteen (15) minutes or less	90%	88.87%	89.28%	89.85%
CTAS 3	Twenty (20) minutes or less	90%	96.64%	96.84%	97.25% (20 min) 99.87% (30

					min)
CTAS 4	Twenty (20) minutes or less	90%	96.35%	97.29%	96.91% (20 min) 99.60% (30 min)
CTAS 5	Twenty (20) minutes or less	90%	94.58%	95.30%	96.03% (20 min) 99.47% (30 min)

Response Time Performance Recommendation for 2019

Based on the 2017 response time performance and the 2018 response time performance to June 30th, the same targets continue to be recommended for the 2019 year with a review of deployment modelling to improve the Sudden Cardiac Arrest and CTAS 2 response time target.

The following table provides the 2019 response time targets recommended for Grey County Paramedic Services:

Target	Call Type	Provider	Response Time Target	Percentage of Time Achieved
1.	Sudden Cardiac Arrest	Community Defibrillator Response	Six (6) minutes or less	40%
2.	CTAS 1	Paramedic Response	Eight (8) minutes or less	60%
3.	CTAS 2	Paramedic Response	Fifteen (15) minutes or less	90%
4.	CTAS 3	Paramedic Response	Twenty (20) minutes or less	90%
5.	CTAS 4	Paramedic Response	Twenty (20) minutes or less	90%
6.	CTAS 5	Paramedic Response	Twenty (20) minutes or less	90%

Detailed Description of Response Time Targets

Sudden Cardiac Arrest

The Community Defibrillator Response to sudden cardiac arrest targets the percentage of times that a defibrillator will be at a patient's side in a cardiac arrest call situation within a six (6) minute timeframe as set by the Ministry of Health and Long-Term Care. This percentage of calls and how the clock stops is determined not only when an ambulance arrives to the patient's side but also includes any time a first responder also arrives (fire fighters and/or civilians at sites equipped with defibrillators). This patient is also determined to be part of the CTAS 1 Target. The target of 40 percent is representative of the rural nature of paramedic services delivery in Grey County with difficult driving conditions during inclement weather and increased driving distances. Grey County has implemented the Public Access Program to assist with meeting this target and currently has over 140 automated external defibrillators located throughout the County.

CTAS 1

Paramedic response to CTAS 1 calls target the percentage of times that an ambulance responds to patients presenting with life threatening injuries or illnesses in eight (8) minutes or less as set by the Ministry of Health and Long-Term Care. This is an ambulance only target but does include ambulance response to patients suffering from sudden cardiac arrest.

CTAS 2

Paramedic response to CTAS 2 calls target the ambulance responds to patients presenting with serious injuries or illnesses in fifteen (15) minutes or less measured as a 90th percentile. This target has been set by the County based on the historical data related to emergency call response in Grey County.

CTAS 3

Paramedic response to CTAS 3 calls target the ambulance responds to patients presenting with moderate injuries or illnesses in twenty (20) minutes or less measured as a 90th percentile. This target has been set by the County based on the historical data related to emergency call response in Grey County.

CTAS 4

Paramedic response to CTAS 4 calls target the ambulance responds to patients presenting with non-serious injuries or illnesses in twenty (20) minutes or less measured as a 90th percentile. This target has been set by the County based on the historical data related to emergency call response in Grey County.

CTAS 5

Paramedic response to CTAS 5 calls target the ambulance responds to patients presenting with very minor injuries or illnesses in twenty (20) minutes or less measured as a 90th percentile. This target has been set by the County based on the historical data related to emergency call response in Grey County.

Variables Affecting Performance

There are a number of variables that affect the County's ability to meet the response time targets set above. Some are in the control of the County and some are outside of the control of the County. The following list identifies those factors:

Accuracy of Data

The accuracy of the data utilized in setting the targets and then measuring performance against those targets is reliant on the Ministry of Health Ambulance Dispatch Data Access Services (ADDAS) dispatch data. The accuracy of this data has been called into question in the past and although attempts to correct the data are ongoing, the long term viability of a reliable data set has not been established. Logging the time of arrival at scene is a manual process which could lead to errors in the data. More technology and automation with GPS and computer aided

dispatching will improve data reliability.

Community Response to Sudden Cardiac Arrest Data Capture

The ability to capture Community Response to patients suffering from sudden cardiac arrest is limited to obtaining response time data from allied agencies or locations where Public Access Defibrillators are located. Logging of this data is a manual process which could lead to errors in recording the accurate time of arrival.

Challenge of Meeting Targets in Rural Ontario

Across the Province call volumes for high priority life threatening calls (CTAS 1) make up a small portion of the overall call activity for paramedic services. Response to Sudden Cardiac Arrest and CTAS 1 calls make up less than 2 % of the total call volumes performed by Grey County Paramedic Services. Provincial targets are designed for a 4 to 5 minute travel time to a sudden cardiac arrest call and a 6 to 7 minute travel time to a CTAS 1 call. The low population density and large geography makes it difficult to meet response time target criteria outside of the urban areas where the ambulances are located.

Increasing Emergency Call Volumes

It is important to recognize that call volumes have been increasing at an average of 6.6% for code 3 and 4.9% for code 4 calls annually over the past 10 years. In 2012 the total volume for non-emergency and emergency calls peaked at a total of 11,372. Non-emergency call volumes at that time were 2,790. Since 2012 paramedic services has concentrated its ability to respond to emergency calls while reducing its ability to respond to non-emergency calls. In 2017 the non-emergency call volume was 323 while the emergency call volume was 11,030 for a total of 11,353 calls. In 2017 the total patient call volume increased 9.8% with code 4 emergency calls increasing by 11.4%. The 2017 service call volume now matches the number of calls when the original response time targets were developed for the County in 2012. In 2018 the call volume to date is indicating another 9.0% increase in call volume. To meet response time targets in the setting of continual yearly increases in call volumes will require additional resources, changes in targets or system service delivery.

Addressing Increasing Call Volumes and Response Time Performance

Enhancing Emergency Services Ontario

The Ministry of Health and Long-Term Care (MOHLTC) is embarking on a journey to enhance and modernize the province's emergency health services (EHS) system. The purpose is to improve and sustain quality coordinated care across the patient's journey to accessing care.

The province is investing in a new medical dispatch system that will help triage and prioritize 911 calls for paramedic services. This new system is expected to be in place in the first site by the end of 2018. This system will better prioritize calls based on patient need and redirect low acuity patients to locations other than emergency departments in instances where it would be safe and appropriate to do so.

Recent updates to the Ambulance Act will allow paramedics to assess patients and make decisions to manage those patients in new ways, under appropriate medical delegations and where deemed safe and appropriate to do so. Options include providing some forms of treating and referring the patient to continuing care (e.g., primary, home and/or community-based) or releasing the patient, without the need for transport to the emergency department. Consideration can also be given in the use of vehicles other than ambulances, for instance "emergency response vehicles", for use by services to respond to low acuity calls in a Treat & Refer/Treat & Release model where patient transport is not deemed required. Previously, paramedics were bound by law to transport patients to hospital facilities only. Providing more flexibility will allow patients to receive the most appropriate care while reducing unnecessary trips to emergency departments. This approach will also assist in having ambulances available to respond to emergencies by not having their services tied up on low acuity calls.

Chatsworth Base

It is recognized by staff that The Township of Chatsworth's overall response times are consistently lower than the other Lower Tier Municipalities within the County. It is anticipated that the building of the new Chatsworth Base will help reduce response times however, the occupancy will not occur until December of this year. The full realization of improved response times will occur in 2019. In the interim to help reduce response times the service is performing mobile coverage in the Chatsworth area on weekends and holidays throughout the summer.

Legal and Legislated Requirements

Land Ambulance Response Time Standard Reg 257/00 Part VIII

Financial and Resource Implications

The implementation of the Response Time Performance Plans will have no immediate effect on budgets, staffing, legal or information technology issues.

Relevant Consultation

☐ External:

☒ Internal: CAO, Finance

Appendices and Attachments

None