



Committee Report

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| To: | Warden McQueen and Members of Grey County Council |
| Committee Date: | August 13, 2020 |
| Subject / Report No: | PSR-CW-05-20 |
| Title: | Grey County Paramedic Services Response Time Performance Plan for 2021 |
| Prepared by: | Kevin McNab |
| Reviewed by: | Kim Wingrove, Kevin Weppler |
| Lower Tier(s) Affected: | All |
| Status: | Recommendation adopted by Committee as presented per Resolution CW147-20; Endorsed by County Council September 10, 2020; |

Recommendation

- 1. That Report PSR-CW-05-20 be received and that the 2021 Response Time Performance Plan outlined in the report be approved and submitted to the Ministry of Health; and**
- 2. That staff bring a report to County Council prior to 2021 budget deliberations for consideration of enhanced staffing to improve response times.**

Executive Summary

Grey County Paramedic Services (GCPS) is required under current legislation to submit annually a Response Time Performance Plan to the Ministry of Health related to ambulance response time targets within the County. The 2020 submission will cover the 2021 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 2019 response time performance and the 2020 response time performance to June 30th, 2020, the same targets continue to be recommended for the 2021 year.

Response times have shown improvement since the opening of the Chatsworth base and staff are examining options to improve service response times in a future report.

Background and Discussion

Grey County Paramedic Services (GCPS) is required under current legislation to submit annually a Response Time Performance Plan to the Ministry of Health related to ambulance response time targets within the County. The 2020 submission will cover the 2021 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).

Grey County Response Time Performance By CTAS

The following chart reflects the set service response time targets, service performance for the 2019 calendar year, service performance for 2020 to June 30th and a 4 -year average.

| Call Type | Response Time Target | 2019 Target | 2019 Results | 2020 Results to June 30th | 4 Year Average |
|-----------------------|------------------------------|--------------------|---------------------|---|-----------------------|
| Sudden Cardiac Arrest | Six (6) minutes or less | 40% | 57.81% | 50.00% | 46.08% |
| CTAS 1 | Eight (8) minutes or less | 60% | 72.60% | 62.50% | 66.18% |
| CTAS 2 | Fifteen (15) minutes or less | 90% | 88.71% | 89.41% | 89.11% |
| CTAS 3 | Twenty (20) minutes or less | 90% | 97.16% | 95.86% | 96.63% |
| CTAS 4 | Twenty (20) minutes or less | 90% | 97.30% | 96.25% | 96.71% |
| CTAS 5 | Twenty (20) minutes or less | 90% | 96.34% | 95.63% | 95.94% |

All aspects of services response time performance for 2020 to June 30th are exceeding the targets except CTAS 2.

In 2015, due to the previous above target performance, the County improved the response time targets for arrival at CTAS 1 calls in eight (8) minutes from 50% to 60%. For CTAS 3 to 5 the response time commitment was also improved by reducing the time to respond from thirty (30) minutes to twenty (20) minutes, 90% of the time.

County Percentile Response Time - All Code 4 Calls

2020 to June 30th – 15:17 minutes

2019 – 14:51 minutes

County Average Response Time - All Code 4 Calls

2020 to June 30th – 7:59 minutes

2019 – 7:43 minutes

Response Time Performance Recommendation for 2020

Based on the 2019 response time performance and the 2020 response time performance to June

30th, 2020, the same targets continue to be recommended for the 2021 year.

The following table provides the 2020 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% |

Emergency Call Volumes

Call volume for the 2020 year to June 30th has seen an overall decrease of 8.9%. In 2020 to June 30th, there have been 5,377 calls for service compared to 5,902 in 2019 for the same time period.

It is important to recognize that call volumes have been increasing at an average of 3.4% for code 3 and 5.9% for code 4 calls annually over the past 10 years. In 2012, the total volume for non-emergency and emergency calls was 10,934. Non-emergency call volumes at that time were 2,726. Since 2012, paramedic services has concentrated its ability to respond to emergency calls while reducing its ability to respond to non-emergency calls. In 2019, the non-emergency call volume was 237 while the emergency call volume was 11,681 for a total of 11,918 calls. In 2019, the total patient call volume increased by 1.49% and by 19.0% in the previous 3 years. The 2019 service call volume now surpasses the number of calls by almost 1,000 from when the original response time targets were developed for the County in 2012. To meet response time targets in the setting of continual yearly increases, call volumes will require additional resources, changes in targets or system service delivery.

Chatsworth Coverage and Response Time

On January 19, 2019, the Chatsworth base officially went operational and is staffed daily from 12:00 – 00:00. Coverage is also provided in the mornings by the Community Paramedic who is based out of the Chatsworth base or a unit from Owen Sound when available. Due to the call

volume in Owen Sound and the surrounding area, the additional coverage is not always available. The Chatsworth crew is often pulled into Owen Sound for emergency coverage and calls as well.

In 2019, there were 379 code 4 calls and 145 code 3 calls in the Township of Chatsworth. Response times have shown improvement since the opening of the Chatsworth base. The overall 90th percentile for code 4 calls has decreased by three (3) minutes from 2017 with over a four (4) minute decrease during staffed hours. The average response time has also decreased by over two (2) minutes during the same time frame. Since January 2019, using the response time standards by CTAS, there has been minimal changes to response times to Sudden Cardiac Arrest and CTAS 1 calls, with some improvements to CTAS 2 through CTAS 5 calls.

90th Percentile Response Time Code 4 Chatsworth

| Year | All Hours | Staffed 12:00-12:00 | Coverage CP/Owen Sound 07:00-12:00 | Not Staffed or Covered by CP/Owen Sound 00:00 – 07:00 |
|------|-----------|------------------------|--|--|
| 2020 | 18:48 | 17:18 | 18:18 | 21:14 |
| 2019 | 19:25 | 18:32 | 19:05 | 20:49 |
| 2018 | 20:21 | N/A | N/A | N/A |
| 2017 | 21:49 | N/A | N/A | N/A |

Average Response Time Code 4 Chatsworth

| Year | All Hours | Staffed 12:00-12:00 | Coverage CP/Owen Sound 07:00-12:00 | Not Staffed or Covered by CP/Owen Sound 00:00 – 07:00 |
|------|-----------|------------------------|--|--|
| 2020 | 12:40 | 12:13 | 11:45 | 16:08 |
| 2019 | 12:44 | 12:06 | 12:14 | 15:21 |
| 2018 | 14:15 | N/A | N/A | N/A |
| 2017 | 14:43 | N/A | N/A | N/A |

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.

Staff is examining options to improve the service response time which will be provided in a future report.

Relevant Consultation

External:

Internal: CAO, Finance

Appendices and Attachments

Canadian Triage and Acuity Scale Description

Detailed Description of Response Time Targets

Variables Affecting Performance

Enhancing Emergency Services

Canadian Triage and Acuity Scale (CTAS) is described as:

CTAS Level: The 'Canadian Triage & Acuity Scale' is used to assign a level of acuity to a patient. Acuity refers to the gravity of the situation – the potential for death and/or irreversible illness. CTAS is a tool that more accurately defines the patient's need for care. Assignment of the CTAS level is to be based upon not only the presenting complaint identified on the initial assessment made by the paramedic, but also on their examination findings, and response to treatment.

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.

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 150 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 several 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 Data Reporting System (ADRS) 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. Computer aided dispatching of all calls began on July 15, 2020.

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.

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 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. There is not a determined time at present of the first implementation.

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.

