 Committee Report

# Report PSR-CW-10-17

**To**: Warden Barfoot and Members of Grey County Council

**From**: Kevin McNab, Director of Paramedic Services

**Meeting Date:** August 10, 2017

**Subject: 2018 Response Time Target Performance Plan**

**Status**:

## Recommendation

1. **That Report PSR-CW-10-17 be received and that the 2018 Response Time Plan outlined in the report be submitted to the Ministry of Health and Long-Term Care by October 1, 2017.**

## Background

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 2017 submission will cover the 2018 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).

Percentile response time measurement:

One of the most important measurements of how a paramedic system is performing is indicated in the time in which it responds to emergencies. 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.

CTAS is described as:

1. **CTAS I**: severely ill, requires resuscitation
2. **CTAS II**: requires emergent care and rapid medical intervention
3. **CTAS III**: requires urgent care
4. **CTAS IV**: requires less-urgent care
5. **CTAS V**: requires non-urgent care

**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.

### Grey County Response Time Performance 2016

The chart below reflects the service response time performance for the 2016 calendar year. All aspects of response time performance exceeded the targets set except for the paramedic response to CTAS 2 calls. This call type was short of meeting the target by 8 calls.

| **Target** | **Call Type** | **Provider** | **Response Time Target** | **Target** | **2016****Performance** |
| --- | --- | --- | --- | --- | --- |
| 1. | Sudden Cardiac Arrest | Community Defibrillator Response  | Six (6) minutes or less | 40% | 42.11%24/57 calls |
| 2. | CTAS 1  | Paramedic Response  | Eight (8) minutes or less | 60% | 63.19%103/163 calls |
| 3. | CTAS 2  | Paramedic Response | Fifteen (15) minutes or less | 90% | 89.50%1288/1441calls |
| 4. | CTAS 3 | Paramedic Response  | Twenty (20) minutes or less | 90% | 97.85%2135/2182 calls |
| 5. | CTAS 4 | Paramedic Response  | Twenty (20) minutes or less | 90% | 97.47%348/357 calls |
| 6. | CTAS 5 | Paramedic Response | Twenty (20) minutes or less | 90% | 97.49%272/279 |

It is anticipated that the building of the new Chatsworth Base in 2018 will help reduce response times however, the occupancy will not occur until the fall of 2018. 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 throughout the summer.

Based on the 2016 response time performance, the targets set for 2018 targets continue to be recommended with a review of deployment modelling to improve the CTAS 2 response time target.

The following table provides the 2018 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 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

The nature of emergency medical services in rural Ontario dictates that call volumes for high priority life threatening calls make up a small portion of the overall call activity for the service. Community Response to Sudden Cardiac Arrest and CTAS 1 calls make up less than 2 percent of the total call volumes performed by Grey County Paramedic Services. Provincial targets are designed for a 4 minute travel time to a sudden cardiac arrest call and a 6 minute travel time to a CTAS 1 call. The low population density and large geography make it difficult to meet these response criteria.

#### All Paramedic Service is not the Same

The MoHLTC postings the results of each municipality’s performance against its own targets, however the targets chosen by the municipalities may be diametrically different. In addition, the posting of both rural and urban paramedic service performance on the same page may unfairly paint an unfavorable picture on the rural services. It would be beneficial to have similar municipal paramedic services posted together to separate urban from rural service providers.

#### Increasing Emergency Call Volumes

It is important to recognize that call volumes have been increasing at an average of 6 percent for code 3 and 4 percent for code 4 calls annually over the last 9 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 2016 the non-emergency call volume was 341 while emergency call volume was 9,947 for a total of 10,288. If the call volume increase continues over the next two to three years the service will surpass call volumes of when response time targets were developed for the County. To continue meeting response time targets in this setting will require additional resources, changes in targets or system service delivery.

## Financial/Staffing/Legal/Information Technology Considerations

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

## Link to Strategic Goals/Priorities

Goal 2 – Enabling Healthy and Resilient Communities:

The implementation of the new response time target plans will allow the County to annual review and if necessary, implement improvements to paramedic services delivery in an evidence based, patient centered and economically responsible manner.

## Attachments

None

Respectfully submitted by,

Kevin McNab

Director of Paramedic Services