Paramedic Services 2024 Response Times

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Report Summary

This report provides information regarding the 2024 Response Times that were submitted to the Ministry of Health in March 2025 as per Legislation.

Relationship to the Strategic Plan, Health Impact Assessment and Climate Action Plans

This report refers to operational matters and has no direct connection to the Community Energy and Emissions Plan.

Financial Implications

There are no financial implications associated with this report.

Background

This report updates the Community and Emergency Services Committee on the actual 2024 response times for Paramedic Services, which were submitted to the Ministry of Health and Long-Term Care (MOHLTC) in March 2025, as required by legislation. The existing Response Time Standard (RTS) plan was established in 2013 and approved by Council in line with the Ambulance Act of Ontario, Regulation 257/00. This RTS plan defines service levels by setting and maintaining performance targets to best meet community needs. The plan has remained unchanged since its introduction in 2013.

Response Time Standard Framework

City Council is responsible with setting response time targets and reporting annually to the Ministry of Health and Long-Term Care on compliance with the plan, as outlined in Regulation 257/00 under the Ambulance Act. This regulation allows municipalities to influence response time standards and accommodates medically relevant variations among different types of calls.

Key elements of the regulation include

- Multiple response time targets tailored to different medical categories.
- Performance measurements based on variable percentiles.

- Flexibility for Council to maintain or modify targets for both time and percentile performance.

Reportable Call Criteria

The response time framework is built on these criteria:

- The percentage of cases in which someone equipped with a defibrillator (e.g., a bystander, emergency responder, or paramedic) arrives on-scene to provide defibrillation to sudden cardiac arrest (SCA) patients within six minutes of notification. The clock stops once defibrillation-capable assistance arrives.
- The percentage of incidents where an ambulance crew reaches the scene within eight minutes of notification to provide services to patients in sudden cardiac arrest or classified as CTAS 1.
- The percentage of cases where an ambulance crew meets response time targets for patients categorized as CTAS 2, 3, 4, or 5, as determined by the upper-tier municipality or delivery agent's response time plan.

Canadian Triage Acuity Scale (CTAS)

The response time standards are based on the Canadian Triage Acuity Scale (CTAS), as illustrated in Figure 1. CTAS is a scientifically validated triage tool used across all hospitals and paramedic services in Ontario. It employs a five-level system, where Level 1 (resuscitation) represents the most critical cases and Level 5 (non-urgent) indicates the least severe. CTAS scores are determined by paramedics upon assessing the patient's condition at the scene.

Patient Severity Categories (Figure 1)

Level of Acuity	**Type of Call**
Sudden Cardiac Arrest (SCA)	Patient with no vital signs
CTAS 1	Critically ill or at risk of rapid deterioration
CTAS 2	Conditions posing potential threats to life, limb, or function, requiring urgent medical intervention and controlled acts
CTAS 3	Conditions that could worsen or cause significant discomfort, affecting the patient’s ability to function
CTAS 4	Conditions where intervention or reassurance would be beneficial
CTAS 5	Non-urgent, chronic issues without signs of deterioration

Submission and Reporting Timelines

- **By October 31**: Submit the response time standards for the following year to the MOHLTC, as approved by Council.
- **By March 31**: File the previous year’s actual response times with the MOHLTC.
- **Between April and June**: Publish the municipal response time plan and achieved results on the MOHLTC website for public access.

Response Time Targets

The Province has established fixed response time targets for sudden cardiac arrest (SCA) and CTAS 1 calls. These include:

- **6 minutes**: The time within which someone equipped with a defibrillator (EMS, fire services, or a public-access defibrillator) should reach the scene for SCA cases.
- **8 minutes**: The time target for a paramedic to arrive on the scene for CTAS 1 patients.

These fixed times are grounded in the latest medical evidence. Municipalities are responsible for reporting the percentage of cases in which these targets are met.

For patients categorized as CTAS 2 to CTAS 5, municipalities set both the response time targets and the percentage of cases meeting these standards. In October 2024, Paramedic Services submitted the 2025 response time targets (Figure 2). Notably, the Response Time Standard (RTS) plan has remained unchanged since the MOHLTC introduced legislative adjustments in 2013.

Response Time Standards (RTS) by Level of Acuity (Figure 2)

Level of Acuity	Time	Percentage
Sudden Cardiac Arrest	6 minutes (set by MOHLTC)	70%
CTAS 1	8 minutes (set by MOHLTC)	80%
CTAS 2	10 minutes (set by CGS)	85%
CTAS 3	15 minutes (set by CGS)	85%
CTAS 4	15 minutes (set by CGS)	85%
CTAS 5	15 minutes (set by CGS)	85%

RTS Actuals Submitted to MOHLTC- March 2025 (Figure 3)

Comparison of RTS actuals from previous years, as shown in Figure 3. Years where RTS percentage was not met are highlighted in yellow.

Level of Acuity	Types of Call	Approved RTS%	% RTS 2020	% RTS 2021	% RTS 2022	% RTS 2023	% RTS 2024
Sudden Cardiac Arrest	Patient has no vital signs	70%	60%	63%	60%	60%	65%
CTAS 1	Critically ill or potential for rapid deterioration	80%	80%	81%	76%	74%	78%
CTAS 2	Potential to life, limb, or function requiring rapid medical intervention or controlled acts	85%	86%	85%	82%	82%	83%
CTAS 3	May progress to serious problems; significant discomfort or affects ability to function	85%	96%	96%	95%	95%	95%
CTAS 4	Conditions that would benefit from intervention or reassurance	85%	97%	97%	95%	95%	95%
CTAS 5	Non-urgent, chronic conditions without evidence of deterioration	85%	97%	98%	96%	94%	92%

Analysis

The Paramedic Service prioritizes delivering responsive and high-quality prehospital clinical care to residents and visitors of Greater Sudbury. As part of this commitment, Paramedic Services conducts thorough reviews of all Sudden Cardiac Arrest (SCA) calls to analyze instances where the Response Time Standard (RTS) was not achieved. These reviews examine factors such as call location, travel times, call volume, and

resource availability. Over the past five years, challenges to meeting SCA RTS have been attributed to rising call volumes, geographical factors, Ambulance Offload Delays (AODs), and limited paramedic resources.

Steps for Improvement

The service continually evaluates performance and identifies opportunities for enhancing RTS, including:

- Assessing RTS performance for SCAs and CTAS calls.
- Adjusting deployment strategies to adapt to changing demands.
- Reviewing staffing patterns and levels.
- Determining EMS resources needed to address geographic issues.
- Evaluating non-urgent transportation needs.

Performance Review

In 2024, Paramedic Services handled 33,108 calls, of which 127 (0.4%) were SCAs. A defibrillator was on-site within six minutes for 81 calls. Achieving the 70th percentile required arriving within six minutes for 89 calls. Factors affecting response times included drive and chute times, simultaneous call occurrences, and geographical constraints. Although SCAs represent a small percentage of calls, even a few delays significantly impact RTS performance.

Service Trends

Over the past five years, calls for service increased by 17% (from 28,147 to 33,108), while patient transports rose by 30%. In 2023, two additional ambulances were implemented, from this time to the end of 2024, there was an increase of calls for service by 2%.

The increase in calls for service over the past five years is primarily driven by aging demographics, that ultimately strains the hospital system and contributes to Ambulance Offload Delays.

Ambulance Offload Delays

An Ambulance Offload Delay (AOD) is a delay in the normal Transfer of Care (TOC) process between paramedics and emergency department nursing staff. Sudbury Paramedic Services has been dealing with AODs since 2005. The principal cause of AODs is a lack of in-patient bed capacity, leading to high numbers of in-patients remaining in the emergency department (ED), thus resulting in overcrowding in the ED. Any patient that visits the emergency department with a health problem for diagnosis or treatment, but does not require admission, is classified as an out-patient.

Paramedic Services data indicates that in 2023 Sudbury Paramedic Services spent approximately 7,072 hours at the hospital on AODs. This equates to 19 hours every single day of the year of lost time for emergency resources. In 2024, AODs had decreased to 6,236 hours or 12% from the previous year, equating to 17 hours of resource unavailability daily. Resource depletion during high call volumes has necessitated assistance from neighboring paramedic services, impacting Balanced Emergency Coverage (BEC) and RTS targets.

Code Zero

Code Zero is a term used by Paramedic Services when there are no ambulances available to respond to emergency calls. This can occur when there is a surge in calls for service at the same time and when multiple emergency resources are on AOD. When code zero occurs, there are mitigation strategies to address:

- Paramedic supervisor contacts the charge nurse at Health Sciences North to discuss patient flow strategies.
- Paramedics double up on patients to help free up emergency resources.

- Patients that meet criteria are placed into the emergency waiting room “Fit2Sit program”.
- Paramedic staff are pulled from training sessions.
- Neighbouring services are called upon to help fill the service gap whenever necessary.

In 2023 there were 73 occurrences of code zero compared to 66 in 2024 resulting in a 9.6% decrease. The average event length of a code zero in 2023 was 35 minutes compared to 32 minutes in 2024.

Mitigation Efforts

To address AODs, the Ministry of Health and Long-Term Care provided a 100% grant ($579,390 for 2024/2025) to fund the Designated Offload Nurse Program (DOLNP). This program funds an offload nurse and two paramedics at Health Sciences North (HSN) to care for patients brought to the hospital by ambulance, alleviating some of the AOD pressures. Funding for the 2025/2026 period has been requested, alongside ongoing evaluations to enhance the program.

Non-Urgent Transportation

Non-urgent transportation involves moving medically stable patients between hospitals, healthcare facilities, or their homes. These patients typically do not require an ambulance staffed by paramedics. However, using Sudbury Paramedic resources for non-urgent transport affects ambulance availability.

In 2021, Paramedic Services proposed a 100% funded initiative to the Ministry of Health for a dedicated non-urgent ambulance. This proposal was approved in December 2023 with a one-time funding allocation of $978,000 for 2024 to 2026. The non-urgent transportation unit began operations on May 27, 2024, handling calls Monday to Friday, 7:00 AM to 7:00 PM, and weekends, 7:00 AM to 5:00 PM. Between its launch and December 31, 2024, this unit completed 1,048 non-urgent transfers, easing the demand on emergency resources, as this number is not included in the 33,108 calls for service in 2024.

Future of Dispatching

The Ministry-operated, Central Ambulance Communication Centre-Sudbury (CACC), is currently using the Dispatch Priority Card Index as a tool for patient triaging. This tool determines the priority for each call, deploying a paramedic crew to respond based on a four-code scale, where Code 4 indicates the most urgent life-threatening emergency requiring the fastest ‘lights and sirens’ response. Some Ambulance Communication Centres in Ontario have already implemented the Medical Priority Dispatch System (MPDS) and CACC-Sudbury will be implementing it in 2026. The MPDS system is an internationally used patient triage system. It changes how calls are prioritized based on their urgency, provide better information to responding paramedics, and improve response for true emergencies.

Paramedic Services that are currently using MPDS have seen the following benefits of this dispatching program:

- Decrease in shift overrun
- Meal breaks on time
- Overtime reduction
- Better use of resources, more availability for high acuity calls
- Reduced offload delay, less low acuity surge volumes showing up at ED during the same time period
- Reduction in high acuity call volume
- Reduction in vehicle movement to maintain Balanced Emergency Coverage (BEC)

Once MPDS is implemented within the CACC-Sudbury, we anticipate that it will have a positive impact on our response time performance and will ensure that patients receive a paramedic response based on their condition.

Conclusion

Increasing call volumes and on-going AODs have stretched emergency resources, contributing to Paramedic Services not achieving the Response Time targets for SCA, CTAS1 and CTAS2 in 2024. Mitigation strategies are in place to alleviate some of these pressures which include the Designated Offload Nursing Program and the Non-Urgent Transportation Program. In 2026, a new dispatching model, MPDS, will be implemented at the CACC-Sudbury. We anticipate that it will have a positive impact on resource deployment and improve our response times. In the meantime, staff will continue to assess response times and related challenges across all categories of the current Response Time Performance Plan.