

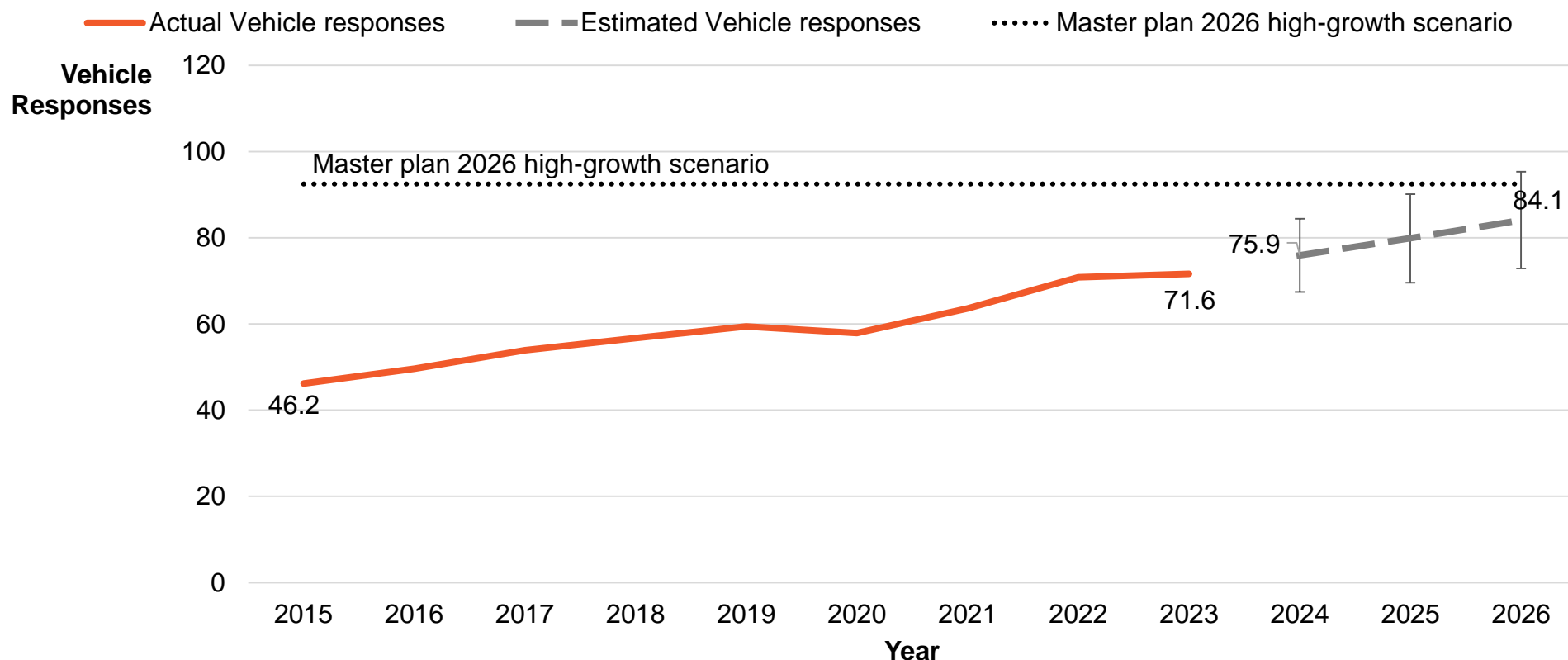
Appendix A

Paramedic Services Performance Measurement Key Indicator Trends

Actual and forecast number of vehicle responses, by year

Region of Waterloo Paramedic Services, inside and outside of Waterloo Region, 2015 to 2026

Growth in vehicle response slowed from 11 per cent in 2022 to 1 per cent in 2023. There great uncertainty in the forecast due to changes in seasonality, demographics, and patient behaviours.

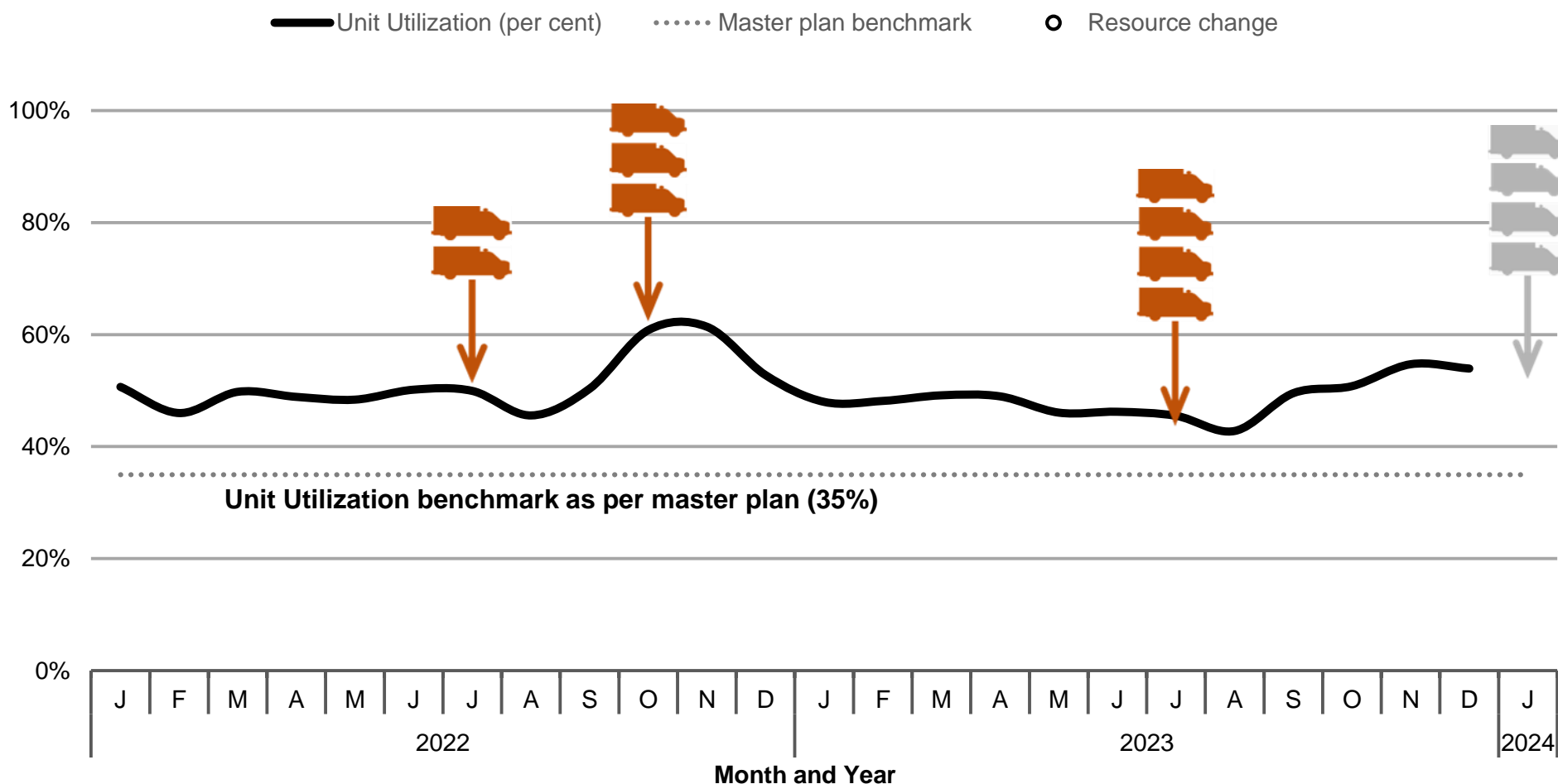


Source: Ambulance Dispatch and Reporting System (ADRS) (January 2024)

Unit Utilization (ambulance use) by month

Region of Waterloo Paramedic Services, January 2015 to December 2023

Unit utilization is lower than in fall 2022, but needs to continue to decrease to become sustainable.





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Notes: For unit utilization, a decreasing trend is considered positive, while an increasing trend is seen as a negative. As part of on-going quality improvement initiatives the unit utilization indicator has been significantly revised since last reported. Changes to the indicator include, accounting for some of the differences between the scheduled shifts and the actual staffed shifts, as well as shifting the time point at which an ambulance is considered engaged in a call from the time the ambulance is enroute to the call (T3) to the time the ambulance was notified of the call (T2). Ongoing and future data quality initiatives will result in additional changes to the indicator and differing results. When additional changes occur historical data will be recalculated using the new methods and a note provided to explain the impact.

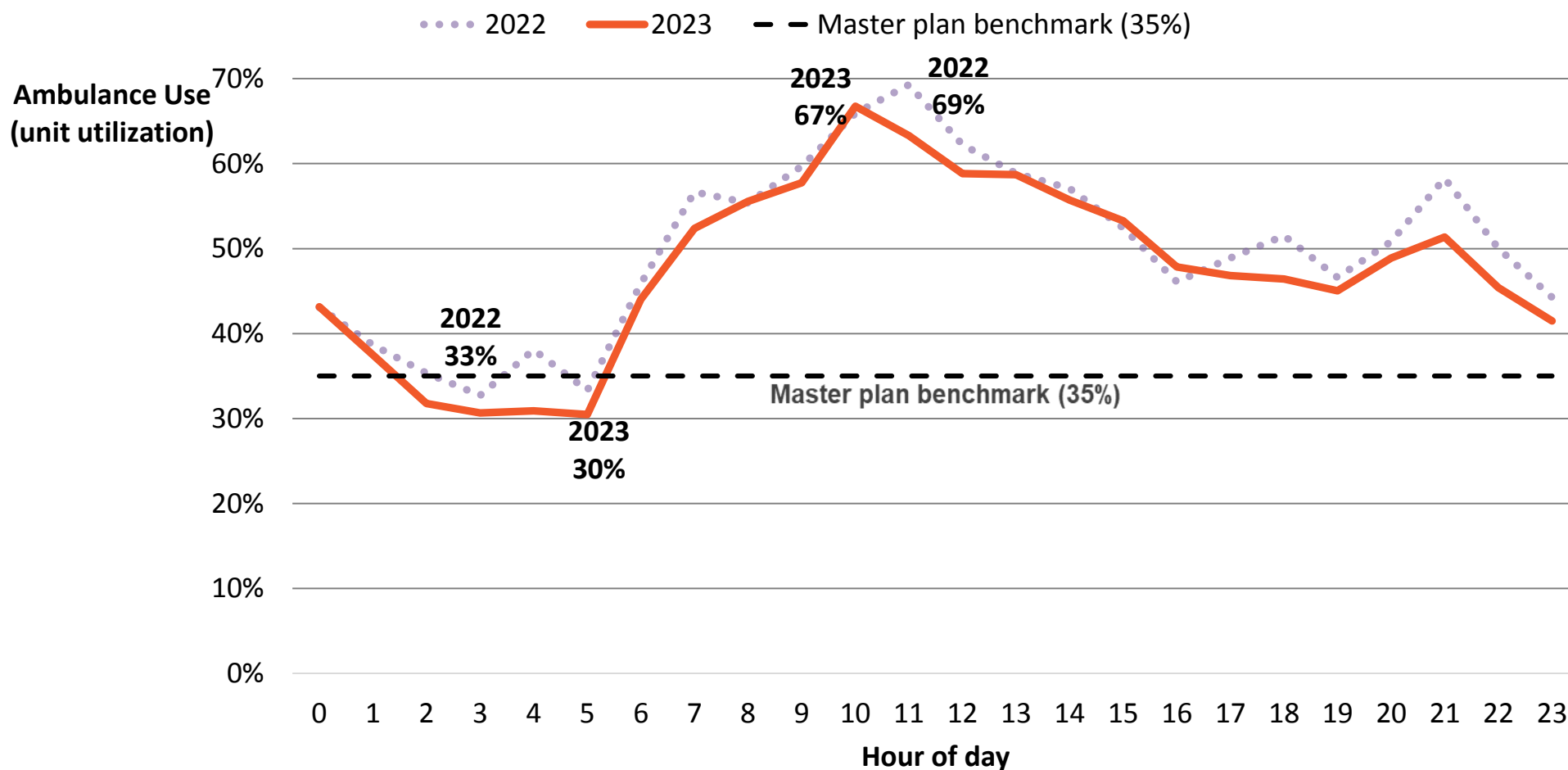
Sources: ADRS (January 2024) and TAMS (February 2024)

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Unit Utilization (ambulance use) by hour of day

Region of Waterloo Paramedic Services, 2022 and 2023

Unit utilization remains well above the recommended threshold of 35 per cent for most hours of the day.





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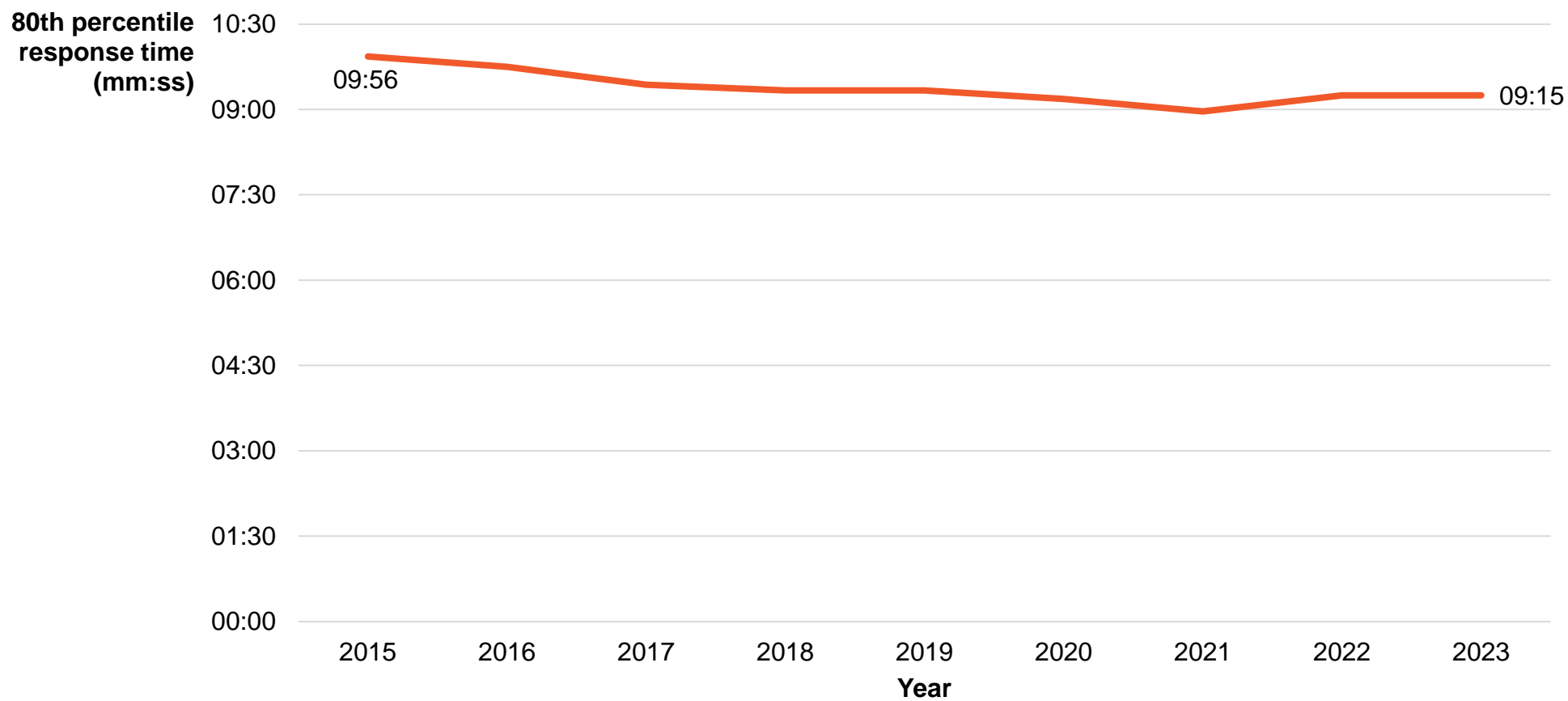


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80th percentile response time to emergency calls (code 4) by year

Region of Waterloo Paramedic Services, inside Waterloo Region, 2015 to 2023

Despite increased call volume and other pressures facing the service, response times remain consistent.

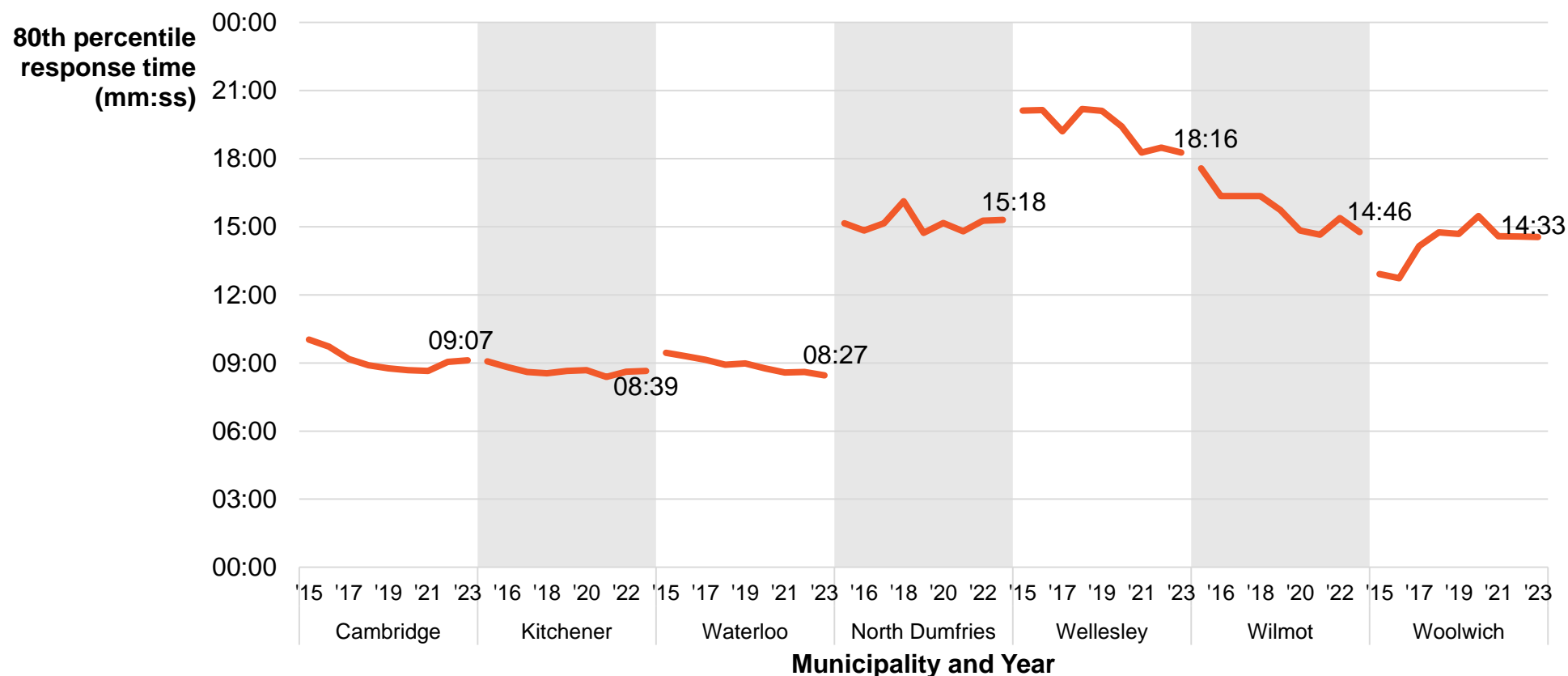


Source: ADRS (January 2024)

80th percentile response time to emergency calls (code 4) by municipality and year

Region of Waterloo Paramedic Services, inside Waterloo Region, 2015 to 2023

Response times improved across most municipalities and remain below historical highs.



Note: Response times are not intended to be measured at the municipal level.

Sources: ADRS (January 2024)

Compliance to 2023 response time performance plan, by Canadian Triage Acuity Score (CTAS)

Region of Waterloo Paramedic Services, 2022 and 2023

Response times remain consistent across most acuity levels. Compliance results indicate that urgent calls are being given a more appropriate priority and attended to faster.

Sudden Cardiac Arrest (SCA):

- Target: 6 minutes or less for a defibrillator to arrive on scene 70% of the time.
- 2022 result: 71 per cent compliance
 - Seventy per cent of the time YYY calls were responded to within 6 minutes 00 seconds.
- 2023 result: 72 per cent compliance
 - Seventy per cent of the time SCA calls were responded to within 5 minutes 45 seconds.
- The six-minute time standard is set by the Ministry of Health.
- The 70 per cent compliance standard for SCA calls was chosen by Paramedic Services, and exceeds the Ministry mandated compliance target of 50 per cent.
- SCA results include data from local all fire departments.

CTAS 1 (resuscitation):

- Target: eight minutes or less 70 per cent of the time
- 2022 result: 74 per cent compliance
 - Seventy per cent of the time CTAS 1 calls were responded to within 7 minutes 31 seconds.
- 2023 result: 74 per cent
 - Seventy per cent of the time CTAS 1 calls were responded to within 7 minutes 42 seconds.

CTAS 2 (emergent):

- Target: ten minutes or less 80 per cent of the time
- 2022 result: 81 per cent compliance
 - Seventy per cent of the time CTAS 2 calls were responded to within 9 minutes 50 seconds.

- 2023 result: 81 per cent
 - Eighty per cent of the time CTAS 2 calls were responded to within 9 minutes 54 seconds.

CTAS 3 (urgent):

- Target: eleven minutes or less 80 per cent of the time
- 2022 result: 81 per cent compliance
 - Seventy per cent of the time CTAS 3 calls were responded to within 10 minutes 53 seconds.
- 2023 result: 81 per cent
 - Eighty per cent of the time CTAS 3 calls were responded to within 10 minutes 50 seconds.

CTAS 4 (less urgent):

- Target: twelve minutes or less 80 per cent of the time
- 2022 result: 83 per cent compliance
 - Seventy per cent of the time CTAS 4 calls were responded to within 11 minutes 20 seconds.
- 2023 result: 83 per cent
 - Eighty per cent of the time CTAS 4 calls were responded to within 11 minutes 21 seconds.

CTAS 5 (non-urgent):

- Target: twelve minutes or less 80 per cent of the time.
- 2022 result: 80 per cent compliance
 - Seventy per cent of the time CTAS 5 calls were responded to within 11 minutes 57 seconds.
- 2023 result: 82 per cent
 - Eighty per cent of the time CTAS 5 calls were responded to within 11 minutes 41 seconds.

Compliance values should exceed the target while response time percentiles should be lower than the target. Compliance results indicate that urgent calls were given a more appropriate priority and attended to faster. Setting faster times for more urgent calls, and progressively slower times for less urgent calls, is a standard approach. Response times vary according to population, road density, system capacity,



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and road conditions. Drive times are longer in rural areas. To be more reflective of the SCA indicator definition of any defibrillator arriving on scene, only the SCA indicator includes fire department data.

Source: ADRS and TabletPCR (January 2024); Local Fire Department dispatch data (January 2024)

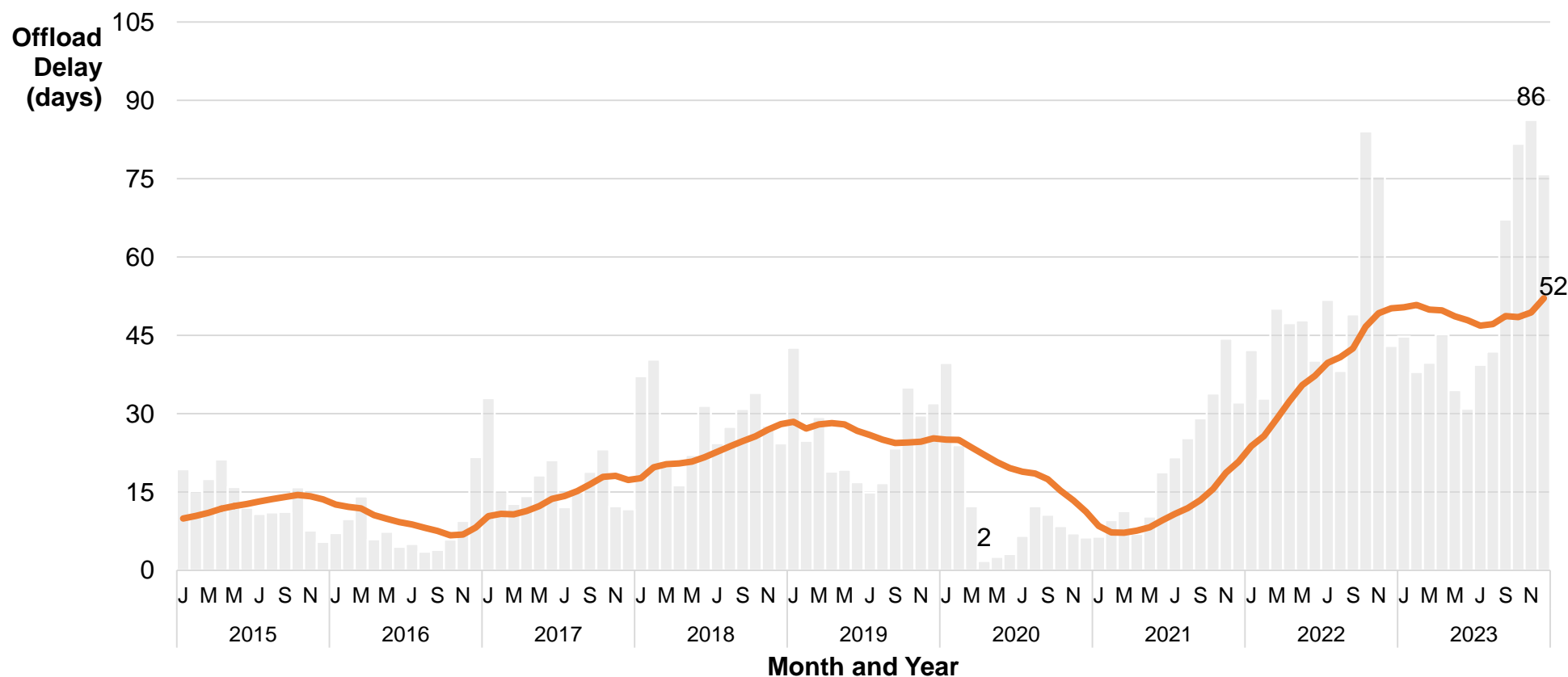


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Monthly total and 12-month moving average of ambulance days lost to offload delay, by month

Region of Waterloo Paramedic Services at local hospitals, January 2015 to December 2023

As of December 2023 Paramedic Services was losing an average of 52 days per month to offload delay or the equivalent of removing three and a half, 12 hour shifts from the schedule every day.



Source: TabletPCR (January 2024)

Summary statistics for code yellow and code red status events

Region of Waterloo Paramedic Services, 2022 and 2023

Code yellow and red events were both less frequent, but were longer in duration in 2023 than in 2022.

Code Yellow Summary:

- Fewer code yellow events in 2023 (691) than 2022 (1,158).
- Fewer total hours spent in code yellow in 2023 (692) than in 2022 (898)
- A smaller proportion of time spent in code yellow in 2023 (7.9%) than in 2022 (10.3%)
- A longer median duration of a code yellow in 2023 (35min 39sec) than in 2022 (25min 47sec)
- A shorter maximum length of code yellow in 2023 (12hr 30min) than in 2022 (12hr 55min).

Code Red Summary:

- Fewer code red events in 2023 (132) than 2022 (210).
- Fewer total hours spent in code red in 2023 (69) than in 2022 (76)
- A similar proportion of time spent in code red in 2023 (0.8%) than in 2022 (0.9%)
- A longer median duration of a code red in 2023 (19min 10sec) than in 2022 (15min 16sec)
- A higher maximum length of code red in 2023 (4hr 24min) than in 2022 (2hr 43min).

Source: CACC (January 2024)

Glossary

ADRS: Ambulance Dispatch Reporting System

CACC: Central Ambulance Communication Centre

Code 1 (Deferrable): A routine call that may be delayed without detriment to the patient (e.g. a non-scheduled transfer; a minor injury).

Code 2 (Scheduled): A call which must be done at a specific time, for example because of special treatment or diagnostic facility requirement (e.g. inter-hospital transfers or a scheduled meet with an air ambulance).

Code 3 (Prompt): A call that should be performed without delay (e.g. serious injury or illness).

Code 4 (Urgent): A call that must be performed immediately where the patients 'life or limb' may be at risk (e.g. Vital Signs Absent patient or unconscious head injury).

Code Red: When the Region of Waterloo Paramedic Services is at a level where no ambulances are available to respond to the next emergency call and no out of town services are immediately available to assist.

Code Yellow: When the Region of Waterloo Paramedic Services is at minimum coverage of three vehicles or less.

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.

Dispatch Priority Code: The priority code number that is assigned to the call by the dispatcher. It identifies the priority under which the ambulance responds to the call location (e.g. an urgent response would be entered as Code 4).

Emergency Calls: Based on dispatch priority only. Emergency calls are categorized as Code 4 (Urgent).

Offload Delay: Offload delay measures the offload of patients at local hospitals, which can impact the resources required and availability to respond to calls.

Response Time: Response time means the time measured from the time a notice is received to the earlier of either the arrival on-scene of a person equipped to provide any type of defibrillation to sudden cardiac arrest patients or the arrival on-scene of the ambulance crew.

Return Priority Code: The priority code number that is assigned to the call by the ambulance crew. It identifies the priority under which the patient is transported (e.g. a prompt return to a medical facility would be entered as a Code 3).

T1: The time point when a call is entered in to the queue at the Central Ambulance Communications Centre and is available for dispatch.

T2: The time point when ambulance/response unit is notified by the Central Ambulance Communications Centre of a call.

T4: The time point when an ambulance/response unit arrives at the dispatched call's location/scene. This is not the time point when a paramedic is at the patient's side.

T6: The time point when an ambulance arrives at its destination (e.g. hospital).

TabletPCR: An internal tool used to track information and data relevant to calls and patient care reporting.

Unit Utilization: Percentage of staffed vehicles utilized during any unit of time. Note that when UU exceeds a value of 40 per cent, it becomes difficult to ensure an ambulance will be available for the next call in a reasonable time.

Vehicle response: A vehicle response is generated when an ambulance or emergency response unit is dispatched to a call; there can be more than one vehicle response per call (multiple ambulances/emergency response units assigned to the same call; for example, multi-casualty incidents).



Region of Waterloo * Paramedic Services **PERFORMANCE MEASUREMENT**

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Accessible formats of this document are available upon request.

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