

Modernization of Paramedic Dispatch Communications Centres

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Report Summary

This report and presentation provides information regarding the modernization of the Ministry of Health Central Ambulance Communications Centre (CACC) transition to the Medical Priority Dispatch System (MPDS).

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

Summary of CACC Modernization and Transition to MPDS

This report provides the Community and Emergency Services Committee with an update on the Ministry of Health's modernization of the Sudbury Central Ambulance Communication Centre (CACC).

Effective **May 20, 2026**, the Greater Sudbury CACC will implement the **Medical Priority Dispatch System (MPDS)**—an evidence- based system for triaging 911 medical calls. This change is part of a province- wide modernization initiative led by the Government of Ontario to enhance emergency response and ensure the sickest patients receive the highest-priority care.

The new approach has also been recently adopted in the following communities, and surrounding areas.

- Cambridge
- Georgian
- Halton

- Hamilton
- Kenora (Hospital run)
- Kingston (Hospital run)
- Lindsay
- Mississauga/Peel
- Niagara (City run)
- Oshawa
- Ottawa (City run)
- Renfrew
- Thunder Bay
- Timmins
- Toronto (City run)
- York

Sudbury CACC, London, North Bay, Muskoka are the remaining centres. This ensures consistent and standardized call-triage practices across multiple regions.

The shift to MPDS will:

- Prioritize life-threatening conditions.
- Improve response times for the most critical patients.
- Provide standardized, equitable call triaging.
- Optimize deployment of paramedic resources.

Why MPDS?

CRITERIA	DPCI	MPDS
System Type	Traditional card-based protocol	Medically validated, standardized system
Geographic Usage	Primarily Ontario	3500+ centers in 50+ countries
Triage Precision	Limited specificity	High precision with structured questioning
Call Prioritization	More Code 4 dispatches	37% reduction in Code 4 calls (VARIABLE)
Resource Optimization	Less efficient	Improved unit selection and deployment
Callback Process	Minimal structure	Regular check-ins for low-acuity calls
Future Capabilities	No accreditation pathway	Supports accreditation and OMEGA protocol expansion



MPDS is used in over **fifty + countries** and thousands of emergency service agencies worldwide and will soon be the standard dispatch protocol across Ontario.

Until recently, ambulance dispatch centres in the province relied on a dispatching protocol known as the Dispatch Priority Card Index (DPCI). Developed in the 1980s, the DPCI system was created during a time when the Ministry of Health and Long-Term Care (MOHLTC) was fully responsible for all aspects of land ambulance service. At that time, dispatch services were delivered through a network of MOH-funded and

MOH- governed centres.

Although DPCI has been updated over the years, the question-based system used by Central Ambulance Communication Centres (CACCs) continues to result in a high number of patients being incorrectly categorized as emergent, despite presenting to paramedics as non-emergent. This misclassification poses significant risks to the public, paramedics, and patients.

Unnecessary “emergency mode” responses (lights and sirens) create avoidable danger and liability for paramedics and the public. Paramedic services frequently face fluctuating demand and sudden spikes in call volume. When non-emergent calls are incorrectly prioritized as emergent, available ambulance resources can be rapidly depleted, leading to delayed response times for patients who are truly experiencing life-threatening emergencies.

What is MPDS?

The **Medical Priority Dispatch System (MPDS)** is a standardized, evidence-based emergency medical dispatch protocol designed to prioritize ambulance responses according to the patient’s clinical urgency. Developed by the **International Academy of Emergency Dispatch (IAED)**, MPDS is recognized internationally as a leading system for structured emergency call triage.

MPDS enhances dispatch accuracy and consistency through the following core elements:

- **Accurate and efficient prioritization of 911 medical calls** using structured, medically validated questioning.
- **Mandatory certification for Ambulance Communications Officers (ACOs)**, requiring more than **70 hours of specialized training** to ensure proficiency and consistency in call-taking.
- **Oversight by a designated medical director**—locally, this includes clinical guidance from *Dr. J. Prpic*.
- **Software-guided algorithms** that lead ACOs through a standardized sequence of questions and assign **determinant codes**, which match each call to the appropriate ambulance response.

The system is specifically designed for real-world emergency use and reduces operational complexity, contributing to improved patient safety and care outcomes.

MPDS introduces several key operational improvements:

- **More detailed and clinically focused call-taking**, ensuring a clearer understanding of patient needs.
- **More precise prioritization**, reducing the over-classification of calls as urgent.
- **Better alignment of resources**, ensuring the most appropriate crew is dispatched to the right location at the right time.
- **Improved handling of low-acuity calls**, assigning them to the most suitable ambulance unit and helping mitigate issues such as missed meal breaks and shift overruns.

The implementation of MPDS represents a **significant system-wide transformation**. The most substantial operational changes will occur within the **Central Ambulance Communications Centre (CACC)**, as Ministry-operated CACCs control the deployment of paramedics and ambulance resources. While the practical impact on frontline paramedics will be limited, the improved alignment between call acuity and response level is expected to enhance workload balance and reduce unnecessary urgent responses, contributing to a more sustainable and positive work environment.

MPDS Dispatch Priorities

MPDS Determinant Priorities



MPDS Implementation

Paramedics have received formal in class training on MPDS, finishing in early April. Education included information on how the improvements will impact the accuracy of caller's acuity, information received prior to arriving on scene and the potential positive impact on meal breaks and end of shift overtime.

Key Implementation Updates

- **Deployment Plan:** Updates to the Paramedic Services Deployment Plan have been completed in collaboration with the Central Ambulance Communications Centre (CACC).
- **Medical Tiered Response (MTR):** The City of Greater Sudbury's MTR agreement between Paramedic Services and Fire Services requires minimal adjustment for MPDS implementation.
- **Partner Communication:** Local hospitals, long-term care homes, and retirement residences have been informed of MPDS implementation and the potential impacts when calling 9-1-1. The Service continues to collaborate with these partners to identify and support any required process changes.
- **Public Communication Strategy:** The Service has collaborated with the City's Communications Department to develop a comprehensive public information and media strategy. This plan will help educate the community about MPDS and its impact on emergency response.
- **Ongoing Public Engagement:** The City will continue to share timely information with residents through the municipal website, social media channels, and other appropriate communication platforms.
- **Post-Implementation Support:** Paramedic Services will continue to work closely with the Ministry of Health's project implementation team throughout and after the rollout to support quality assurance, monitor impacts, and ensure long-term system success.

Resource Availability

MPDS is expected to lead to significant benefits for our community and residents. The most urgent calls are top priorities, resulting in better outcomes for patients. The Ontario government emphasizes that MPDS helps paramedics be “**dispatched sooner**” to urgent cases by triaging appropriately.

Callers to 9-1-1 with lower-priority issues such as a broken bone with no bleeding, flu, badly sprained ankle, and other non-urgent problems will still receive help, but it may take longer than usual for paramedics to arrive. DPCI II operated more as a “first come, first served.” We know those people may be frustrated with the wait, however, we know that if a caller is waiting it is because Paramedics are assisting someone with a more urgent medical emergency in the community. We know that when someone calls 9-1-1 it is an “emergency” to that individual. Public education is essential.

MPDS increases resource availability by:

- More accurate triage and prioritization
- Preventing over-response to non-urgent calls
- Matching resource type to actual need
- Reducing unnecessary use of paramedics and ED services

MPDS helps decrease ambulance off-load delays by:

- Potential and actual reduction in non-urgent EMS transport (along with MOH approved patient care models)
- Lowering ED surges due to ambulance arrivals
- Allowing faster paramedic turnaround
- Improving pre-arrival communication and ED preparedness

Response Times

The City of Greater Sudbury Paramedic Service prioritizes delivering responsive and high-quality prehospital clinical care to residents and visitors of Greater Sudbury. With the implementation of the Medical Priority Dispatch System, it is anticipated that the Province of Ontario may update Response Time Standard (RTS) reporting requirements. As a result, the City may need to review and revise its response time targets in the future.

The implementation of MPDS supports faster responses to life-threatening emergencies by prioritizing high-acuity incidents. During periods of peak call volume, non-urgent calls may be held to ensure that ambulances remain available for critical patients. Consequently, under MPDS, non-life-threatening calls may experience longer wait times as resources are reassigned to higher-priority emergencies.

Patients presenting with minor conditions, such as flu-like symptoms or minor injuries, may therefore experience delays while life-threatening calls are prioritized. This operational shift may require future updates to the City’s RTS plan to ensure that performance targets accurately reflect the new dispatch prioritization model.

Staff recommend undertaking a comprehensive review and update of the RTS plan after at least one year of response time data has been collected under the new dispatch platform. This will allow the City to better understand the operational impacts of MPDS and make informed adjustments to response time targets moving forward.

Conclusion

On May 20, 2026, the Ministry-operated Sudbury Central Ambulance Communications Centre will implement the Medical Priority Dispatch System. The City of Greater Sudbury Paramedic Service, in partnership with the Ontario Ministry of Health Field Office, Sudbury CACC, Medical Oversight, community partners, and staff, will continue refining the City's deployment plan to ensure patients receive a paramedic response that aligns with their clinical condition while supporting overall improvements in response time performance.

The Service anticipates several operational benefits from MPDS implementation, including reductions in shift overruns and missed meal breaks, more efficient allocation of emergency resources, improved ambulance availability for high-acuity calls, and more balanced emergency coverage across the service area.

Staff will continue to report annually on response time performance and will provide regular updates on the local implementation and operational impacts of MPDS.

Resources Cited

Ontario Association of Paramedic Chiefs. (2012). *OAPC briefing note* <https://www.oapc.ca/wp-content/uploads/2016/03/OAPC-QA-Dispatch-Final-41.pdf>

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