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Report 2024-141

Report Title: Medical Priority Dispatch System

Committee Name: Community Health

Committee Meeting Date: November 5, 2024

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Reviewed by: Jennifer Moore
CAO

Approved by: Jennifer Moore, CAO

Council Meeting Date: November 20, 2024

Strategic Plan Priorities: ☒ Innovate for Service Excellence
☐ Ignite Economic Opportunity
☒ Foster a Thriving Community
☐ Propel Sustainable Growth
☒ Champion a Vibrant Future

Information Report

“**That** the Community Health Committee, receive Report 2024-141 ‘Medical Priority Dispatch System’, for information; and

Further That the Committee recommend that County Council receive the report for information.”

Purpose

The purpose of this report is to introduce a new dispatch system called Medical Priority Dispatch System (MPDS), scheduled to be implemented on March 26, 2025 within Northumberland County.

Background

Until recently, the current dispatch that has been utilized for most of Ontario was a dispatch system called Dispatch Priority Card Index (DPCI). The DPCI was originally developed in the 1980’s with some version updates through the years. It is a very prescriptive algorithm which did

not allow communication officers to ask any questions that deviated from the prescribed questions outlined on the cards.

Medical Priority Dispatch System, (MPDS), is more effective for triaging emergency calls. It is used in 45 countries and is considered the industry's best practice dispatching system.

Northumberland County Paramedics, through the Lindsay Central Ambulance Communications Center (CACC), is scheduled to implement MPDS to their catchment area which includes the residents of Northumberland County on March 26, 2025.

MPDS allows dispatchers to gather more pertinent information through more detailed questions. These questions will allow the communications officer to better triage the severity of the situation and more effectively and efficiently assign the most appropriate resource to the most critical patients.

MPDS should considerably reduce the number of high priority responses (lights and sirens). It will ensure that the most critical patients receive timely care, which is not always the case with the current call taking system. MPDS meets patient's needs by matching resources with the clinical situation and prioritize the most urgent calls to 911, thereby ensuring the right care at the right time for people within the community.

MPDS uses a colour-coded system to triage medical calls based on their severity of the patient's condition. The chart below outlines the colours and associated acuity from high (purple) to low (green):

Acuity	Response Description
Purple	Immediate and life-threatening conditions – time critical
Red	Emergent and potentially life- threatening conditions- time sensitive
Orange	Urgent and potentially serious, and immediate threat to life very unlikely – Time may be a factor
Yellow	Non urgent , not serious, and immediate threat of life very unlikely – NOT Time sensitive
Green	Non-urgent and not serious conditions , and immediate threat to life very unlikely which may be deferred without being detrimental to patient outcome- Not time sensitive.

It is important to note that all acuity levels below purple and cascading in acuity can have their responding units reassigned to a call with a higher acuity. As well, a high acuity, or a similar acuity, in the community will be prioritized higher than in a hospital center that already has medical care and oversight.

Response plans are created by each Paramedic service and reflect their resources and deployment plan. Each of the determinant (complaints) has an associated response plan. MPDS will use the closest unit for dispatching for higher acuity – purple and red. This is similar to the current “seamless system” we currently have in Ontario. The key difference with MPDS is that it is detailed, and key questioning based on a scientific algorithm which results in less determinants (complaints) being dispatched to the paramedics as purple or red acuity. The reduction in high priority calls should also decrease the following:

- utilizing all available resources simultaneously resulting in no available units (CMEC 0)
- decrease the number of times that Northumberland Paramedics are being sent to neighboring municipalities.
- reduce our overall response times due to effective and efficient prioritization of calls.
- volume of request of allied agencies to respond to calls, increased efficiency of the utilization of all resources -based on scientific data

Low urgency incidents will be dispatched as soon as paramedics are available but attempt not to deplete all resources by holding lowest acuity calls (greens) for up to four (4) hours. These situations will be continually monitored by the CACC, and callers will receive follow-up call backs to check on the patient’s status. If the patient’s status changes and requires immediate medical attention, residents are encouraged to call 911 again to provide an update on patient condition.

MPDS was developed in 1976, however it’s a tried and tested technology that continues to be the subject of ongoing testing, development, and quality assurance measures. It is utilized internationally and is currently implemented in dispatch regions such as Niagara, Toronto, Peel, Kenora, and Ottawa and scheduled in Kingston February 5, 2025.

MPDS will be deployed at the same time through the Lindsay CACC catchment area which includes Peterborough, Kawartha, Haliburton, and Northumberland. The use of this system is considered a modernization of dispatch and one of the strategies of Your Health: A Plan for Connected and Convenient Care of the Government of Ontario, a vision for patient – centered care.

Consultations

Ministry of Health – “The Patient Journey”

Priority Dispatch System Deployment

Lindsay Ambulance Communication Center

Ontario Association of Paramedic Chiefs (OAPC)

Legislative Authority / Risk Considerations

The MPDS dispatch system has been tested over hundreds of millions of calls since 1979, the protocols are continually updated as per recommendations and research made by top medical professionals and associations.

As with any triaging system calls/determinants can be under triaged or over triaged, and acuity can change over time. To mitigate any negative consequences the system has built in the CACC call backs and directions to the callers to call back if a situation changes.

A change in the practice and utilization of resources with built in “holding” of calls until there is an appropriate amount of resources to service lower acuity calls while still having resources available to respond immediately to the higher acuity calls.

Education and communication are important components regarding the implementation of MPDS to our allied agencies, stakeholders, and community.

Discussion / Options

MPDS will be the current Ministry of Health dispatch system implemented across Ontario.

Financial Impact

MPDS will have an impact on our deployment plan and strategic positioning of our resources within Northumberland. Implementation of the MPDS system requires us to review our Deployment plan and operational systems.

Member Municipality Impacts

MPDS is a more effective and efficient at evaluating the severity of calls. Higher acuity calls are identified and prioritized with increased efficiency and accuracy, as are the lower acuity calls. This results in the right response to the right patient at the right time. It is important to note that there may be longer response times to 911 calls that are triaged as non-urgent or life threatening.

Conclusion / Outcomes

Medical Priority Dispatch System (MPDS) is scheduled for implementation within Northumberland County via Lindsay Central Ambulance Communication Center March 26, 2025.

Attachments

Report 2024-141 ATTACH 1 ‘MPDS Introduction - PowerPoint’