

Clause 16 in Report No. 11 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on June 25, 2015.

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Provincial Ambulance Dispatch System Update
and York Region Paramedic Services Dispatch Pilot Project

Committee of the Whole recommends adoption of the following recommendation contained in the report dated May 22, 2015 from the Commissioner of Community and Health Services:

1. Recommendation

It is recommended that Council receive this report for information.

2. Purpose

This report provides Council with an overview of the provincial ambulance dispatch system and identifies areas for system improvements. This report also provides an overview of York Region Paramedic Services being selected as one of two pilot sites to test the feasibility of implementing mobile computer dispatching consoles in paramedic vehicles.

3. Background

In an emergency, Paramedic, Police and Fire Services are accessible through the 911 system

Members of the public who require emergency services are able to access paramedic, police and fire services by dialing 911. Calls that originate in York Region are answered by York Regional Police. If the caller requires paramedic or fire services they are either sent to the ambulance dispatch center in Barrie or the local fire service dispatch center. Attachment 1 illustrates 911 call processing in the Region.

Ministry of Health and Long-Term-Care is responsible for the dispatching of Paramedic Services in Ontario

There are 11 Central Ambulance Communication Centres (CACCs) operated directly by the Ministry of Health and Long-Term Care in Barrie, Cambridge, Hamilton, Lindsay, London, Mississauga, Renfrew, Sudbury, Thunder Bay, Whitby and Windsor. There are five CACCs operated by hospitals in Kenora, Kingston, North Bay, Sault Ste. Marie and Wallaceburg and three CACCs operated by municipalities in Ottawa, Timmins and Toronto. Finally, three locally-based Ambulance Communications Services (ACS) serve the communities of Muskoka, Niagara Region and Parry Sound.

Paramedic Services are often the entry point to emergency health care in Ontario. Calling for paramedic assistance starts at the Central Ambulance Communication Centres

Central Ambulance Communication Centres serve to:

- Ensure a rapid response to emergency situations by the closest available paramedics, regardless of jurisdictional boundaries
- Provide callers instructions in first aid, CPR and AED use prior to the arrival of paramedics
- Provide an essential communications link between the paramedic in the field and the receiving hospital
- Monitor hospitals' ability to accept new patients, re-route and coordinate paramedic transportation when emergency rooms are at capacity
- Co-ordinate non-emergent medically essential patient transfers between medical facilities; transfers are deemed to be medically essential if the patient is unstable, requires a stretcher and/or requires the accompaniment of paramedic during transport
- Manage call and response data; this data is the primary basis for planning, budgeting and performance measurement

State of the provincial dispatch system has remained largely unchanged over the past 15 years

Despite advancements in technology and research advancements that have informed improved paramedic dispatch, the provincial dispatch system has remained largely unchanged over the past 15 years. Call-taking processes and the use of automated computer systems have not kept pace with the growth in call demand.

In 2009, a comprehensive review of paramedic dispatch centres in the GTA was undertaken by partner municipalities

The Greater Toronto Area Central Ambulance Communication Centre Review was initiated by the Regions of York, Peel, Durham and Halton, and the County of Simcoe in 2009. The review was based on concerns with Ontario's communication centres meeting common industry performance benchmarks and concerns with the technology being used.

Report 5, Clause 4 of the Community and Health Services Committee outlined the findings of the consultant review and was adopted by Council on June 24, 2010. In summary, the consultant report identified the following:

- The current dispatch system results in negative impact on costs, operations and productivity of paramedic services.
- The need for and benefits of consolidation amongst the three separate GTA Ambulance Dispatch Centres located in Barrie, Mississauga and Oshawa.
- The need for, and benefits of, the introduction of new technologies to provide better, more timely data.
- The overall cost benefits, both short and long term, to the Ministry of Health and Long-Term Care and their municipal service delivery partners.
- Total cost avoidances of \$3.3 million (based on 2009 operating costs) throughout the GTA paramedic services and local fire services if call-taking was modernized and new prioritization tools implemented.

- The participating municipalities should immediately take whatever steps may be necessary to convince the Province that governance and operational responsibility for land ambulance dispatch services in the GTA should be transferred to the municipalities. And further, that the Province should assume a legislative, regulatory, and continued funding role only. The Ministry of Health and Long-Term Care currently provides 100% of operating costs to non-ministry dispatch centres in the Province.

Advocacy for dispatch system improvements has been ongoing at both the staff and political level

There are some slightly different perspectives on what a governance model for ambulance dispatch should ultimately look like amongst the participating municipalities. Some GTA municipalities favour a shared dispatch completely governed by the municipalities while others favour that, provided there is an appropriate structure for the municipalities to influence and keep dispatch moving forward in a progressive way, the Province could continue to operate the centres.

Stemming from the completed 2009 GTA dispatch study, the participating municipalities agreed that the advocacy at a staff to staff level was to be led by the Region of Peel. Peel has been very active on the file and has maximized the opportunities to continue this discussion.

In January 2010, the Regional Chairs and Warden, Chief Administrative Officers and Paramedic Service Chiefs met with the consultants to review the consultant report findings and develop a unified strategy to move the consultant report recommendations forward. Subsequently, the Chairs and Warden wrote to Minister Deb Matthews in February 2010, stressing the importance of introducing a model based on the consultant report recommendations that is efficient, cost-effective and increases productivity. This led to Chair Fisch of York Region, Chair Kolb of Peel Region and Warden Patterson of the County of Simcoe meeting with Minister of Health and Long-Term Care Deb Matthews in August of 2012.

In November 2014, the Ontario Association of Paramedic Chiefs advised that the Emergency Health Services Branch of the Ministry was given direction to discuss enhanced information sharing, including real time access to data and information and the use of an alternative triage tool in place of the current provincial system.

On December 3, 2014, the Ontario Association of Paramedic Chiefs announced the formation of the Provincial/Municipal Land Ambulance Dispatch Working Group. The group has been established to discuss specific improvements to paramedic services dispatch and provide its advice to the Ministry. The group is focused on improving municipalities' access to information by leveraging technology innovations and business processes including:

- Real-time information
- Prioritization of emergency calls

4. Analysis and Options

Key issues of the current dispatch system include over-prioritization of emergency incidents, limited use of technology, and lack of real-time operational data

Nearly 75% of calls for York Region paramedics are dispatched as urgent requiring immediate response with lights and sirens. In reality, about 10% of calls responded to require paramedics to transport to hospital with lights and sirens. Other triage tools in use outside of the Ontario-made triage tool produce about half as many over-responses.

The receipt of and accurate assessment, prioritization, and dispatch of calls are critical to ensuring the public receives appropriate assistance. It would also ensure that paramedic services and other municipal resources are productively used. More accurate prioritization results in the deployment of only the needed paramedic resources, as well as local fire departments and police services.

Call assignment between dispatch centres and paramedics is completed over two-way radio

The primary means of communication between paramedics and the dispatch centre is through the Government Mobile Communication Network via two-way radio. Broadcasts on this system are not encrypted or secure. All call information is relayed one instance at a time to the assigned paramedics and often requires call details to be repeated or spelled phonetically to ensure the information has been properly received by the paramedics. On average, each call assignment takes about 60 seconds.

Calls for Paramedics between municipal borders periodically result in dual responses from neighbouring Paramedic Services as dispatch centres have limited interconnection

The network of provincial dispatch centres operate independently of one another and have limited ability to interconnect with adjacent centres. When a call for paramedics occurs near the border of adjacent regions, the primary dispatch centre responsible for the actual region where the call is located will notify the closest situated paramedics within its jurisdiction. In addition, the primary centre will notify the secondary dispatch centre responsible for the adjacent region. A duplicate call is created in the secondary centre and then notifies the closest paramedic within its jurisdiction. Once resources are dispatched from the primary and secondary dispatch centres, estimate times of arrival are requested of the responding paramedics. The paramedics whose estimated time of arrival is the shortest is kept on the call and the other paramedics are cancelled from the call. Effective use of technology results in only the closest paramedics being assigned a response and produce consistent results as computer-aided systems may accurately predict arrival times.

Increasing the use of technology in provincial centres would help improve the efficiency of call handling and paramedic services responses

Ontario dispatch centres use a common computer aided dispatch (CAD) system. While there are distinct advantages to the implementation of a provincial CAD platform, including consistent application of systems and extensive support capabilities, there are some disadvantages as well. Ontario's approach to CAD implementation is to provide a standard offering across the province. While this has many benefits to the end user, it also means that there are some systems that may not have been implemented fully due to cost or other limitations. Also, a lack of integration with other CAD systems, such as police and fire departments', means that allied department notification is still manual and may result in time delays.

To achieve response time improvement for paramedic services, some basic enhancements to Ontario's CAD are available. These enhancements are off-the-shelf, industry standard products.

Access to real-time dispatch data is not available

Currently, paramedic services in Ontario do not have access to real-time performance data; rather, the Province maintains an archival records system that allows municipalities to access a prescribed set of data points. Records generally become available for access through the data warehouse three to five business days after the incident date. However, it is not uncommon for a portion of records to be delayed several weeks or even months, resulting in a constantly changing archival data set. Other than historic trending, the data is significantly limited in its usefulness and value.

Access to robust, real-time management information is the ability to provide front-line managers, in both paramedic services and dispatch, with a range of real-time management information. Access to this information is crucial to decision making and planning key future service changes. As an example, the ability to obtain minute by minute response time performance reporting would allow for paramedic supervisors to be immediately notified of potential gaps in paramedic coverage in real-time.

York Region Paramedic Services has been selected as a pilot site to implement mobile computer dispatching consoles beginning in late 2015

York Region Paramedic Services was selected as one of two pilot sites to test the feasibility of implementing mobile computer dispatching consoles in paramedic vehicles. The pilot project aims to shorten the notification time of paramedics to minimize errors in dispatching, and to provide features such as vehicle routing through a direct connection between the dispatch centre CAD and the in-vehicle computers in the paramedic services' fleet.

Staff will report back to Council on the progress and findings of the pilot project.

Link to key Council-approved plans

This report also contributes to supporting the York Region 2015 to 2019 Strategic Plan objective of optimizing the use of paramedic resources so residents have access to appropriate and timely health care.

5. Financial Implications

The Ministry of Health and Long-Term Care will cover all integration costs on the provincial dispatch side, while the Region will cover costs associated with software client licenses for the fleet. The approved 2015 Emergency Medical Services capital budget includes \$200,000 funding for this project. Ongoing costs for software licenses are estimated to be \$10,000 per year and will be included in subsequent operating budgets.

6. Local Municipal Impact

Improvements in the provincial dispatch system will allow for further efficiencies to be gained in the delivery of paramedic services to all local municipalities.

7. Conclusion

Changes to leverage technology and process improvement in the provincial dispatch system would result in improved operational efficiencies of paramedic services. Staff will continue to work with the Ministry towards developing the framework to implement the consultant report recommendations. Updates on the progress of this initiative will be brought back to Council in subsequent reports.

For more information on this report, please contact Norm Barrette, Chief and General Manager, Paramedic and Seniors Services at ext. 74709.

The Senior Management Group has reviewed this report.

May 22, 2015

Attachment (1)

Accessible formats or communication supports are available upon request

Key Events of Response to 911 Incidents



Do you require Ambulance, Police or Fire?

Medical or Injury **Crime or Public Safety** **Fire or Hazard**

Primary Agency

Georgian Central Ambulance
Communication Centre
(Barrie)

York Regional Police
Ontario Provincial Police

Fire Dispatch
(Vaughan, Richmond Hill
and Markham)

Call Processing & Triage

Call Processing

Call Processing

Allied Agency Notification

Allied Agency Notification

Allied Agency Notification

Allied Agency

Provincial or Local
Notification Policy Met?

Local Notification Policy
Met?

Local Notification Policy
Met?

Yes

Police Notified

Yes

Local Fire Notified

Yes

Paramedics Notified

Yes

Local Fire Notified

Yes

Paramedics Notified

Yes

Police Notified

Incident Response

Closest Paramedic
Notified & Responds

Allied Agency
Response

Police Response

Allied Agency
Response

Local Fire Response

Allied Agency
Response