

For Information

DATE: November 3, 2011

REPORT TITLE: **INFORMATION MANAGEMENT AND TECHNOLOGY TRENDS AND STRATEGIES IN THE HEALTH SECTOR**

FROM: Janette Smith, Commissioner of Health Services

OBJECTIVE

To provide an overview of information management and technology trends and strategies in the health sector and implications for the Region of Peel Health Services Department.

REPORT HIGHLIGHTS

- Across the health sector there is a major drive to electronic information management and the related enabling technologies.
- Social media and web systems are being used more frequently in the sector.
- This is impacting the way some Regional Health Services programs will be delivered.
- Increasing usability of the Public Health website content; addressing privacy requirements; and electronic patient care records are a recommended priority in 2012.

DISCUSSION**1. Background**

Health Services in the Region of Peel is being impacted by a major drive to process all information in health organizations electronically, and to use enabling technologies for ease of data entry and access for all client-related, administrative and management information. The goals are to enhance patient care; improve safety; and facilitate the movement of clients and patients across health service providers. The Health Services Department will need to implement a number of technology-related initiatives driven by external organizations including: Canada Health Infoway, eHealth Ontario, the Ministry of Health and Long-Term Care, and Local Health Integration Networks (LHINs).

2. Federal Initiatives

Canada Health Infoway is an independent federally funded agency mandated to accelerate the implementation of electronic health records across Canada. According to Canada Health Infoway, the concept of electronic health records is supported by 88 per cent of Canadians and Canadians believe electronic health records will make diagnosis quicker and more accurate, reduce prescription errors, and provide an opportunity to access their

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medical records online. Canada's healthcare system is a \$100 billion-plus enterprise with almost 400,000 general practitioners, 700 hospitals, and 1,600 long term care homes. With more than one billion service encounters each year, the potential for errors and missed opportunities in a largely manual system is staggering.

Canada Health Infoway has developed a technology blueprint to outline the business and technical considerations associated with a shift to electronic information management. The key guiding principals essentially set standards, investment programs, and security architecture.

3. Provincial Initiatives

At the provincial level, eHealth Ontario (see Appendix I) is playing a lead role in harnessing information technology and innovation to improve patient care, safety and access in support of the government's health strategy.

While progress is being made, the current system is still characterized by:

- Significant paper-based information management;
- Limited connectivity and information sharing among providers;
- Varying technological capability across the health system;
- Fragmented and incomparable data; and
- A lack of commonly used data or technical standards.

The province's goal is that by 2016, Ontario's health system will be the safest, highest quality, and most sustainable in Canada because people will have the right information, at the right time, and in the right place. The Ontario government has made e-Health a priority with a commitment to implement an electronic health record by 2015. The key priorities for eHealth include:

- Control and manage diabetes more effectively to reduce associated complications and costs;
- Implement on-line management of prescription medications to minimize preventable adverse drug events; and
- Reduce wait times in Ontario emergency departments and the incidence of inpatients in acute care hospital settings waiting for alternate levels of care.

There are a number of Ontario e-Health initiatives including:

- Telehomecare providing remote care and monitoring to patients with chronic disease;
- Funding and support for physicians to adopt electronic medical records;
- Pan-Canada Panorama system including immunization registry, immunization management, vaccine ordering and distribution, and communicable disease / outbreak management; and
- Integrated provincial systems allowing secure exchange of laboratory information.

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4. Local Initiatives

The Health Services Department operates within two Local Health Integration Networks (LHINs): Central West and Mississauga. Both LHINs updated their Integrated Health Service Plans and eHealth Strategic Plans in the fall of 2009. The LHINs are implementing the provincial e-Health priorities locally.

5. Use of Social Media in the Health Sector

Alongside the shift to electronic patient information is the rapidly expanding use of social media and the need for quick access to information via such technologies as web systems. Social media offers a powerful and efficient vehicle to exchange information online. Moving into 2012, the health sector will continue to expand its reach to clients through common social networking sites including Twitter, Facebook, YouTube, Google Plus and Really Simple Syndication (RSS) feeds providing more avenues to deliver and exchange health information.

6. Protection of Health Information

The noted improvements to information management discussed above offer many benefits, but along with this shift is a concern with the privacy of health information.

There are several pieces of legislation that the health sector and Health Services Department need to comply with: *Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)*, *Personal Health Information Protection Act (PHIPA)*, and *Personal Information Protection and Electronic Documents Act (PIPEDA)*.

Since 2010, five Privacy Orders have been issued from the Ontario Information and Privacy Commissioner including the most recent Order to discontinue the practice of sending personal health information to physicians in paper format using a courier service. The Commissioner in her Order highlighted that health service providers must evaluate the options to maintain security and confidentiality of personal health information. The use of technology to ensure the secure transfer of health information is not only a feasible option, but a necessary one.

7. Implications for the Health Services Department

The federal, provincial and local initiatives as well as social media and privacy concerns are impacting the information management and technology strategic directions and initiatives in the Health Services Department.

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a) Technology Initiatives

There are a number of technology initiatives underway in the Department:

- Installation of wireless technology and hardware in all Long Term Care homes to streamline and improve resident care documentation and mobile computing to allow employees to spend more time meeting the needs of the residents.
- Acquisition and implementation of a new electronic inventory management system for Paramedic Services. The solution will be used to help plan, enhance the management of electronic information and distribute Paramedic Services consumable inventory.
- The Ministry will be undertaking a phased roll-out of Panorama in public health units across Ontario, beginning in 2012. Panorama is a comprehensive, integrated public health information system that, once fully implemented, will provide Ontario's public health professionals both provincially and locally with a common immunization registry; a shared view of provincial vaccine inventory; a common repository of communicable disease and outbreak data; and work management and clinic scheduling functionality that will improve the delivery of vaccines administered by public health units.
- Implementation of a narcotics dispensing system in Paramedic Services as recommended by Internal Audit.
- Proposed in the 2012 budget is the introduction of an electronic patient care record solution in Paramedics. Electronic patient care records will enhance accuracy rates of documenting and reporting the relevant procedures performed by a paramedic; provide real time access for both the Paramedic Services and hospitals to the patient medical records; and enhance the security of patient information.

b) Social Media

The website has become a significant medium for client service delivery. In 2010, the Health Services Website attracted 766,069 visits. The Department will soon begin utilizing Google Analytics to analyze website traffic in order to provide more, higher quality intelligence to the Health Leadership Team for decision making in regards to web content. Improving the usability and effectiveness of the Public Health website content is a priority for 2012.

Public health is also reducing the need for print materials and expanding client reach through social media. e.g. YouTube and Facebook. Paramedic Services is reviewing the use of Twitter to provide emergency response information.

c) Privacy

When implementing new technology solutions, privacy impact assessments, and threat and risk assessments are carried out. In 2012, staff are recommending the implementation of additional measures to ensure the Department is meeting the current and evolving requirements and standards for the handling of personal health information.

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FINANCIAL IMPLICATIONS

Budget dollars for the initiatives underway have been previously approved by Council. In the 2012 budget, staff are proposing to redirect some base funding dollars and request new capital dollars to implement the electronic patient care record in Paramedic Services; improve website content and usability; and ensure privacy requirements are being met.

CONCLUSION

The move to more electronic information management and the enabling technologies will be a significant priority for the health sector, including the Health Services Department over the next few years. This will result in better access to information for both the client and provider to enhance health services care and improve safety, and ensure the more timely access to accurate information to improve decision making.



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Commissioner of Health Services

Approved for Submission:



D. Szwarc, Chief Administrative Officer

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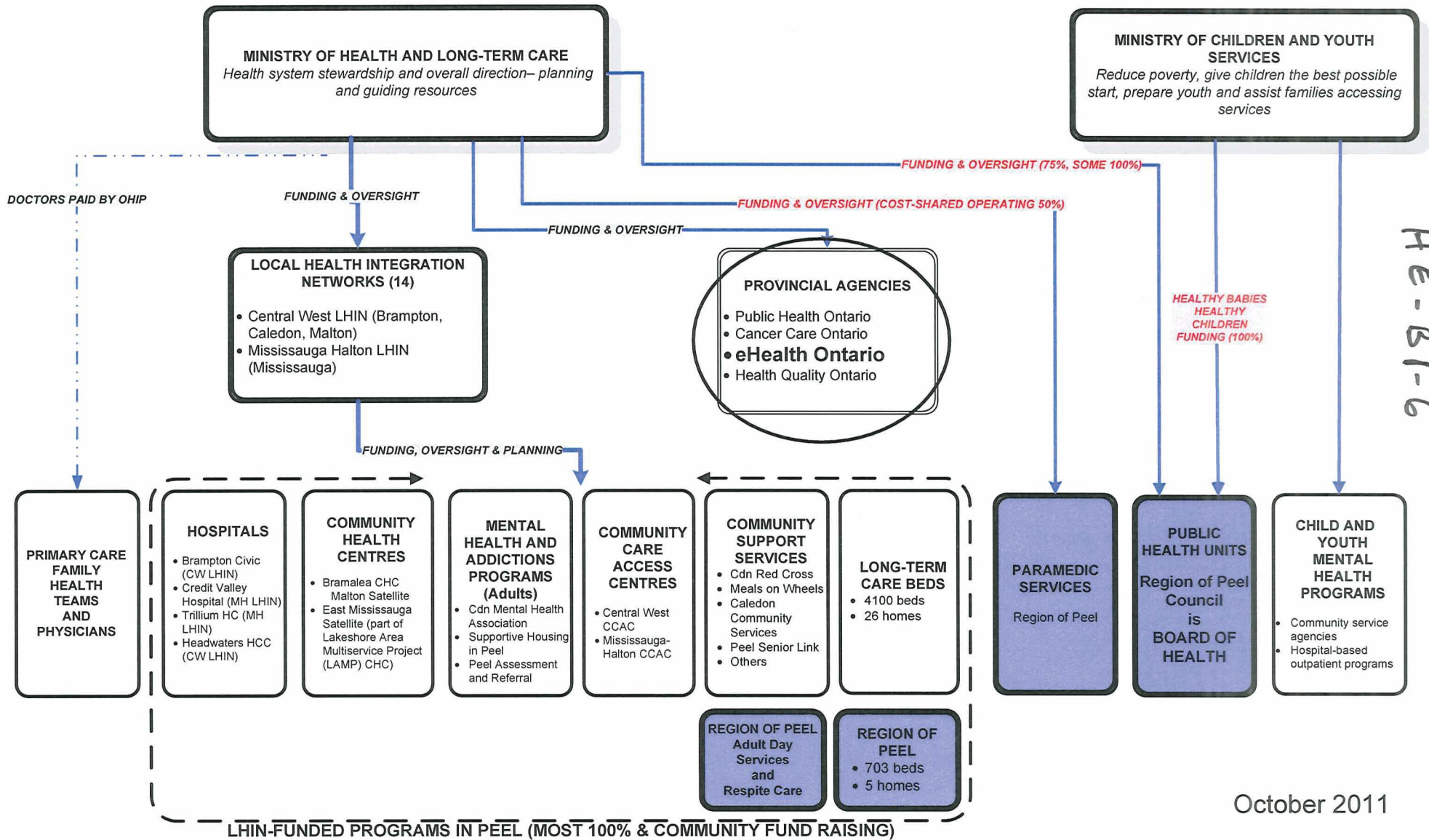
c. Legislative Services
 Manager, Financial Support Unit (FSU)

APPENDIX I

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APPENDIX I



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