

eHealth Ontario OntarioMD Submission

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1 About OntarioMD

OntarioMD now has a direct agreement with the Ministry of Health and Long-Term Care to deliver on a number of key provincial health care delivery priorities. These include: supporting and optimizing physician IT adoption and change management; the delivery and adoption of Hospital Report Manager (HRM) an electronic health solution that enables clinicians using an OntarioMD-certified electronic medical record (EMR) to securely receive patient reports electronically from participating hospitals and other facilities along with eNotifications; and a robust certification program for EMR vendors in Ontario.

OntarioMD was formed in 2004 as a subsidiary of the Ontario Medical Association (OMA) with a mandate to assume the ongoing management and operation of the ePhysician Project. The relationship with the OMA is important since it establishes physicians as a key partner in the delivery and adoption of technology.

As background, in 2000 the OMA and the Ontario Ministry of Health and Long-Term Care established a Physician IT Program fund for information systems in primary care. The Ministry and the OMA formed the ePhysician Project in October 2001 as part of this strategic program, designed to help physicians in Ontario employ information technology to support their clinical practice.

In 2005, the OMA and the province entered into an agreement to continue supporting physician IT adoption. In April 2009, the Ministry transferred the funding for OntarioMD to eHealth Ontario (the Agency that evolved from the former Smart Systems for Health Agency or SSHA). A *Delivery Collaboration Agreement* was established between eHealth Ontario and OntarioMD directly and was in place from 2009 until July 31, 2015.

Effective August 1, 2015 OntarioMD entered into a direct payment agreement with the Ministry - concluding its formal funding and accountability relationship with eHealth Ontario. However, OntarioMD and eHealth Ontario continue to have a delivery-focussed collaborative relationship.

2 Introduction

The focus of this submission is to consider the mandate and role of eHealth Ontario in the context of the practices of community based physicians and the electronic medical records (EMRs) that they rely upon in the delivery of care to patients.

Over the past 12 years, OntarioMD has been the delivery partner responsible for supporting Ontario's community-based family physicians and specialists (generally defined as physicians who are practicing outside of the hospital and academic environments) in their selection, adoption and implementation of information technology (electronic medical records and related technologies). Initially, OntarioMD worked with the Ministry, and from 2009 to 2015, with eHealth Ontario. It is important to understand that **EMRs are a critical component of a comprehensive electronic health record (EHR) strategy.**

Information technology in the community includes not only EMR software, computer hardware and peripherals, but also interfaces to provincial eHealth assets that are primarily managed by eHealth Ontario. These assets have supported Ontario's physicians to integrate patient information into their EMRs for a more complete picture of their patients' health.

It is estimated that approximately 80% of all health information collected for a patient is in a community-based physician practices. Physicians using a certified EMR are increasingly able to view comprehensive patient information, identify trends, and be proactive with their patients in a way that was never possible, or too time-consuming, with paper records. EMRs have become a foundational layer to support digital health care delivery in Ontario.

Funded by the province, EMR adoption by Ontario physicians continues to be a great success story. This has been supported by the work of OntarioMD using a province-wide team-based approach that includes change management, communications and customer service along with Physician Peer Leaders to support physicians at the practice level.

As a result of OntarioMD's success in supporting physician EMR adoption, it has been given a new mandate (as of August 1, 2015) to focus on enhanced physician /clinician use of EMRs, which includes the development of programs to interface with certified EMRs (EMR products and services) and provide physicians with the additional sources of patient information needed to enhance patient care and improve practice efficiency. These programs include Hospital Report Manager (HRM), eNotifications, eConsult, eReferral, Ontario Laboratories Information System (OLIS) deployment and the EMR Physician Dashboard.

OntarioMD has supported significant progress in digital health:

- Products are being delivered to physicians to increase the value of their EMR in the delivery of patient care: (Hospital Report Manager, eConsult, eNotifications, OLIS (patient query only))
- OntarioMD has a robust change management approach that was successful in supporting the achievement of high levels of EMR adoption and is focused on EMR optimization and benefits realization. By helping physicians become more proficient users, they can realize the power and full potential of their EMRs to progressively enhance the care they provide.
- OntarioMD has a recognized and robust certification program for EMR products that ensures that EMR vendors and their certified products meet evolving EMR published Specifications and obligations as per the provincial direction set by the Ministry, eHealth Ontario and other stakeholders.
- OntarioMD remains a key organization in ensuring physician participation and leadership in support of electronic delivery of health care. Other jurisdictions who have lost a central coordinating body are now seeing a degradation in EMR use, and ability to link to key eHealth assets.
- OntarioMD works collaboratively with other parts of the health care system: eHealth Ontario, Health Quality Ontario, Local Health Integration Networks, Cancer Care Ontario, Ontario hospitals, OACCAC, OTN etc.

In Ontario, electronic health system development and delivery has followed a decentralized approach with primary care, acute care, community care and public health all driving their own initiatives. **In order to fully leverage the investments that have been made and in recognition of the increasing maturity of the assets that have been delivered under the digital health strategy, a renewed focus needs to be placed on clearly defined roles, responsibilities and accountabilities for system delivery partners.** It is necessary to be relentlessly focussed on integration.

eHealth Ontario has the responsibility of delivering many electronic health initiatives. In 2009, it published “Ontario’s eHealth Strategy, 2009-2012”, which outlined the priorities and the strategy for delivering “a comprehensive electronic health record by 2015”. The strategy included leveraging partnerships with stakeholders to deliver on its EHR commitment and legacy systems such as EMRs. The strategy made a clear distinction between EHRs and EMRs. This connectivity strategy was revisited in 2015 and objectives were set for the next several years. It is important to note that the connectivity strategy does not address EMR connectivity and integration in detail and largely the investment made by Ontario is not fully leveraged.

3 Summary

OntarioMD continues to focus on value-added services including an important program focussed around EMR vendor management to ensure that EMRs, eHealth’s foundation, are aligned, prioritized, high quality and conform to the requirements of the overall Digital eHealth delivery system.

OntarioMD has also been entrusted by its partners to deliver other value-added, EMR-related products and services such as Hospital Report Manager (HRM) and this it has done successfully, increasing the value of certified EMRs and furthering eHealth to realize more of its potential to transform the health care system. With its current mandate directly from the Ministry directing OntarioMD to deliver eConsult, eReferral, and an EMR dashboard for physicians, while continuing to advance EMR adoption and enhanced use, OntarioMD is poised to deliver even more system-wide benefits for Ontario.

Over the last twelve years, OntarioMD has developed the reach, relationships and physician engagement to continue to advance eHealth adoption. The EMR Roadmap generally aligns with Ontario’s eHealth Blueprint to advance EMR use, and by extension, eHealth, by Ontario’s physicians.

4 Summary of Recommendations

General Recommendations:

1. There needs to be an immediate clear and transparent effort to establish priorities, accountability and associated funding for stakeholder partners. Clear not only between the Ministry and the Agency, but also between the Ministry and other stakeholders (both vertically and horizontally). Role clarity is now essential to reduce redundancy and optimize investments that have been made to date and those that will be made in the future.
2. Ontario's eHealth Strategy 2.0 should provide a clear roadmap for stakeholder partners on Ontario's priorities; including a clear mandate and focus for physician/clinician digital health.
3. The current architecture for eHealth delivery in Ontario was refreshed 2 years ago. However, recent discussions about cloud based (population health) services need to be considered and addressed in the architecture - with a comprehensive view that includes all of the dimensions of the digital health delivery strategy. A strategic architectural analysis can be a key stepping stone to establishing Ontario as a global leader in health information data flow and pave the way for better health delivery not only in the province, but across Canada.
4. eHealth Ontario should continue to have the mandate for supporting the delivery of the EHR – recognizing that the EHR represents a complex set of information assets that require integration at the point of patient care and must include as a foundation the patient registry, provider registry, and patient consent registry along with a provincial standard for identity management (security, privacy, audit) with single sign on such as “ONE® ID” – this also includes OLIS, diagnostic imaging, etc.
5. In consideration of recommendations (1) & (3) above, eHealth Ontario should continue to serve as the point of coordination/dissemination to work with delivery partners and deliver agile architecture and standards. Enabling platform and standards to be more responsive and open to market realities and delivery partners' needs.
6. eHealth Ontario should provide central hosting and infrastructure to support provincial digital health assets (repositories) and designated clinical health applications.

OntarioMD Context Recommendations:

7. Given OntarioMD's role in EMR certification, there needs to be recognition and alignment with eHealth Ontario for work with vendors/EMR products to ensure the evolution of necessary functionality (including safety and security), integration and interoperability.

5 Current State – OntarioMD Context for Digital Health

5.1 Current State of EMRs in Ontario

OntarioMD has consistently delivered on successive mandates from the Ministry of Health and Long-Term Care (2005 to 2008 and 2015) and eHealth Ontario (2008 to 2015) to implement EMRs in community-based practices. To date, **11,650 community-based physicians have participated in OntarioMD’s EMR funding adoption program + an additional 2,000 physicians have joined the community with the use of a certified EMR without funding support.** This figure represents just **over 77% of all community-based family physicians and approximately 60% of community-based specialists.**

The success of EMR adoption in Ontario is impressive and stands out both as a Canadian and global example. From having the lowest rate of adoption among Canadian provinces just eight years ago, now more physicians are using EMRs than in all the other provinces combined and more than some international jurisdictions. This success has been recognized by the Ministry:

- **Patients First: Action Plan for Health Care, February 2015, page 8** – *“78 per cent of Ontario’s family physicians are using electronic health records in their practice”* – The type of electronic records used in a family physician’s practice is an EMR, not an EHR.
http://www.health.gov.on.ca/en/ms/ecfa/healthy_change/docs/rep_patientsfirst.pdf

While 13,700 physicians in Ontario have an OntarioMD-certified EMR, EMR adoption is not complete for all physicians. There is still a need to address specialists’ needs, as well as those new or joining practices. The program managed by OntarioMD was responsive and delivered against targets set by eHealth Ontario and the Ministry.

Physicians are not a homogenous group and ongoing change management support from OntarioMD’s Peer Leader Program and experienced practice advisors is critically important for success across the digital health delivery space.

5.2 Progress on EHR Projects

Ontario’s efforts at building a comprehensive EHR (system of interconnected repositories, assets, registries) have had mixed results and Ontario does not yet have a fully integrated EHR.

- The Ontario Laboratories Information System (OLIS) is still not fully rolled out in the community although progress is being made. OntarioMD is supporting eHealth Ontario with rolling out OLIS Provider Query which is required to fully realize the value of OLIS and reduce the need to maintain local lab interfaces currently individual patient results can be accessed by individual providers.
- Drug Information System & ePrescribing – in the last 12 months there have been significant advances made on the strategy and approach for medication management through the creation of the digital health drug repository (DHDR). While EMRs enable community-based physicians to electronically generate prescriptions and complete allergy and drug interaction checking,

without access to comprehensive medication information about a patient, this is only part of the solution. Access to narcotic and controlled drug data is a priority for physicians for patient safety.

- In 2016/17, work will advance by a proof of concept led by OntarioMD to deliver immunization data for children 0-6 from primary care to Panorama – the immunization repository. The source of this information is held in primary care and paediatric practice.
- The provision of health information sources at the point of patient care (ideally through an EMR in the community) supports advanced digital health asset use and better patient care by clinicians. There is an increasing likelihood of “portal fatigue” as systems are increasingly made available for access through viewers and portals for physicians and health care providers to go and ‘pull’ information from an increasing array of sources leads to a very fragmented record.
- Priority setting and governance – both eHealth Ontario and the Ministry need to work with the medical profession and other health care stakeholders to ensure that health system priorities that are intended to impact care to patients involve physicians in their priority, design and delivery.

5.3 Benefits Derived from EMRs

With 80% of patient information residing in EMRs, EMRs have become an indispensable tool for the physician practice. Some of the many benefits realized from EMR use include:

- **Enhanced Patient Safety** - Alerts to reduce medication errors
- **Better Data Quality** - Access to more comprehensive data, decision support and leading practices; physicians increasingly using EMR data for advanced use and quality indicators – with the ability to look at their practice population of patients.
- **Wellness Promotion and Preventive Care** - Earlier identification of clinical results, more timely intervention, and patient education
- **Coordination of Care** - Improved access to patient information at the point-of-care
- **Privacy and Security** - Superior back-up and protection versus paper-based records
- **Timely Access** - Timelier access to labs and reports eliminates re-ordering of tests and minimizes patient inconvenience

EMRs also provide benefits to the health care system. **Over 10 million Ontarians are now covered by an EMR** through their primary care physician. Electronic health initiatives (e.g., HRM, eNotifications, eConsult) have a formal Benefits Evaluation and/or patient safety evaluation to demonstrate value. These reports are available from OntarioMD.

OntarioMD’s EMR Specification and Certification Program continues to ensure that EMR products align with provincial eHealth assets and provincial priorities and can be integrated to connect to the EHR.

EMRs are delivering benefits to physicians and are positioned to deliver more value to the health system as physicians become more proficient and connected users.

These benefits include the ability to:

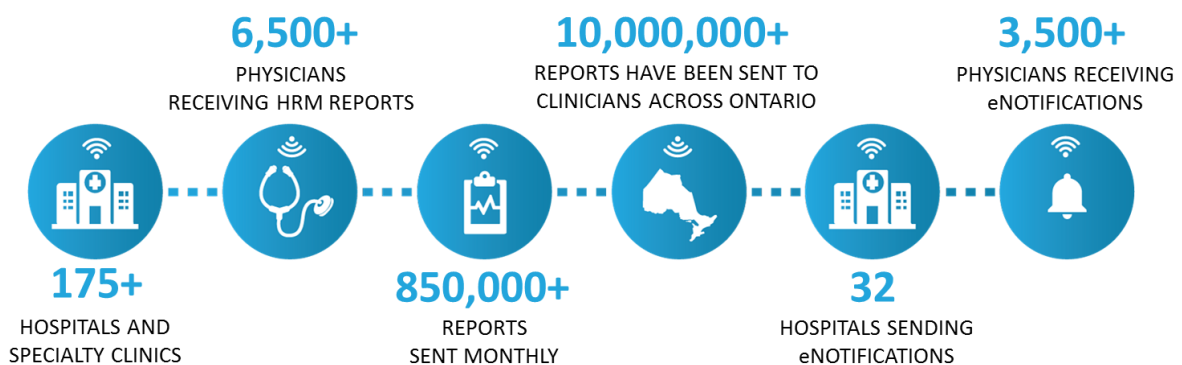
- Enable the translation of health system priorities to the community practice level
- Improve of operational efficiencies
- Identify trends for planning, forecasting and practice population management
- Extract data in aggregate for planning, leading facilitating research and health system planning opportunities.

5.4 Hospital Report Manager (HRM)

Hospital Report Manager (HRM) is an electronic health solution hosted at eHealth Ontario that enables clinicians using an OntarioMD-certified EMR to securely receive patient reports electronically from participating sending facilities (primarily hospitals). HRM electronically delivers text-based Medical Record reports, (e.g. Discharge Summary), and transcribed Diagnostic Imaging (excluding image) reports from sending facilities directly into patients' charts, within the clinician's EMR. Initially HRM was seen as an interim solution that could transmit some critical data elements from hospitals until such time as eHealth Ontario delivered report transmission capacity across the Health Information Access Layer – the HIAL. However, HRM functionality and adoption has become a centrally available cost effective mechanism for the secure transmission of data. The platform It is robust enough to deliver adjacent programs (such as eNotifications discussed below). In a short period of time over 6,500 physicians are now receiving HRM reports from over 175 hospital sites and speciality clinics; this number increases every month.

With a small investment HRM can be multi-purposed to both send (new) and receive (current) information at the physician practice level to address some of the more immediate needs of the health system to liberate data from EMRs; serving the best interests of patients, their providers, and the province. OntarioMD continues to expand HRM’s functional capacity in alignment with Health Information Access Layer (HIAL) services.

Success to Date:



5.5 eNotifications (through HRM)

An eNotification is a real-time electronic notification or message sent through Hospital Report Manager (HRM) to the EMR of the patient’s family physician to inform him/her that his/her patient has been discharged from the hospital’s Emergency Department or admitted to or discharged from in-patient unit. They are seamlessly integrated into the EMR and the physician’s workflow. eNotifications contribute to faster follow-up care after a patient has been hospitalized and contribute to the Ministry’s Health Links initiative which is improving the coordination, efficiency and effectiveness of care to patients with complex needs.

Success to date:

Over 160,000 eNotifications have been sent from participating hospital sites to primary care EMRs since go-live and now over 2,500 physicians are receiving eNotifications. eNotifications are now being used to advance Ontario’s telehomecare program, providing timely telehomecare reports to physicians.

- eNotifications have been recognized by Accreditation Canada as a Leading Practice.

Findings from the Benefits Evaluation (2014) from the eNotifications pilot:

- 100% of the eNotifications sent from the Michael Garron Hospital (formerly Toronto East General Hospital) to the South East Toronto Family Health Team’s EMR were reviewed by the family physician within 7 days, and a follow-up action was determined for the patient
- Using the Ministry definition for follow-up, 54% of these notifications resulted in follow-up compared to an annual rate of 37% in 2013.
- 57% of the notifications were for patients who were determined to be complex using the Ministry definition.

5.6 eConsult

OntarioMD is playing an important facilitation role in working with the Ontario Telemedicine Network and Champlain BASE to advance both an eConsult platform, physician engagement and change management to support the technology. An eConsult occurs when a family physician or nurse practitioner (requesting clinician) electronically sends a question to a specialist.

Phase 1 of the provincial eConsult initiative was a pilot phase led by OntarioMD from September 2014 to September 2015. Results from Phase 1 have been documented in a Benefits Evaluation which is informing the provincial solution that has now started Phase 2 (September 2015 to December 2016).

Success to date:



Results from the Benefits Evaluation:

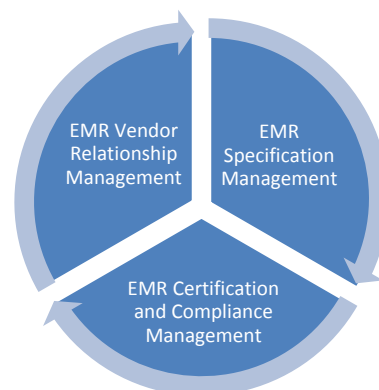
eConsult aligns with the Ministry's *Patients First: Action Plan for Healthcare*. Primary care physicians or nurse practitioners can:

- **Access** a specialist's advice for their patients faster – **average response time is within 3 days**
- **Connect** patients on a priority basis and reduce unnecessary referrals to specialists
- **Inform** themselves about diagnoses with educational material from specialists
- **Protect** patients from adverse events (e.g. adverse drug event)

5.7 EMR Specification and Certification Management

By early 2017 OntarioMD has committed to supporting an open and innovative vendor environment which supports “best of breed” products to enter the Ontario market and to be certified to ensure standards, safety and security. OntarioMD has a recognized and robust certification program for EMR products that ensures EMR vendors and their certified products meet evolving EMR published Specifications and obligations as per the provincial direction set by the Ministry, eHealth Ontario and other stakeholders. The specification and certification program is a critical underpinning to support the continued quality of EMRs in Ontario and is the mechanism by which interoperability and quality initiatives are managed and promoted. Other jurisdictions look to our certification program as a model for both driving EMR functionality and enabling vendor management.

Physicians are required to use a certified EMR to participate in EHR programs (OLIS, HRM, etc). OntarioMD works with EMR vendors and other provincial stakeholders to continuously evolve and enhance EMR products and services



OntarioMD certifies EMRs that have successfully completed the validation process, according to the applicable provincial EMR Specifications and validation requirements; including ensuring that the products conform with eHealth Ontario standards and architecture. OntarioMD publishes information about certified EMRs to assist clinicians in identifying and evaluating EMRs to best meet their needs. It also monitors and enforces compliance by vendors with their certification obligations on an ongoing basis. Other Canadian jurisdictions have turned to OntarioMD's EMR Certification Program for advice in the absence of their own provincial programs. For more information on published specifications and information please visit www.OntarioMD.ca.

It is the view of OntarioMD that the vendor marketplace should be continuously open to new vendors and their products that bring innovation and best of class products to Ontario. OntarioMD is working with eHealth Ontario and other partners to advance this strategy by early 2017.

5.8 EMR Practice Enhancement Program (EPEP) – Change Management

EPEP, OntarioMD's EMR optimization program, uses an evidence-based, integrated approach to increasing EMR understanding and skills among physicians and their staff who use a provincially-certified EMR. The program is designed to help physicians and their staff continuously improve their EMR use and capabilities to practice the best medicine possible for their patients and activate more benefits for their practice – realizing the full potential of their EMR.

EPEP works with evidence-informed tools developed by OntarioMD: the EMR Maturity Model (EMM) and EMR Progress Assessment tool (EPA). The EPA, leveraging the EMM, allows physicians to complete an online assessment of their own level of maturity on a six-point scale (0-5) across three functional areas: Practice Management, Information Management, and Diagnosis and Treatment Support. Results help physicians prioritize improvements unique to their practice setting, focus conversations with EMR vendors, guide discussions with colleagues and practice staff, and form the starting point for EPEP engagements (see below).

OntarioMD's EMR Maturity Model has been influential nationwide; first by COACH in developing the Canadian EMR maturity framework, and later adopted by Saskatchewan and Newfoundland. Expressions of interest have also been received from British Columbia, Manitoba, and Quebec.

Benefits:

- Identifies practice priorities and goals linked to clinical outcomes
- Customized, detailed plan to advance EMR usage and capabilities
- Improved patient care / safety / quality improvements
- Comprehensive suite of self-directed and consultative services resources

Success to date:

Since the program launch in early 2016, EPEP engagements have been building to an active portfolio of 27 practices across Ontario, comprising over 250 physicians and staff.

Additionally, since 2013 over 4,500 physicians and their staff have completed self-assessments of EMR maturity. The latest iteration of the assessment tool has been completed by 250 EMR users since its July 2016 launch.

5.9 Peer Leader Program

OntarioMD's Peer Leader Program is currently a network of 60 physicians, nurses and clinic managers across the province who are expert users of OntarioMD-certified EMRs and support OntarioMD's initiative to help physician practices realize more clinical value from their EMRs. Peer Leaders provide consulting services (e.g., best practices, EMR tips, OntarioMD online resources) and understand the needs and challenges faced by busy community practices. They can assist practices to develop plans that will lead to tangible practice enhancements. Peer Leaders have several years of EMR experience that practices can leverage to advance the quality of patient data in their EMRs to deliver better care and increase practice efficiency.

The program is jointly funded by Canada Health Infoway and OntarioMD. The first Peer Leader Program was highly successful with 8,000 clinicians benefiting from the mentoring and guidance offered by the program.

Success to date:

From 2012-2014, the Peer Leader Program provided over 5,000 hours of support to 8,000 clinicians over the course of 2,000 engagements. With the launch of the new program in 2015, 60 Peer Leaders have already provided more than 1,500 hours of support to 2,500 clinicians over more than 500 engagements.

5.10 Ontario's Investment in EMR Adoption

Ontario has invested in physician adoption of EMRs since 2009. Over a six-year period the total cost of supporting and implementing EMR adoption by OntarioMD has been \$367M*. This covers direct support and funding to almost 12,000 physicians along with an operating budget that has enabled OntarioMD to deliver programs and services across Ontario; including work with stakeholder partners to develop and deliver Hospital Report Manager and eNotifications.

The programs developed and delivered by OntarioMD with funding, direction and support of the Ministry and eHealth Ontario, reflect a significant investment to date. There is continued opportunity to build on this relationship, not only from the perspective of eHealth Ontario, but also with other delivery partners. The "community" should be recognized as a key component of the digital health strategy and needs to be meaningfully engaged in delivery and prioritization of initiatives going forward.

***Note: The \$367M is based on OntarioMD audited financial statements. The table does not include expenditures for the Primary Care IT (PCIT) Program which was delivered before 2009.**