THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO

Ontario
Cancer Care Ontario
Action Cancer Ontario

# Establishing Comprehensive Quality Management Programs for Mammography, Colonoscopy and Pathology in Ontario

**Quality Management Partnership 2013/14 Report to the Ministry of Health and Long-Term Care**

**March 2014**

*This report was submitted to the Ministry in March 2014 and is currently under consideration. It is being provided to you to meet our commitment to transparency and to provide context for Phase 2 communications and stakeholder consultation activities. In compliance with Ministry directives, this report has been modified to remove funding request information.*

## TABLE OF CONTENTS

# Executive Summary

Patients are at the centre of healthcare and they expect – and deserve – to receive the highest levels of care. As stewards of the healthcare system in Ontario we believe high-quality, safe and effective care is paramount. Incidents related to patient safety shake public confidence and we believe a focus on quality of care is one of the most important priorities for health systems today. This includes partnering with healthcare leaders across the province to build a consistent approach to care through the implementation of comprehensive quality management programs (CQMPs) in Ontario which will:

- Track and report on healthcare quality across the entire jurisdiction;
- Work to improve patient safety and the patient experience;
- Work to ensure consistency of care across Ontario, regardless of facility type; and
- Support physicians and care teams in driving for continuous quality improvement.

In addition to improving quality of care, CQMPs can help bend the cost curve by eliminating duplication and ensuring standardization in order to drive a more cost-effective healthcare system. The challenge in Ontario is how to develop, implement and maintain these programs across so many distinct facilities, and how to do so in a way that supports and strengthens local quality management roles and responsibilities.

On March 28, 2013, Susan Fitzpatrick, Assistant Deputy Minister (ADM), Negotiations and Accountability Management, the Ministry of Health and Long-Term Care (MOHLTC), announced that Cancer Care Ontario (CCO) and the College of Physicians and Surgeons of Ontario (CPSO) would jointly develop a provincial quality management program in three areas: colonoscopy, mammography and pathology (see Appendix 1 to read the full memorandum). CCO and CPSO bring together a unique set of capabilities that can support the required in-depth consultation with physicians and other stakeholders to design these programs, as well as the capacity to oversee their implementation. The three healthcare services were chosen in part because CCO and CP have already begun work in managing quality in these areas.

Building on this existing work will facilitate success. If CQMPs succeed in these three areas, there may be a case for considering additional services in future.

**1. Report Contents**

This report is based on the first ten months of the Partnership's work, from April 2013 to January 2014. The work was led by the Partnership Steering Committee chaired by CCO CEO Michael Sherar and CPSO Registrar Dr. Rocco Gerace (see Appendix 2 for the membership of the Partnership Steering Committee and the Partnership Secretariat). This report contains:

- *Section 1* – An overview of the CQMP process, including the work plan, the Partnership's governance structure and findings from on-going consultations with Ontario physicians and other stakeholders.
- *Section 2* – A foundational conception of CQMPs based on five core quality components and eight guiding principles.

- *Sections 3, 4 and 5* – Based on the work of the Clinical Leads and Expert Advisory Panels, specific recommendations regarding the scope of the CQMP in colonoscopy, mammography and pathology; preliminary current state analyses and opportunity assessments for each healthcare service; preliminary visions of a CQMP for colonoscopy, mammography and pathology to guide future design efforts; and a set of early quality initiatives that can begin in 2014/15 and move Ontario toward CQMPs in each service area.
- *Section 6* – A preliminary analysis of the regulatory and legislative implications of implementing CQMPs in Ontario and some preliminary thinking about an Information Management and Information Technology (IM/IT) strategy for CQMPs that includes leveraging broader system technology investments.
- *Section 7* – A process for completing CQMP designs in 2014/15, moving from the current visions to full blueprints for how these programs should be implemented, as well as considerations of how the CQMPs should be evaluated.
- *Section 8* – The 2014/15 funding request with some notes to advise MOHLTC of anticipated funding requirements in 2015/16 and beyond. (Please note this section has been modified to comply with Ministry directives.)

## 2. Comprehensive Quality Management Programs

Based on the ADM's direction, analyses of comparator healthcare quality management programs and discussions with stakeholders, the Partnership is proposing that Ontario implement CQMPs for colonoscopy, mammography and pathology based on five components:

1. **Quality Defined** – Defining quality for the healthcare service by determining the scope of the service and setting out required standards, best practice guidelines and key performance indicators at the level of the individual provider, the care team/facility and the region/system
2. **Quality Reporting** – Measuring and reporting on quality to provide healthcare professionals and administrators with timely and meaningful quality management information
3. **Quality Assurance** – Advancing quality assurance by comparing performance against standards and intervening when necessary to ensure standards are met at the provider, facility and regional/system levels
4. **Quality Improvement** – Fostering quality improvement by supporting physicians, care teams and regional leaders to sustain a continued drive for excellence
5. **Quality by Design** [1] – Regularly considering system changes and major innovations that could enable a significant advance in the quality of a healthcare service

In addition to the five program components, the Partnership is proposing that CQMP designs be based on eight guiding principles. These principles reflect the ADM's direction, lessons learned from other jurisdictions and consultation with Ontario stakeholders. The Partnership proposes that CQMPs will be:

[1] A concept based in part on ideas drawn from Baker GR, MacIntosh-Murray A, Porchellato C et al. 2008. High Performing Healthcare Systems: Delivering Quality By Design. Toronto: Longwoods Publishing.

1. Patient-centred and include patient experience-based quality metrics where relevant
2. Applicable to all physicians, allied healthcare professionals and facilities
3. Supportive and educational in nature but able to activate regulatory and/or funding levers when necessary
4. Based on collaboration and alignment with stakeholders
5. Value-added by addressing current inconsistencies, gaps and duplication
6. Built on and will leverage existing CCO, CPSO and other programs where possible
7. Adequately funded and will identify efficiencies so savings can offset investment where possible
8. Based on a common model of how performance data will be used that balances confidentiality with transparency while protecting the public interest

## 3. The Three Healthcare Services

The work of designing the three CQMPs is being led by three Clinical Leads and three Expert Advisory Panels. The Clinical Leads are well-recognized clinical leaders in Ontario. The Expert Advisory Panels are composed of leading physicians, allied healthcare professionals, patients and other stakeholder representatives (see Appendix 2 for Clinical Lead biographies and membership of the three panels).

### a) Colonoscopy

In Ontario, there is currently no unified, coordinated quality management program for colonoscopy that applies to all healthcare professionals and all facilities. However, there are many quality initiatives underway in Ontario, nationally and internationally that the Partnership can leverage and build on, including:

- CPSO's Out-of-Hospital (OHP) Inspection Process and CPSO's physician peer assessment process
- CCO's colonoscopy-related data holdings and its evidence-based colonoscopy quality guidelines
- Activities underway in hospitals and OHPs, such as the adoption of the Global Rating Scale to improve clinical quality and the patient experience

The MOHLTC decision to appoint CCO to lead efforts to manage endoscopy funding as a quality-based procedure provides an important new lever to support CQMP implementation. In part to align with this funding lever, the Partnership recommends that the CQMP scope be expanded from "colonoscopy" to "endoscopy."

While work continues on the design of the CQMP, the Expert Advisory Panel recommends proceeding with a set of early quality initiatives (EQIs) to move the quality agenda forward. These initiatives are:

1. Develop and trial a bowel preparation dosing reference tool
2. Draft and evaluate guidelines for a standardized endoscopy report for referring providers
3. Draft and evaluate guidelines for standardized patient discharge information
4. Draft and evaluate pre- and post-procedure checklists
5. Design and pilot version 1 of a provider quality report for colonoscopy
6. Conduct phase 1 of an adenoma detection rate indicator development

**b) Mammography**

Recognizing the interdependencies in the breast imaging modalities, the Partnership recommends a future expansion from mammography to breast imaging.

Although there is currently no unified, coordinated quality management program for mammography, in comparison to colonoscopy, more elements of a mammography CQMP already exist in Ontario. In particular, the Ontario Breast Screening Program (OBSP) is an excellent example of a quality program, but it does not currently incorporate screening mammography for all eligible women. Accordingly, an important early opportunity in mammography will be to expand OBSP to all women who meet the program criteria.

The proposed EQIs for mammography reflect how this opportunity will move the quality agenda for mammography forward:

1. Conduct a current state assessment of breast imaging in Ontario and identify recommended next steps for expanding data collection, reporting and other future projects
2. Expand data collection to all sites providing screening mammography – process to begin in 2014/15
3. Expand the radiologist outcome report to all radiologists reading screening mammograms – process to begin in 2014/15

At present, facility assessment occurs through several mechanisms, including the CPSO Independent Health Facility (IHF) Assessment Process, OBSP quality assurance processes (e.g., OBSP-funded on-site medical physics inspections) and the Canadian Association of Radiology – Mammography Accreditation Program. The Partnership recognizes an opportunity to better align these processes to achieve efficiency, reduce duplication and lessen the burden on facilities and providers.

**c) Pathology**

Designing a CQMP for an entire area of medicine such as pathology is an enormous undertaking. For pragmatic reasons, the Partnership recommends limiting the scope of the CQMP by excluding forensic pathology and aligning with, but leaving intact, the current Quality Management Program – Laboratory Services (QMP-LS) and Ontario Laboratory Accreditation (OLA) processes that regulate the administrative and technical aspects of laboratory performance.

Over the past several years, pathologists have put tremendous effort into moving forward with a focused quality agenda that the Partnership can build on. The work led by Path2Quality [2] has identified and designed many aspects of a CQMP for pathology. The Path2Quality work, in particular the Standards2Quality guidelines, will strongly inform the design of the CQMP developed in 2014/15.

The Partnership has identified the following EQIs for initiation in 2014/15:

[2] A partnership between the Ontario Association of Pathologists and the Ontario Medical Association Section of Laboratory Medicine formed in 2006.

1. Produce a baseline provincial quality report for pathology
2. Draft and evaluate resource(s) for pathologists to inform practices related to tissue exemption and tissue release
3. Identify and assess options for improving communication within pathology diagnostic reporting

## 4. Implementation

Implementing CQMPs in Ontario will require new approaches and new investment. The partners, CCO and CPSO, will take leading roles in implementing aspects of CQMPs but many other stakeholders must also be deeply involved:

- Physicians and other healthcare professionals must have a lead role in defining quality
- CQMPs must support existing leaders in their quality management responsibilities
- CQMPs must align with existing quality processes such as QMP-LS/OLA
- Some quality by design initiatives are best led by HQO, Local Health Integration Networks (LHINs) or MOHLTC

Regulatory changes will likely be required to ensure that CQMPs are mandatory and able to access appropriate data. Legislative changes may also be necessary. A CQMP IM/IT strategy that is aligned with other provincial IM/IT programs and initiatives will be needed. Investment in quality programs such as secondary reviews in pathology will be required, and must be provided in a way that these funds are appropriately protected from being eroded by on-going clinical volume pressures.

## Consolidated Recommendations

Cancer Care Ontario and the College of Physicians and Surgeons of Ontario, together as the Quality Management Partnership (the Partnership), present the following recommendations for consideration by the Ministry of Health and Long-Term Care (MOHLTC):

1. **MOHLTC directs the Partnership to continue working with stakeholders to complete the designs for three comprehensive quality management programs (CQMPs), reporting back to MOHLTC with detailed proposals in Q4 of the 2014/15 fiscal year.**

2. **As an interim measure in support of the mammography CQMP, MOHLTC directs the Partnership, and in particular Cancer Care Ontario, to begin the expansion of existing OBSP data collection to all facilities that provide screening mammography and the expansion of the OBSP radiologist outcome report to all radiologists reading screening mammograms in Ontario. This initiative will be supported by a specific MOHLTC announcement.**

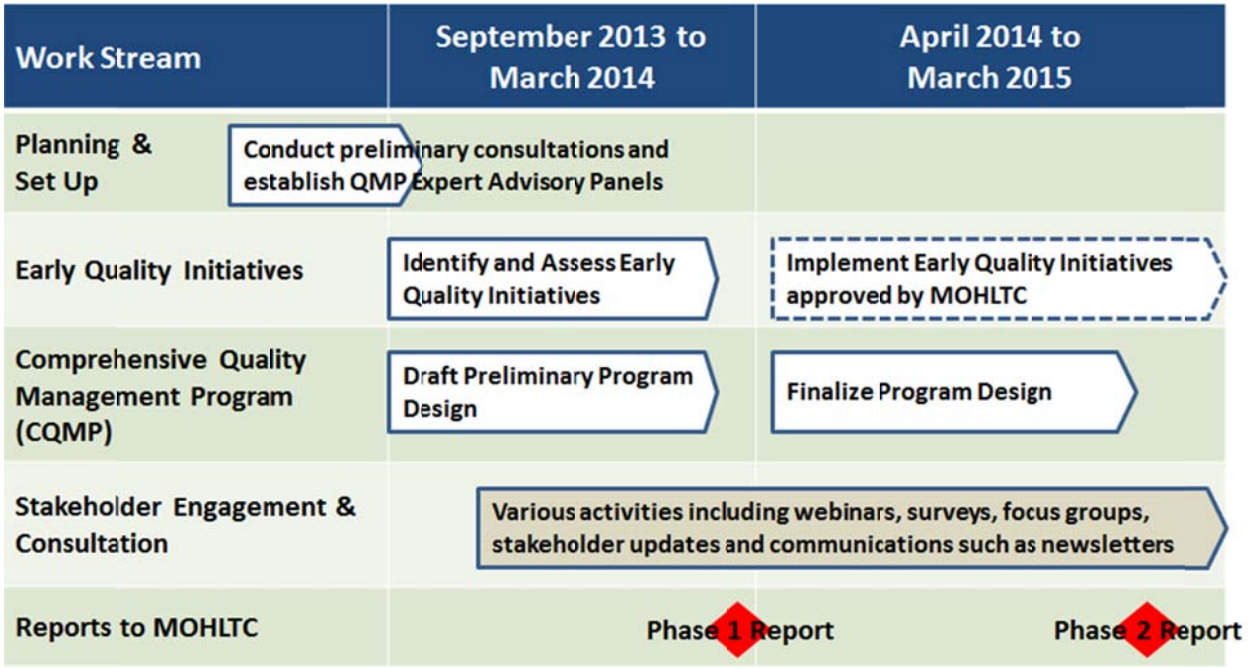
3. **MOHLTC directs the Partnership to proceed with the implementation of the Early Quality Initiatives. MOHLTC will inform the healthcare system that the Partnership is proceeding to initial implementation.**

4. **MOHLTC directs the Partnership to revise the scope of the CQMPs as follows:**
    - **Colonoscopy to be expanded to endoscopy to align with Health System Funding Reform (after Phase 2)**
    - **Mammography to be expanded to breast imaging (after Phase 2)**
    - **Pathology to exclude forensic pathology and to align with, but not conduct a review of, the Ontario process for medical laboratory accreditation**

# Section 1 – Overview of the Partnership Process

## 1.1 Work Plan and Purpose of This Report

This report presents the accomplishments of the Quality Management Partnership (the Partnership) in its first ten months of work (April 2013 to January 2014). As shown in the work plan below, the Partnership has, through consultation and engagement of Expert Advisory Panels and numerous stakeholders, focused on drafting a preliminary program design for comprehensive quality management programs (CQMPs) and identifying early quality initiatives (EQIs) during phase 1 of this process.




## 1.2 Origins, Mandate and Value Proposition

**Origins and Mandate**

The Partnership has its origins in conversations that took place in 2012 between leaders at the Ministry of Health and Long-Term Care (MOHLTC), Cancer Care Ontario (CCO) and the College of Physicians and Surgeons of Ontario (CPSO) regarding opportunities for aligning and strengthening healthcare quality management efforts in Ontario. Out of these conversations, the idea grew that a formal partnership between CCO and CPSO would be able to lead stakeholders in developing consistent, system-wide approaches to quality management for particular healthcare services. In these early discussions, for reasons presented below, it was determined that colonoscopy, mammography and pathology were an appropriate initial set of services for the Partnership to focus on.

Prior to proceeding, MOHLTC, CCO and CPSO leaders met with representatives from the Ontario Medical Association (OMA), Health Quality Ontario (HQO), the Ontario Hospital Association (OHA) and the Council of Academic Hospitals of Ontario (CAHO) to discuss the Partnership and the idea of focusing on

these three healthcare services. All parties agreed to support an initial planning and design mandate for the new Partnership grounded in engagement with the physician communities in the three healthcare services. It was also agreed that the results of this planning and design work would be reviewed by both the CCO Board of Directors and the CPSO Council prior to presentation to MOHLTC for consideration.

Based on this consensus, on March 28, 2013, Susan Fitzpatrick, Assistant Deputy Minister (ADM), Negotiations and Accountability Management, MOHLTC, announced the formation of the Partnership in a memorandum that was distributed widely across the healthcare system (see Appendix 1 to read the full memorandum). In her memorandum, the ADM emphasized the role of collaboration among CCO, CPSO and relevant stakeholders, noting, *"The program's future success will depend, in part, on the degree of collaboration and integration that this initiative is able to foster."* With respect to the selection of the three services, the memo notes, *"Mammography, colonoscopy, and pathology share a foundation of substantial quality management activity already in the field from which to build on so it makes sense to focus on these three initially."* With respect to the quality programs, the ADM's memo provides the following direction: *"Elements of a comprehensive quality management program include:*

1. *A quality framework that sets out an integrated set of performance standards and quality measures at the provider, facility and system levels*
2. *An integrated data gathering infrastructure, reporting linked to quality improvement opportunities and rigorous health analytics to review data*
3. *Organized peer-led approaches to performance improvement*
4. *Quality assurance processes – provider and site"*

**Value Proposition**

The Partnership's value proposition is that the two lead organizations can work effectively with relevant stakeholders to design and implement CQMPs that meet the needs of three core groups: patients and their families and caregivers, and by extension the general public; healthcare professionals; and system managers.

Patients, their families and caregivers, and the general public need:

- Equitable access to safe, effective, patient-centred healthcare services;
- Confidence in the quality and safety of the healthcare system;
- Their perspectives and experiences to actively shape how services are delivered; and
- Easy access to timely information that is relevant to their care.

Healthcare professionals need:

- A lead role in defining quality-based on evidence and expertise;
- Quality programs that are fundamentally supportive, educational and non-punitive in nature to encourage openness and learning;
- Quality programs that support them to strive for excellence; and
- Adequate funding and reasonable workload expectations.

System managers need:

- Information to monitor quality at the provider, facility and regional/system levels;
- Effective approaches for supporting healthcare providers and facilities to strive for excellence; and
- Regulatory and funding levers that can be used when necessary (e.g., to protect the public, to manage appropriateness of utilization).

The Partnership is well-equipped to develop CQMPs that respond to these three perspectives, drawing on the capacities of each of the partner organizations:

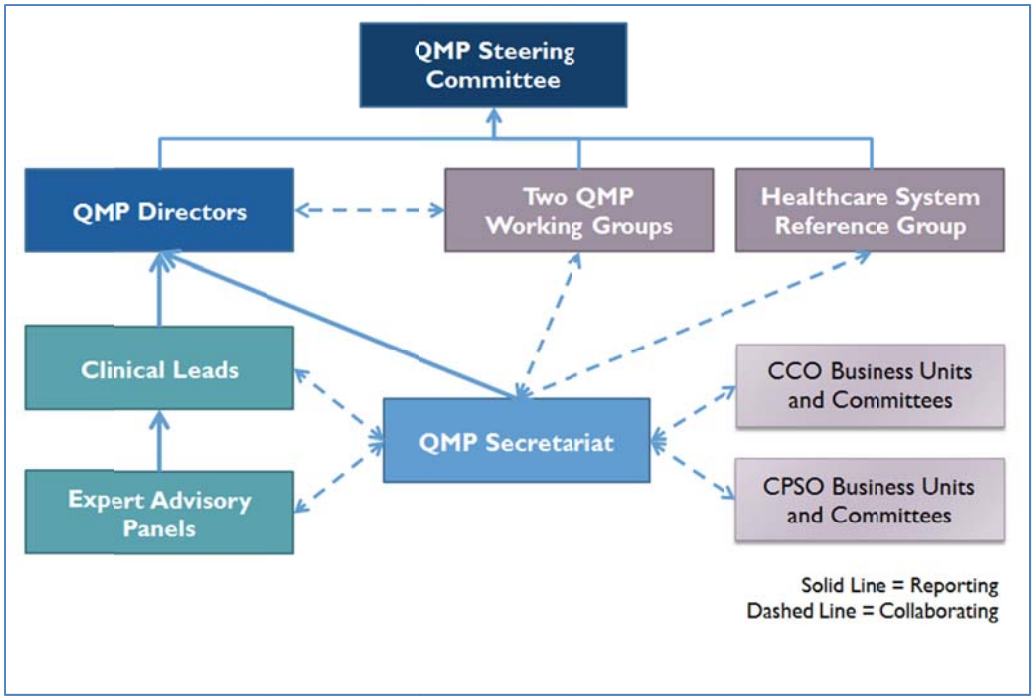
- CCO brings experience using performance reporting and funding levers to drive a provincial quality agenda
- CCO has a proven track record in managing provincial program implementation and has worked with the services in question in its current endeavours
- CCO's approach to health professional engagement ensures that programs are deeply informed by clinical expertise and evidence-based practice
- CPSO regulates the medical profession at large and, in partnership with the public, defines standards of practice and behaviour in the public interest
- CPSO has a strong focus on quality and, on behalf of MOHLTC, assesses Independent Health Facilities (IHFs), including those that perform mammography; and regulates Out-of-Hospital Premises (OHPs), including those that perform colonoscopy
- CPSO has a peer-led assessment model that focuses on physician education and quality improvement

## 1.3 Partnership Governance Structure

The work of the Partnership is led by the Partnership Steering Committee, chaired by CCO CEO Michael Sherar, and CPSO Registrar Dr. Rocco Gerace. Key accomplishments in creating governance bodies for the Partnership are as follows:

- Three Clinical Leads were hired, one for each healthcare service
- Three Expert Advisory Panels, chaired by the Clinical Leads, were established to make recommendations on the design of the CQMPs
- Two working groups were established, one to begin consideration of the potential legislative and regulatory implications of CQMPs and the second to begin developing an IM/IT strategy for CQMPs
- A Healthcare System Reference Group was formed – composed of leaders from OMA, HQO, OHA, CAHO, the College of Nurses of Ontario (CNO), Patients Canada and healthcare quality experts – to provide a systems-level perspective on the design of CQMPs (see Appendix 3 for a list of members)

The governance structure for the Partnership is shown below (See Appendix 2 for the membership of selected governance bodies):




## 1.4 Ontario Stakeholder Insights and Concerns

Between April and September 2013, interviews and consultations assisted the Partnership in confirming a set of central insights and concerns expressed by Ontario healthcare professionals and other stakeholders in each of the three service areas (see Appendix 4 for a list of Ontario experts interviewed and consultations held). The following list captures key comments and concerns:

- **Physicians who provide the service must drive the design process.** The initiative will fail if it is imposed by CCO, CPSO or healthcare professionals who do not provide the service. The field must be fully engaged in defining the quality management program for their service area.
- **Healthcare services exist in a complex healthcare system that has patients at the centre.** Patients and families, as well as allied healthcare professionals and ancillary staff, need to be involved in defining quality for each service.
- **Learn from the patient experience.** Patient experience-based quality metrics and engaging patients in healthcare system design are still new features of the Ontario healthcare system.
- **Do not reinvent the wheel**. Build on the many good initiatives already in place. Make sure that new programs add value; do not add another layer of bureaucracy to an already bureaucratic system.
- **Move slowly.** Do not pursue wholesale change all at once. Instead, roll things out gradually. Start where there is good buy-in in the field. Consider piloting truly innovative approaches first to ensure that they achieve what they are meant to achieve, then roll them out more broadly if they have been shown to be effective.
- **Consistent standards are needed and, in fact, long overdue**, but some flexibility is needed in applying them. For example, procedure volume requirements may not be achievable in smaller,

rural communities, yet removing the service from that area could compromise accessibility for patients. In addition, different clinical environments may have different case mixes based on acuity (amongst other things), so different quality metrics may be needed.

- **Performance monitoring needs to drive education and improvement**, not a "blame and shame," punitive approach. The programs need to be clear and transparent about how provider performance data will be used, and the process that will be adhered to when following up with poor performers. In particular, the programs must support improvement without providers fearing for their livelihood and licensure.
- **Quality is a continuous process that is important every time a service is offered.** Quality cannot be adequately monitored through infrequent, point-in-time assessments.
- **Be cautious about deciding whether services should be performed in a hospital or community setting based on the complexity of the case and/or on efficiency.** Providers' skill levels need to be maintained no matter where they practice.
- **Credible, accurate and valid data are essential to performance management.** Data collection should be simplified, automated and integrated so that data are collected once and used broadly – not just for reporting, but also for quality assurance and quality improvement.
- **Reporting can help to drive quality**. Providers need feedback on their performance**;** seeing how they perform compared to their peers can be a powerful motivator to improve. Facility level reporting against peers can also motivate improvement – as long as the facilities are true comparators ("apples to apples").
- **Quality costs money.** Some new quality programs may result in additional workload for providers and require significant technology investments.

## 1.5 Lessons Learned from Quality Leaders

The Partnership conducted interviews with healthcare quality leaders in Ontario, other provinces, the U.S., the U.K. and Australia who had been responsible for the design, development and/or ongoing management of relevant programs (see Appendix 5 for a list of healthcare leaders interviewed). Key findings are summarized as follows:

1. Top performers enable quality by:
    - Maintaining a strategic focus on quality as a system-wide imperative;
    - Identifying priorities to focus on, instead of "doing everything at once;"
    - Defining what quality means and determining how to measure it;
    - Investing in real-time data gathering and reporting systems;
    - Empowering physicians and front-line staff to be quality improvement leaders; and
    - Deploying quality improvement supports to front-line staff.
2. Top performers manage two sets of quality metrics: minimum standards and aspirational targets.
3. Top performers recognize that quality management is a journey that will include false starts, unforeseen challenges and misalignment among stakeholders, as well as progress.
4. Top-performers recognize the importance of the patient experience in building a culture of continuous quality improvement.

**Some quotations from the interviews:**

*"Quality is the maintenance of minimum standards and constantly striving for excellence."*

*"Provider systems should be self-optimizing. They should be empowered to continually self-assess and improve quality and outcomes."*

*"At the end of the day there is a great deal of harm that occurs in healthcare. Some of it is fairly attributable to physician action or inaction but much more commonly it's more broadly systemic in its causation. So you have to think of physician activity in the context of the system."*

*"It's about engaging physicians in the process. They have to see value to their practices and for patients or they won't be involved."*

*"Throw the boat in the water. Realize that everyone is not going to agree but treat it as a journey. Put milestones in place and build that critical mass."*

*"Set realistic targets for improvement and benchmark yourself against best practices. The improvement when you benchmark best practice is a lot better than incremental improvement year over year."*

# Section 2 – Comprehensive Quality Management Programs

Patients are at the centre of healthcare, and they expect – and deserve – to receive high-quality, safe and effective care. The vast majority of healthcare professionals want to deliver exactly that. Yet research shows that too often these ideals are not realized. The Canadian Adverse Events Study estimated that "of the almost 2.5 million annual hospital admissions in Canada…about 185,000 are associated with an AE [adverse event] and close to 70,000 of these are potentially preventable." [3] As the Institute of Medicine so memorably phrased it: "Between the health care we have and the care we could have lies not just a gap, but a chasm." [4]

Unfortunately, this chasm has recently been revealed in all three healthcare services that the Partnership is addressing. For example, there have been recent incidents in which improperly sterilized colonoscopes in both OHPs and hospitals have led to the risk of patient infection, and errors in mammography and pathology interpretation have resulted in well patients receiving unnecessary treatment and ill patients not receiving necessary, even life-saving, treatment. Incidents such as these have raised concerns about patient safety and shaken public confidence, bringing to the fore the importance of focusing on quality of care.

In Ontario, MOHLTC has been striving to improve the quality of the healthcare system and make sure that healthcare dollars are used efficiently to provide the best possible care. The Partnership has the potential to enhance the development of consistent approaches to quality for all providers, facilities and regions providing particular healthcare services. The result will be that patients receive consistent, high-quality, safe and effective colonoscopy, mammography and pathology services, regardless of where they live or whether they receive the service at a hospital or community-based clinic.

## 2.1 The CQMP Design: Program Components and Guiding Principles

The three healthcare services that form the initial focus for the Partnership are of quite different scopes. Radiologists use mammography as the primary tool for screening for breast cancer and one of the modalities to diagnose breast cancer. Gastroenterologists and surgeons use colonoscopy as an essential tool in screening, diagnosis and treatment. Pathology is an entire field of medicine that includes several specialties.

The Steering Committee has endorsed five program components and a set of guiding principles in order to provide a basic structure for CQMPs and ensure a degree of consistency across the three healthcare services despite the differences in scope. The components and principles leave considerable latitude for CQMPs to be shaped in a way appropriate to the healthcare service in question.

[3] Baker GR, Norton PG, Flintoft V et al. 2004. The Canadian Adverse Events Study: The incidence of adverse events among hospital patients in Canada. CMAJ 170(11):1678.

[4] Institute of Medicine. 2001. Crossing the Quality Chasm. Washington DC: National Academy of Sciences.

**The Five Program Components**

The Partnership proposes that key functions to comprise the five program components of a CQMP are as follows:

1. **Defining quality** for the healthcare service through determining the scope of the service and by setting out required standards, best practice guidelines and key performance indicators at the levels of the individual provider, the care team/facility and the region/system
2. **Measuring and reporting on quality** to provide healthcare professionals and administrators timely and meaningful quality management information
3. **Advancing quality assurance** by comparing performance against standards and intervening as necessary to ensure standards are met at the provider, facility and regional/system levels
4. **Fostering quality improvement** by supporting physicians, care teams and regional leaders to sustain a continued drive for excellence
5. **Evaluating "quality by design" options** by regularly considering system changes and major innovations that could enable a significant advance in the quality of a healthcare service

**1. Quality Defined**

A CQMP must be based on clearly articulated and widely accepted definitions of quality that are informed by evidence. The Partnership proposes that quality definitions include a clear description of the scope of the healthcare service in addition to key performance indicators at the level of the provider, the facility/care team and the region/system. The definitions will include minimum performance targets or thresholds where possible in order to ground quality assurance processes, as well as guidelines and aspirational targets to guide quality improvement initiatives.

The Partnership also proposes to use quality frameworks to ensure that the proposed definitions of quality are complete. Two frameworks in particular will be employed: CCO's Seven Dimensions of Quality (adapted from the Institute of Medicine) and the CanMEDS Framework used by CPSO to assess physician competency (see Appendix 6 for these two quality frameworks). Mapping the guidelines, quality measures and standards against these frameworks may reveal gaps (e.g., the dimension of effectiveness may be clearly addressed, while equity may not be).

Defining quality is an on-going task to be revisited with reference to new evidence and expert clinician guidance, and in consultation with relevant stakeholders. The Partnership will develop recommended processes for updating quality definitions as part of completing CQMP designs.

**2. Quality Reporting**

CQMPs will gather information about quality through IM/IT systems that collect data about quality in relationship to clinical activity and as part of on-going quality assurance processes. This information will be used to generate reports that will be issued regularly and used to monitor performance at the provider, facility/care team and regional/system levels.

**3. Quality Assurance**

CQMPs must include quality assurance programs and processes that periodically assess healthcare professionals, facilities and regions against standards to assure the quality of professional practice, promote continuing competence and ensure that those that do not meet the standards are supported with appropriate opportunities to improve. These programs and processes must be mandatory and, for physicians, must include CPSO Peer Assessments.

**4. Quality Improvement**

CQMPs must include effective, peer-led education programs that support healthcare professionals, facilities and regions to improve performance. Participation in quality improvement activities should be mandatory for poor performers but also offered more broadly to any healthcare professional or facility that wishes to improve performance.

**5. Quality by Design**

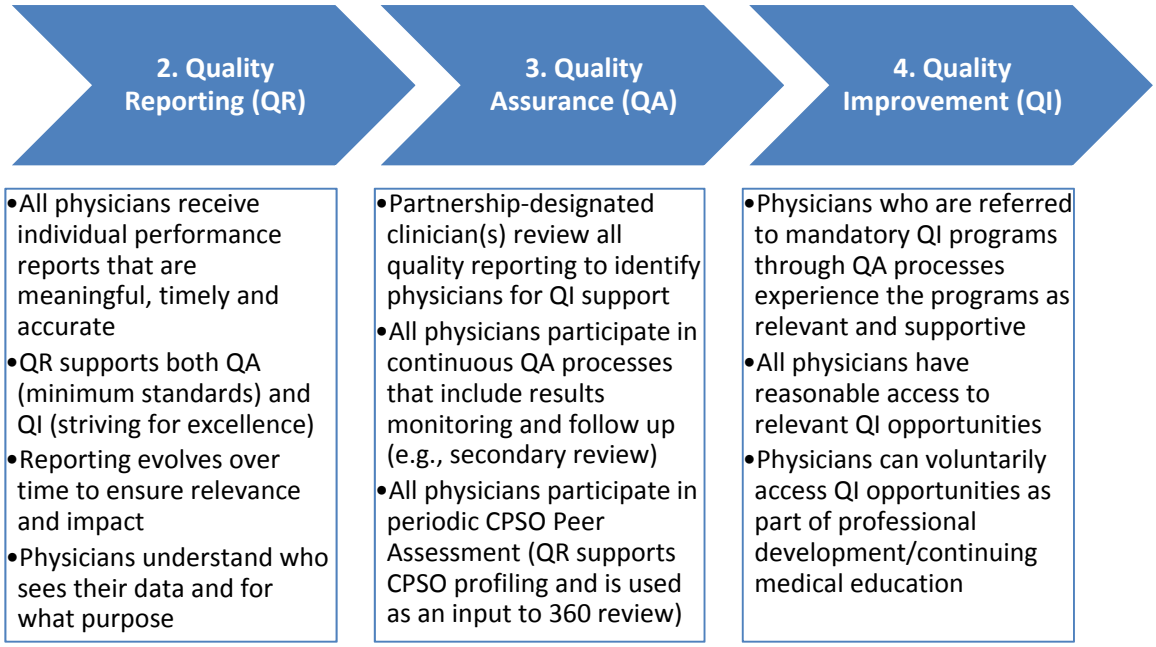
CQMPs will include processes for evaluating potential changes to healthcare system design in Ontario in order to support significant quality improvement. For example, these could include recommendations to review scope of practice, re-organization of service delivery, the "siting and sizing" of facilities to enhance access and equity or the uptake of innovation.

**Partnership Priorities across the Program Components**

All five components are essential for quality management, but the Partnership envisions taking a more active leadership role in the first three for several reasons. First, the Partnership recognizes the need to focus on "doing it right" before "doing it better." Second, quality improvement and quality by design initiatives may be best delivered by others. For example, professional associations and educational institutions have expertise in delivering quality improvement supports (e.g., physician continuing medical education opportunities). Recognizing this, the Partnership will focus on ensuring that concerns identified through quality assurance can be addressed by existing quality improvement opportunities, and, where there are gaps, explore options with relevant stakeholder organizations. Similarly, while the Partnership has an important role as an advisor on system design issues, the mandate to lead system change initiatives will likely rest with others such as MOHLTC, Local Health Integration Networks (LHINs) and HQO.

**How Program Components Function Together**

In order to better understand the proposed CQMP components, it is important to see how they function together. This is particularly the case for the components 2, 3, and 4, as they are closely related and form a quality journey for healthcare professionals and facilities.




Consider the following generic examples of this integration:

a) Physician Example: Based on agreed upon quality indicators (Quality Defined), Dr. A receives an annual quality report (Quality Reporting) that identifies that Dr. A is not achieving the minimum standards in several of the report indicators. As part of an annual review process (Quality Assurance), Dr. A is contacted by a physician quality lead to discuss the report findings. Dr. A agrees that he will participate in a peer-led quality improvement opportunity relevant to the issues identified in his report (Quality Improvement). In next year's report, Dr. A is pleased to see that his performance has improved significantly and is now well above the required minimum standard.

The specifics of the clinical management structure, including who plays the role of "physician quality lead," may be different in each of the three healthcare services. For example, in pathology, as set out in legislation, pathologists, if they work in the hospital setting, have accountabilities to their lab director and/or chief of service.

b) Facility Example: Based on agreed upon quality indicators (Quality Defined), a particular facility receives an annual quality report (Quality Reporting). The facility is meeting all required standards but is in the bottom quartile in three of six indicators. The care team at the facility discusses the situation and resolves to proceed with a voluntary initiative to improve their performance. They identify an appropriate intervention designed to assist facilities with performance improvement (Quality Improvement). While completing the performance improvement initiative, the facility's own internal data collection confirms that they have improved. This finding is confirmed in the next annual quality report that shows their upward trend for the three indicators.

**Guiding Principles for CQMP Design**

In addition to the five program components, the Partnership is proposing that CQMP designs be based on eight guiding principles that reflect the ADM's direction, lessons learned from other jurisdictions and consultation with Ontario stakeholders. The Partnership proposes that CQMPs will be:

1. **Patient-centred and include patient experience-based quality metrics where relevant** – The patient perspective will be woven into the design of these quality programs, and measured where relevant with patient experience-based quality indicators.
2. **Applicable to all physicians, allied healthcare professionals and facilities** – Some aspects of CQMPs will be mandatory because they are specified by law or regulation (e.g., accreditation of medical laboratories); other aspects may not require this kind of formalization. This is an area of CQMP design and implementation that will require further assessment and consultation.
3. **Supportive and educational in nature but able to activate regulatory and/or funding levers when necessary** – CQMPs must be fundamentally supportive and educational to foster a quality management culture in which it is safe for healthcare professionals to explore and learn. At the same time, CQMPs must be able to activate regulatory and/or funding levers when necessary (e.g., remedial approaches are inappropriate, inadequate or too slow to protect patients). The Partnership is committed to working with healthcare professionals and other stakeholders to develop reasonable processes, leveraging existing regulatory frameworks and responsibilities.
4. **Based on collaboration and alignment with stakeholders** – Many stakeholders have existing quality management roles and responsibilities relating to these three healthcare services. The Partnership will strive to ensure that CQMPs support existing roles and responsibilities wherever possible.
5. **Value-added by addressing current inconsistencies, gaps and duplication** – Existing quality management in Ontario can be improved upon without creating unnecessary bureaucracy or placing impractical demands on providers and facilities.
6. **Built on and will leverage existing CCO, CPSO and other programs where possible** – CCO, CPSO and other stakeholders have regulatory requirements and existing programs that will provide foundational contributions to CQMPs.
7. **Adequately funded and will identify efficiencies so savings can offset investment where possible** – Implementing CQMPs will require IM/IT investments and funding for increased QA processes that require increased clinical work.
8. **Based on a common model of how performance data will be used that balances confidentiality with transparency while protecting the public interest** – The Partnership is committed to working closely with physicians and other stakeholders to develop an acceptable model for the use and disclosure of quality data that balances confidentiality with transparency. A continued focus on what is best for patients will facilitate finding consensus on these challenging issues.

# Section 3 – Colonoscopy

## 3.1 Understanding the Healthcare Service

A colonoscopy is a visual inspection of the rectum and colon that is performed using a colonoscope, a long flexible lighted tube with a camera at the end. Colonoscopies may be performed to screen people for colorectal cancer, as follow-up to abnormal colorectal cancer screening tests (e.g., a fecal occult blood test or FOBT), for people with symptoms (e.g., abdominal pain, rectal bleeding) or for surveillance of people who have long-standing inflammatory bowel disease or have had colorectal cancer. During colonoscopy, polyps which may develop into colorectal cancer or have become cancerous can be removed.

In Ontario in 2011/12, there were 224,000 colonoscopies performed by 501 general surgeons, and 148,000 colonoscopies performed by 207 gastroenterologists. Other specialties that billed for colonoscopy were internal medicine and family medicine. [5] In 2011/2012, 72% of colonoscopies were provided in approximately 150 hospitals, while approximately 60 OHPs provided 28% of the volume. Volumes for colonoscopy increased by 174% between 2000 and 2010. [6]

Quality assurance is essential for colonoscopy because it carries a small risk of bowel perforation and bleeding, especially after polypectomy (polyp removal). Colonoscopy is an invasive procedure that carries a risk of infection if equipment is not properly sterilized between uses. Colonoscopy is usually performed under sedation and there is a risk of complications if the patient has co-morbidities.

## 3.2 An Analysis of the Current State of Quality Management in Ontario

In Ontario, there is currently no unified, coordinated quality management program for colonoscopy that applies to all healthcare professionals and all facilities. However, there are many quality initiatives underway in Ontario, nationally and internationally that the Partnership can leverage and build on.

One promising Ontario-based initiative is MOHLTC's engagement in health system funding reform, which is aimed at phasing in patient-based funding (PBF) in hospitals and other healthcare institutions. A proportion of PBF is allocated for designated quality-based procedures (QBPs), one of which is colonoscopy. CCO is leading the development of the new colonoscopy funding model, to be piloted in 2014. The new funding model will reimburse endoscopists for the types and quantities of patients they treat, using rates based on efficiency and evidence-based best practices and adjusted for patient complexity and quality of care. The Expert Advisory Panel is being consulted on quality issues related to QBP implementation.

Ontario's colorectal cancer screening program, ColonCancerCheck (CCC), has also tied colonoscopy service funding to quality. CCC provides some Ontario hospitals with incremental colonoscopy volume

[5] 2011/12 data from Evaluation and Reporting, CCO

[6] Data from Evaluation and Reporting, CCO

funding and requires the facilities to abide by CCO's Colonoscopy Standards [7] and submit data on all colonoscopies performed.

The CPSO recently began regulating OHPs through its Out-of-Hospital Premises Inspection Program (OHPIP). The program brings a new quality assurance rigour to the regulation of these previously unregulated facilities. In 2012, the CPSO completed the assessment of all OHPs within two years of the OHP regulation coming into effect, as required. Since then, the program has continued to grow and develop through the creation of by-laws, revisions to standards and improvements in the tools used for the inspection process. The inspection program is mandatory for OHPs, but there is no analogous mandatory program for hospitals.

There are a limited number of voluntary initiatives that help endoscopists improve quality. In 2006, the Canadian Association of Gastroenterology (CAG) began developing the Quality Program in Endoscopy to assess and improve the delivery of patient-centred endoscopy service. The program is comprised of two arms: the Practice Audit in Gastrointestinal Endoscopy (PAGE) and the GRS (see call-out box). As part of the program, Train the Trainer sessions (now called Skills Enhancement for Endoscopy or SEE) have been developed and are offered at sites across Canada. [8]

> The **Global Rating Scale** (GRS) is a web-based quality improvement and self-assessment tool that helps endoscopy units assess how well they provide a patient-centred service. It also provides a standard for accreditation and a quality framework for service improvement.
>
> The tool assesses key aspects of the experience of patients having an endoscopy based on 12 patient-centred standards developed through endoscopy staff feedback, six related to clinical quality, and six to the quality of the patient experience.
>
> Following an initial pilot, the GRS became an established program with 75 participating sites across the country, including Ontario.

There is mixed implementation of technology-enabled data collection systems at the point of care for colonoscopy across the province. However, data and information standards for colonoscopy have already been developed to support CCC and just over 70 hospitals are reporting quality data monthly to CCO on all colonoscopies performed in their locations. The GRS tool (see call-out box) has been adopted by at least 20 Ontario endoscopy sites as a technology-enabled data collection and reporting tool that identifies quality improvement opportunities. Evidence-based pre-procedure, procedural and post-

[7] Tinmouth J, Kennedy E, Baron J et al. 2013. Guideline for Colonoscopy Quality Assurance in Ontario. Toronto: Cancer Care Ontario. Program in Evidence based Care 15-5 Version 2.

[8] For more information see Armstrong D, Hollingworth R, Gardiner T et al. 2006. Practice Audit in Gastroenterology (PAGE) program: A novel approach to continuing professional development. Can J Gastroenterol 20(6):405-10. Armstrong D, Hollingworth R et al. 2011 Point-of-care, peer comparator colonoscopy practice audit: The Canadian Association of Gastroenterology Quality Program – Endoscopy. Can J Gastroenterol 25(1):13-20. Ghosh S. 2011. Practice audit in gastroenterology – the route to quality and safety. Can J Gastroenterol 25(1):12. MacIntosh D, Dubé C, Hollingsworth R et al. 2013. The endoscopy Global Rating Scale – Canada: Development and implementation of a quality improvement tool. Can J Gastroenterol 27(2):74-82.

procedure quality measures have been verified and adopted across international jurisdictions and are generally recognized in Ontario.

## 3.3 Toward a Vision for the Future State of Quality Management in Ontario

The work and thinking to date of the Expert Advisory Panel for Colonoscopy is described herein, in the context of the five components for a CQMP.

**CQMP Component 1 – Quality Defined**

The Expert Advisory Panel had two recommendations about the scope of the CQMP:

1) That the CQMP must include the pre- and post-procedural care pathway, not just the quality of the procedure itself. This will mean that the physician providing the endoscopy would be responsible for both assessing the indications for the procedure and conducting post-procedure diagnostics as required. This is essential to supporting patient-centred care and ensuring that patients receive appropriate and seamless care along their endoscopy care journey. Focusing only on the procedure risks losing this continuity of care, leading, in the worst case, to missed follow-up and, potentially, missed cancers.

2) That the CQMP for colonoscopy be expanded to endoscopy, for three main reasons:

- To ensure that the quality of the colonoscopy procedure is managed in the context of excellence in endoscopy care overall
- To foster a rational approach to facility assessment, as these processes will be more efficient and cost-effective if the entire endoscopy facility is assessed at the same time
- To better align with the GI/Endoscopy Quality Based Procedures (QBP) process

This scope will expand gradually; some aspects will continue after the Phase 2 report is presented in Q4 of 2014/15.

The Expert Advisory Panel has already developed a set of clinical measures that can be used to generate a quality report for physicians performing colonoscopies, and if the scope expansion is approved, the Expert Advisory Panel will need to investigate how best to develop quality measures for all of endoscopy in dialogue with leaders in other jurisdictions and Ontario stakeholders. The panel acknowledged that for some specialized procedures, additional expertise would be required to generate appropriate recommendations. On the other hand, for many features of a CQMP, such as safety issues related to sedation, definitions will be identical across procedures.

An EQI identified relevant to defining quality for colonoscopy is the first phase of development of an indicator for adenoma detection rate. See section 3.4 for further details.

**CQMP Component 2 - Quality Reporting**

Initiatives under consideration by the Expert Advisory Panel to improve the capture, analysis and reporting of data to assess the quality of colonoscopy/endoscopy services in Ontario include:

- Longer-term solutions for gathering data relating to procedure quality in a way that is synoptic and integrated with the creation of the clinical record.
- Linking data available at CCO, including pathology data sets, with colonoscopy data to generate key quality measures such as adenoma detection rates.
- Archiving and sharing procedure reports and videos for both clinical and quality assurance purposes. Discussions with eHealth Ontario, LHINs and other stakeholders will be required as there are aspects of the provincial infrastructure for sharing images that are highly relevant.

An EQI identified relevant to quality reporting for colonoscopy is the design and piloting of a provider quality report. See section 3.4 for further details.

**CQMP Component 3 – Quality Assurance**

At the level of the facility and care team, the Expert Advisory Panel will be working toward a recommendation for a consistent assessment process for all endoscopy suites at OHPs and hospitals. The panel will need to consider people (e.g., the requirements for anesthesiologists and other care providers), processes (e.g., pre and post-operative procedures), technology (e.g., data recording and scope sanitation) and patient experience. The current OHPIP process will be reviewed with respect to its endoscopy elements, while consideration will be given to how to develop an analogous process for hospitals that takes account of autonomous hospital quality responsibility and the cost effectiveness of adding new requirements on top of current practices.

The panel has developed a set of clinical quality measures to measure the performance of physician providers but has not yet set minimum targets that would trigger quality assurance processes. It is anticipated that the first iteration of the provider quality report will be produced without targets and sent to a subset of the field for information only; in future, the report will be shared more broadly and used as part of new quality assurance processes, closely linked to quality improvement initiatives.

**CQMP Component 4 – Quality Improvement**

To recommend quality improvement opportunities for colonoscopists, panel members will review a number of approaches, including:

- Courses provided at colonoscopy up-skilling centres
- Courses provided in various continuing medical education contexts
- Mentorship with more experienced physicians
- Simulation-based training
- Locum opportunities for rural/northern providers

EQIs were identified relevant to quality improvement for colonoscopy facilities and care teams. See section 3.4 for further details. These initiatives include:

1. Developing and trialling a bowel preparation dosing reference tool for primary care providers, and potentially pharmacists

2. Developing and trialling guidelines for standardized endoscopy reports for referring providers
3. Developing and trialling guidelines for standardized patient discharge information forms
4. Developing and trialling pre-procedure and post-procedure colonoscopy checklists

**CQMP Component 5 - Quality by Design**

The primary focus for the Expert Advisory Panel with respect to system design will be to support the Endoscopy QBP implementation process. The Expert Advisory Panel noted several potential quality impacts that will have to be managed if the volume of colonoscopies performed in OHPs increases. For example, the training location and training case mix for future endoscopists will require consideration and consultation with academic medical programs.

Another area of system design that may be linked to QBP implementation relates to potential improvements in the system of colonoscopy referrals and follow-up. There may be opportunities to improve coordination to reduce wait times and ensure patient-centered care.

Lastly, equitable access to colonoscopy/endoscopy services remains a challenge in rural and remote locations. The Expert Advisory Panel will consider these issues in 2014/15.

## 3.4 Quality Initiatives for Implementation in 2014/15

While work continues on the design of the CQMP, the Expert Advisory Panel has identified six EQIs for colonoscopy to drive the quality agenda forward.

1. Develop and trial a bowel preparation dosing reference tool
2. Draft and evaluate guidelines for a standardized endoscopy report for referring providers
3. Draft and evaluate guidelines for standardized patient discharge information
4. Draft and evaluate pre- and post-procedure checklists
5. Design and pilot version 1 of a provider quality report for colonoscopy
6. Conduct phase 1 of an adenoma detection rate indicator development

Implementation of these EQIs in 2014/15 will maintain momentum for change in quality management, while initiating infrastructure improvements that will take time to deliver.

| **1. Develop and Trial a Bowel Preparation Dosing Reference Tool** | |
|---|---|
| Description | Design, develop, evaluate and refine an online reference tool that:<br>▪ Assists providers in choosing the most appropriate bowel preparation<br>▪ Verifies a bowel preparation against known co-morbidities for patient safety purposes<br><br>The scope of this initiative also includes a recommendation for next steps based on evaluation outcomes that may involve developing and rolling out an online tool with an algorithm that provides the best dosing choice based on age and co-morbidity (kidney function, cardiovascular function, |

| | |
|---|---|
| | chronic illness and current medications such as anticoagulants). |
| Rationale/Drivers for Change | Dosing reference cards have been used extensively for a variety of health conditions, including diabetes with respect to insulin use, and also in paediatrics for aiding in appropriate dosing of many medications such as pain medications or sedation.<br><br>Inadequate bowel preparation is one of the main causes of recall colonoscopy procedures, creating additional patient discomfort, additional costs to the system and above all the possibility of missed adenomas. If appropriate preparation can be prescribed to patients as often as possible, these negative consequences could be mitigated.<br>▪ May result in better compliance and better outcomes<br>▪ May reduce the need for recall examinations because the preparation is more effective<br>▪ May result in optimization of resources (in this case, most appropriate preparation) to achieve desired outcomes. |
| | |
| External Stakeholder Survey | Of the 175 respondents that participated in the survey 79% agreed or strongly agreed that this initiative go forward. |

| **2. Draft and Evaluate Guidelines for Standardized Endoscopy Report for Referring Providers** | |
|---|---|
| Description | Design, develop, evaluate and refine guidelines for a standardized set of elements and information to include in the report back to referring physicians including:<br>▪ Procedural details<br>▪ Findings<br>▪ After-care<br>▪ Recall recommendations<br>▪ Identification of the responsible provider (endoscopists, referring physician or other) for follow-up care<br><br>The scope of this initiative also includes a recommendation for next steps based on evaluation outcomes. |
| Rationale/Drivers for Change | This initiative may:<br>▪ Result in an improved continuum of care for patients<br>▪ Reduce repeated examinations due to lack of information about the quality of examination, including bowel preparation quality and specific cecal landmarks<br>▪ Reduce inappropriate decisions for the timing of surveillance colonoscopy because the key polyp descriptors (size and/or |

| | |
|---|---|
| | morphology) were absent. This information may allow increased adherence to published guidelines<br>▪ Reduce uncertainty about the follow-up arrangements and the provider responsible for follow-up<br><br>It will ensure that referring physicians all receive similar and predictable information about the procedure findings, reassessment period and follow-up care. |
| | |
| External Stakeholder Survey | Of the 175 respondents that participated in the survey 85% agreed or strongly agreed that this initiative go forward. |

| **3. Develop and Evaluate Guidelines for Standardized Patient Discharge Information** | |
|---|---|
| Description | Design, develop, evaluate and refine guidelines for a standardized discharge instruction/information sheet to give to every patient post-procedure that includes:<br>▪ Details of the procedure<br>▪ Any initial findings<br>▪ Potential post-procedure complications<br>▪ How to manage a range of post-procedure symptoms<br>▪ Plans for follow-up care<br><br>The scope of this initiative also includes a recommendation for next steps based on evaluation outcomes. |
| Rationale/Drivers for Change | ▪ Improved patient recall of endoscopy findings and recommendations<br>▪ Better patient compliance with follow-up recommendations<br>▪ Decreased patient anxiety<br>▪ Better knowledge about how to obtain final endoscopy results<br>▪ Improved patient understanding of what to do if problems arise after a colonoscopy<br>▪ Contribute to the provision of consistent discharge information for all patients, ensuring that key messages are available to all patients upon discharge |
| | |
| External Stakeholder Survey | Of the 175 respondents that participated in the survey 87% agreed or strongly agreed that this initiative go forward. |

| 4. Draft and Evaluate a Pre-Procedure and Post-Procedure Checklists | |
|---|---|
| Description | Design, develop, evaluate and refine online pre-procedure and post-procedure checklists for use by endoscopists performing colonoscopies in hospitals and OHPs.<br><br>The scope of this initiative also includes a recommendation for next steps based on evaluation outcomes. |
| Rationale/Drivers for Change | ▪ Build assurance that patients are receiving the same standard of care throughout the province<br>▪ Team members will benefit by not having to rely only on "memory" to ensure that all steps pre and post procedure are covered<br>▪ Patients will benefit from an added level of safety and standardization for the procedure |
| | |
| External Stakeholder Survey | Of the 175 respondents that participated in the survey:<br>• 79% agreed or strongly agreed that the pre-procedure checklist component of this initiative go forward<br>• 78% agreed or strongly agreed that the post-procedure checklist component of this initiative go forward |

| Design and Pilot Version 1 of a Provider Quality Report for Colonoscopy | |
|---|---|
| Description | Develop and pilot a provider quality report for colonoscopy in 2014/15.<br><br>A provider quality report will provide regular feedback to allow self and peer comparison and encourage continuous skills improvement for all providers. It is expected that the report will be similar to the current Ontario Breast Screening Program (OBSP) radiologist outcome report and will be a retrospective look at practice as benchmarked to peers.<br><br>The physician quality report will not be a clinical or administrative decision tool, but rather an assessment tool – a regular "snapshot" – to inform skills development. The purpose of the quality reports is to increase opportunities for dialogue and evidence-based quality improvement.<br><br>This initiative will include the design and development of the report, including identification of targets where appropriate, and the design of the pilot approach, communication and evaluation strategy. Piloting the provider quality report is intended to inform improvements to the design, data quality and communication of the report and also how to best use the report to support the broader provincial colonoscopy quality initiative. This pilot will inform the refinement and expansion of the report as part of |

| | |
|---|---|
| | the colonoscopy CQMP.<br><br>At present, CCO has access to two data sources that are useful for tracking colonoscopy quality measures: OHIP data, which covers almost all procedures in the province, and CCO's Colonoscopy Interim Reporting Tool (CIRT) data, which covers about 60% of hospital-based procedures but has only been implemented in a few OHPs as a pilot. Based on research conducted by Dr. Jill Tinmouth, Scientific Lead, ColonCancerCheck, CCO, the panel is confident that an initial physician quality report can be produced using existing data. |
| Rationale/Drivers for Change | This initiative will support the following components of the CQMP:<br>• **The definition of quality** will eventually include measures at facility and regional levels<br>• **Quality assurance** by ensuring that the measurement of quality standards is consistent across the spectrum; and<br>• **Quality improvement** by identifying and offering support to those that fall below targets or benchmarks<br><br>This initiative builds on the opportunity to report clinical quality measures at a provider level where they are already available in some form as part of the provincial reporting for the ColonCancerCheck Program. The initiative builds on experiences with physician level reporting already in place at CCO (primary care physician screening activity report, OBSP radiologist outcome report). |
| | |
| External Stakeholder Survey | Of the 175 respondents that participated in the survey 75% agreed or strongly agreed that this initiative go forward. |

| **6. Conduct Phase 1 of Adenoma Detection Rate Indicator Development** | |
|---|---|
| Description | • CCO currently receives pathology data from many hospital and private community labs in the province in order to confirm cancer diagnosis and populate the Ontario Cancer Registry.<br><br>• As part of the technology solution to transmit data from the lab to CCO (e-Path), all reports are transmitted and subjected to a natural language processing technology that separates records with cancer-related language and diagnoses from those that are non-cancer reports.<br><br>• It has long been of interest to the colorectal cancer screening program – and now the Colonoscopy Expert Advisory Panel – to assess the utility of these non-cancer reports for understanding the evolution of |

| | |
|---|---|
| | the disease and the quality of a variety of services related to cancer detection/ diagnosis.<br>• A formal evaluation and feasibility analysis protocol will be developed to assess the quality of these data holdings for this purpose and recommended next steps pending feasibility will be developed.<br>• Clinical expertise in both colonoscopy and pathology will be required to develop the evaluation approach and the details of the language processing key words to assess the data.<br>• The output of this phase will be a preliminary methodology for populating this indicator using existing data along with a plan to increase data capture and data quality for this purpose. |
| Rationale/ Drivers for Change | Adenoma detection rate measures effectiveness at detection of precancerous polyps during a colonoscopy. Traditionally, the main quality indicator has been cecal intubation rate. Recently endoscopists began realizing the value of measuring adenoma detection rates of individual examiners, due to the variability among endoscopists in terms of the number of adenomas detected. Mining existing data collected at CCO to support populating this important quality indicator would mark an important addition to the existing framework of quality reporting. |
| | |
| External Stakeholder Survey | This initiative was identified after the survey was conducted. Feedback collected informally indicates strong support for this initiative. |

# Section 4 – Mammography

## 4.1 Understanding the Healthcare Service

A mammogram is a set of images obtained from a machine that uses low-dose X-rays. These images are used to detect breast cancer and evaluate changes in the breast. Mammography may be performed as a screening test for asymptomatic women, including women with a prior history of breast cancer, or as a diagnostic test to evaluate abnormal clinical or imaging findings. In Ontario, mammograms are performed by medical radiation technologists (MRTs) and interpreted by radiologists in hospitals and Independent Health Facilities (IHFs). In 2012, approximately 460 radiologists read mammograms for the Ontario Breast Screening Program (OBSP) at 97 hospitals and 65 IHFs; an unknown number of additional radiologists read mammograms at hospitals and IHFs that do not participate in the OBSP. More than two-thirds of all screening mammography in Ontario is currently provided within the OBSP. [9]

Quality assurance is essential for mammography to ensure that images are of sufficiently high quality and that regulatory requirements for mandatory testing for X-ray safety are being followed. In the context of screening for breast cancer, mammography has benefits, harms and limitations. Benefits include finding cancers early, when they can more easily be treated and cured; one recent evidence review concluded that using mammography to screen for breast cancer resulted in a 21% reduction in breast cancer mortality in women aged 50 to 69. [10] Limitations of mammography include false negative results – cancers that are missed at screening. Harms include a slight radiation exposure, false positive results that lead to anxiety and unnecessary imaging, biopsies and surgery; and over-diagnosis (detecting and treating cancers that would not have caused harm during a person's lifetime).

[9] Cancer System Quality Index 2013. http://www.csqi.on.ca/by_patient_journey/screening/breast_participation/

[10] The Canadian Task Force on Preventive Health Care. 2011 Recommendations on screening for breast cancer in average-risk women aged 40–74 years. CMAJ. 183(17): 1991–2001.

## 4.2 An Analysis of the Current State of Quality Management in Ontario

In Ontario, there is currently no unified, coordinated quality management program for mammography that applies to all healthcare professionals and all facilities. Facilities that have X-ray equipment (which includes mammography machines) must meet the requirements of the *Healing Arts Radiation Protection* (HARP) *Act* and the X-Ray Safety Code (Regulation 543). All IHFs are required to be periodically assessed under the IHF Assessment Program, managed by CPSO as required by the *Independent Health Facilities Act* (see call-out box).

The OBSP requires all participating sites (hospitals and IHFs) to be accredited under the Canadian Association of Radiologists – Mammography Accreditation Program (CAR-MAP); as of January 2014, this is also a requirement for all IHFs. The OBSP provides regular physics inspection services to its sites in order to assess and maintain mammography image quality; the reports generated under the OBSP physics inspection program can be easily reformatted to demonstrate adherence to HARP and CAR-MAP.

**The CPSO Independent Health Facilities (IHF) Assessment Process** is mandatory for all IHFs in Ontario. IHFs are licensed by the MOHLTC and provide OHIP-insured services. MOHLTC asks CPSO to assess each IHF at least once during the facility's five-year licensing period.

CPSO's assessment team includes a specialty-specific peer physician, and a technologist or nurse depending on whether the assessment is of a diagnostic or ambulatory/surgical facility. When a breach in standards is identified through an assessment, an assessment report and MOHLTC decision regarding licensing is sent to the facility. The CPSO ensures that the facility satisfactorily addresses all the recommendations in the assessment report, notifying the IHF Director of the facility's compliance along with a recommendation that a follow-up assessment within a specified timeframe be conducted to ensure full compliance.

The OBSP also has quality requirements over and above HARP and CAR-MAP. For example, the OBSP has a robust program to monitor individual healthcare professionals' performance, including post-screen (interval) cancer reviews, MRT image reviews and individual radiologist outcome reports. Individual radiologist outcome reports provide radiologists with information on key indicators such as their abnormal call rates, cancer detection rates and one-year recall rates, where possible compared to provincial peer averages and to nationally recognized targets. OBSP reporting is supported by the screening mammography data capture system, the Integrated Client Management System (ICMS), built and supported by CCO. ICMS is only in place in hospitals and IHFs that are part of the OBSP.

## 4.3 Toward a Vision for the Future State of Quality Management in Ontario

The work and thinking to date of the Expert Advisory Panel for Mammography is described herein, in the context of the five components for a CQMP.

**CQMP Component 1 – Quality Defined**

The Expert Advisory Panel had two recommendations about the scope of the CQMP:

1) That the CQMP must include the continuum of care, not just the quality of the mammography procedure itself. This means that, in addition to ensuring that mammography is performed and read correctly, the CQMP will also ensure that results are communicated to patients and referring physicians, and that follow-up happens after an abnormal call, so that patients receive appropriate and seamless care along their mammography care journey. The panel noted that focusing only on the procedure risks losing this continuity of care, leading, in the worst case, to missed follow-up and, potentially, missed cancers.

2) That the CQMP for mammography should be expanded to breast imaging. This will ensure the CQMP can adequately address the interdependencies in the imaging dimension of breast cancer diagnostic processes, which often requires a radiologist to correlate and interpret results from several breast imaging modalities (mammography, ultrasound, MRI) and procedures (e.g., various types of image-guided biopsies). The timing of this expansion will be gradual with work continuing after the Phase 2 report in Q4 of fiscal 2014/15.

The Expert Advisory Panel has made progress in developing unified quality definitions for mammography. If the ministry approves the expansion of scope to breast imaging, the Panel will update the quality definitions with relevant information on other breast imaging modalities and procedures.

**CQMP Component 2 – Quality Reporting**

Reporting on the quality of screening mammography in Ontario has developed over decades of effort by the OBSP. The data sets available to CCO, including Ontario Health Insurance Plan (OHIP) claims, data received via ICMS and the Ontario Cancer Registry, enable the OBSP to identify critical events such as interval cancers for further investigation. As part of the CQMP development process, the Expert Advisory Panel will review OBSP's current reporting to see whether additional reports or report elements might be required to support the mammography CQMP, and whether some reports or report elements should no longer be required.

The CQMP will require data collection and reporting for all mammography (or breast imaging), including screening and diagnostic mammography; however, there is limited evidence or consensus on diagnostic mammography quality indicators. Therefore, further work is needed on how diagnostic mammography data can be included in quality reporting.

The panel will consider whether provincial initiatives such as eHealth Ontario digital imaging/picture archiving system (DI-PACS) can be leveraged to support an integrated system to acquire, store, archive and share breast imaging across the province.

EQIs were identified relevant to quality reporting for mammography. See section 4.4 for further details. These initiatives include:

1. Conducting a current state assessment for breast imaging in Ontario
2. Expanding screening mammography data collection to all sites for all women
3. Expanding radiologist outcome reports to all radiologists reading screening mammography

**CQMP Component 3 – Quality Assurance**

In 2014, the Expert Advisory Panel will begin by considering quality assurance programs for radiologists, MRTs and mammography facilities.

For facility assessment, there is a significant opportunity to improve the efficiency of current processes while also extending them to cover all hospitals and IHFs that provide mammography. The Expert Advisory Panel will need to consider the role of CAR-MAP in Ontario. As noted above, CAR-MAP is currently required for all facilities participating in OBSP and all IHFs providing mammography. Panel members have observed that while CAR-MAP is based on sound quality measures, it has not been an efficient process in recent years, with facilities facing long delays in obtaining accreditation. In addition, there is overlap between the CPSO IHF Assessment Program, CAR-MAP and OBSP processes that should be addressed. Lastly, it will be essential to apply a regular high-quality physics inspection process equally to all mammography sites.

**CQMP Component 4 – Quality Improvement**

Some opportunities for radiologists and MRTs to improve their skills are well established. Options that are not as well-developed in Ontario that the Expert Advisory Panel will consider include:

- Education-oriented image libraries
- A formalized prospective peer review process (e.g., second reads) for a sample of mammograms
- Regular abnormal mammogram reviews with peers
- Radiologist attendance at multi-disciplinary rounds and equivalent opportunities for radiologists who do not have hospital privileges

**CQMP Component 5 – Quality by Design**

There are several system design issues that the Expert Advisory Panel may advise on, including:

- How to foster equitable access to services across Ontario
- A process for phasing out film-screen mammography
- Processes for involving service users as active participants in their care
- Standardized methods for acquiring, disseminating and sharing breast images and imaging results across the continuum of care
- How to support the uptake of new technologies, should evidence confirm its effectiveness

Lessons learned from CCO's experience in phasing out CR mammography will be leveraged in making recommendations to phase out film screen.

## 4.4 Quality Initiatives for Implementation in 2014/15

While work continues on the design of the CQMP, the Expert Advisory Panel has identified three EQIs for mammography to drive the quality agenda forward. Implementation of these EQIs in 2014/15 will maintain momentum for change in quality management, while initiating infrastructure improvements that will take time to deliver.

| **1. Current State Assessment – Breast Imaging in Ontario** | |
|---|---|
| Description<br><br>Note: The workplan is based on the Partnership recommendation to expand scope to include all breast imaging. | Phase 1 – Conduct a detailed assessment of all breast imaging services in Ontario that will fill gaps in knowledge about breast imaging in Ontario, such as:<br>▪ How many radiologists and medical radiation technologists (MRTs) are providing mammography, breast ultrasound, and/or breast MRI, and at what volumes? How many facilities offer these imaging modalities, and at what volumes?<br>▪ How many radiologists are doing the various image-guided biopsies or needle localizations (mammography, ultrasound and MRI), and at what volumes? How many facilities offer these procedures, and what volumes of each procedure are being done at each facility?<br>▪ What kind of equipment is being used for these procedures?<br>▪ How many radiologists have not performed mammography in the OBSP during recent reporting periods and so have not received an individual radiologist outcome report?<br>▪ How many MRTs have not performed mammography in the OBSP during recent reporting periods and so have not taken part in an OBSP image review?<br>▪ How many mammograms are not currently captured by the Ontario Breast Screening Program's (OBSP's) data capture tool (Integrated Client Management System or ICMS)?<br>▪ What kind of IT systems are sites using to record information on breast imaging procedures?<br><br>Phase 2 – Based on current state assessment results, refine plans for data collection expansion, radiologist outcome reporting, etc. including:<br>▪ Expansion of OBSP screening mammography data collection to all sites for OBSP-eligible women – to begin in 2014/15<br>▪ Expansion of the radiologist outcome reports to all radiologists reading screening mammography for the OBSP – to begin in 2014/15 |

| | |
|---|---|
| Rationale/Drivers for Change | This assessment will provide a foundation for future work of the Mammography Expert Advisory Panel. For example:<br>▪ The focus on gaining an improved understanding of breast imaging overall rather than just mammography supports the recommended eventual expansion of the panel's scope from screening mammography to all breast imaging<br>▪ Detailed understanding of what breast imaging modalities and procedures are performed where in the province will reveal gaps in access to these services across Ontario that should be addressed<br>▪ Identification of facilities using film screen will inform estimates of the financial impact of phasing out film screen mammography<br>▪ Analysis of IT systems in use will identify sites that may have difficulty collecting data on mammography in a format that can easily be submitted to Cancer Care Ontario |
| | |
| External Stakeholder Survey | Of the 102 respondents that participated in the survey, 80% strongly agreed or agreed that the information in the Current State Assessment was important for developing a quality management program for mammography. |

# Section 5 – Pathology

## 5.1 Understanding the Healthcare Service

Pathology is the area of medicine concerned with the study of the nature and causes of diseases through examination of organs, tissues, bodily fluids and whole bodies (autopsies). Most pathology is performed on specimens obtained from biopsies or bodily fluids, and the work of a pathologist involves interpreting the changes seen as well as providing a diagnosis and diagnostic information. In Ontario, pathologists practise in hospitals, private community and public health laboratories, and for the Ontario Forensic Pathology Service; pathologists may practise in more than one of these settings.

Quality assurance is essential for pathology because the interpretations that pathologists make will determine diagnosis of disease, and thus treatment and recovery options. This has been underlined by incidents in Ontario and other provinces in the last decade that have raised concerns about patient safety and shaken public confidence. Some of these incidents gave rise to investigations that documented misdiagnoses that in some cases resulted in well patients receiving unnecessary treatment and in other cases led to ill patients not receiving necessary, even life-saving, treatment.

**Selected Statistics**
Providers:
- 513 anatomical pathologists
- 136 general pathologists
- 38 hematological pathologists

(Note: Some pathologists have multiple certifications.)

Facilities:
- 170 hospital laboratories
- ~22 private laboratories

## 5.2 An Analysis of the Current State of Quality Management in Ontario

Pathologists have been proactively working towards developing a standardized quality assurance program for all surgical pathology laboratories in Ontario. In 2009, the Ontario Medical Association Section on Laboratory Medicine and the Ontario Association of Pathologists collaborated to create Path2Quality, focusing on improving quality management systems to help guide the work of laboratory physicians. Path2Quality has a number of work streams to address specific aspects of the interpretive components of pathology quality management. Standards2Quality sets out best practice guidelines for a surgical pathology professional management program. Work2Quality has developed guidelines for pathology workload measurement that are being pilot tested in select hospitals. To address the concern that many pathologists work in isolation, ModelofCare2Quality is focused on the development of networks of practice in pathology, while Leadership2Quality is clarifying the role of laboratory directors in quality management.

The Expert Advisory Panel has endorsed the Standards2Quality Guideline, which outlines an integrated set of quality assurance processes and associated performance standards.

Other important efforts to move forward with a focused quality agenda in Ontario, and across Canada, include:

- The development of synoptic reporting, led by Cancer Care Ontario

- The work underway at the Canadian Partnership Against Cancer to create a national quality framework for pathology
- Initiatives at some hospitals to improve intra-hospital cooperation
- The initiatives of pathologists/laboratory physicians across the province to develop and/or enhance internal quality assurance programs
- The large numbers of secondary reviews that already occur in hospitals across the province

At the same time, it must be noted that the supply of laboratory physicians and/or pathologists has diminished in the past decade, relative to the population of the province as a whole and to clinical physician and radiation oncologist numbers. [11] The diminishing supply of laboratory physicians will have an impact on pathologists' ability to maintain existing, and institute new, quality management initiatives.

## 5.3 Toward a Vision for the Future State of Quality Management in Ontario

The work and thinking to date of the Expert Advisory Panel for pathology is described below, in the context of the five components for a CQMP. It should be noted that in Ontario, laboratory directors/chiefs of pathology service have primary responsibility for managing professional quality across their facility; the Partnership acknowledges this and will seek ways to add value to this existing accountability structure while integrating laboratory directors/chiefs of pathology service into a new provincial accountability structure for pathology quality.

**Quality Management Program-Laboratory Services** (QMP–LS) is a mandatory program operated by the OMA) and funded by MOHLTC to improve patient safety. QMP-LS assesses the quality of lab test results and ensures labs meet international and national standards of excellence through the Ontario Lab Accreditation (OLA) 15189Plus™ accreditation program. QMP-LS focuses on the technical aspects of laboratory testing and does not deal with the interpretive aspects of pathology.

The QMP-LS External Quality Assessment (EQA) division assesses the quality of laboratory services through the assessment of laboratory test performance and education. Laboratory results are peer reviewed and examined for reliability. EQA also compares different methods and instruments for the same test, provides guidance on best practices and assesses standards of participant performance. Unsatisfactory performance in EQA by a single lab may indicate the need for assistance and retraining. Unsatisfactory performance by several labs using the same method may indicate problems with the method or kit.

**CQMP Component 1 – Quality Defined**

Given the complexity of pathology and the significant scientific ambiguities in interpretive accuracy, defining quality in pathology services is a difficult task. Where quality measures can be identified, using these measures requires sophistication. Data about quality have to be carefully investigated and understood

[11] Pollett AF, Lajoie G, Colgan TJ. 2011. Canadian Laboratory Physician Supply: Falling behind. Canadian Journal of Pathology 3(1):12-7.

in the context of overall laboratory operations and broader system factors.

The Expert Advisory Panel had two recommendations about the scope of the CQMP for pathology:

1) That forensic pathology be considered out of scope for this initiative. Quality management for forensic pathology is being developed through other mechanisms.

2) That a pathology CQMP not address the administrative and technical aspects of laboratory performance. The QMP-LS/OLA process for medical laboratory accreditation (see call-out box) addresses these aspects of laboratory performance.

Standards2Quality identifies a set of quality assurance processes and guidelines, most of which can be measured through indicators already developed in the documentation. Time will be required to develop performance indicators for individual pathologists based on consistent Ontario quality assurance processes.

**CQMP Component 2 – Quality Reporting**

Beginning in 2014, the Expert Advisory Panel will be assessing additional provincial quality management data collection requirements. The data collected will be dependent on how quality is defined and the quality assurance options for the interpretive phase of pathologists' work.

The panel recommends that the facility and system quality measures identified by Standards2Quality be collected across Ontario laboratories and used to build a common internal quality reporting structure. However, unless key enablers such as professional and technical resources and a robust laboratory information system (LIS) for collecting data are in place, local monitoring of these indicators will be impossible. A phased approach to data collection can be determined once resources are identified. Measures will need to be validated before evidence-based provincial benchmarks can be determined.

An EQI relevant to quality reporting for pathology entails developing a plan for facility level reporting incorporating baseline data and selected Standards2Quality measures. See section 5.4 for further details.

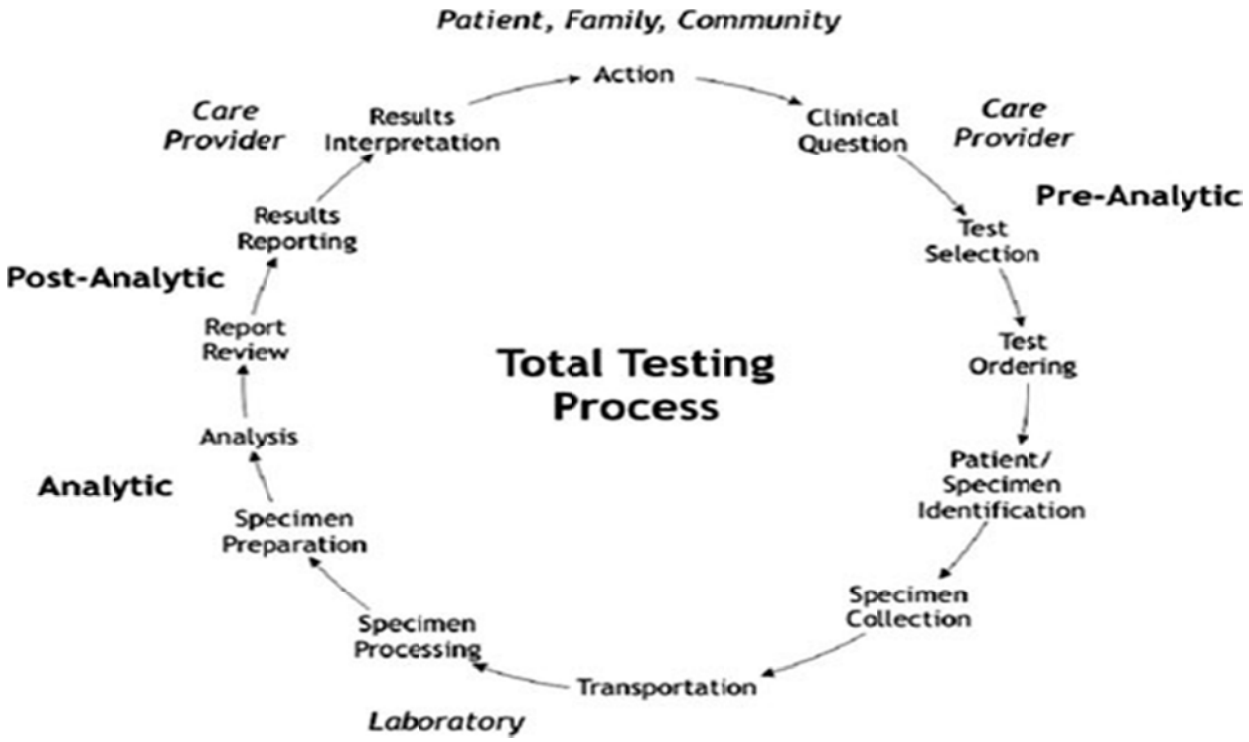
It will take time to develop individual pathologist performance indicators based on consistent Ontario quality assurance processes. In the interim, processes will need to be developed to support laboratory directors and/or chiefs of service accountability for quality, including when and how quality concerns and issues identified by laboratory directors need to be escalated outside the laboratory, with the focus on supporting quality improvement for individual pathologists.

**CQMP Component 3 – Quality Assurance**

All laboratories in Ontario currently maintain multiple internal quality assurance processes such as proactive internal review and retroactive random peer review. However, there is significant variation in how internal quality assurance is done across facilities. Although the Path2Quality initiative provides

detailed directions as to how to conduct quality assurance processes through its Standards2Quality Guideline, resource pressures have resulted in uneven uptake across facilities.

The pathology testing cycle involves pre-analytic, analytic and post–analytic phases. All three phases are interdependent and essential to achieve high-quality pathology interpretation, as shown below: [12]




Pre-analytic factors that impact quality include how the specimen is collected and labelled, the availability of clinical history and specimen integrity. The post-analytic phase of the work cycle includes the processes that generate a report and a system to ensure that findings reach the appropriate healthcare provider. In the overall provision of pathology services, quality is also impacted by the design of the system, how clinical services are provided and funded, test utilization, how new technologies can be implemented and the flexibility of the system to adapt to change.

An initial focus of the panel's quality assurance deliberations in 2014 will be on the interpretive phase of the pathologist's work. The Expert Advisory Panel has endorsed the Standards2Quality Guideline, which outlines an integrated set of quality assurance processes and associated performance standards. Performance against standards will be monitored at the individual, facility and system levels. The specific processes include, but are not limited to:

- Intradepartmental consultations
- Prospective case reviews

[12] Raab SS, Grzybicki DM. 2010. Quality in Cancer Diagnosis. CA Cancer J Clin 60(3):139-165

- Intraoperative consultation
- Review of previous or concurrent reports
- External consultation
- External review
- Addendum reports
- Critical diagnoses
- Retrospective reviews
- Turn-around times

One of the first steps in understanding the resourcing necessary to move forward will be a current state and gap analysis of the Standards2Quality Guideline across the province. As noted in section 8 below, costs associated with additional pathologist time to participate in quality assurance processes will be significant.

In addition, the expert panel will have to consider the role of external quality assurance (EQA) in a CQMP. EQA usually refers to an organized process through which individuals or facilities can be scored against an established testing scheme. It is referred to as "external" because an entity outside the laboratory designs and administers this sort of testing. Developing and maintaining a formal EQA process for an entire jurisdiction could be costly, so the panel will need to consider which specific EQAs will add value to patient care and safety.

**CQMP Component 4 – Quality Improvement**

Educational opportunities currently available to support and improve the skills of individual pathologists include peer mentoring and formal courses and seminars. The Expert Advisory Panel will review these and consider if additional programs could be developed to support pathologists' drive for excellence.

A patient's understanding of their pathology and the role a pathologist plays in the patient's healthcare journey is an important aspect of quality improvement. Patients often drive excellence in a system. Education of and communication to patients about pathology will be explored in 2014/15.

An EQI relevant to quality improvement for pathology is supporting current best practices in pathology reporting to identify and assess options for improving communication within pathology diagnostic reporting. See section 5.4 for further details.

**CQMP Component 5 – Quality by Design**

There are significant system design issues in pathology that are relevant to ensuring quality service provision. In order to understand the changes needed to support system-wide quality, a comprehensive understanding of the pathology system is necessary. Two specific areas for further work are:

1. The role of pathologists' assistants across Ontario, including the work they currently do and their level of training and experience. Since the work pathologists' assistants perform impacts the quality of the

pathologic interpretation, this may lead to a consideration of standards of practice for pathologists' assistants.

2. A comprehensive mapping of Ontario's pathology resources and inter-laboratory relationships. Such a map would facilitate the Expert Advisory Panel's ability to consider the potential value of and options for regional pathology networks that might improve system efficiency and provide more organized supports for smaller centres. It will also be useful in considering the impact of system changes on the provision of pathology services in Ontario. For example, the move to Quality-Based Procedures (QBPs) may result in a shift in volumes of procedures that generate pathology specimens from hospitals to private community laboratories, potentially negatively impacting quality processes in these laboratories and the relationships between pathologists and the rest of the clinical care team. It will be essential to understand how such shifts could affect pathologists' work in order to maintain clinical coherence and avoid fragmentation of care.

Based on Phase 1 deliberations, the panel identified one initiative at the system level to facilitate efficiency in the delivery of pathology services. This EQI focuses on developing resource(s) for pathologists to inform practice standards for tissue exemption and tissue release. See section 5.4 for further details.

## 5.4 Quality Initiatives for Implementation in 2014/15

While work continues on the design of the CQMP, the Expert Advisory Panel has identified three EQIs for pathology to drive the quality agenda forward. Implementation of these EQIs in 2014/15 will maintain momentum for change in quality management, while initiating infrastructure improvements that will take time to deliver.

| **1. Produce a baseline Provincial Quality Report for Pathology** | |
|---|---|
| Description | Finalize requirements for 2014/15 facility data collection (based on Standards2QQuality), engage all laboratories in data collection and consolidate results into a baseline Provincial Quality Report for 2014/15.<br>The scope of this initiative also includes recommendations to inform the implementation of Quality Reporting. |
| Rationale/Drivers for Change | There is strong support for Standards2QQuality in the field, wide variation in the implementation of Standards2QQuality across laboratories and no current quality or Standards2QQuality reporting at the regional or provincial level.<br>This initiative is a necessary first step to establish a baseline of the information currently being collected at the laboratory level and to produce a provincial quality report. |
| | |
| External Stakeholder | This initiative was identified after the survey was conducted. |

| | |
|---|---|
| Survey | |

| **2. Draft and Evaluate Resource(s) for Pathologists to Inform Practice Standards Related to Tissue Exemptions & Tissue Release** | |
|---|---|
| Description | Assess current practices and identify existing challenges and issues. Design, develop, evaluate and refine resources to support pathologists with practice standards for:<br>▪ Tissues exempt from pathologic examination (as per the Public Hospitals Act)<br>▪ Tissues exempt from microscopic examination<br>▪ Release of tissues to patients<br><br>The scope of this initiative also includes a recommendation for next steps based on assessment activities and evaluation outcomes. |
| Rationale/Drivers for Change | Tissues exempt from pathologic examination (pathologic/microscopic):<br>▪ Currently there is inconsistency in practice across Ontario regarding management of tissues that are exempt from pathologic examination, resulting in ineffective use of pathology resources.<br>▪ The legislation needs to be updated to reflect additional tissues that should be considered exempt from pathologic examination.<br>▪ The development of provincial standards of practice related to tissue exemption from pathologic examination will improve utilization and efficiency of pathology services and ensure standardization and consistency across all laboratories.<br><br>Release of tissues to patients:<br>▪ There is no standardization among labs for release of tissues.<br>▪ Standards related to release of tissues will ensure valuable tissue is safeguarded appropriately and ensure best practice. |
| | |
| External Stakeholder Survey | Of the 115 respondents that participated in the survey:<br><br>81% agreed or strongly agreed with including tissues exempt from pathologic examination (as per the Public Hospitals Act) in this initiative and for it to go forward<br>▪ 77% agreed or strongly agreed with including tissues exempt from microscopic examination in this initiative and for it to go forward<br>▪ 79% agreed or strongly with including release of tissues to patients in this initiative and for it to go forward |

| 3. Identify and Assess Options for Improving Communication within Pathology Diagnostic Reporting | |
|---|---|
| Description | Investigate communication issues within pathology diagnostic reporting in order to make recommendations about the most effective way to structure pathology reports and report pathologic findings. |
| Rationale/Drivers for Change | ▪ Communication of a pathologic diagnosis and other attributes of a disease process is critical as it impacts the care and treatment a patient will receive. The phraseology and structure of reports can impact patient safety if the report is misinterpreted or there are reading errors. Awareness and use of optimal reporting across the province will improve patient care.<br>▪ An initial first step towards improving communication with pathology diagnostics reporting is to investigate communication issues/concerns with stakeholders who are the recipients of these reports (e.g., surgeons, family physicians)<br>▪ Recommendations can then be made regarding terminology and the most effective way to structure pathology reports when reporting pathologic findings. |
| | |
| External Stakeholder Survey | Of the 115 respondents that participated in the survey 77% agreed or strongly agreed that this initiative go forward. |

# Section 6 – Implementing CQMPs in Ontario

Implementing CQMPs in Ontario will require new approaches and new investment. The partners, CCO and CPSO, will take leading roles in implementing aspects of CQMPs but many other stakeholders must also be deeply involved:

- Physicians and other healthcare professionals must have a lead role in defining quality
- CQMPs must support existing leaders in their quality management responsibilities
- CQMPs must align with existing quality processes such as QMP-LS/OLA
- Some "quality by design" initiatives are best led by HQO, LHINs or MOHLTC

Regulatory changes will likely be required to ensure that CQMPs are mandatory and able to access appropriate data. Legislative changes may also be necessary. A CQMP IM/IT strategy that is aligned with other provincial IM/IT programs and initiatives will be needed. Investment in quality programs such as secondary reviews in pathology will be required, and must be provided in a way that these funds are appropriately protected from being eroded by on-going clinical volume pressures.

## 6.1 Preliminary Review of Legislation and Regulatory Context

As part of Phase 1, the Partnership established the Legislative and Regulatory Working Group in partnership with MOHLTC to begin considering the potential legal and regulatory issues associated with implementing CQMPs in Ontario. The Working Group was co-chaired by Sandy Nuttall, former Director, Diagnostic Services and Planning, Negotiations and Accountability Management Division, MOHLTC; and Wade Hillier, Director, Quality Division, CPSO; and was supported by legal counsel from MOHLTC, CCO, CPSO and from Fasken Martineau, via contract with CCO.

The Working Group focused on two tasks:

1. The identification of legislative and regulatory issues that will be relevant to CQMP implementation
2. A specific assessment of legislative and regulatory issues relevant to the implementation of the Early Quality Initiatives

**1. General Issues related to CQMP Implementation**

A detailed assessment of the legislative and regulatory changes that may be required to enable CQMP implementation is not possible in advance of the development of specific program design options. For this reason, the assessment will proceed in parallel with, and become an input into, the work of the Expert Advisory Panels in Phase 2. In Phase 1, the Working Group considered the types of legal and regulatory issues that may be relevant to CQMP implementation based on the five program components.

**Defining Quality**

The Partnership is proposing to gather and harmonize definitions of quality for a healthcare service in a way that brings together elements that are mandatory in one way or another, and best practice guidance and aspirational quality improvement targets. In order to assess legislative and regulatory implications, the Partnership documentation will need to be very clear as to whether an element is mandatory and if so, in what sense. For example:

1. Some elements may be enforceable standards of practice where adherence to the standard is monitored and enforced through a quality assurance process. For example, a requirement might be that all hospital and OHP endoscopy facilities must observe appropriate protocols for cleaning endoscopes. If a facility was found to be in violation of this rule, it could be prevented from providing the service until the care was brought up to standard.
2. Some may be evidence of standards of care such as normative thresholds for a quality measure where being an outlier triggers an exploratory quality assurance review. For example, a physician's cecal intubation rate might be lower than the standard. Here an exploratory review of the physician's performance might lead to a range of outcomes including:
    - identifying a data error
    - a suggested continuing medical education (CME)/quality improvement (QI) opportunity
    - a mandatory CME/QI referral
    - An investigation by the CPSO, and, potentially, a hearing to determine whether the physician is incompetent.
3. Some may be performance targets related to key performance indicators in accountability agreements that can be tied to funding. There is value in considering whether this is the desired way to enforce standards and guidelines at the facility level, or whether other methods are preferred, such as enshrining performance targets in regulation.

In Phase 2, the Partnership will need to develop a lexicon for the quality elements, determining whether each element is mandatory and if so, in what way. This will be closely tied to how the various aspects of the definition of quality are linked to quality assurance processes. With the elements of the quality definitions clarified in this way, various legislative and regulatory options can be evaluated for physicians, allied healthcare professionals and facilities.

There are multiple acts and regulations that can support defining quality. Considerable work will be required to assess the potential of existing regulatory structures to support improved quality definitions.

**Quality Reporting**

In order to determine the best way to ensure the Partnership has the authority to do this, a number of key issues will need to be resolved, including how and from whom data will be collected; if the collection of these data fall within existing data collection regimes (e.g., whether an expansion of an existing data set falls within an existing data collection regime or requires new legislative authority to make the data sharing mandatory); how data will be governed, processed and stored; who will have access to data; to whom reports or summaries of the data will be given and for what purpose; and to what extent quality

reporting will involve the collection, use and disclosure of information about identifiable individuals (e.g., physicians). Ensuring that the Partnership can gather and use data about quality at the physician, facility and regional level will be a priority for the legislative and regulatory assessments in Phase 2.

**Quality Assurance**

The Partnership faces complex challenges in developing provincial quality assurance programs at the level of the physician, facility and region. For example, OHPs, IHFs and hospitals all have different regulatory contexts that will have to be addressed. From initial analysis, the Partnership will likely have to leverage different regulatory and/or funding mechanisms in order to ensure compliance across difference types of facilities. Continued engagement with MOHLTC will be critical in Phase 2 to develop feasible proposals.

**Quality Improvement and Quality by Design**

Assessments in these last two areas will need to be conducted based on specific proposals.

**2. Specific Issues Related to Early Quality Initiative Implementation (EQI)**

Most of the EQIs can proceed into implementation having no legislative or regulatory implications, with the exception of those discussed below.

**Mandatory Participation in Current State Assessment EQIs (Mammography and Pathology)**

As noted above, with Ministerial support, CCO may be able to gather data from public hospitals that will address most of pathology and much of mammography. This does not address the Partnership's capacity to get similar information from privately owned community laboratories, nor does CCO currently have the authority to require IHFs to provide similar information for mammography.

Based on the *Independent Health Facilities Act* (IHFA), the Partnership could ask the Minister to seek the information that it requires from the IHFs, or ask the Minister to enter into an agreement with it for the collection, use and disclosure to CCO of the information that it seeks. In order to comply with either request, the Minister will have to be satisfied that the collection, use and disclosure to CCO of such information is necessary for purposes related to the administration of the IHFA, the *Health Information Act* (HIA) or the *Commitment to the Future of Medicare Act, 2004* (CFMA). In that regard, it should be noted to the Minister that under section 22(2) of the CFMA, she may exercise the authority under Part III of the CFMA (Accountability) where she considers it in the public interest to do so and, in doing so, may consider any matter that she considers relevant in the circumstances, including transparency, quality improvement, value for money and reliance on evidence. It may be possible to compel IHFs to provide information by asking the Director to request that they disclose it to CCO, but the Director will have to be satisfied before making such request that the provision of such information is for purposes related to the administration of the IHFA or the HIA. Alternatively, the Partnership could ask the Minister to make a regulation under the IHFA prescribing quality assurance in mammography as one of the purposes for disclosure of information under that section.

As an early part of the relevant EQI, it may be simpler to determine if the IHFs will simply agree to participate. If a high percentage agrees, the work of gathering the current state data may not require addressing the regulatory issue at this stage.

For community laboratories, there is no provision in the *Laboratory and Specimen Collection Centre Licensing Act* that would require community laboratories to provide information to a third party. As with the IHFs, it may be worth determining if the relevant corporations who run the community laboratories simply agree to participate in this early exercise.

**Informed Consent for the Colonoscopy Provider Report Pilot**

The Partnership will need to ensure that the consent of physicians to participate in the colonoscopy provider report pilot is obtained in accordance with the *Freedom of Information and Protection of Privacy Act*, and that any personal information collected pursuant to that consent is only used and disclosed in accordance with that consent. This means that the notice and consent will need to articulate the range of intended or possible uses and disclosures, including any uses by the CPSO – including those pursuant to other legislation. Specifically, prior to giving their consent to the collection of this personal information, physicians will need to be informed that although the CPSO is required by section 36 of the *Regulated Health Professions Act* (RHPA) to keep that information confidential, there are exceptions to that, including that it may use or communicate such information in connection with the administration of the RHPA or a specific health profession Act.

Provided the consent process addresses these issues, the pilot should be able to proceed. The larger issue of mandatory participation for all physicians and surgeons who provide colonoscopy services will have to be dealt with before this quality report can be provincialized.

## 6.2. Toward an IM/IT Strategy for the Quality Management Partnership

Information is fundamental to inform and support the CQMPs. Information can take the form of reports on the quality of service-related activities or views of the actual procedure in the form of digital images or files. In order to produce the information needed to measure, assess, manage and improve quality, raw data must be collected at the service delivery point in a standardized and consistent format. These data can then be used to develop information on the clinical activity that meets the requirements of the Partnership. As the CQMP business and clinical requirements – what information is required and for what purpose – are developed, IM/IT experts can identify the best method to gather the required inputs and develop and deliver the information.

Currently, data collection for the three service areas is neither robust nor consistent across the province. Ontario uses sources such as OHIP claims billings data and the Canadian Institute for Health Information's Discharge Abstract Database (DAD) and National Ambulatory Collection Reporting System (NACRS) to collect data on activities (how many services were completed by whom and where), but has few sources for data on quality (how well the services were performed). The Partnership will require both types of data, and will need to develop an approach to leveraging and then standardizing and expanding existing quality data collection systems to meet program needs.

In addition to the collection of data for reporting purposes, the Partnership's information management strategy will also look at the technical options for sharing images and files for images and specimens collected as part of the clinical work flows. While the details of the specific use of this capability are not yet confirmed, the assumption is that over time, the capability to easily share images and other relevant information across the system will be required, as has been demonstrated by a review of best practices in other jurisdictions.

Principles for developing the Partnership's information management strategy are:

- Data collection requirements will align with existing/best practice clinical workflow and data standards
- Data and reports must be credible and valid
- Reports must be formatted to meet the users' needs
- Reports must be accessed and used to directly support quality management activities
- Where possible, existing provincial, regional and/or local data collection and reporting infrastructure will be leveraged
- Purpose-built technology for collecting data at the point of care to support quality management is not the desired approach and will only be considered when no feasible alternative exists

Quality can only be assessed and managed through access to the appropriate information. The Expert Advisory Panels will make recommendations on what information is required, with whom it will be shared and what it will be used for. The information management strategy will document the data elements to be captured; the associated data standards, methods and technology requirements; and an approach to collecting data and building/leveraging technology to meet the CQMP information requirements.

When fully developed, the information management strategy will identify what data elements will be collected and how they will be used. The strategy will specify the collection technology as well as the technology that will be used to securely transmit or provide access to data and/or information. It will identify the report technology, format and infrastructure to translate data into information for the purposes of quality management. For each healthcare service, the strategy will identify how information and data align with both the program requirements and the principles outlined previously.

## Section 7 – From Vision to Blueprint: Toward the 2015 Final Report

In Phase 2, the panels will develop recommendations designed to move from the preliminary visions laid out above to full "blueprints" for CQMPs. By December 2014, each Expert Advisory Panel must complete a detailed blueprint for the relevant CQMP, considering the five components of a quality management program.

In order to bring rigour and consistency to the process of completing the blueprints for the CQMPs, the EAPs will be provided with a clear and consistent set of deliverables that must be addressed. In addition, each EAP will use the structured process outlined below to develop and finalize its recommendations.

**Further Research**

For each program component, further research will be conducted to develop a thorough understanding of the current state in Ontario and best practices from other leading jurisdictions. This will enable gaps and opportunities in Ontario to be identified for consideration and prioritization by the Clinical Leads and Expert Advisory Panels.

**Options Analysis**

Based on the research findings, an options analysis will be conducted that includes consideration of potential impacts, risks and mitigation strategies. These options will be developed in an iterative fashion with the leads and panels, leading to panel recommendations.

**Stakeholder Consultation**

Extensive stakeholder consultation will be conducted to gather detailed feedback on design recommendations via appropriate mechanisms (e.g. focus groups, surveys); this feedback will be consolidated for consideration by the leads and panels and will inform the final design recommendations to the Partnership Steering Committee.

**Finalize Recommendations**

The Partnership Steering Committee will review all recommendations to ensure that the Partnership objectives and commitments are met and that there is consistency and alignment across services areas. A report containing a consolidated set of final design recommendations for all three service areas will be submitted to the MOHLTC in Q4 FY2014/15.

**Implementation Impact and Value for Money Evaluation**

As part of the Phase 2 process, the Partnership will develop a detailed implementation impact and value for money evaluation proposal. This will include methods for assessing improvements in patient safety, patient experience, consistency of care and value for money. The value for money component will be based in health economics assessments of the cost of care, taking into account both the investments

required to establish CQMPs and the longer-term benefits of eliminating duplication in quality management processes and of standardization of care.

## Section 8 – Detailed Funding Request

*Note: In compliance with Ministry directives, this report has been modified to remove the funding request information.*

Managing quality in healthcare is a complex undertaking that both drives and reduces costs. Major cost drivers include:

- Investments in IM/IT solutions required for quality reporting
- Investments in improved diagnostic technology
- Increased healthcare professional time for quality assurance processes

Major cost reductions are realized through:

- Reduction in variability of clinical practice
- Avoiding costs associated with adverse events, including prolonged hospital stays and avoidable ICU admissions, readmissions, and re-testing
- Reduction in lawsuits related to adverse events

While the cost drivers are easy to understand, the fact that improving quality helps reduce costs may be less obvious. Improving quality reduces costs because aligning care to best practices improves patient outcomes, minimizes adverse events and reduces waste and duplication.

There are different ways of achieving a reduction in the variability of clinical practice across a healthcare system. One way to improve consistency is to "buy quality" by setting a price for a particular procedure linked to key performance indicators. This approach incents service providers to find efficient ways to deliver a service while ensuring quality requirements are met. This approach works well when providers are competing for service volumes. It tends to encourage the rapid spread of best practices associated with efficient, high-quality service delivery. Ontario is currently pursuing a version of this strategy through Health System Funding Reform, which will fund quality-based procedures and programs.

Another approach is to focus directly on quality by working closely with healthcare professionals to develop and implement evidence-based protocols across multiple care facilities. Intermountain Healthcare, an integrated healthcare service provider serving Utah and neighbouring states, has established an impressive track record of reducing costs using this approach. By first investing in quality reporting, quality assurance processes and quality improvement programs, Intermountain Healthcare has developed the capacity to identify and eliminate variations in clinical practice across 22 hospitals and multiple community clinics. Larger costs savings have been associated with areas of greater variability in clinical practice. A non-profit service provider, Intermountain tends to reinvest savings to expand service delivery: "We estimate that the Intermountain elective labor induction protocol reduces

health care costs in Utah by about $50 million per year...As a result, Intermountain is now able to deliver about 1,500 additional newborns each year without any additional beds or nurses." [13]

Comprehensive quality management programs will support similar achievements in Ontario in the three healthcare services. As part of the Phase 2 process, the Partnership will be seeking to identify how CQMP implementation can:

- Support the cost-savings potential of the Endoscopy QBP
- Identify opportunities to reduce variations in clinical practice and track the corresponding cost reductions

The Partnership will use funding to:

- Support the Expert Advisory Panel deliberation process, including CQMP designs and corresponding implementation evaluation process
- Develop feasible models of clinical governance for provincially consistent quality assurance processes
- Complete the required legal and regulatory analysis to support feasibility of CQMP design
- Conduct stakeholder consultation regarding CQMP recommendations to ensure physician and other stakeholder buy-in
- Identify cost savings opportunities and strategies for tracking these as part of the broader CQMP implementation evaluation process

The 10 Early Quality Initiatives (EQI) presented in this report will support the development of:

- Clinical protocols that are developed under the leadership of Ontario physicians
- New quality reporting that will be used to monitor quality and, in time, track adherence to provincial clinical protocols
- System-wide clinical management linked to new quality assurance processes required to eliminate costly clinical variation

While it is premature to provide details regarding out year costs and savings, the Partnership anticipates that investments will be required in IM/IT capacity to support quality reporting and in physician time, most notably pathologist time, to implement additional quality assurance processes. For pathology costs, Alberta's new Anatomic Pathology Quality Assurance Plan provides a useful comparator. Associated with this initiative is:

- One-time funding to address infrastructure requirements (i.e., equipment upgrades)
- A 10% increase in reimbursement to compensate pathologists for the additional workload required to support quality assurance activities

[13] James BC, Savits LP. 2011. How Intermountain trimmed health care costs through robust quality improvement efforts. Health Affairs 30(6): 5. DOI 10.1377/hlthaff.2011.0358.

A 10% increase in pathologist reimbursement for additional workload in Ontario would require significant additional funding. The Partnership will conduct more research prior to determine if the gap surrounding quality assurance program implementation in Ontario is this large. As part of Phase 2, the Partnership will develop recommendations for MOHLTC as to how to assess this gap in a rigorous manner.

# Acknowledgements

This report was written by:

- Robert McKay, Program Manager, QMP
- Nancy Lewis, Project Manager, QMP

Substantial input and support was provided by:

- Dr. David Morgan, QMP Clinical Lead, Colonoscopy
- Dr. Rene Shumak, QMP Clinical Lead, Mammography
- Dr. Katherine Chorneyko, QMP Clinical Lead, Pathology
- Annette Ellenor, Project Manager, QMP
- Trish Fabik, Senior Project Manager, QMP
- Beth Lowcock, Senior Research Associate, CCO
- Kathleen Sibley, Senior Communications Advisor, CCO
- Laura Silver, Project Manager, QMP

In addition, many staff members from CCO and CPSO provided thoughtful review and valuable advice on the report.

This report was edited and approved to be submitted to the Steering Committee by Lynn Guerriero, Managing Director, Cancer Screening, CCO; and Wade Hillier, Director, Quality Management Division, CPSO. Following Steering Committee review and approval, the report was approved by the CCO Board of Directors on February 27, 2014 and by the CPSO Council on March 7, 2014.

## Appendix 1 – ADM's Memo Announcing the Partnership


**Ministry of Health and Long-Term Care**

**Ministère de la Santé et des Soins de longue durée**

Ontario

Assistant Deputy Minister
Negotiations and Accountability
Management Division

5th Floor, Hepburn Block
Queen's Park
Toronto ON M7A 1R3

Telephone: 416 212-7012
Facsimile: 416 327-5186

Sous-ministre adjointe
Division des négociations et
de la gestion de la responsabilisation

Édifice Hepburn, 5e étage
Queen's Park
Toronto ON M7A 1R3

Téléphone : 416 212-7012
Télécopieur : 416 327-5186


HLTC3968IT-2012-1721

MAR 2 8 2013

**MEMORANDUM TO:** Relevant Stakeholders in Pathology, Colonoscopy and Mammography

**FROM:** Susan Fitzpatrick
Assistant Deputy Minister
Negotiations and Accountability Management Division

**SUBJECT:** Cancer Care Ontario and College of Physician & Surgeons joint quality management partnership

Ontario's Action Plan for Health Care directs a broad quality agenda focused on continuous improvement across all parts of the health care system. An important enabler to improvement has been demonstrated by comprehensive and system-wide quality management programs to support consistent best practices, appropriate care and optimal patient outcomes across areas of care.

In support of this, the Ministry has asked Cancer Care Ontario (CCO) and the College of Physicians and Surgeons of Ontario (CPSO) to jointly develop a provincial quality management program in three areas: mammography, colonoscopy and pathology. In these particular areas there is widespread agreement on the immediacy to address variability and gaps and ensure: (i) consistent, clinically-driven standards across the province; (ii)adequate supports, linkages and programs to promote adherence to those standards; and, (iii) system-wide reporting and measurement at all levels of care delivery. Mammography, colonoscopy and pathology share a foundation of substantial quality management activity already in the field from which to build on so it makes sense to focus on these three initially.

..../2

Elements of a comprehensive quality management program include:

1. A quality framework that sets out an integrated set of performance standards and quality measures at the provider, facility and system levels
2. An integrated data gathering infrastructure, reporting linked to quality improvement opportunities and rigorous health analytics to review data
3. Organized, peer-led approaches to performance improvement
4. Quality assurance processes – provider and site

The Ministry recognizes the interests and accountabilities that many groups, organizations and agencies have in these three areas. What is needed is to bring the shared intent and many good efforts already in place together into a single coherent provincial quality management program for each. This program will support other accountability structures already in the system with a particular focus on the clinical aspects of high quality care. The Ministry has asked two leadership organizations – CCO, given its leadership in continuous system quality improvement, and CPSO, given its leadership in quality assurance in physician practice as well as out-of-hospital premises and independent health facilities - to take lead responsibility to bring these programs together. CCO and CPSO will be accountable to plan and develop a program through extensive consultation and meaningful collaboration with clinical experts, other system partners and all other relevant stakeholders. The program's future success will depend, in part, on the degree of collaboration and integration that this initiative is able to foster.

Others including the Quality Management Program – Laboratory Services (under the Ontario Medical Association), the Ontario Hospital Association, various physician specialty organizations (e.g. the Path2Quality program), Health Quality Ontario and other provider groups and their regulatory organizations, will play a meaningful role in advising on the design and implementation of these total quality management programs, as well as helping to deliver aspects of the programs where appropriate. CCO and CPSO will be expected to fully access, coordinate and use the clinical and operational leadership and capacity already in the system.

This is a new approach in Ontario, built on success elsewhere, and we believe it can succeed here if it is planned in a spirit of open collaboration and a shared intent to 'get it right'. The first step will be a provincial consultation led by CCO and CPSO to inform program design. Consultations will begin early in the 2013/14 fiscal year.

Susan Fitzpatrick

## Appendix 2 – Membership of Selected Partnership Governance Bodies

| Quality Management Partnership Steering Committee | | |
|---|---|---|
| **NAME** | TITLE | ORGANIZATION |
| **Michael Sherar (Co-Chair)** | President and CEO | Cancer Care Ontario |
| **Garth Matheson** | Vice-President, Planning and Regional Programs | Cancer Care Ontario |
| **Dr. Linda Rabeneck** | Vice-President, Prevention and Cancer Control | Cancer Care Ontario |
| **Dr. Padraig Warde** | Interim Vice-President, Clinical Programs & Quality Initiatives | Cancer Care Ontario |
| **Lynn Guerriero** | Managing Director, Cancer Screening | Cancer Care Ontario |
| **Paula Knight** | Vice-President, People, Strategy and Communications | Cancer Care Ontario |
| **Dr. Rocco Gerace (Co-Chair)** | Registrar | College of Physicians and Surgeons of Ontario |
| **Dan Faulkner** | Deputy Registrar | College of Physicians and Surgeons of Ontario |
| **Wade Hillier** | Director, Quality Management Division | College of Physicians and Surgeons of Ontario |
| **Dr. Rene Shumak** | QMP Clinical Lead, Mammography | QMP |
| **Dr. David Morgan** | QMP Clinical Lead, Colonoscopy | QMP |
| **Dr. Katherine Chorneyko** | QMP Clinical Lead, Pathology | QMP |
| **Robert McKay (ex-officio)** | Program Manager | QMP |

**Dr. David Morgan, Clinical Lead, Colonoscopy**

Dr. David Morgan is Head, Service of Gastroenterology, and Deputy Chief, Department of Medicine, at St. Joseph's Healthcare in Hamilton. He also teaches at McMaster University. Dr. Morgan is past president of the Canadian Association of Gastroenterology and the current treasurer of the Ontario Association of Gastroenterology. His research interests include dyspepsia, particularly with regards to effects of non-steroidal anti-inflammatory drugs.

**Dr. Rene Shumak, Clinical Lead, Mammography**

Dr. Rene Shumak, assistant professor of medical imaging at the University of Toronto, is the Cancer Care Ontario regional breast imaging lead for three regions in the Greater Toronto Area. Dr. Shumak was the Radiologist-in-Chief of the Ontario Breast Screening Program from 1999-2009 and again from December 2010 to July 2011, followed by six months as the special advisor to the Ontario Breast Screening Program. She has also served as head of Breast Imaging at Sunnybrook Health Sciences Centre and has participated in many research endeavors in the early detection of breast cancer.

**Dr. Katherine Chorneyko, Clinical Lead, Pathology**

Dr. Katherine Chorneyko is Medical Director, Laboratory Services, at Brantford General Hospital. She served as the president of the Ontario Association of Pathologists (OAP) for two years and recently completed a term as president of the Brant County Medical Association. Dr. Chorneyko completed her medical degree at the University of Western Ontario, followed by pathology training at the University of Ottawa and additional training in electron microscopy at McMaster University.

| Colonoscopy Expert Advisory Panel | |
|---|---|
| **NAME** | ROLE |
| **Dr. David Armstrong** | Gastroenterologist |
| **Dr. David Baron** | Gastroenterologist |
| **Dr. Nancy Baxter** | General Surgeon |
| **Mr. Subi Bhandari** | Patient/Caregiver |
| **Dr. Stan Feinberg** | General Surgeon |
| **Dr. Michael Gould** | ColonCancerCheck Clinical Lead, CCO |
| **Dr. Jeff Habert** | Primary Care Physician |
| **Dr. Doug Hemphill** | Gastroenterologist |
| **Dr. Roger Hollingworth** | Gastroenterologist |
| **Dr. Hugh Kendall** | General Surgeon |
| **Ms Judy Knighton** | OHP Inspector |
| **Dr. Jeff Kolbasnik** | General Surgeon |
| **Dr. Matt Kurrek** | Anesthetist |

| Colonoscopy Expert Advisory Panel | |
|---|---|
| **NAME** | ROLE |
| **Ms Johanne Lin** | Nurse |
| **Mr. Jacques Lupien** | Patient/Caregiver |
| **Dr. Angus Maciver** | General Surgeon |
| **Mr. Tom McHugh** | CCO Regional VP |
| **Dr. David Morgan (Chair)** | QMP Colonoscopy Clinical Lead |
| **Dr. Iain Murray** | Gastroenterologist |
| **Ms Kay Rhodes** | Non-Physician OHP Administrator |
| **Dr. Peter Rossos** | Gastroenterologist |
| **Ms Jennifer Stretton** | Nurse Practitioner |
| **Dr. Jill Tinmouth** | ColonCancerCheck Scientific Lead, CCO |
| **Dr. Chris Vinden** | General Surgeon |

| Mammography Expert Advisory Panel | |
|---|---|
| **NAME** | ROLE |
| **Tina Bilodeau** | Medical Radiation Technologist (MRT) |
| **Dr. Muriel Brackstone** | Surgeon |
| **Jacquie Brown** | Health Care User |
| **Dr. Petrina Causer** | Radiologist |
| **Dr. Anna Chiarelli** | Scientific Lead, Ontario Breast Screening Program, CCO |
| **Dr. Pavel Crystal** | Radiologist |
| **Dr. Belinda Curpen** | Radiologist |
| **Ms Michelle DiEmanuelle** | Hospital CEO |
| **Ms Joan Glazier** | Provincial MRT Coordinator, Ontario Breast Screening Program, CCO |
| **Mr. Adrian Gorgey** | Non-physician IHF Administrator |
| **Dr. Mark Henderson** | CCO Regional VP |

| Mammography Expert Advisory Panel | |
|---|---|
| **NAME** | ROLE |
| **Dr. Amanda Hey** | Primary Care Physician |
| **Dr. Doris Jabs** | Radiologist |
| **Dr. David Jacobs** | Radiologist |
| **Ms Ivana Marzura** | Health Care User |
| **Ms Marlene McCarthy** | CPSO IHF Assessor |
| **Dr. Lori Moore** | Radiologist |
| **Dr. Derek Muradali** | Radiologist-in-Chief, Ontario Breast Screening Program, CCO |
| **Dr. Evan Roberts** | Radiologist |
| **Dr. Jean Seely** | Radiologist |
| **Dr. Rene Shumak (Chair)** | QMP Mammography Clinical Lead |
| **Dr. Martin Yaffe** | Medical Physicist |

| Pathology Expert Advisory Panel | |
|---|---|
| **NAME** | ROLE |
| **Ms Jill Adolphe** | Patient |
| **Ms Andrea Axente** | Pathologists' Assistant |
| **Ms Judy Burns** | CCO Regional VP |
| **Dr. William Chapman** | Pathologist |
| **Dr. Kathy Chorneyko (Chair)** | QMP Pathology Clinical Lead |
| **Ms Sue Clipsham** | Private Laboratory Administrator |
| **Ms Heather Ead** | Patient |
| **Mr. Kevin Empey** | Hospital CEO |
| **Dr. Danny Enepekides** | Surgical Oncologist |
| **Dr. Tim Feltis** | Pathologist |
| **Dr. Greg Flynn** | QMP-LS |
| **Dr. Nusarat Hussain** | Pathologist |

| Pathology Expert Advisory Panel | |
|---|---|
| **NAME** | ROLE |
| **Dr. Suhas Joshi** | Pathologist |
| **Mr. Iain Macri** | Pathologists' Assistant |
| **Dr. Meg McLachlin** | Pathologist |
| **Dr. Bayardo Perez-Ordonez** | Pathologist |
| **Dr. Aaron Pollett** | Pathology and Laboratory Medicine Lead, CCO |
| **Dr. Corwyn Rowsell** | Pathologist |
| **Dr. Sandip SenGupta** | Pathologist |
| **Dr. David Shum** | Pathologist |
| **Dr. John Srigley** | Pathologist |
| **Dr. Jeff Tanguay** | Pathologist |

| Quality Management Partnership Secretariat Team* | |
|---|---|
| **NAME** | TITLE |
| **Robert McKay** | Program Manager |
| **Trish Fabik** | Senior Project Manager |
| **Annette Ellenor** | Project Manager, Pathology |
| **Nancy Lewis** | Project Manager, Mammography |
| **Laura Silver** | Project Manager, Colonoscopy |
| **Kathleen Sibley** | Senior Communications Advisor |
| **Bibi Jagdeo** | Senior Administrative Secretary |

**The Partnership Secretariat has been strongly supported by many staff members from both CCO and CPSO.*

## Appendix 3 – Healthcare System Reference Group

| NAME | TITLE |
|---|---|
| **Dr. Joshua Tepper (Chair)** | President and CEO, Health Quality Ontario |
| **Dr. Ross Baker** | Professor and Program Director, Quality and Patient Safety |
| **Dr. Adalsteinn Brown** | Director, Institute of Health Policy, Management and Evaluation, University of Toronto |
| **Ms. Anne Coghlan** | Executive Director and CEO, College of Nurses of Ontario |
| **Mr. Anthony Dale** | President and CEO, Ontario Hospital Association |
| **Dr. Rocco Gerace** | Registrar, College of Physicians and Surgeons |
| **Dr. Sholom Glouberman** | President and CEO, Patients Canada |
| **Ms. Karen Michell** | Executive Director, College of Academic Hospitals of Ontario |
| **Mr. Ron Sapsford** | CEO, Ontario Medical Association |
| **Michael Sherar** | President & CEO, Cancer Care Ontario |

# Appendix 4 – Ontario Expert Interviews and Stakeholder Consultations

| General Stakeholder Consultations | | |
|---|---|---|
| **Type of Event** | **Audience** | **Date** |
| **Webinar: Introduction to/current status of the Partnership; role of hospitals** | Hospital CEOs, clinical leadership, department heads in relevant services | September 2013 |
| **Discussion of HQO CEO's role in the Partnership's Health System Reference Group** | Dr. Josh Tepper | October 2013 |

| Interviews with Colonoscopy Experts | |
|---|---|
| **Name** | **Position** |
| **Dr. David Baron** | Gastroenterologist, North York General Hospital |
| **Dr. Jamie Gregor** | Gastroenterologist, London Health Sciences Centre |
| **Dr. Hugh Kendall** | General Surgeon, Durham EndoSurgery Centre |
| **Dr. Jeff Kolbasnik** | General Surgeon, Milton District Hospital |
| **Dr. Angus Maciver** | General Surgeon, Stratford General Hospital |
| **Kay Rhodes** | Clinical Director, Kensington Screening Clinic |
| **Dr. Jill Tinmouth** | Gastroenterologist, Sunnybrook Health Sciences Centre |

| Colonoscopy Stakeholder Consultations | | |
|---|---|---|
| **Type of Event** | **Audience** | **Date** |
| **In-person group session (introduction to the Partnership)** | Mostly gastroenterologists and general surgeons | April 2013 |
| **Webinar (introduction to the Partnership)** | Mostly gastroenterologists and general surgeons | May 2013 |
| **In-person meeting to discuss expert panel formation** | Ontario Association of Gastroenterologists (OAG) and Ontario Association of General Surgeons (OAGS) leadership | August 2013 |
| **Webinar on early quality initiatives** | Mostly gastroenterologists and general surgeons | December 2013 |
| **Survey on early quality initiatives** | Gastroenterologists, general surgeons, primary care providers, nurses specializing in endoscopy, OHP administrators, hospital administrators, patients/caregivers | December 2013 |

| Interviews with Mammography Experts | |
|---|---|
| **Name** | **Position** |
| **Dr. Anna Chiarelli** | Senior Scientist, CCO |
| **Joan Glazier** | Medical Radiation Technologist, Toronto |
| **Dr. Roberta Jong** | Radiologist, Sunnybrook Health Sciences Centre |
| **Dr. Murray Miller** | Radiologist, Ontario Diagnostic Centres |
| **Dr. Terry Minuk** | Radiologist, Juravinski Hospital |
| **Dr. Keith Sparrow** | Radiologist, Stratford General Hospital |
| **Dr. Martin Yaffe** | Medical Physicist, Sunnybrook Health Sciences Centre |

| Mammography Stakeholder Consultations | | |
|---|---|---|
| **Type of Event** | **Audience** | **Date** |
| **In-person group session (introduction to the Partnership)** | Mostly radiologists and medical radiology technicians | May 2013 |
| **Webinar (introduction to the Partnership)** | Mostly radiologists and medical radiology technicians | May 2013 |
| **Webinar on early quality initiatives** | Mostly radiologists and medical radiology technicians | November 2013 |
| **Survey on early quality initiatives** | Radiologists, medical radiology technicians, IHF administrators, breast oncologists, patients/caregivers | December 2013 |

| Interviews with Pathology Experts | |
|---|---|
| **Name** | **Position** |
| **Dr. Sylvia Asa** | Pathologist, Toronto General Hospital |
| **Dr. Michel Bonin** | Pathologist, Sudbury Regional Hospital |
| **Dr. Katherine Chorneyko** | Pathologist, Brantford General Hospital |
| **Dr. Dimo Divaris** | Pathologist, Grand River Hospital |
| **Dr. Suhas Joshi** | Pathologist, St Catharines General Hospital |
| **Dr. Meg McLachlin** | Pathologist, London Health Sciences Centre |
| **Dr. Bayardo Perez-Ordonez** | Pathologist, Toronto General Hospital |
| **Dr. Michael Pollanen** | Pathologist, Ontario Forensic Pathology Service |
| **Dr. John Srigley** | Pathologist, Credit Valley Hospital |
| **Dr. Virginia Walley** | Medical Director, LifeLabs |

| Pathology Stakeholder Consultations | | |
|---|---|---|
| **Type of Event** | **Audience** | **Date** |
| **In-person group session (introduction to the Partnership)** | Pathologists, lab directors | April 2013 |
| **Webinar (introduction to the Partnership)** | Pathologists, lab directors | April 2013 |
| **Presentation to Section Membership** | OMA Section on Lab Medicine AGM | April |
| **In-person meetings with Michael Sherar and Rocco Gerace** | OMA Section on Lab Medicine | May 11 and 29 2013 |
| **Presentation to Ontario Association of Pathologists Annual General Meeting** | Pathologists | September 2013 |
| **Presentation (in-person and videoconference)** | Northern Ontario-based pathologists | November 2013 |
| **Webinar on early quality initiatives** | Pathologists, pathologist assistants, hospital administrators, lab directors | November 2013 |
| **Survey on early quality initiatives** | Pathologists, pathologist assistants, hospital administrators, lab directors | November 2014 |
| **Presentation** | OAP Board /OMA Lab Section Reps | February 2014 |
| **Presentation** | QMP-LS | February 2014 |
| **Presentation** | OAP Board /OMA Lab Section Reps | February 2014 |

## Appendix 5 – Healthcare Leaders Interviewed

| Name | Position |
|---|---|
| **Ms. Margaret Banks** | Program Director, Accreditation and Safety and Quality Health Service Standards, Australian Commission on Safety and Quality in Health Care |
| **Mr. Neville Board** | Program Director, Information Strategy, Core Safety and Quality Indicators, Clinical Quality Registries and Health Information, Australian Commission on Safety and Quality in Health Care |
| **Dr. Douglas Cochrane** | Chair, British Columbia Provincial Patient Safety and Quality Council |
| **Mr. Dennis Deas** | Senior Director, Performance Improvement Implementation, Care and Service Quality, Kaiser Permanente |
| **Dr. Dennis Kendel** | Past Registrar, College of Physicians and Surgeons of Saskatchewan, Member Saskatchewan Health Quality Council and Health Council of Canada |
| **Dr. Jack Kitts** | CEO, the Ottawa Hospital |
| **Ms. Emily Musing** | Chief Patient Safety Officer, University Health Network, Toronto |
| **Dr. Julietta Patnick** | Director NHS National Screening Programs, United Kingdom |
| **Mr. Joseph Rohrl** | Senior Manager, Kaiser Foundation Health Plan |
| **Ms. Anne Marie Sciammacco** | RN, Vice President Clinical Operations, Fallon Community Health Plan, Boston |
| **Dr. David Share** | Vice President, Value Partnerships, Blue Cross Blue Shield Michigan |
| **Ms. Margi Spies** | Managing Director, Management Consulting and Performance Improvement, Kaiser Permanente |

# Appendix 6 – CCO's and CPSO's Quality Frameworks

CCO has a robust understanding of quality grounded in internationally recognized work. CCO has adapted the Institute of Medicine's dimensions of quality (see below), and measures and reports against these dimensions to help focus efforts in improving the cancer system. CCO's dimensions can be easily applied to quality management programs for specific healthcare services, and will help ensure that patients experience care that is safer, more reliable, more responsive, more integrated and more accessible.

**CCO's Dimensions of Quality**

| Dimension | Definition |
|---|---|
| **Safe** | Avoiding, preventing, and ameliorating adverse outcomes or injuries caused by healthcare management |
| **Effective** | Providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit |
| **Accessible** | Making health services available in the most suitable setting in a reasonable time and distance |
| **Responsive** | Providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions |
| **Equitable** | Providing care and ensuring health status does not vary in quality because of personal characteristics (gender, ethnicity, geographic location, socioeconomic status, age) |
| **Integrated** | Coordinating health services across the various functions, activities and operating units of a system |
| **Efficient** | Optimally using resources to achieve desired outcomes |

CPSO brings to the partnership a complementary focus on physician competence. CPSO has adopted the Royal College of Physicians and Surgeons' CanMEDS physician competency framework to guide its physician assessment and education work (see below). The focus on physician competencies will help ensure that quality management programs support physicians in maximizing their professional potential.

**CanMEDS Physician Competency Framework**

| Competency | Definition |
|---|---|
| **Medical Expert** | As *Medical Experts*, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care |
| **Communicator** | As *Communicators*, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter |

| | |
|---|---|
| **Collaborator** | As *Collaborators*, physicians effectively work within a healthcare team to achieve optimal patient care |
| **Manager** | As *Managers*, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system |
| **Health Advocate** | As *Health Advocates*, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations |
| **Scholar** | As *Scholars*, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge |
| **Professional** | As *Professionals*, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour |