

Advancing Quality:

Progress on Key Priorities
in Colonoscopy, Mammography
and Pathology

2018

Quality
Management
Partnership



THE
COLLEGE
OF
PHYSICIANS
AND
SURGEONS
OF
ONTARIO



Ontario
Cancer Care Ontario

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Mammography and Pathology

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Message from the Partnership Executive

The Quality Management Partnership is working to ensure that all Ontarians have access to consistent, high-quality colonoscopy, mammography and pathology services. Working closely with our stakeholders, we have been implementing quality management programs (QMPs) in these three health service areas. A key component of the QMPs is quality reporting, which provides insights into the quality of care at multiple levels: across the province, and by region, facility and physician. Reporting information about performance provides a clearer view of quality across the system and helps identify areas for continuous quality improvement.

This report provides an overview of the quality of colonoscopy, mammography and pathology services in Ontario, based on select measures. It highlights the progress that has been made since QMP implementation began in January 2016. While quality improvements have been made, variation remains in some aspects of quality across the province. Working closely with our stakeholders to reduce this variation, the Partnership can contribute to achieving consistent, high-quality care wherever the care is provided.

The Partnership is committed to improving transparency in the healthcare system, ensuring greater accountability to the public and fostering engagement with key stakeholders, in alignment

with [Patients First: Action Plan for Health Care](#) (2015). In the coming years, we will continue to enhance the information available publicly in a manner that is meaningful to those who use these three health services.

Achieving our shared goal of improving the quality of care provided to Ontarians requires the collective contributions of everyone involved, including healthcare providers, health system leaders and patients. We thank everyone for their efforts to date and look forward to continuing our work together.



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Introduction

Background

On March 28, 2013, the Ministry of Health and Long-Term Care announced the Quality Management Partnership (the Partnership), which brings together Cancer Care Ontario and the College of Physicians and Surgeons of Ontario (CPSO). Since then, the Partnership has been working closely with stakeholders to develop quality management programs (QMPs) for three health service areas: colonoscopy, mammography and pathology.

The Partnership established three goals for the QMPs:

- enhance the quality of care;
- increase the consistency in the quality of care provided across facilities; and
- improve public confidence by increasing accountability and transparency.

The QMPs were designed by three expert advisory panels chaired by three provincial clinical leads, one for each health service area. Panel members included physicians and other health professionals who practice in the health service area, administrators and patients/service users.¹ The panels' recommendations are detailed in the

Partnership's report, [Provincial Quality Management Programs for Colonoscopy, Mammography and Pathology in Ontario](#). A subsequent report, [Building on Strong Foundations: Inaugural Report on Quality in Colonoscopy, Mammography and Pathology](#), provided summary information on:

- the health professionals and facilities that provide the three health services in Ontario;
- key provincial quality initiatives that currently exist in each health service area; and
- provincial performance, as measured by standards and indicators recommended by the expert advisory panels, where data are available.

The report referenced above, [Building on Strong Foundations: Inaugural Report on Quality in Colonoscopy, Mammography and Pathology](#), showed that strong foundations for QMPs already exist in Ontario and also revealed gaps that need to be filled to ensure consistent, high-quality services across the province. This report details some of the progress that has been made in implementing QMPs in colonoscopy, mammography and pathology and provides a high-level update on provincial performance for select measures.

¹ Many people who have medical procedures – colonoscopy and mammography, in particular – are not sick and are doing so for routine screening purposes only, leading some to argue that “service users” is a more appropriate label than “patients.” To address this issue, this report uses the terminology patients/service users to refer to people who use these health services.

Progress on Key Priorities

The Partnership identified four components of a QMP which it has been working to implement. The components are:

- evidence-based standards, guidelines and indicators;
- a clinical leadership structure of provincial, regional and facility leads;
- quality reporting at the physician, facility, regional and provincial levels; and
- resources, tools and opportunities to support quality improvement.

Building on existing quality initiatives wherever possible will help enable success of the QMPs. Accordingly, each QMP has endorsed standards, indicators and guidelines that are recommended or implemented in Ontario and/or in other provincial, national or international programs or organizations. The Partnership works with key stakeholders to ensure that these best practice guidelines and standards are applied to all providers and facilities in Ontario.

The Partnership has established a clinical leadership structure for each of the three health service areas that consists of a network of clinical leads at the provincial, regional and facility levels who provide clinical guidance and oversight to the QMPs. To support their clinical leads, facilities designate QMP executive contacts, and hospitals and community (private) laboratories also select

administrative contacts. These contacts have operational accountability for quality within their organizations and assist facility leads by facilitating the implementation of standards and identified quality improvement initiatives.

The Partnership has developed and released reports in order to promote transparency and accountability in the healthcare system. For each health service area, the reports provide an overview of quality measured by select standards and indicators at the facility, regional and provincial levels. Reports are distributed to facility leads and administrative and executive contacts at facilities, as well as to regional clinical leads and administrators in Regional Cancer Programs. Webcasts, teleconferences and written documentation are provided to support recipients in understanding their reports and using them to foster conversations about quality improvement in their facility and region. Physician-level reporting has been initiated for colonoscopy.

The Partnership has been developing resources to assist facility and regionals leads, as well as healthcare professionals and other personnel in facilities, in carrying out quality improvement initiatives. Examples include toolkits, training on providing peer performance feedback, and an online learning management system (LearnQMP) to provide access to relevant resources, foster communities of practice and promote resource sharing. Further supports have been put in place for endoscopists who were receiving physician-level reports from the Partnership for the first time.

The Partnership has continued to engage patients/ service users through a variety of channels such as the establishment of a Citizens' Advisory Committee. The committee provides guidance from the patient/ service user's perspective on overall design and implementation of the QMPs and specific topics such as patient engagement, patient experience indicators and public reporting. Members of the Citizens' Advisory Committee participate in the three provincial quality committees that the Partnership has set up to provide the QMPs with advice and guidance.

The Partnership recognizes the importance of evaluation and evidence-based program design. As the QMPs are being implemented, evaluation of various activities has been carried out, and the learnings have been used to improve and refine the Partnership's approach. For example, reports have been evaluated to assess, among other things, their reach and usability and were subsequently redesigned based on these findings. The evaluation of Partnership activities, and the Partnership's overall approach to quality and performance management, will be invaluable inputs that will inform future efforts.

Colonoscopy

Background

In Ontario, the majority of colonoscopies are performed by general surgeons and gastroenterologists. Colonoscopies are performed in hospitals and out-of-hospital premises (OHPs); in 2017, 168 facilities provided colonoscopy services in Ontario: 103 hospitals and 65 OHPs.

Progress on Key Priorities

CPSO's Out-of-Hospital Premises Inspection Program has embedded several of the Colonoscopy QMP's standards into its requirements for OHPs. In addition, the Colonoscopy QMP, the Gastrointestinal Endoscopy Quality Based Procedure, and ColonCancerCheck (the provincial colorectal screening program) have a number of standards and indicators in common. These three programs have aligned indicator methodologies, where appropriate, in order to ensure that reports developed by each initiative provide consistent information.

The clinical leadership structure for the Colonoscopy QMP has been established. To ensure alignment, the colonoscopy regional leads are responsible for supporting the Colonoscopy QMP, ColonCancerCheck and the Gastrointestinal Endoscopy Quality Based Procedure in their regions.

The Colonoscopy QMP first released reports at the facility, regional and provincial levels in 2016 to all facilities providing colonoscopy in Ontario. An evaluation of the reports showed that the majority of respondents found the reports useful in describing quality, and many used the reports to have conversations about quality. The evaluation also revealed that some stakeholders felt the amount of information in the reports could be overwhelming. To simplify the reports and help recipients focus their quality improvement efforts, a consultative process that included the Partnership's Citizens' Advisory Committee and the Colonoscopy Provincial Quality Committee was used to identify priority standards and indicators. Updated reports with more recent data, and with priority indicators and standards highlighted, were released in 2017.

A key Partnership milestone was met when the Colonoscopy QMP released physician-level reports in 2017. The QMP reports build on Dr. Jill Tinmouth's randomized controlled trial examining the effectiveness of physician-level audit and feedback reporting in improving colonoscopy quality. The Partnership's release of physician reports is the first time in Ontario that all physicians in a health service area have received a report about their performance from a mandatory provincial program with an established performance management mandate.

For the physician reports, this was operationalized by focusing on processes to support physicians in improving their performance. Regional leads are available to all endoscopists to help them interpret their report. In addition, regional leads actively engage a subset of endoscopists who may benefit from discussing their report and work with them to develop a personal learning plan. Follow up will assess progress on the actions documented in the plan, and the entire approach will be evaluated as it rolls out.

Other colonoscopy-specific quality improvement supports include a resource package created to encourage consistent best practice in the performance of endoscopies and the operation of endoscopy facilities. The content was developed by a clinical working group using a systematic, evidence-informed process and includes guidelines for bowel preparation selection, pre- and post-procedure guidelines and checklists, and standardized discharge guidelines. The [resource package](#) is posted on the Partnership website, and relevant elements are referenced in documents that are included in the report release materials.

Key Report Findings

Figure A compares OHP and hospital adherence to three prioritized standards: informing referring physicians of all procedure results, using the global rating scale (GRS) and providing patients with written information at discharge. Overall, performance for the prioritized standards was mixed, with hospitals and OHPs performing similarly; lowest performance was reported for using the GRS. Compared to 2016, facilities performed slightly better on informing physicians of procedure results and using the GRS, and slightly worse on providing patients with written information on discharge (data not shown).

Figure B shows hospital and OHP performance for the two prioritized indicators: inadequate bowel preparation and wait times from positive fecal occult blood test (FOBT) to colonoscopy.³ The figure shows that performance for these indicators was stable in 2015 compared to the previous year. At a hospital level, the 75th percentile wait time from positive FOBT to colonoscopy ranges from 76 to 104 days, while inadequate bowel preparation ranges from 1.8% to 4.4% (data not shown).

Figure A: Prioritized standards: OHP, hospital and Ontario adherence, 20172

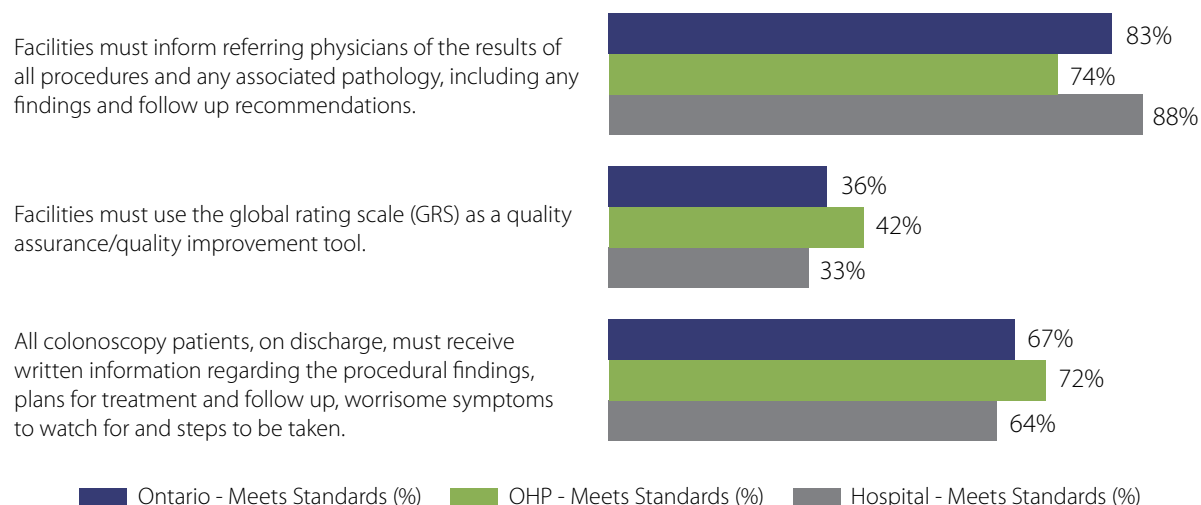


Figure B: Prioritized indicators: OHP, hospital and Ontario performance

Positive FOBT to Colonoscopy Wait Time	014 75th Percentile (Days)	2015 75th Percentile (Days)
Hospital total	79	83
OHP total	63	68
Total	75	78

Inadequate Bowel Preparation	2015 Indicator Value (%)	2016 Indicator Value (%)
Hospital total	3.3	3.0
OHP total	-	-
Total	3.3	3.0

² Data are from a self-report facility survey for which the OHP response rate was 75% and the hospital response rate was 97%. The denominator for each standard is the total number of facilities (not the total number of survey respondents). As well, self-reported data are subject to respondent interpretation and assessment.

³ Inadequate bowel preparation is only reported for hospitals because the data are sourced from the ColonCancerCheck Colonoscopy Interim Reporting Tool which is a hospital-based data collection tool.

Figure C: Prioritized standards: regional summary

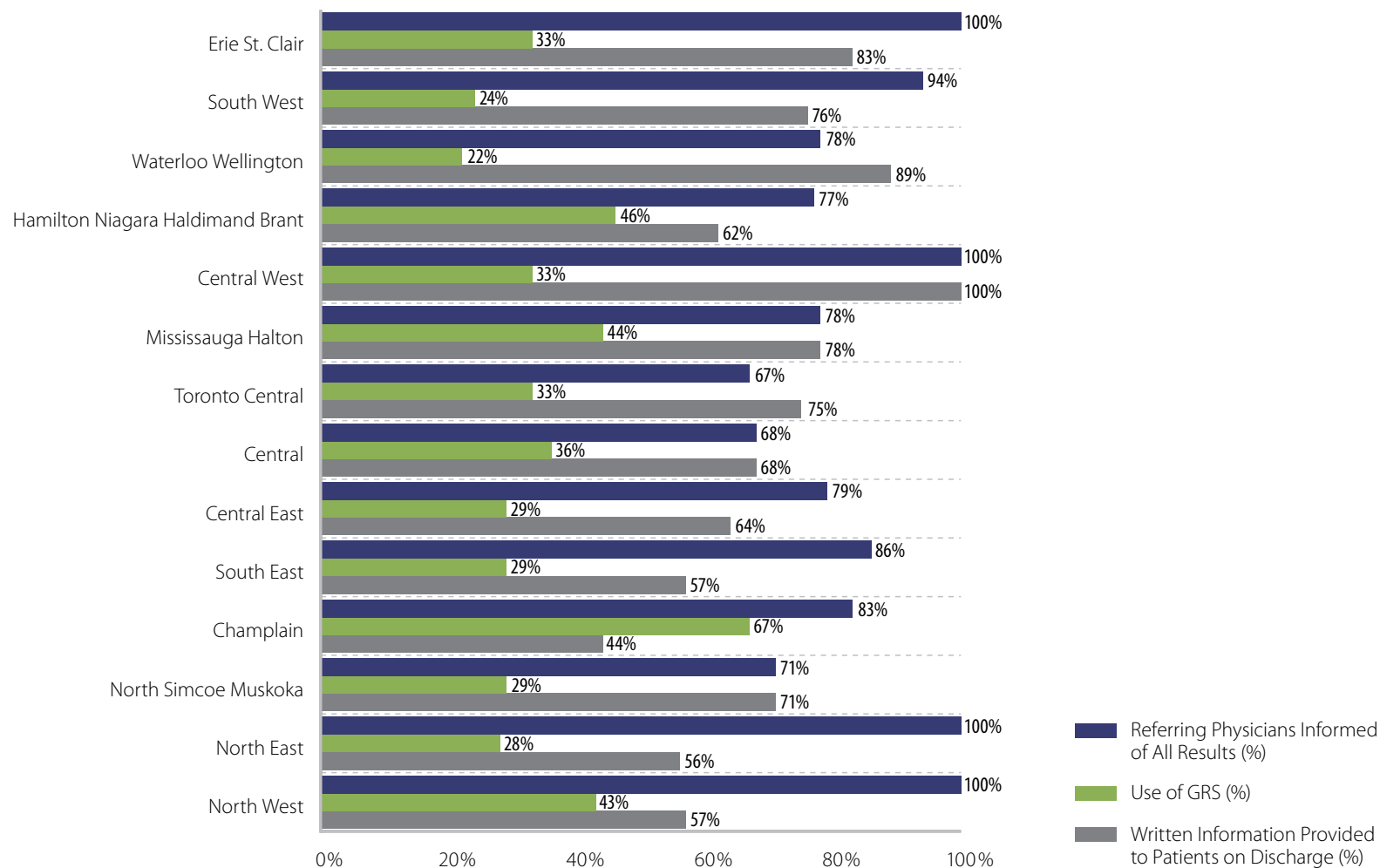
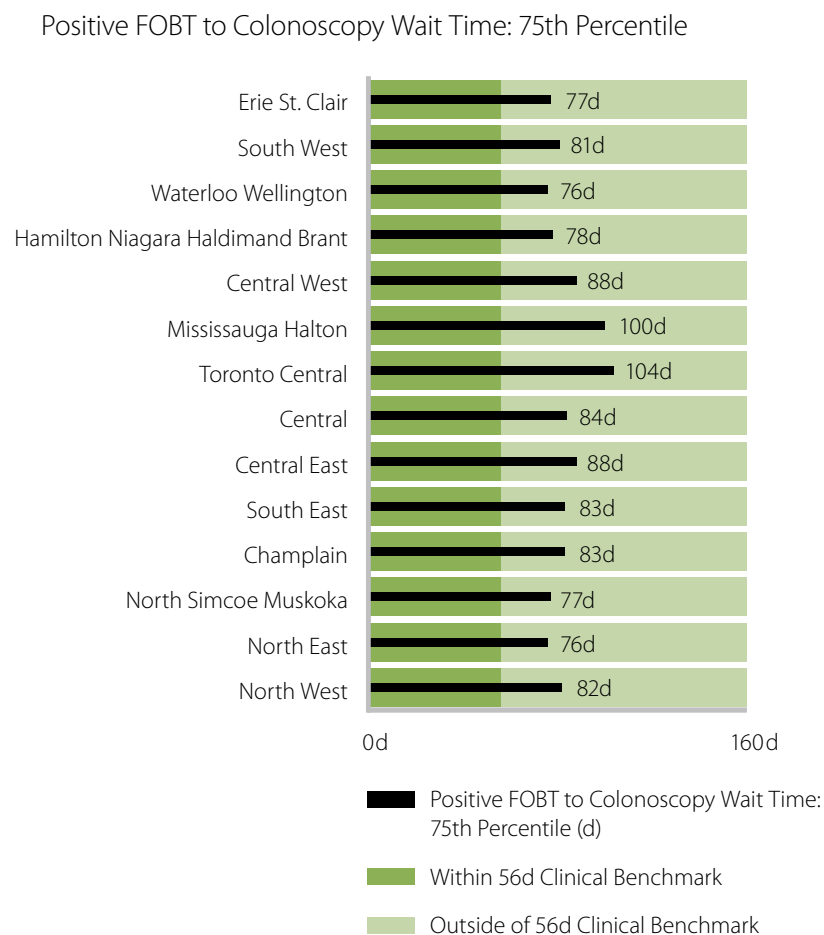
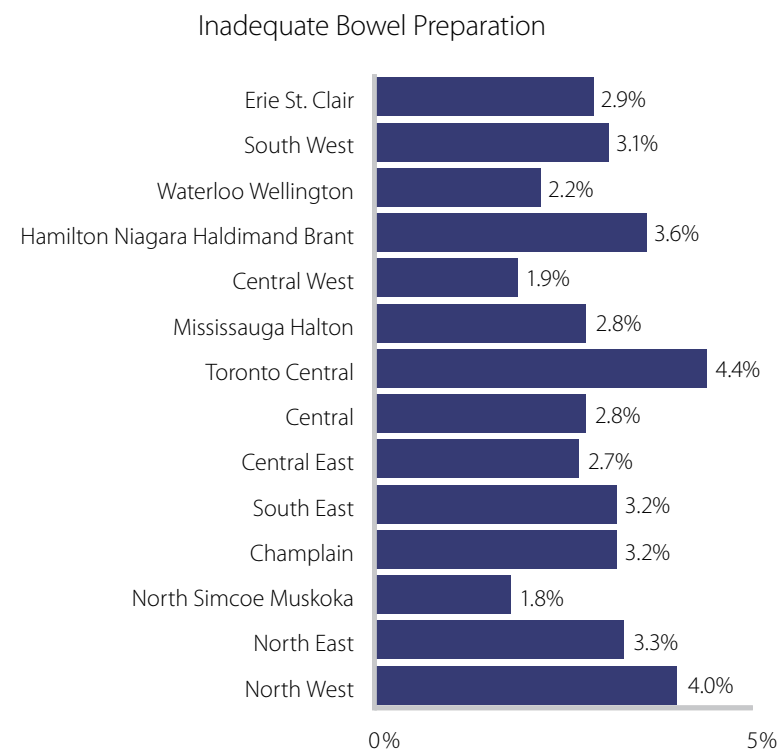


Figure C provides a regional summary of performance on the three prioritized standards (2017 data) and figure D provides a regional summary of performance on two prioritized

indicators (2015 data). These figures show that there is substantial regional variation in adherence and performance. Based on the selected standards and indicators

shown here, endoscopy performance in Ontario is good. However, there are regional and facility variations that need to be addressed.

Figure D: Prioritized indicators: regional summary



Mammography

Background

In Ontario, mammograms are performed by medical radiation technologists and interpreted by radiologists in hospitals and independent health facilities (IHF). In 2017, 238 facilities provided mammography services in Ontario: 112 hospitals and 126 IHFs.

Progress on Key Priorities

The Mammography QMP continues to build on the excellent foundation for quality established by the Ontario Breast Screening Program (OBSP), as well as the CPSO's IHF Assessment Program and the Canadian Association of Radiology Mammography Accreditation Program (CAR MAP). The Mammography QMP recommends that all mammography facilities participate in the OBSP and made a number of other recommendations (e.g., that facilities be accredited by CAR MAP) that align with the OBSP and IHF assessment requirements. Like OBSP reports, Mammography QMP reports use established provincial, national and international indicators and targets.

The clinical leadership structure for the Mammography QMP has been established. To ensure alignment and reduce duplication, mammography regional clinical leads are responsible for supporting the Mammography QMP and the OBSP in their regions.

In 2016, the Mammography QMP released reports at the facility, regional and provincial levels that were sent to all facilities providing mammography in Ontario. Updated reports, with more recent data, were released in 2017. A recently completed evaluation found that there was good engagement with Mammography QMP reports, and that approximately half of respondents used the reports to initiate quality improvement activities in their facilities. However, the reports have some limitations. For example, the dataset currently available for mammography reporting is obtained from the OBSP, and it only includes data on women who are screened in the program. To be able to report on all mammography and associated breast imaging, the Mammography QMP has been exploring how to expand data collection beyond the screening program. Data expansion of this scope is a complex undertaking that must be carefully planned and must proceed with stakeholder support. The

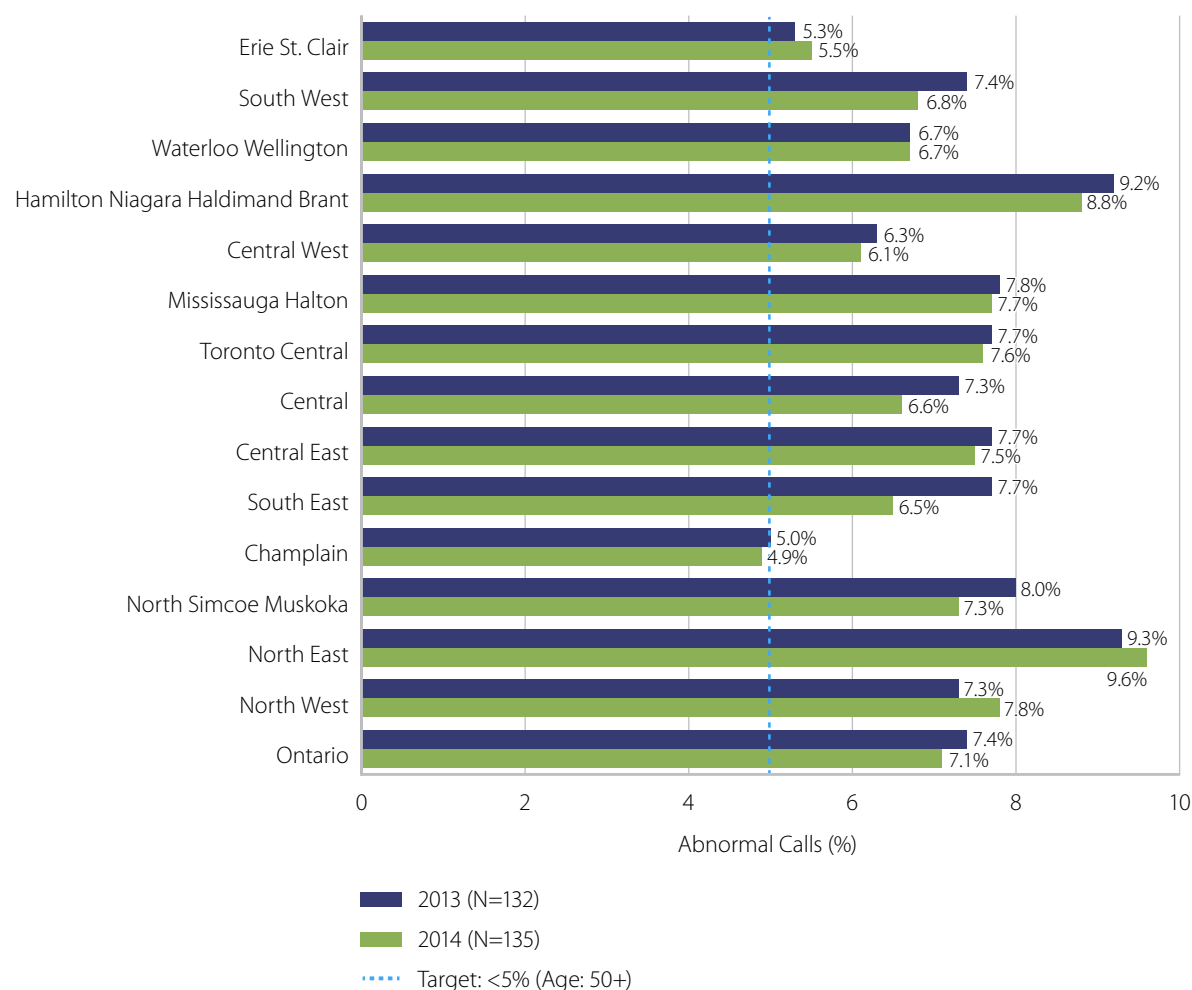
Mammography QMP has been working with the OBSP to define data needs for both programs and to explore options for data collection modernization and expansion.

The Partnership led an evaluation to determine if Mammography QMP facility leads need additional training, support and/or resources to perform their roles. A project team worked with clinical experts to develop a list of activities that facility leads may be asked to perform and interviewed leads to find out whether they felt prepared to perform these activities. Most participants reported that they felt prepared to perform the activities and identified training and resource needs that could assist them. These findings have provided valuable guidance to the Partnership in developing resources to support facility leads in performing their role.

Key Report Findings

Figure E shows the percentage of OBSP screening mammograms that were identified as abnormal by radiologists in 2013 and 2014. The national target for this indicator is less than five percent for rescreens. Ten regions had an improved (lower) rate in 2014 compared to 2013. At a facility level, of the 129 facilities that had greater than 1,000 rescreens in both years,⁴ 26 (20%) met the target in both 2013 and 2014 (data not shown). It is important to note that having abnormal calls higher than the target is not an Ontario-specific phenomenon; abnormal calls have been increasing in all Canadian jurisdictions and frequently exceed the target;⁵ the Partnership will work with stakeholders to address this issue in the future. This important quality indicator should be considered in the context of the two other indicators shown here: positive predictive value and invasive cancer detection rate.

Figure E: Abnormal calls for OBSP facilities with greater than 1,000 rescreens: regional summary



⁴ Data are less reliable for volumes under 1,000.

⁵ Canadian Partnership Against Cancer. Breast Cancer Screening in Canada: Monitoring and Evaluation of Quality Indicators - Results Report, January 2011 to December 2012. Toronto: Canadian Partnership Against Cancer; 2017.

Figure F shows the positive predictive value, which is the percentage of OBSP screening mammograms with an abnormal result that were diagnosed with breast cancer (ductal carcinoma in situ or invasive breast cancer). The national target for this indicator is equal to or greater than six percent for rescreens. Most regions met the target, and the majority improved in 2014 compared to 2013. At a facility level, of the 129 facilities that had greater than 1,000 rescreens in both years, 75 (58%) met the target in 2013 and 2014 (data not shown). This indicator should be considered alongside the two other indicators shown here: abnormal calls and invasive cancer detection rate.

Figure F: Positive predictive value for OBSP facilities with greater than 1,000 screens: regional summary

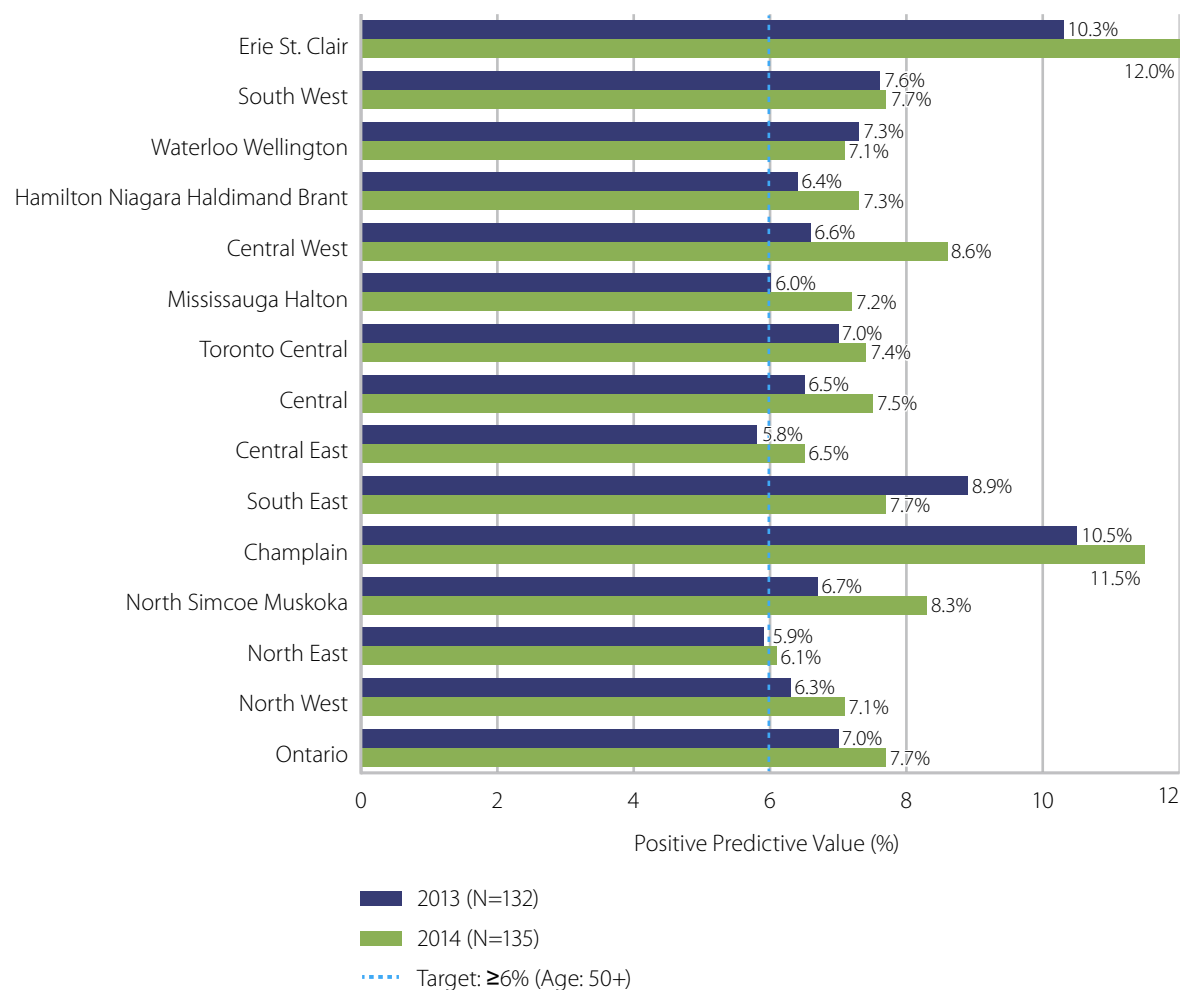
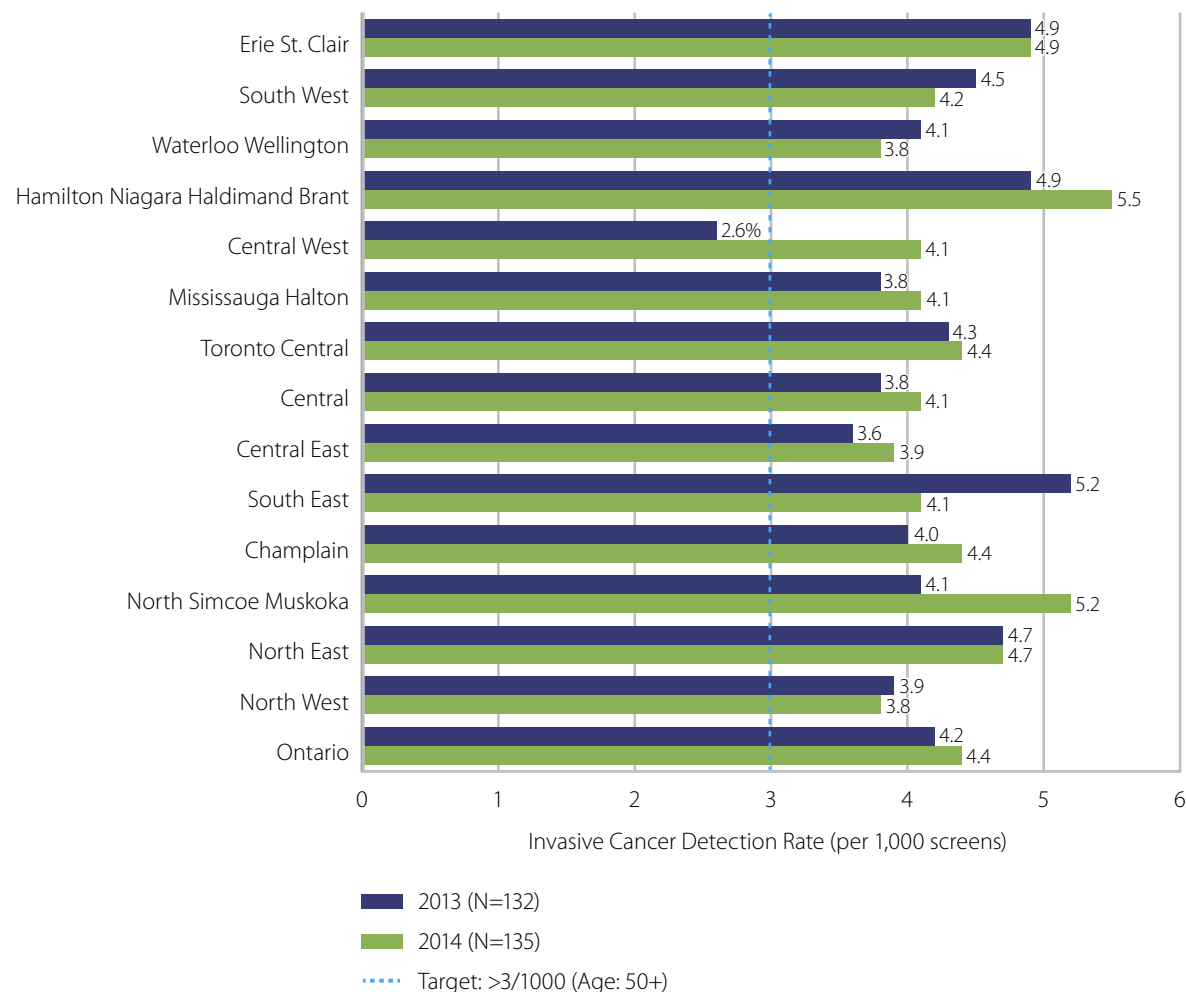


Figure G shows the rate of OBSP screening mammograms with an invasive screen-detected breast cancer per 1,000 mammograms. The national target for this indicator is greater than three per 1,000 rescreens. Most regions met the target, and the majority improved in 2014 compared to 2013. At a facility level, of the 129 facilities that had greater than 1,000 rescreens in both years, 82 (64%) met the target in both 2013 and 2014 (data not shown). This indicator should be looked at in the context of the two other indicators shown here: abnormal calls and positive predictive value.

These figures, taken together, show that the quality of screening mammography in Ontario is good and there are regional variations in outcomes.

Figure G: Invasive cancer detection rate (per 1,000 screens) for OBSP facilities with greater than 1,000 rescreens: regional summary



Pathology

Background

The scope of the Pathology QMP is histopathology (i.e., surgical pathology), which involves the study of tissue samples for diagnostic purposes. In Ontario, diagnostic interpretation of tissue samples is done by anatomical and general pathologists in laboratories. In 2017, histopathology services were provided in 55 facilities: 50 hospitals, four community (private) laboratories and one university-based laboratory.

Progress on Key Priorities

One of the Pathology QMP's core goals is to standardize processes and decrease variability in interpretive pathology practices between laboratories, working closely with existing programs to ensure alignment across initiatives. For example, the Pathology QMP has recommended implementation of 10 prioritized standards that were based on the Standards2Quality Guidelines, developed by the Ontario Medical Association's Section on Laboratory Medicine and the Ontario Association of Pathologists, which detailed the best practice elements of a comprehensive quality management program. In addition, two working groups have been established. One group developed guidance information to assist

laboratories in the operationalization of the standards, while the other is working to standardize indicator terminology, definitions and methodology. The Pathology QMP is also participating in an enterprise-wide initiative within Cancer Care Ontario to expand the use of pathology data to include non-cancer data, looking at feasibility, data governance and data quality.

The clinical leadership structure for pathology has been established. Pathology QMP regional leads were newly recruited and also have responsibilities at the facility level, as they are laboratory directors or delegated pathologists who have quality oversight as part of their portfolio.

In 2016, the Pathology QMP released reports at the facility, regional and provincial levels that were sent to all facilities providing surgical pathology in Ontario. These reports were based on self-reported survey data about compliance with the prioritized standards. An evaluation of the reports showed that the majority of respondents found them easy to understand, and many used the reports to contribute to quality improvement plans. Updated reports were released in 2017, and contained the same prioritized standards as the 2016 reports in order to allow comparison over time. The 2017 reports also highlighted self-reported barriers to implementation in facilities that did not have a

standard in place. This information was collected in order to help facilities and the Pathology QMP to understand the obstacles facing laboratories in implementing standards.

Preliminary data on challenges related to the uptake of standards and sustainability were also collected, including information on laboratory information systems, decision and administrative support, and workload measurement. The results were not part of the formal 2017 QMP reports, but were summarized in the document *2017 Pathology Quality Management Program Report and Supplementary Data* and were shared with facilities in order to help clinical and administrative leads understand local and regional pressures. They are also being used by the Pathology QMP to learn more about the context in which pathology services are delivered in Ontario.

In 2016, the Pathology QMP developed and released a toolkit of resources to support implementation of the 10 prioritized standards. The toolkit included information taken from Standards2Quality, as well as samples of templates, policies and plans used in Ontario hospital laboratories and community (private) laboratories that have already adopted the standards. The toolkit, which is available on the Partnership's website and LearnQMP, was updated and re-released in June 2017. Other quality initiatives include recommendations about safety aspects of laboratory release of tissue to patients, which were made available to Pathology QMP leads on LearnQMP. Recommendations about opportunities to streamline practices related to tissue handling were also completed.

Key Report Findings

The following figures highlight some of the findings from the 2016 and 2017 reports.

Figure H shows the proportion of Ontario facilities adherent to each of the 10 standards and how this has changed since 2016. There was an increase in self-reported adherence across all 10 standards in 2017.

Figure H: Adherence to prioritized standards, Ontario, 2017

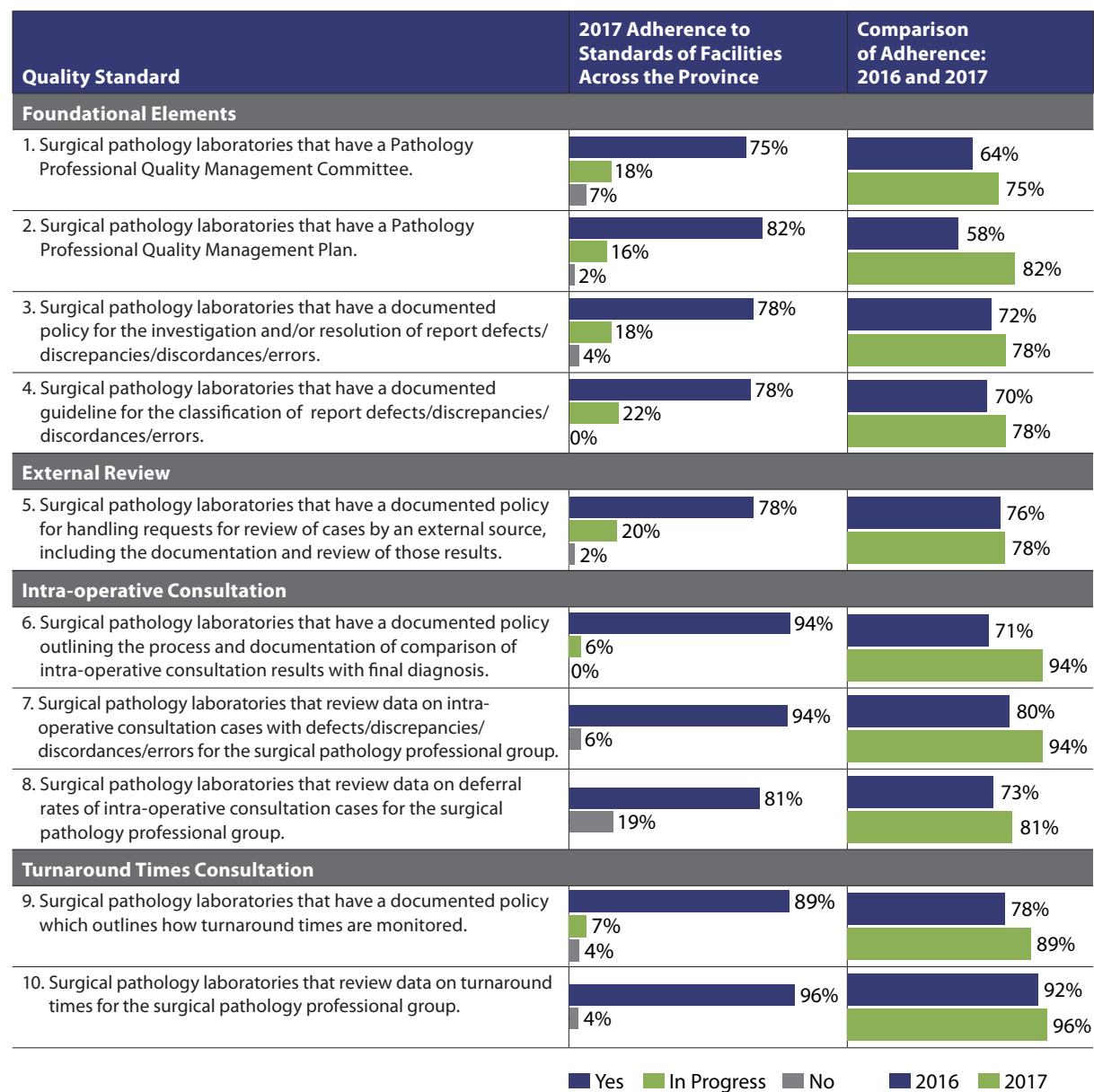
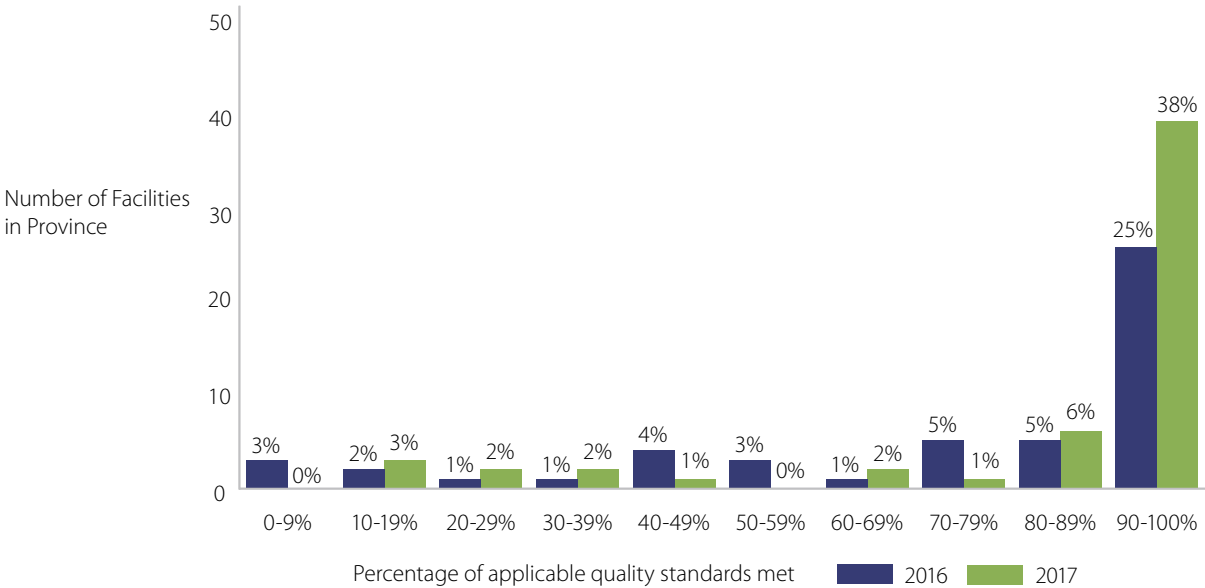


Figure I compares the percentage of overall adherence to the prioritized standards in 2016 and 2017. This figure shows that there has been progress since 2016.

These data show that the majority of pathology laboratories have internal processes in place to ensure high quality and are monitoring data for timeliness and intra-operative consultation discordance and deferral rates.

Figure I: Percentage of prioritized standards met, Ontario, 2016 and 2017



Looking Ahead

This report highlights some of the progress the Partnership has made in implementing QMPs for colonoscopy, mammography and pathology in Ontario. The Partnership would like to acknowledge that this progress would not have been possible without the active engagement of physicians and other health professionals who provide colonoscopy, mammography and pathology services; administrators and executives working in hospitals, community (private) laboratories, university based laboratories, IHFs and OHPs; and Cancer Care Ontario's Regional Cancer Program executives and staff. The Partnership would like to highlight that our progress also reflects, and builds upon, work that is ongoing at the local, regional and provincial levels across the healthcare system to improve performance and quality.

The QMPs are exploring how they can collaborate to move quality forward across health service areas. For example, the Colonoscopy and Pathology QMPs have been developing recommendations around polypectomy clinical history requirements and pathology reporting. The Mammography and Pathology QMPs have begun investigating how to improve breast radiology-pathology correlation through standardized reporting requirements.

Looking forward, the Partnership will continue to release reports for each QMP in order to show where progress is being made and where efforts need to be focused in order to further improve. The Partnership will continue to evaluate and improve reports, and develop tools and supports to assist facility and regional leads, healthcare professionals and other personnel in facilities, to engage in quality improvement initiatives. Newly developed resources include physician and facility improvement plans and training for regional and facility leads in providing peer feedback. Resources like these will be especially useful as the Partnership moves to include physician-level reporting in all health service areas.

The Partnership is committed to public reporting and working with the Citizens' Advisory Committee and system leaders to develop plans to report publicly. The Citizens' Advisory Committee is actively engaged in identifying what is meaningful to report to the public, and will continue to provide input to the content and design of publicly reported information to ensure it is tailored to users' needs. Ongoing discussions with Health Quality Ontario and the Ministry of Health and Long-Term Care will help ensure an integrated approach to public reporting is taken that allows for the Partnership's publicly reported content to be accessed centrally by the public.

Thank you to everyone who is working with us to improve the consistency of care in colonoscopy, mammography and pathology. We look forward to continuing to work closely with you to achieve consistent, high-quality care in the three health service areas across the province.

This report was developed with the support of Ontario's Ministry of Health and Long-Term Care. The views expressed in this report are those of Cancer Care Ontario, the College of Physicians and Surgeons of Ontario and the Quality Management Partnership and do not necessarily reflect those of the Ministry of Health and Long-Term Care or the Government of Ontario.

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