Health Quality Ontario

The provincial advisor on the quality of health care in Ontario

October 2015

Primary Care Performance Measurement: Priority Measures for System and Practice Levels

Ontario
Health Quality Ontario

Contents

Background

In 2014, the Steering Committee for the Ontario Primary Care Performance Measurement (PCPM) initiative (2012–2014) completed its work to select comprehensive, overlapping sets of practice- and system-level primary care performance measures to reflect quality in primary care appropriately. As a next step, the Steering Committee recognized the need to focus on a subset of high-priority indicators that could advance quality in primary care, to address the impracticality of immediately measuring and reporting all 299 of the selected measures and to acknowledge the limited availability of data for many of those measures. Over time, high-priority indicators could change to reflect changing priorities and increased data availability. The Steering Committee engaged in two priority measure selection processes – one for the selection of high-priority system-level measures, the second for high-priority practice-level measures. This report describes the methods employed and results, identifies alignment across the two levels and summarizes next steps for the PCPM work. For more detailed background information on the PCPM initiative, please visit Health Quality Ontario's primary care reporting webpage here.

Methodology

The system- and practice-level prioritization processes were conducted separately but in parallel and were guided by the PCPM Steering Committee. Both processes were supported by Health Quality Ontario staff and engaged expert working groups that included providers, policy makers, stakeholders, researchers and patient and family caregiver representatives (a full list of members and organizations represented on both working groups can be found in Appendix A). The two expert panels used slightly different prioritization processes to reflect the focus on system or practice, but both applied pre-defined selection criteria (see Appendix B) and prioritized measures through consensus building. The final set of system- and practice-level measures was reviewed and approved by the PCPM Steering Committee.

System-Level Prioritization

For the system-level prioritization, the panel was asked to prioritize the 87 system-level PCPM measures for which data are currently available. The initial prioritization was limited to available measures to ensure that immediate measurement was possible. The measures were selected through a consensus-building, modified Delphi method. The process included an independent online survey to rate measures against the selection criteria and in-person meetings to achieve consensus on the final set of recommended system-level measures. The panel focused on the validity, relevance and actionability of the measures to key audiences: patients, caregivers, primary care providers and decision-makers. To further aid the consensus process, the panel was asked to also consider alignment between the measures and those recommended by other primary care measurement initiatives. The final set of system-level measures encompassed the eight domains of the PCPM framework. Additionally, the panel recommended stratifications that should be included to measure performance across the cross-cutting equity domain.

Practice-Level Prioritization

Front-line providers were asked to select (via an online survey) measures from the full list of 112 measures. This approach differed from that of the system-level prioritization in that all measures

were considered for prioritization, without restriction to measures for which data are currently available. The panel decided against restriction, given the limited availability of practice-level data (at present, data are available for only 17 of 112 measures).

Approximately 400 providers were surveyed (including Primary Care Physician Practice report[1] users and attendees at a primary care forum convened jointly by Health Quality Ontario and the Ontario College of Family Physicians). Seventy-one providers completed the survey. Results were summarized and informed the expert panel's discussion and identification of high-priority practice-level measures. The survey results and panel discussions culminated in a ranking of measures in each domain. In an effort to balance measures across the framework, measures ranked high in each domain were recommended to the PCPM Steering Committee for practice-level prioritization.

Results

The system-level prioritization working group selected 12 system measures across the eight domains of the PCPM framework, all of which are currently measured. The practice-level prioritization working group selected 18 measures, 11 of which currently do not have a consistent data source, although some may be collected by individual practices through electronic medical records (EMR) or practice surveys. Seven of the measures were common to system- and practice-level measurement; all seven are available at the system level, and five are currently available at the practice level. Additionally, the practice-level working group recommended the development of two practice-level safety measures, one related to polypharmacy among older adults and another related to up-to-date allergy status recorded in patient records. Figure 1 lists the measures selected, by domain, for the system and practice levels. Technical details for each of the measures can be found in Appendix C.

[1] Primary Care Practice Reports are individualized reports that provide information on practice demographics and case mix, patterns of patient service use, health status of the practice population and information on specific chronic disease prevention and management indicators. These reports also compare how the physician's practice is performing versus other relevant practices, the local health integration network and across the province. For more details visit https://www.hqontario.ca/quality-improvement/primary-care/practice-reports.

Figure 1. Primary Care Performance Measurement Framework – System- and Practice-Level Priority Measures (April 2015)

Legend: System — measure is a recommended priority at the System level
Practice — measure is a recommended priority at the Practice level
System and Practice — measure is a recommended priority for both
Practice data currently unavailable — Practice-level data are unavailable for this recommended measure

Access	Integration	Efficiency	Effectiveness	Focus on Population Health	Safety	Patient-Centred	Appropriate Resources
Percentage of respondents who report having a family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on (System, cross-referenced with Appropriate Resources)	Percentage of patients who see their primary care provider within seven days after discharge from hospital for selected conditions (System and Practice)	Per-capita health care expenditures by category (System and Practice)	Percentage of respondents who were able to get help from a professional when dealing with emotional distress, such as anxiety or depression, in the past two years (System)	Population demographic information: • Age (in years) • Sex • Income • Education • Location of residence • Sexual orientation • Disability • Language • Immigration • Ethno-cultural identity • Aboriginal status • Social support • Mental health status • Employment status (Practice — Data currently unavailable)	Percentage of patients who report that, in the past 12 months, they had a review and discussion with their primary care provider of prescription medications they are using (System)	Percentage of patients who report their family physician, nurse practitioner or someone else in the medical office involves them as much as they want in decisions about their care or treatment (System and Practice — Data currently unavailable)	Percentage of respondents who report having a family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on (System, cross-referenced with Access)

Access	Integration	Efficiency	Effectiveness	Focus on Population Health	Safety	Patient-Centred	Appropriate Resources
Percentage of patients who report that they were able to see their family physician or nurse practitioner on the same or next day (System and Practice. Practice — Data currently unavailable)	Percentage of patients who were re-admitted to a hospital within 30 days of an initial hospitalization for selected conditions (System and Practice)	Patient reported wait times from when their consultation was scheduled to start to when they met with a health care provider (Practice — Data currently unavailable)	Percentage of people with diabetes for more than a year who had a serious diabetes complication (death, heart attack, stroke, amputation or kidney failure) in the past 12 months (System)	Percentage of eligible patients aged 50 to 74 who had a fecal occult blood test (FOBT) within the past two years, sigmoidoscopy or barium enema within five years or a colonoscopy within the past 10 years (System and Practice)	The practice-level working group reviewed the practice-level measures and discussed their merits in screening for adverse effects However, the practice-level working group recommends developing measures related to: • polypharmacy among the elderly • up-to-date allergy status recorded (Practice — Data currently unavailable)	Percentage of patients who report that their family physician, nurse practitioner or someone else in their office spends enough time with them (Practice — Data currently unavailable)	
Percentage of total primary care visits that are made to physician with whom the patient is rostered or virtually rostered (System and Practice)			Percentage of patients with diabetes with two or more glycated hemoglobin (HbA_{1c}) tests within the past 12 months (Practice)	Percentage of women aged 21 to 69 who had a Papanicolaou (Pap) smear within the past three years (Practice)			

Access	Integration	Efficiency	Effectiveness	Focus on Population Health	Safety	Patient-Centred	Appropriate Resources
Percentage of patients who report that, when they call their regular family physician's office with a medical question or concern during regular office hours, they get an answer on the same day (System)			Percentage of patients with hypertension whose blood pressure was recorded in the previous 12 months (Practice — Data currently unavailable)	Percentage of patients who are obese, overweight, underweight or normal weight, based on chart documented weight and height: • Adults aged 18 and over • Children aged 12 to 17 (obese, overweight or neither) (Practice — Data currently unavailable)			
Percentage of patients who report that getting medical care in the evening, on a weekend or on a public holiday was difficult (Practice — Data currently unavailable)			Percentage of patients who had a mental health follow-up visit to a physician (primary care provider or psychiatrist) within 7 to 30 days of discharge following hospitalization for a psychiatric condition	Percentage of patients aged 15 and over who report smoking daily or occasionally (Practice — Data currently unavailable)			

Access	Integration	Efficiency	Effectiveness	Focus on Population Health	Safety	Patient-Centred	Appropriate Resources
			(Practice — Data currently unavailable)				
				Percentage of patients aged 65+ years who have a record of receiving pneumococcal vaccine (Practice — Data currently unavailable)			
5 measures total: 2 @ System and Practice 2 @ System 1 @ Practice	2 measures total: 2 @ System and Practice	2 measures total: 1 @ System and Practice 1 @ Practice	5 measures total: 2 @ System 3 @ Practice	6 measures total: 1 @ System and Practice 5 @ Practice	1 measure total: 1 @ System Recommend additional development of practice-level measures	2 measures total: 1 @ System and Practice 1 @ Practice	1 measure total: 1 @ System
Equity							
The practice-level working group discussed the role of population demographic measures at the practice level as a critical descriptor to drive future specifications in Electronic Medical Record systems which could in turn drive and inform future equity measurement at the practice level. (Practice –Data not currently available). The system-level working group recommended that all selected measures should be assessed from an equity perspective. In particular, the group identified attachment rate, colorectal cancer screening and diabetes complications as measures that vary significantly by demographic characteristics.							

Data Gaps

System-Level Data Gaps

Throughout the priority measures selection process, the system-level working group identified data gaps in a number of measurement areas. To address the immediate need for comprehensive primary care measurement, one of the measure selection criteria was *currently available* measures and data. However, as new data sources become available, the selected measures should be reviewed at regular intervals to ensure that primary care performance measurement continues to evolve and grow. System-level primary care measurement gaps identified as most in need of data advocacy efforts include:

- Mental health
- Provider-reported measures
- Comprehensiveness of care
- Health promotion including smoking, tobacco, obesity, injury prevention and immunization
- Maternal health
- Family and caregiver information

Practice-Level Data Gaps

Given the limited availability of data at the physician practice level, the practice-level prioritization was not restricted to measures with available data. Of the measures selected at the practice level, seven are currently available; data advocacy and development of measures are needed for the remaining 11 prioritized measures. Additionally, the practice-level working group identified possible measures' interpretation issues or data gaps for a number of measurement areas. Practice-level primary care measurement gaps identified as most in need of data advocacy efforts include:

- Mental health
- Safety
- Electronic medical record specifications to capture and report more practice-level measures
- Aligning measures that speak to the clinician's day-to-day pressure points with other, ongoing best-practice or improvement-advocacy campaigns (e.g., Choosing Wisely Canada)

Conclusions

The prioritization of measures for system- and practice-level primary care measurement was an important first step in the implementation of comprehensive measurement of primary care performance. In their subsequent discussions, the committee identified key next steps to continue to develop primary care performance measurement.

Next Steps

- Review and revise priority measures (at the system and practice level) on a regular basis to align with changing policy priorities, new data sources and evolving information needs.
- Develop methods for calculating aggregate measures of primary care performance at the domain (e.g., effectiveness) or sub-domain (e.g., management of chronic conditions) level.
- Develop the necessary infrastructure to support measures availability. This is critical for addressing the data gaps identified throughout the process and highlighted in this report, and should support the development, refinement and alignment of survey, pooled electronic medical records and data drawn from multiple data sources. These efforts will require commitment and resource investments from multiple stakeholders that have been part of the PCPM initiative.
- Continue to refine the confidential, personalized Primary Care Practice Reports as a vehicle to provide practice-level data to clinicians to inform quality improvement and practice improvement.
- In line with its Monitoring What Matters Strategy, Health Quality Ontario will actively advocate and, where possible, help advance activities for more comprehensive, timely and better-quality primary care data for Ontario. Where new data are needed, Health Quality Ontario can partner with other agencies to collect data.
- Informed by the identified set of system-level measures, Health Quality Ontario will publicly report on primary care performance using an online reporting platform and will release a primary care theme report in Fall 2015.
- Informed by the identified set of practice-level measures, Health Quality Ontario will work to incorporate these measures into future versions of the Primary Care Practice Reports.
- The current priority measures in the quality improvement plans are included in the prioritized practice-level measures. There could be future opportunities to include additional practice-level PCPM measures in the quality improvement plans.

The PCPM Steering Committee members have expressed their commitment to this work and continuing to improve primary care performance through consistent, comprehensive measurement at the system and practice levels.

Appendix A: Prioritization Working Group Membership and Supporting Staff

Members of the system- and practice-level prioritization working groups were selected to reflect:

- Different primary care models
- Knowledge of system issues and priorities
- Knowledge of the PCPM framework, selected measures and relevant data sources
- Knowledge of current data and measurement capacity in Ontario's primary care sector

System-Level Working Group Membership

Organization	Working Group Participant
Institute for Clinical Evaluative Sciences	Rick Glazier (Chair)
Ontario Medical Association	Darren Larsen
Registered Nurses' Association of Ontario	Monique Lloyd
Association of Ontario Health Centres	Jennifer Rayner
Ministry of Health and Long-Term Care Primary Care Branch	Phil Graham
Ministry of Health and Long-Term Care Health Analytics	Naomi Kasman
Nurse Practitioners' Association of Ontario	Theresa Agnew
Canadian Institute for Health Information	Caroline Heick
Association of Family Health Teams of Ontario	Carol Mulder
Ontario College of Family Physicians	Jessica Hill
Patients' representative	Sholom Glouberman
Local health integration network Collaborative and Health Service Indicator Initiative	Greg Stevens

Practice-Level Working Group Membership

Organization and Health Quality Ontario Involvement	Working Group Participant
Association of Ontario Health Centres	Jennifer Rayner (Co-chair)[2]
Ontario Medical Association	Darren Larsen (Co-Chair)
Kingston Community Health Centre	Imaan Bayoumi
Ontario Medical Association's Section for General and Family Practice	David Schieck
London Family Health Team	Rachel Bevan
Summerville Family Health Team	David Daien
Nurse Practitioners' Association of Ontario	Theresa Agnew
Markham Family Health Team	Lisa Ruddy
Association of Family Health Teams of Ontario	Angie Heydon/Carol Mulder
Ontario College of Family Physicians	Cathy Faulds

[2] Chair (Jennifer Rayner) and/or member of the Practice Report User Reference Group

For practice-level prioritization, members of Health Quality Ontario's Primary Care Practice Report User Reference Group were also invited to participate in concurrent measures prioritization. This User Reference Group provided valuable insight to improve the current Practice Report as a means to support data for improvement at the practice level and could recommend future measures to focus the next stage of development and reporting.

Health Quality Ontario Supporting Staff[3]

Naushaba Degani, Manager, Research Methods
Gail Dobell, Director, Performance Measurement
Mark Dobrow, Vice President, Health System Performance
Wissam Haj-Ali, Senior Methodologist, Health System Performance
Jonathan Lam, Manager, Health System Performance
Ryan Monte, Measurement Specialist
Susan Taylor, Director, Quality Improvement Program Delivery
Dave Zago, Team Lead, Clinical Adoption

[3] Health Quality Ontario staff was responsible for supporting the system-level measures prioritization process including preparation of measures for review and rating; rating survey development, administration and analysis; secretariat support for all meetings and drafting the final report in collaboration with the Chair of the working group and the Steering Committee on the selected system-level measures.

Appendix B: Selection Criteria

Both the system- and practice-level prioritization processes applied specific selection criteria to rate the measures under consideration. The table below describes the criteria and how they were defined for system- or for practice-level prioritization.

Criteria	System Level	Practice Level
Important	Measure reflects a health issue or aspect of health system function that is relevant and meaningful to the general population, care providers and policy makers	Measure reflects a health issue or aspect of care that is relevant and meaningful to primary care providers in their day-to-day practice
Actionable	Performance on the measure is likely to inform and influence policy or funding, alter behaviour of health care providers or increase general understanding in the community in order to improve quality of care and population health	Measure is likely to inform and influence behaviour of primary care providers or to increase general understanding in the community to improve quality of care for patients/clients at the practice level
Valid	Measure is indicative of what it purports to be measuring	Not applied
Available	*Measure is available via current collection and reporting mechanisms. (Applied prior to selection process; only measures that were available were considered in the system-level prioritization process)*	Measure is available via current collection or reporting mechanisms to assess current performance. However, if a measure is of high value to primary care practices but source data are not readily available, working group can recommend the measure be prioritized and a strategy be developed to collect requisite data
Aligned (with other initiatives)	*Criterion applied during the discussions* Alignment with other primary care system-level measurement initiatives included: Association of Family Health Teams' Data to Decisions, the Starfield Model, primary care quality improvement plans (QIPs), Health Quality Ontario's Common Quality Agenda and Health Quality Ontario's Primary Care Practice Reports	*Criterion applied during the discussions* Alignment with primary care QIP indicators, Primary Care Patient Experience Survey questions, practice-level dashboards or reports produced by Family Health Teams or Community Health Centres and Primary Care Performance Measurement system-level priority measures

Appendix C: Technical Details for System- and Practice-Level Priority Measures

System-Level Technical Details

Access

Attachment to a regular primary care provider		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents who report having a family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on
	Relevance/rationale	A strong primary care system is the hallmark of a high-performing health care system and is of the utmost importance for the health of the population.[1,2] In addition, primary care services have been found to be cost-effective.[3] Therefore, ensuring Ontarians have access to primary care providers is not only good for the health of Ontarians but also helps keep costs down. While attachment in Ontario is relatively high at approximately 95% in 2010/11,[4] gaps are obvious when examined through various equity stratifications. The Primary Care Performance Measurement (PCPM) prioritization working group determined these gaps to be important to monitor
	HQO's reporting tool or product	Common Quality Agenda
	Attribute	Access to appropriate resources
	Type	Process
	External alignment	Canadian Institute for Health Information's (CIHI's) priority indicators for policy-makers
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported having a family doctor, a general practitioner, family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on **Survey question** Do you have a family doctor, a general practitioner or nurse practitioner whom you see for regular check-ups, when you are sick and so on? • **Yes** • No • Don't know • Refused
		Denominator All respondents **Excludes** • Don't know • Refused

		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted
	Data source/data elements	Health Care Experience Survey (HCES) from Ministry of Health and Long-Term Care's Health Analytics Branch
	Timing and frequency of data release	Quarterly — rolling four quarters of data
	Levels of comparability	Over time, by local health integration network (LHIN), age, sex, education, income, immigration status, language spoken at home, urban/rural status
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Data for this indicator are self-reported and therefore could be subject to recall errors and over- and under-reporting
	Guidelines, standard operating procedures (SOPs), evidence for best practice	None
	Comments	Indicator was selected by the PCPM prioritization group with the stipulation that, when reporting this indicator, an equity cross-cut would be the focus of attention

Timely access during regular hours		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report that they were able to see their family physician or nurse-practitioner on the same or next day
	Relevance/rationale	While having a regular family physician is important, receiving timely access to your family physician is also important and can be a significant barrier to receiving primary care.[5] Having timely access to primary care can also help reduce unnecessary ED visits that strain the health system.[6]
	HQO's reporting tool or product	Primary care QIPs
	Attribute	Access
	Type	Process
	External alignment	Association of Family Health Teams of Ontario: Data to Decisions
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who saw their health care provider or someone else in the office on the same or next day **Survey question** How many days did it take from when you first tried to see your family doctor or nurse practitioner to when you actually saw him/her or someone else in the office? • **Saw doctor same day** • **Saw doctor next day**

		• Enter number of days • 20 or more days • Don't know • Refused
		Denominator Number of respondents who saw their regular health care provider or someone else in the office when they were sick or were concerned that they had a health problem in the past 12 months **Base (respondents who answered yes to both questions)** Not counting yearly check-ups or monitoring of an ongoing health issue, in the last 12 months, did you want to see your [fill fd_type]** because you were sick or were concerned that you had a health problem? Did you actually see a doctor? [or someone else in the office or both] **Excludes** • Never tried to do this/never needed care • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted
	Data source/data elements	HCESfrom Ministry of Health and Long-Term Care's Health Analytics Branch
	Timing and frequency of data release	Quarterly – rolling four quarters of data
	Levels of comparability	Over time, by LHIN, age, sex, education, income, immigration status, language spoken at home, urban/rural status
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Data for this indicator are self-reported and could therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Continuity of care with a primary care physician		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of total primary care visits that are made to the physician with whom the patient is rostered or virtually rostered
	Relevance/rationale	Evidence suggests that continuity of care at the primary care level improves health status and results in better chronic disease outcomes.[7,8] Further, as noted in a paper by the Canadian Health Services Research Foundation: "Continuity of care is also associated with improved adherence to prescribed screening and treatment, better recognition of unidentified health problems, better rates of recommended immunizations, fewer acute care

		hospitalizations, lower use of emergency rooms, and improved patient satisfaction. Researchers have also found a general reduction in health care costs as continuity of care improves."[9]
	HQO's reporting tool or product	Primary Care Practice Reports
	Attribute	Access
	Type	Process
	External alignment	None
	Other reporting	Institute for Clinical Evaluative Sciences (ICES) Atlas: Primary Care in Ontario
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Option 1: Primary care visits that are made to the physician to whom the patient is rostered or virtually rostered Option 2: Primary care visits that are made to the same group to which the patient is rostered or virtually rostered
		Denominator Number of total primary care visits per patient **Excludes** Patients who have not had 3 or more primary care visits within the requisite time period (2 years)
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) None
	Data source/data elements	Client Agency Patient Enrolment (CAPE), Ontario Health Insurance Plan (OHIP), provided by ICES
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, by individual practice and by patient characteristics
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Nurse practitioners are not captured owing to infrastructure limitations
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Same-day response to an office call during regular hours		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report that, when they call their regular family physician's office with a medical question or concern during regular office hours, they get an answer on the same day
	Relevance/rationale	While having a regular family physician is important, receiving timely access to your family physician is also important and can be a significant barrier to receiving primary care.[5] Having timely access to primary care can also help reduce unnecessary ED visits that strain the health system.[6]
	HQO's reporting tool or product	None
	Attribute	Access
	Type	Process
	External alignment	None
	Other reporting	The Quarterly: Health Care System Quarterly Reporting
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported often or always getting an answer from their regular family doctor's office on the same day **Survey question** When you call your regular doctor's office with a medical concern during regular practice hours, how often do you get an answer that same day? • **Always** • **Often** • Sometimes • Rarely • Never • Volunteers: depends on what they called for • Don't know • Refused **Excludes** • Volunteers: depends on what they called for • Don't know • Refused
		Denominator Respondents who have a regular doctor/place and called their regular doctor's office with a medical question or concern during regular practice hours. **Base (respondents who answered that they had a regular doctor or regular place)** Have you called or tried to call your regular health care provider's office with a medical question or concern during the day on a Monday to Friday in the last 12 months? **1 yes** 5 no 8 don't know 9 refused

		Excludes • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted
	Data source/data elements	HCES from Ministry of Health and Long-Term Care's Health Analytics Branch
	Timing and frequency of data release	Quarterly – rolling four quarters of data
	Levels of comparability	Over time, by LHIN, age, sex, education, income, immigration status, language spoken at home, urban/rural status and international comparisons (Commonwealth Fund reports this measure as well).
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	Data for this indicator are self-reported and could therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Integration

7-day post–hospital discharge follow-up rate for selected conditions		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who see their primary care provider within seven days after discharge from hospital for selected conditions
	Relevance/rationale	Evidence suggests that early follow-up after hospitalization for heart failure results in a lower likelihood of readmission within 30 days of discharge.[10] Readmissions in general are burdensome and are estimated to cost Ontario roughly $700 million a year.[11] Early follow-up post–hospital discharge is therefore important for improving patient outcomes and controlling health system costs
	HQO's reporting tool or product	Common Quality Agenda (reported historically), Primary Care Practice Reports
	Attribute	Integration
	Type	Process
	External alignment	Primary care QIPs
	Other reporting	None
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** At least one physician visit to a primary care provider (OHIP) within 7 days of patient's discharge from hospital • Calculate the percentage of patients (all conditions combined) who saw: • Any primary care provider (IPDB Mainspec = 'GP/FP', geriatrician or pediatrician) **Includes** • Ontario physician visits taking place in office home, or long-term care (based on ICES location macro) • Physician visits occurring between days 0 to 7 post-discharge (i.e., includes date of discharge) **Excludes** • Negated OHIP claims, duplicate claims and lab claims • Records with missing or invalid data on discharge/admission date, health number, age and gender
		Denominator Ontario residents who were hospitalized within each fiscal year from 2005/06 to 2013/14 Discharge Abstract Database (DAD) for the following conditions (identified by the Case Mix Group [CMG] codes*): • Cardiac conditions, excluding heart attack (CMG+ codes 202, 204, 208) • Pneumonia (CMG+ codes 136, 138, 143) • Diabetes (CMG+ code 437) • Stroke (CMG+ codes 25, 26, 28) • Gastrointestinal disease (CMG+ codes 231, 248, 251,253, 254, 255, 256, 257, 258, 285, 286, 287, 288) • Congestive heart failure (CHF) (CMG+ code 196)

		• Chronic obstructive pulmonary disease (COPD) (CMG+ code 139) **Excludes** • Patients under age 40 for cardiac CMGs • Patients under age 45 for stroke, COPD and CHF • Deaths, acute transfers patient sign-outs against medical advice • Records with missing or invalid data on discharge or admission date, health number, age and gender • Cases with no resource intensity weight assigned • Transfers to other hospital care and to other (palliative care/hospice, addiction treatment centre) as defined by discharge disposition '01', '03' • Sign-outs, short-stay cases, cadavers and stillbirths *Using CMG+ instead of International Classification of Disease, version 10 (ICD-10) codes (in variable CMG 2012)
		Methods (numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Direct standardization (age and sex) using 1991 Canadian Census population. Age groups are <20, 20–44, 45–64, 65–79, 80+
	Data source/data elements	CIHI's DAD, CAPE, Corporate Provider Database, OHIP's Claims History Database, ICES's Registered Persons Database (RPDB)
	Timing and frequency of data release	Annual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Methodology used to calculate measure differ for patient enrollment models and for community health centres (CHCs)/aboriginal health access centres (AHACs)/nurse practitioner–led clinics (NPLCs), causing slight differences in how the population included in the denominator is defined
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

30-day hospital readmission rate		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who were re-admitted to a hospital following their initial hospitalization within 30 days of discharge
	Relevance/rationale	Urgent readmissions to acute care facilities are increasingly being used to measure institutional or regional quality of care and care coordination Readmission rates can be influenced by a variety of factors, including the quality of inpatient and outpatient care, the effectiveness of the care transition and coordination, and the availability and use of effective disease management community-based programs. While not all unplanned readmissions are avoidable, interventions during and after a hospitalization can be effective in reducing readmission rates.[12]
	HQO's reporting tool or product	Primary Care Practice Reports
	Attribute	Integration, effectiveness
	Type	Outcome
	External alignment	CIHI, Ministry LHIN Performance Agreement, 2013–2015, Hospital Service Accountability Agreement, 2012–2013 (30-day only)
	Other reporting	Association of Family Health Teams of Ontario: Data to Decisions, Quarterly
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of emergency or urgent non-elective hospital readmissions† to an acute care hospital following any hospitalization (including elective hospitalizations): • within 30 days of discharge • within one year of discharge **Excludes** • Cases where readmission† is coded as an acute transfer by the receiving hospital (unless the readmission was coded as a transfer from the same hospital) • Negated OHIP claims, duplicate claims and lab claims • Records with missing or invalid data on discharge/admission date, health number, age and gender • Elective hospitalizations †Hospital readmission is readmission to any acute care hospital in the province for any condition, including a different condition than the reason for their original hospital admission
		Denominator Acute care discharges from episode of care in which one of the conditions below (identified by the CMG code) is coded as most responsible diagnosis (DXTYPE = "M") in the first hospitalization of the episode within each fiscal year (minus last 30 days for follow-up) from 2009/10 to 2013/14: • Cardiac conditions, excluding heart attack (CMG+ codes 202, 204, 208)

		• Pneumonia (CMG+ codes 136, 138, 143) • Diabetes (CMG+ code 437) • Stroke (CMG+ codes 25, 26, 28) • Gastrointestinal disease (CMG+ codes 231, 248, 251,253, 254, 255, 256, 257, 258, 285, 286, 287, 288) • CHF (CMG+ code 196) • COPD (CMG+ code 139) **Excludes** • Non-Ontario residents • Residents no eligible for OHIP at index date • Residents who did not have contact with a primary care provider within the previous 7 years • Exclude patients under age 40 for cardiac CMGs • Exclude patients under age 45 for stroke, COPD and CHF • Deaths, acute transfers, patient sign-outs against medical advice • Records with missing or invalid data on discharge/admission date, health number, age and gender • Cases with no resource intensity weight assigned • Transfers to other hospital care and to other (palliative care/hospice, addiction treatment centre) as defined by discharge disposition '01', '03' • Sign-outs, short-stay cases, cadavers and stillbirths
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Direct standardization for age and sex using the 1991 Canadian Census population Age groups: <20, 20–44, 45–64, 65–79, 80+
	Data source/data elements	DAD, CAPE, OHIP, Corporate Provider Database
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	Unspecified
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Efficiency

Per-capita health care expenditures by category		
INDICATOR DESCRIPTION	***Indicator description***	Per-capita health care expenditures by category: **Total cost** **Primary care costs** • GP/FP or fee-for-service (FFS) visits • FHO/FHN capitation costs • Non-FFS GP/FP visits **Physician, lab, drug, emergency and outpatient costs** • OHIP specialty physician FFS costs • Ontario Drug Benefit database (ODB) drug cost • Home Care Services cost • National Ambulatory Care Reporting System (NACRS) emergency department (ED) • OHIP lab cost • OHIP non-physician cost • Other non-FFS visits • EDAFA non-FFS visits • Non-FFS medical oncologists • Non-FFS radiation oncologists • NACRS cancer • NACRS dialysis **Inpatient and same-day surgery (SDS) costs** • Inpatient (CIHI's DAD) • SDS • Inpatient mental health **Long-term care, complex continuing care and rehab costs** • Cost of long-term care • Cost of complex continuing care • Rehab through National Rehabilitation Reporting System (NRS)
	Relevance/rationale	Health care expenditures have been growing due to a number of reasons; however, an aging population, as commonly believed, is not the biggest driver of costs. According to a report by CIHI, in Canada, demographic factors have accounted for only 1.8% of the 7.4% year-over-year growth in health care spending. From 1998 to 2008, physician spending has been among the fastest-growing categories, increasing at a year-over-year rate of 6.8%.[13] Monitoring system-level costs is an important step to better understanding the drivers of health care expenditures
	HQO's reporting tool or product	Not currently reported
	Attribute	Efficiency
	Type	Structural
	External alignment	ICES
	Other reporting	Not currently reported
	Accountability	N/A

DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Cost per capita
	Calculation	**Numerator** **Total cost** **Primary care costs** • GP/FP FFS visits • FHO/FHN capitation costs • Non-FFS GP/FP visits **Physician, lab, drug, ED and outpatient costs** • OHIP specialty physician FFS costs • ODB drug cost • Home Care Services cost • NACRS ED • OHIP lab cost • OHIP non-physician cost • Other non-FFS visits • EDAFA non-FFS visits • Non-FFS medical oncologists • Non-FFS radiation oncologists • NACRS cancer • NACRS dialysis **Inpatient and SDS costs** • Inpatient (CIHI's DAD) • SDS • Inpatient mental health **Long-term care, CCC and rehab costs** • Cost of long-term care • Cost of CCC • Rehab (NRS)
		Denominator Total mid-year population for the fiscal year of interest
		Methods (Numerator/denominator)
		Adjustment (risk, age/sex standardization) • Rurality: based on the Rurality Index of Ontario (RIO) • Age and sex: RPDB • Socio-economic status: based on the income quintiles • Morbidity: based on John Hopkins Adjusted Diagnostic Groups or the Resource Utilization Band
	Data source/data elements	DAD, NACRS, NRS, Continuing Care Reporting System, Ontario Mental Health Reporting System (OMHRS), OHIP, Home Care Database, ODB, Ontario Home Care Administration System, SDS Database provided by ICES
	Timing and frequency of data release	To be determined
	Levels of comparability	Provincial, LHIN, practice
	Targets or benchmarks	N/A
	Target source	N/A

OTHER RELEVANT INFORMATION	***Limitations/caveats***	• Interpretation of this indicator is challenging, as directionality is not clear • Care delivered in teams is not captured • Overhead costs for physicians are not captured • No shadow billing indicator in OHIP data prior to 2005. • Medical/radiation oncologists' salaries are unavailable for years 2002–2004
	Guidelines, SOPs, evidence for best practice	N/A
	Comments	None

Effectiveness

Getting help when dealing with sadness or anxiety		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents who were able to get help from a professional when dealing with emotional distress, such as anxiety or depression, in the past two years
	Relevance/rationale	It is estimated that roughly 20% of Canadians will experience a mental illness during their lifetime.[14] In addition, the economic burden of mental illness is substantial. In 2002, a study found that mental illness cost the Canadian health care system $7.9 billion in direct and indirect costs.[15] Primary care has an important role in monitoring and managing patients who have mental health issues. A systematic review in 2002 found that over 75% of suicide decedents had contact with primary care providers in the year of their death.[16] As primary care physicians are on the front lines in the provision of mental health care, this point of contact between patients and primary care physicians is especially important
	HQO's reporting tool or product	N/A
	Attribute	Effectiveness
	Type	Process
	External alignment	None
	Other reporting	N/A
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of individuals who were experiencing emotional distress who were able to get help from a professional **Survey question** When you felt this way, were you able to get help from a professional? • **Yes** • No, did not want to see a professional • No, could not get help • Not sure • Decline to answer
		Denominator

		Number of respondents who have experienced emotional distress, such as anxiety or great sadness, in the past two years **Base (respondents who answer yes)** In the past two years, have you experienced emotional distress, such as anxiety or great sadness, which you found difficult to cope with by yourself? **Excludes** • No, did not want to see a professional • Not sure • Decline to answer
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not adjusted
	Data source/data elements	Commonwealth Fund International Health Policy Survey (2013)
	Timing and frequency of data release	Every three years for this target population (general population)
	Levels of comparability	Over time (in -year intervals), international, provincial
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT NFORMATION	***Limitations/caveats***	Long recall period may yield unreliable responses
	Guidelines, SOPs, evidence for best practice	N/A
	Comments	None

Diabetes complications		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of people with diabetes for more than a year who had a serious diabetes complication (death, heart attack, stroke, amputation or kidney failure) in the past 12 months
	Relevance/Rationale	Diabetes significantly increases the risk of nephropathy, peripheral neuropathy and cardiovascular disease.[17,18] Monitoring and management of blood pressure, blood sugar and blood lipids can help reduce the likelihood of developing many of these long-term complications of diabetes.[19] As roughly 80% of care for people with diabetes takes place in the primary care setting,[20] monitoring and management of patients with diabetes at the primary care level is crucial
	HQO's reporting tool or product	Common Quality Agenda
	Attribute	Effectiveness
	Type	Outcome
	External alignment	CIHI: Pan-Canadian Primary Care Indicators
	Other reporting	None
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Occurrence of the first adverse event between April 1 and March 31 of fiscal year of interest for each outcome listed below: • Death • Coronary artery disease hospitalization (i.e., acute myocardial infarction) • Cerebral vascular disease hospitalization (i.e., stroke) • Peripheral vascular disease hospitalization (i.e., surgeries for peripheral vascular disease including amputations) • Incident end-stage renal disease (i.e., requiring dialysis); see number 4 under denominator exclusions • First occurrence of any of the above
		Denominator All cases of diabetes that are prevalent on April 1 of each fiscal year from 2005/06 to 2013/14 **Excludes** 1. Age < 20 at the time of diagnosis (since we're restricting ourselves to adults for almost all of the indicators) 2. In Ontario Diabetes Database < 1 year prior to April 1 of fiscal year of interest (i.e., were incident in year prior to fiscal year of interest) 3. Two or more OHIP fee codes for G860 to G866 present in previous year
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Direct standardization age/sex using the population of prevalent diabetes cases on April 1, 2013 Age group (20–34, 35–44, 45–54, 55–64, 65–74, 75–84 and 85+); sex; duration of diabetes: 0–4, 5–9, 10+ yr

	Data source/data elements	DAD, RPDB and Ontario Diabetes Database; provided by ICES
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Unspecified
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Focus on Population Health

Colorectal cancer screening		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients aged 50 to 74 who had a fecal occult blood test (FOBT) within the past two years, sigmoidoscopy or barium enema within five years or a colonoscopy within the past 10 years
	Relevance/rationale	In both men and women, colorectal cancer is the third most common cancer in Canada and the second most common cause of cancer death.[21] Colorectal cancer screening guidelines were established by the Canadian Task Force on Preventive Health Care in 2001[22] and were followed by population screening recommendations from Health Canada's National Committee on Colorectal Cancer in 2002, including the recommendation that people aged 50 to 74 with an average risk for the disease have an FOBT every two years. There is fair evidence to include flexible sigmoidoscopy in the periodic health examinations of asymptomatic individuals over age 50 and screening with colonoscopy for people at above average risk.[23] The important role of primary care providers in colorectal cancer screening is shown by the results of the *Colon Cancer Screening in Canada* Survey, which indicate that the strongest motivator for getting screened for the disease is a discussion between patients and their doctors.[24]
	HQO's reporting tool/product	Common Quality Agenda
	Attribute	Focus on population health
	Type	Process
	External Alignment	CIHI: Pan-Canadian Primary Care Indicators
	Other reporting	Cancer Care Ontario

	Accountability	Shared
DEFINTION & SOURCE INFORMATION	***Unit of analysis***	Percent
	Calculation	***Numerator*** Number of screen eligible individuals who had a FOBT within past two years, other investigations (barium enema, sigmoidoscopy) within five years or a colonoscopy within the past 10 years A fecal occult blood testing (L181 or G004, L179, Q152, Q043, Q133) in the past 2 years received a colonoscopy in the previous 10 years (Z555 plus one of E740 or E741 or E747 or E705 on the same day)) A rigid sigmoidoscopy (Z535 or Z536) in the previous 5 years A flexible sigmoidoscopy in the previous 5 years (Z555 (without E740 or E741 or E747 or E705 on the same day) or Z580) A single contrast barium enema in the previous 5 years (X112) A double contract barium enema in the previous 5 years (X113)
		Denominator - Number of screen-eligible individuals aged 50 to 74 years **Excludes:** - Patients who have had colon cancer or inflammatory bowel disease in the past 5 years.
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) The 2006 Canadian population was used as the standard population for calculating age-standardized rates
	Data source/data elements	Colonoscopy Interim Reporting Tool, Lab Reporting Tool, OHIP, Claims History Database, Ontario Cancer Registry, Pathology Information Management System, RPDB, PCCF+, version 5k
	Timing and frequency of data release	Annual
	Levels of comparability	Over time, by LHIN, gender, age, neighbourhood income quintile, urban/rural location, and public health unit
	Targets or benchmarks	100% of Ontarians aged 50 and over should be screened for colorectal cancer
	Target source	ColonCancerCheck (CCO)
OTHER RELEVANT INFORMATION	***Limitations/caveats***	• Historical RPDB address information is incomplete; therefore, the most recent primary address was selected for reporting, even for historical study periods • FOBTs analyzed in hospital labs could not be captured • Only FOBT as a primary screening test could be assessed; FOBT is recommended for those at average risk of colorectal cancer, while those at increased risk (first-degree relative with colorectal cancer) were not assessed because they could not be accurately identified • A small proportion of FOBTs performed as diagnostic tests could not be excluded from the analysis • OHIP data may include (CCC program) rejected kits

	Guidelines, SOPs, evidence for best practice	Canadian Task Force on Preventive Health Care. Screening strategies for colorectal cancer: a systematic review of the evidence[25]
	Comments	None

Safety

Prescription medications review		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report that, in the past 12 months, they had a review and discussion with their primary care provider of prescription medications they are using
	Relevance/rationale	A discussion and review with patients of what prescription medications they are currently using is part of a process known as medication reconciliation.[26] There is a need for enhanced medication safety procedures. According to the *Ontario Primary Care Medication Reconciliation Guide: A comparison of recorded medications in physicians' records* and reported medication use by patients showed discrepancies in 76% of cases. In another study cited in the same guide, the rate of adverse drug events in ambulatory care was estimated at 27.4 per 100 patients; 13% of these events are classified as serious.[27] A study in 2007 showed that medication reconciliation conducted in a primary care clinic significantly reduced (from 26% to 6%) the proportion of visits with missing medication lists and reduced prescription medication errors by more than 50%.[28]
	HQO's reporting tool or product	None
	Attribute	Safety
	Type	Process
	External alignment	N/A
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported that their primary care provider reviewed and discussed with them the prescription medicines they are using **Survey question** In the last 12 months, has your [fill fd_type]* reviewed and discussed with you the prescription medicine you are using? • **Yes** • No • Don't know • Refused
		Denominator Respondents who are taking prescription medicine(s) on an on-going basis

		Base (respondents who answer yes) Are you taking any prescription medicines on a regular or on-going basis? • **Yes** • No • Don't know • Refused How many different prescription medicines are you taking on a regular or on-going basis? • **One** • **Two** • **Three** • **Four or more** • Don't know • Refused **Excludes** • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) None
	Data source/data elements	HCES from the Ministry of Health and Long-Term Care's Health Analytics Branch
	Timing and frequency of data release	Quarterly
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Reviews with pharmacists would not be captured in this indicator. Data for this indicator are self-reported and may therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Patient Centred

Patient involvement in decisions about their care and treatment		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report their family physician, nurse practitioner or someone else in their office involves them as much as they want in decisions about their care or treatment
	Relevance/rationale	Shared decision making, where physicians and patients work together to make health care decisions while using the best possible evidence, is now widely accepted to be the cornerstone of patient-centred care.[29] Evidence has demonstrated that shared decision making could potentially increase patient knowledge, reduce anxiety over the care process, improve health outcomes, reduce variation in care and costs and lead to greater alignment of care with patients' values.[30,31]
	HQO's reporting tool or product	Primary care QIPs
	Attribute	Patient centred
	Type	Process
	External alignment	Primary care QIPs
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION/	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported their (family doctor, nurse practitioner) or someone else in the office often or always involved them in the decisions about their care and treatment as much as they wanted **Survey question** When you see your family doctor or someone else in their office, how often do they involve you as much as you want to be in decisions about your care and treatment? • **Always** • **Often** • Sometimes • Rarely • Never • Volunteers: it depends on who they see and/or what they are there for • Volunteers: no decisions required on care or treatment/not applicable • Don't know • Refused
		Denominator Respondents who have a regular primary care provider **Base (respondents who answer yes)** Do you have a family doctor, a general practitioner, or nurse practitioner that you see for regular check-ups, when you are sick and so on? **Excludes**

		• Volunteers: it depends on who they see and/or what they are there for • Volunteers: no decisions required on care or treatment/not applicable • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) None
	Data source/data elements	HCES from Ministry of Health and Long-Term Care's Health Analytics Branch
	Timing and frequency of data release	Quarterly
	Levels of comparability	Over time, by LHIN, age, sex, education, income, immigration status, language spoken at home, urban/rural status
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	Data for this indicator are self-reported and may therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Appropriately Resourced

Attachment to a regular primary care provider		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents who report having a family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on
	Relevance/rationale	A strong primary care system is the hallmark of a high-performing health care system and is of the utmost importance for the health of the population.[1,2] In addition, primary care services have been found to be cost-effective.[3] Therefore, ensuring Ontarians have access to primary care providers is not only good for the health of Ontarians but also helps keep costs down. While attachment in Ontario is relatively high at approximately 95% in 2010/11,[4] there are obvious gaps when examined through various equity stratifications. The PCPM prioritization working group determined these gaps to be important to monitor
	HQO's reporting tool or product	Common Quality Agenda
	Attribute	Access to and appropriate resources
	Type	Process
	External alignment	CIHI – Priority Indicators for Policy-Makers
	Other reporting	None
	Accountability	Primary care

DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported having a family doctor, a general practitioner, family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on **Survey question** Do you have a family doctor, a general practitioner or GP, or nurse practitioner that you see for regular check-ups, when you are sick and so on? • **Yes** • No • Don't know • Refused
		Denominator All respondents **Excludes** • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted.
	Data source/data elements	HCES from Ministry of Health and Long-Term Care's Health Analytics Branch
	Timing and frequency of data release	Quarterly – rolling four quarters of data
	Levels of comparability	Over time, by LHIN, age, sex, education, income, immigration status, language spoken at home, urban/rural status
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Data for this indicator are self-reported and may therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	This indicator was selected by the PCPM prioritization group with the stipulation that when reporting this indicator, an equity cross-cut would be the focus of attention

Practice-Level Technical Details

Access

Attachment to a regular primary care provider		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents who report having a family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on
	Relevance/rationale	A strong primary care system is the hallmark of a high-performing health care system and is of the utmost importance for the health of the population.[1,2] In addition, primary care services have been found to be cost-effective.[3] Therefore, ensuring Ontarians have access to primary care providers is not only good for the health of Ontarians but also helps keep costs down. While attachment in Ontario is relatively high at approximately 95% in 2010/11,[4] there are obvious gaps when examined through various equity stratifications. The PCPM prioritization working group determined these gaps to be important to monitor
	HQO's reporting tool or product	Common Quality Agenda
	Attribute	Access to and appropriate resources
	Type	Process
	External alignment	CIHI – Priority Indicators for Policy-Makers
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported having a family doctor, a general practitioner, family physician or nurse practitioner that they see for regular check-ups, when they are sick and so on **Recommended survey question** Do you have a family doctor, a general practitioner or GP, or nurse practitioner that you see for regular check-ups, when you are sick and so on? • **Yes** • No • Don't know • Refused
		Denominator All respondents **Excludes** • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted

	Data source/data elements	Data not currently available; practice-level survey recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	N/A
	Guidelines, SOPs, evidence for best practice	None
	Comments	This indicator was selected by the PCPM prioritization working group with the stipulation that, when reporting this indicator, an equity cross-cut would be the focus of attention

Timely access during regular hours		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report that they were able to see their family physician or nurse practitioner on the same or next day
	Relevance/rationale	While having a regular family physician is important, receiving timely access to your family physician is also important and can be a significant barrier to receiving primary care.[5] Having timely access to primary care can help reduce unnecessary ED visits that strain the health system.[6]
	HQO's reporting tool or product	Primary care QIPs
	Attribute	Access
	Type	Process
	External alignment	Association of Family Health Teams of Ontario: Data to Decisions
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who saw their health care provider or someone else in the office on the same or next day **Recommended survey question** How many days did it take from when you first tried to see your family doctor/nurse practitioner to when you actually saw him/her or someone else in their office? • **Saw the doctor the same day** • **Saw doctor next day** • Enter number of days • Twenty or more days • Don't know • Refused
		Denominator

		Number of respondents who saw their regular health care provider or someone else in the office when they were sick or were concerned that they had a health problem in the past 12 months **Base (respondents who answered yes to both questions)** • Not counting yearly check-ups or monitoring of an ongoing health issue, in the last 12 months, did you want to see your [fill fd_type]** because you were sick or were concerned that you had a health problem? • Did you actually see a doctor? [or someone else in the office or both] **Excludes** • Never tried to do this/never needed care • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted
	Data source/data elements	Data not currently available; practice-level survey recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	N/A
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Continuity of care with a primary care physician		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of total primary care visits that are made to the physician with whom the patient is rostered or virtually rostered
	Relevance/rationale	Evidence suggests that continuity of care at the primary care level improves health status and results in better chronic disease outcomes.[7,8] Furthermore, as noted in a paper by the Canadian Health Services Research Foundation: "Continuity of care is also associated with improved adherence to prescribed screening and treatment, better recognition of unidentified health problems, better rates of recommended immunizations, fewer acute care hospitalizations, lower use of emergency rooms, and improved patient satisfaction. Researchers have also found a general reduction in health care costs as continuity of care improves."[9]

	HQO's reporting tool or product	Primary Care Practice Reports
	Attribute	Access
	Type	Process
	External alignment	None
	Other reporting	ICES Atlas: Primary Care in Ontario
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Option 1: Primary care visits that are made to the physician to whom the patient is rostered or virtually rostered Option 2: Primary care visits that are made to the same group to which the patient is rostered or virtually rostered
		Denominator Number of total primary care visits per patient **Excludes** Patients who have not had three or more primary care visits within the requisite period (two years)
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization*)* None
	Data source/data elements	CAPE, OHIP, provided by ICES
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, by individual practice and by patient characteristics
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Nurse practitioners are not captured owing to infrastructure limitations
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Patient-reported access to after-hours and weekend care		
INDICAT OR DESCRIP	***Indicator description***	Percentage of respondents who report that getting medical care in the evening, on a weekend or on a public holiday was difficult
	Relevance/rationale	While having a regular family physician is important, receiving timely access to your family physician is also important and can be a significant barrier to receiving primary care.[5] Having timely access

		to primary care can help reduce unnecessary ED visits that strain the health system.[6]
	HQO's reporting tool or product	None
	Attribute	Access
	Type	Process
	External alignment	None
	Other reporting	The Quarterly: Health Care System Quarterly Reporting
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported how easy they found getting medical care in the evening, on a weekend or a public holiday without going to the ED as: • Very easy • Somewhat easy • **Somewhat difficult** • **Very difficult** • Never tried to do this/never needed care • Don't know • Refused **Recommended survey question** The last time you needed medical care in the evening, on a weekend or on a public holiday, how easy or difficult was it to get care without going to the ED? • Very easy • Somewhat easy • Somewhat difficult • Very difficult • Never tried to do this/never needed care • Don't know • Refused **Excludes** • Volunteers: depends on what they called for • Don't know • Refused
		Denominator All respondents
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted
	Data source/data elements	Data not currently available; practice-level survey recommended

	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	N/A
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Integration

7-day post–hospital discharge follow-up rate for selected conditions		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who see their primary care provider within seven days after discharge from hospital for selected conditions
	Relevance/rationale	Evidence suggests that early follow-up after hospitalization for heart failure results in a lower likelihood of readmission within 30 days of discharge.[10] Readmissions in general are burdensome and are estimated to cost Ontario roughly $700 million a year.[13] Early follow-up post–hospital discharge is therefore important for improving patient outcomes and controlling health system costs
	HQO's reporting tool or product	Common Quality Agenda (reported historically), Primary Care Physician Reports
	Attribute	Integration
	Type	Process
	External alignment	Primary care QIPs
	Other reporting	None
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** At least one physician visit to the primary care provider of interest (OHIP) within seven days of patient discharge from hospital Calculate the percentage of patients (all conditions combined) who saw: • Primary care provider of interest (IPDB Mainspec = 'GP/FP', geriatrician or pediatrician) **Includes** • Ontario physician visits taking place in office, home or long-term care **(based on ICES location macro)** • Physician visits occurring between days 0–7 post-discharge (i.e., includes date of discharge) **Excludes** • Negated OHIP claims, duplicate claims and lab claims

		• Records with missing or invalid data on discharge/admission date, health number, age and gender
		Denominator Patients rostered or virtually rostered to the physician/practice of interest who were hospitalized within each fiscal year from 2005/06 to 2013/14 (DAD) for the following conditions (identified by CMG codes*): • Cardiac conditions, excluding heart attack (CMG+ codes 202, 204, 208) • Pneumonia (CMG+ codes 136, 138, 143) • Diabetes (CMG+ code 437) • Stroke (CMG+ codes 25, 26, 28) • Gastrointestinal disease (CMG+ codes 231, 248, 251,253, 254, 255, 256, 257, 258, 285, 286, 287, 288) • CHF (CMG+ code 196) • COPD (CMG+ code 139) DXTYPE = "M" **Excludes** • Patients under age 40 for cardiac CMGs • Patients under age 45 for stroke, COPD and CHF • Deaths, acute transfers, patient sign-outs against medical advice • Records with missing or invalid data on discharge/admission date, health number, age and gender • Cases with no resource intensity weight assigned • Transfers to other hospital care and to other (palliative care/hospice, addiction treatment centre) as defined by discharge disposition '01', '03' • Sign-outs, short-stay cases, cadavers and stillbirths *Using CMG+ instead of ICD-10 codes (in variable CMG2012)
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Direct standardization (age and sex) using 1991 Canadian Census population. Age groups are <20, 20–44, 45–64, 65–79, 80+
	Data source/data elements	CIHI's DAD, CAPE, Corporate Provider Database, OHIP Claims History Database, ICES's RPDB
	Timing and frequency of data release	Annual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	None
	Target source	None

OTHER RELEVANT INFOMATION	***Limitations/caveats***	The methodology used to calculate the measure differs for patient enrollment models and for CHCs/AHACs/NPLCs. This results in slight differences in the definition of the population included in the denominator
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

30-day hospital readmission rate		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who were re-admitted to a hospital following their initial hospitalization within 30 days of discharge
	Relevance/rationale	Urgent readmissions to acute care facilities are increasingly being used to measure institutional or regional quality of care and care coordination Readmission rates can be influenced by a variety of factors, including the quality of inpatient and outpatient care, the effectiveness of the care transition and coordination, and the availability and use of effective disease management community-based programs. While not all unplanned readmissions are avoidable, interventions during and after a hospitalization can be effective in reducing readmission rates.[14]
	HQO's reporting tool or product	Primary Care Practice Reports
	Attribute	Integration, effectiveness
	Type	Outcome
	External alignment	CIHI, Ministry LHIN Performance Agreement, 2013–2015, Hospital Service Accountability Agreement, 2012–2013 (30-day only)
	Other reporting	Association of Family Health Teams of Ontario: Data to Decisions, Quarterly
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of emergent or urgent non-elective hospital readmission to an acute care hospital following any hospitalization (including elective hospitalizations): • Within 30 days of discharge **Excludes** • Cases where readmission† is coded as an acute transfer by the receiving hospital (unless the readmission† was coded as a transfer from the same hospital) • Negated OHIP claims, duplicate claims and lab claims • Records with missing or invalid data on discharge/admission date, health number, age and gender • Elective hospitalizations †Hospital readmission is readmission to any acute care hospital in the province for any condition, including a different condition than the reason for the original hospital admission

		Denominator Total number of patients rostered or virtually rostered to the physician/practice of interest who had an acute care discharge from an episode of care in which one of the conditions below (identified by the CMG code) is coded as most responsible diagnosis (DXTYPE = "M") in the first hospitalization of the episode within each fiscal year (minus last 30 days for follow-up) from 2009/10 to 2013/14: • Cardiac conditions, excluding heart attack (CMG+ codes 202, 204, 208) • Pneumonia (CMG+ codes 136, 138, 143) • Diabetes (CMG+ code 437) • Stroke (CMG+ codes 25, 26, 28) • Gastrointestinal disease (CMG+ codes 231, 248, 251,253, 254, 255, 256, 257, 258, 285, 286, 287, 288) • CHF (CMG+ code 196) • COPD (CMG+ code 139) **Excludes** • Non-Ontario residents • Residents ineligible for OHIP at index date • Residents who did not have contact with a primary care provider within the previous seven years • Patients under age 40 for cardiac CMGs • Patients under age 45 for stroke, COPD and CHF • Deaths, acute transfers, patient sign-outs against medical advice • Records with missing or invalid data on discharge/admission date, health number, age and gender • Cases with no resource intensity weight assigned • Transfers to other hospital care and to other (palliative care/hospice, addiction treatment centre) as defined by discharge disposition '01', '03' • Sign-outs, short-stay cases, cadavers and stillbirths
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Direct standardization for age and sex using the 1991 Canadian Census population Age groups are <20, 20–44, 45–64, 65–79, 80+
	Data source/data elements	DAD, CAPE, OHIP, Corporate Provider Database
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural location
	Targets or benchmarks	None
	Target source	None

OTHER RELEVANT NFORMATIO	***Limitations/caveats***	Unspecified
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Efficiency

Per-capita health care expenditures by category		
INDICATOR DESCRIPTION	***Indicator description***	Per-capita health care expenditures by category: **Total cost** **Primary care costs** • GP/FP FFS visits • FHO/FHN capitation costs • Non-FFS GP/FP visits **Physician, lab, drug, ED and outpatient costs** • OHIP specialty physician FFS costs • ODB drug cost • Home Care Services cost • NACRS ED • OHIP lab cost • OHIP non-physician cost • Other non-FFS visits • EDAFA non-FFS visits • Non-FFS medical oncologists • Non-FFS radiation oncologists • NACRS cancer • NACRS dialysis **Inpatient and SDS costs** • Inpatient (CIHI's DAD) • SDS • Inpatient mental health **Long-term care, CCC and rehab costs** • Cost of long-term care • Cost of CCC • Rehab (NRS)
	Relevance/rationale	Health care expenditures have been growing for a number of reasons; however, an aging population, as commonly believed, is not the biggest driver of costs. According to a report by CIHI, in Canada, demographic factors have accounted for only 1.8% of the 7.4% year-over-year growth in health care spending. From 1998 to 2008, physician spending has been among the fastest-growing categories, increasing at a year-over-year rate of 6.8%.[15] Monitoring system-level costs is an important step to better understanding the drivers of health care expenditures
	HQO's reporting tool or product	Not currently reported
	Attribute	Efficiency
	Type	Structural

	External alignment	ICES
	Other reporting	Not currently reported
	Accountability	N/A
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Cost per capita
	Calculation	**Numerator** **Total cost** **Primary care costs** • GP/FP FFS visits • FHO/FHN capitation costs • Non-FFS GP/FP visits **Physician, lab, drug, ED and outpatient costs** • OHIP specialty physician FFS costs • ODB drug cost • Home Care Services cost • NACRS ED • OHIP lab cost • OHIP non-physician cost • Other non-FFS visits • EDAFA non-FFS visits • Non-FFS medical oncologists • Non-FFS radiation oncologists • NACRS cancer • NACRS dialysis **Inpatient and SDS costs** • Inpatient (CIHI's DAD) • SDS • Inpatient mental health **Long-term care, CCC and rehab costs** • Cost of long-term care • Cost of CCC • Rehab (NRS)
		Denominator Total mid-year population rostered or virtually rostered to the physician/practice of interest for the fiscal year of interest
		Methods (Numerator/denominator)
		Adjustment (risk, age/sex standardization) • Rurality: based on RIO • Age and sex: RPDB • Socio-economic status: based on the income quintiles • Morbidity: based on John Hopkins Adjusted Diagnostic Groups or the Resource Utilization Band
	Data source/data elements	DAD, NACRS, NRS, Continuing Care Reporting System, OMHRS, OHIP, Home Care Database, ODB, Ontario Home Care Administration System, SDS Database provided by ICES
	Timing and frequency of data release	To be determined
	Levels of comparability	Provincial, LHIN, practice

	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATION	***Limitations/caveats***	• Interpretation of this indicator is challenging, as directionality is not clear • Care delivered in teams is not captured • Overhead costs for physicians are not captured • No shadow billing indicator in OHIP data prior to 2005 • Medical/radiation oncologists' salaries are not available for years 2002–2004
	Guidelines, SOPs, evidence for best practice	N/A
	Comments	None

Time from the scheduled appointment time to time the appointment started		
INDICATOR DESCRIPTION	***Indicator description***	Patient-reported wait times from when their consultation was scheduled to start to when they met with a health care provider
	Relevance/rationale	While having a regular family physician is important, receiving timely access to your family physician is also important and can be a significant barrier to receiving primary care.[5] Having timely access to primary care can also help reduce unnecessary ED visits that strain the health system.[6]
	HQO's reporting tool or product	None
	Attribute	Access
	Type	Process
	External alignment	None
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Wait time for patient consultation, from its scheduled time to when they actually met with a health care provider: • Immediately • Less than 5 minutes • 5–10 minutes • 11–20 minutes • 21–30 minutes • More than 30 minutes *This measure will be reported as some percentage of patients receiving care within a pre-determined threshold value* **Recommended survey question** How long did you wait for your consultation to start from its scheduled time to when you actually met with a health care provider? • Immediately • Less than 5 minutes • 5–10 minutes

		• 11–20 minutes • 21–30 minutes • More than 30 minutes • There was no set time for my consultation
		Denominator All respondents **Excludes** There was no set time for my consultation
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not risk or age/sex adjusted
	Data source/data elements	Data not currently available; practice-level survey recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	Data for this indicator are self-reported and may therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Effectiveness

Patients with diabetes receiving glycated hemoglobin testing in the past 12 months		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of diabetic patients aged 40 years and older who have had two or more glycated hemoglobin (HbA1c) tests within the past 12 months
	Relevance/rationale	Diabetes mellitus refers to a group of diseases characterized by elevated blood glucose levels. Diabetes can lead to serious health complications and death, but individuals with diabetes can work with their primary care providers to control the disease and reduce the risk of complications. Guidelines recommend monitoring glycemic control in individuals diagnosed with diabetes via HbA1c testing every three months when glycemic targets are not being met and when diabetes therapy is being adjusted.[32]
	HQO's reporting tool or product	N/A

	Attribute	Effectiveness
	Type	Process
	External alignment	None
	Other reporting	N/A
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of diabetic patients aged 40 years and older who have had two or more glycated hemoglobin (HbA1c) tests within the past 12 months **Includes** • Diabetes patients rostered or virtually rostered to the physician/practice of interest aged 40 years and older who are identified in the Ontario Diabetes Database as diabetics in the previous two years • HbA1c tests are defined by the OHIP fee code (L093)
		Denominator Total number of diabetes patients rostered or virtually rostered to the patient/practice of interest aged 40 years and over **Excludes** • Patients who were not residents in Ontario in each year • Patients with a missing or invalid health care number, date of birth or postal code • Age on index date in each corresponding year exams: under 40 years • Women with gestational diabetes
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not adjusted
	Data source/data elements	Ontario Diabetes Database (comprising OHIP, RPDB, ODB and CIHI), ODB
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATION	***Limitations/caveats***	• Ontario Diabetes Database does not differentiate between type I and type II diabetes mellitus • HbA1c measure includes only OHIP fee-for-service hemoglobin A1c tests conducted in community labs. Lab tests for A1c conducted in hospitals are not individually submitted and therefore not available
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Patients with hypertension with blood pressure recorded in the previous 12 months		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients with hypertension with blood pressure recorded in the previous 12 months
	Relevance/rationale	According to the Heart and Stroke Foundation, blood pressure for patients with hypertension should be checked regularly, as recommended by a doctor.[33] The frequency of follow-up for treated patients after adequate blood pressure control is attained depends upon factors such as the severity of the hypertension, variability of blood pressure, complexity of the treatment regimen, patient compliance and the need for nonpharmacological advice.[34]
	HQO's reporting tool or product	N/A
	Attribute	Effectiveness
	Type	Process
	External alignment	None
	Other reporting	N/A
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of patients with hypertension for whom there is a record of blood pressure assay in the previous 12 months
		Denominator Number of patients with hypertension
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) Not adjusted
	Data source/data elements	Not currently available; electronic medical records (EMR)/electronic health record (EHR) data extraction recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	N/A
	Guidelines, SOPs, evidence for best practice	N/A
	Comments	Measure source: Quality and Outcome Framework: United Kingdom 2012/13

Percentage of mental health patients seeing a primary care provider within 7 and 30 days after mental health inpatient discharge		
INDICATOR DESCRIPTION	***Indicator description***	The percentage of psychiatric discharges that had a mental health follow-up visit to a physician (primary care provider or psychiatrist), within 7 days and 30 days of discharge
	Relevance/rationale	The transition from inpatient to outpatient setting is a critical point in the continuum of care and a real opportunity to prevent readmissions.[35] Research has found patient access to follow-up care within 7 days of discharge from hospitalization for mental illness to be a strong predictor of a reduction in hospital readmissions.[36] Inpatient treatment may stabilize individuals with acute mental conditions, but timely and proper continued care is needed to maintain and extend improvement after inpatient care. The period immediately following discharge from inpatient care is recognized as a time of increased vulnerability.[37] The risk of suicide is higher during the period immediately following discharge from inpatient psychiatric care.[38] Readmissions immediately after hospital discharge are more likely to be related to care during hospitalization. They may also be due to failure in the transition of care between the hospital and outpatient care. The gap between the percentage of readmissions and the percentage of potentially avoidable readmissions widens as the number of days increase, suggesting the importance of follow-up care immediately after discharge.[39] Ensuring continuity of care by increasing compliance with outpatient follow-up care helps detect early post-hospitalization medication problems and provides continuing support that improves treatment outcomes and reduces health care costs.[40]
	HQO's reporting tool or product	Yearly Report (formerly Quality Monitor)
	Attribute	Effective
	Type	Process
	External alignment	N/A
	Other reporting	Hospital Report 2007 Mental Health[41]
	Accountability	Hospital, Primary care, Long-term care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** **7 days:** Number of patients who, within 7 days of discharge following index hospitalization, had at least one psychiatrist or primary care physician mental health visit **30 days:** Number of patients who, within 30 days of discharge following index hospitalization, had at least one psychiatrist or primary care physician mental health visit.
		Denominator **7 days:** Acute care discharges of patients rostered or virtually rostered to the practice/physician of interest from an episode of care in which a mental health and addiction condition is diagnosed and is

		coded as most responsible diagnosis (CIHI – ICD-10 with dxtype = M, OMHRS‡ - DSM-IV in Q2A/Q2D or provisional dx Q1D/Q1E/Q1F/Q1G/Q1O/Q1P = 1) in the first hospitalization of the episode within each fiscal year (minus last 7 days for follow-up) from 2006/07 to 2013/14 **30 days:** Acute care discharges of patients rostered or virtually rostered with the practice/physician of interest from an episode of care in which a mental health and addiction condition is diagnosed and is coded as most responsible diagnosis (CIHI – ICD-10 with dxtype = M, OMHRS‡ - DSM-IV in Q2A/Q2D or provisional dx Q1D/Q1E/Q1F/Q1G/Q1O/Q1P = 1) in the first hospitalization of the episode within each fiscal year (minus last 30 days for follow-up) from 2006/07 to 2013/14 • Substance-related disorders—ICD-10-CA: F55, F10 to F19; DSM-IV: 291.x (0, 1, 2, 3, 5, 81, 89, 9), 292.0, 292.11, 292.12, 292.81, 292.82, 292.83, 292.84, 292.89, 292.9, 303.xx (00, 90), 304.xx (00, 10, 20, 30, 40, 50, 60, 80, 90), 305.xx (00, 10 to 90 excluding 80); Provisional diagnosis§: (d) substance-related disorder; or • Schizophrenia, delusional and non-organic psychotic disorders—ICD-10-CA: F20 (excluding F20.4), F22, F23, F24, F25, F28, F29, F53.1; DSM-IV: 295.xx (10, 20, 30, 40, 60, 70, 90), 297.1, 297.3, 298.8, 298.9; Provisional diagnosis§: (e) schizophrenia disorder; or • Mood/affective disorders—Mood/affective disorders—ICD-10-CA: F30, F31, F32, F33, F34, F38, F39, F53.0; DSM-IV: 296 .0x, 296.2x, 296.3x, 296.4x, 296.5x, 296.6x, 296.7, 296.80, 296.89, 296.90, 300.4, 301.13; Provisional diagnosis§: (f) mood disorders; or • Anxiety disorders—ICD-10-CA: F40, F41, F42, F43, F48.8, F48.9,; DSM-IV: 300.xx (00, 01, 02, 21, 22, 23, 29), 300.3, 308.3, 309.x (0, 3, 4, 9), 309.24, 309.28, 309.81; Provisional diagnosis§: (g) anxiety disorders or (o) adjustment disorders or • Selected disorders of adult personality and behaviour—Selected disorders of adult personality and behaviour—ICD-10-CA: F60, F61, F62, F69, F21; DSM-IV: 301.0, 301.20, 301.22, 301.4, 301.50, 301.6, 301.7, 301.81, 301.82, 301.83, 301.9 Provisional diagnosis§: (p) personality disorders Age range to include 15 – 120 years **Excludes** • Patients without a valid health insurance number • Patients without an Ontario residence • Gender not recorded as male or female • Invalid date of birth, admission date/time, discharge date/time • Discharge where the patient signed himself/herself out or the patient died • Patients who died or had hospitalizations with a subsequent readmission (any cause) to acute care (CIHI or OMHRS‡) within 7 days of index hospitalization discharge date ‡ If OMHRS record occurs within 24 hours of discharge/admission from institution, then this should be considered as part of the same episode of care

		§ For provisional diagnoses: only for data extracted from OMHRS with no DSM-IV code recorded
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) N/A
	Data source/data elements	Indicator could be calculated at the practice level using administrative data. CIHI's DAD, OMHRS (starting from 2005/06), OHIP database
	Timing and frequency of data release	Biannual
	Levels of comparability	Over time, by LHIN, sex, age group, income quintile, urban/rural
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Methodology used to calculate the measure differs for patient enrollment models and for CHCs/AHACs/NPLCs. This results in slight differences in the definition of the population included in the denominator
	Guidelines, SOPs, evidence for best practice	N/A
	Comments	None

Focus on Population Health

Demographic information		
INDICATOR DESCRIPTION	***Indicator description***	Patient/population demographic information: • Age (in years) • Gender • Income • Education • Location of residence • Sexual orientation • Disability • Language • Immigration • Ethno-cultural identity • Aboriginal status • Social support • Mental health status • Employment status
	Relevance/rationale	Collecting demographic information to better understand the population being served can help providers ensure they have the tools necessary to provide the right care tailored to the demographics of their specific patient population
	HQO's reporting tool or product	N/A

	Attribute	Focus on population health
	Type	Context indicator
	External alignment	N/A
	Other reporting	N/A
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Respondents' information on the following characteristics: • Age (in years) • Gender • Income • Education • Location of residence • Sexual orientation • Disability • Language • Immigration • Ethno-cultural identity • Aboriginal status • Social support • Mental health status • Employment status
		Denominator N/A
		Methods Each characteristic is aggregated for the entire practice population
		Adjustment (risk, age/sex standardization) N/A
	Data source/data elements	No data available EMR/EHR data extraction or practice-level survey recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	None
	Guidelines, SOPs, evidence for best practice	N/A
	Comments	None

Colorectal cancer screening		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients aged 50 to 74 who had an FOBT within the past two years, sigmoidoscopy or barium enema within five years or a colonoscopy within the past 10 years
	Relevance/rationale	In both men and women, colorectal cancer is the third most common cancer in Canada and the second most common cause of cancer death.[23] Colorectal cancer screening guidelines were established by the Canadian Task Force on Preventive Health Care in 2001[24] and were followed by population screening recommendations from Health Canada's National Committee on Colorectal Cancer in 2002, including the recommendation that people aged 50 to 74 with an average risk for the disease have an FOBT every two years. There is fair evidence to include flexible sigmoidoscopy in the periodic health examinations of asymptomatic individuals over age 50 and screening with colonoscopy for above-average-risk individuals.[42] The important role of primary care providers in colorectal cancer screening is shown by the results of the *Colon Cancer Screening in Canada* Survey, which indicate that the strongest motivator for getting screened for the disease is a discussion between individuals and their doctors.[43]
	HQO's reporting tool or product	Common Quality Agenda
	Attribute	Focus on population health
	Type	Process
	External alignment	CIHI: Pan-Canadian Primary Care Indicators
	Other reporting	CCO
	Accountability	Shared
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of screen-eligible individuals who had an FOBT within past two years, other investigations (barium enema, sigmoidoscopy) within five years or a colonoscopy within the past 10 years • FOBT (L181 or G004, L179, Q152, Q043, Q133) in the past two years • Colonoscopy in the previous 10 years (Z555 plus one of E740 or E741 or E747 or E705 on the same day) • Rigid sigmoidoscopy (Z535 or Z536) in the previous five years • Flexible sigmoidoscopy in the previous five years (Z555 (without E740 or E741 or E747 or E705 on the same day) or Z580 • Single-contrast barium enema in the previous five years (X112) • Double-contrast barium enema in the previous 5 years (X113) ***Denominator*** Number of screen-eligible individuals rostered or virtually rostered to the physician/practice of interest who are aged 50 to 74 years **Excludes:** Patients who have had colon cancer or inflammatory bowel disease in the past 5 years.

		Methods (numerator/denominator) * 100 **Adjustment (risk, age/sex standardization)** The 2006 Canadian population was used as the standard population for calculating age-standardized rates
	Data source/data elements	Colonoscopy Interim Reporting Tool, Lab Reporting Tool, OHIP, Claims History Database, Ontario Cancer Registry, Pathology Information Management System, RPDB, Postal Code Conversion File+, version 5k Practices are able to receive performance data on this indicator from monthly SAR reports run by CCO
	Timing and frequency of data release	Annual
	Levels of comparability	Over time, by LHIN, gender, age, neighbourhood income quintile, urban/rural location, and public health unit.
	Targets or benchmarks	100% of Ontarians aged 50 and over should be screened for colorectal cancer
	Target source	ColonCancerCheck (CCO)
OTHER RELEVANT INFORMATION	***Limitations/caveats***	• Historical RPDB address information is incomplete; therefore, the most recent primary address was selected for reporting, even for historical study periods • FOBTs analyzed in hospital labs could not be captured • Only FOBT as a primary screening test could be assessed; FOBT is recommended for those at average risk of colorectal cancer, while those at increased risk (first-degree relative with colorectal cancer) were not assessed, as they could not be accurately identified • A small proportion of FOBTs performed as diagnostic tests could not be excluded from the analysis • OHIP data may include (CCC program) rejected kits
	Guidelines, SOPs, evidence for best practice	Canadian Task Force on Preventive Health Care. Screening strategies for colorectal cancer: a systematic review of the evidence.[27]
	Comments	None
Cervical cancer screening		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of women aged 21 to 69 who had a Papanicolaou (Pap) test within the past three years
	Relevance/rationale	Cervical cancer is preventable. Yet, year after year, about 550 women are diagnosed with cancer of the cervix, and about 160 women die from this disease in Ontario Regular screening is an essential defense against cervical cancer. Cervical cancer screening can detect early cell changes on the cervix caused by persistent human papillomavirus (HPV) infection. These changes seldom cause any symptoms, but can progress to cancer if not found and managed.[44] CCO updated its cervical cancer screening guidelines in 2012. Cervical cancer screening is recommended for women aged 21–69 every 3 years if they are or have ever been sexually active.

		Screening can stop at 70 years of age in women who have had three or more normal tests in the prior 10 years.[45]
	HQO's reporting tool or product	N/A
	Attribute	Focus on population health
	Type	Process
	External alignment	Ministry of Health and Long-Term Care and CCO
	Other reporting	Cancer Quality Council of Ontario (CQCO), Ministry of Health and Long-Term Care's Health Analytics Branch, Resource for Indicator Standards
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of screen-eligible women aged 21 to 69 years who had a Pap test within the past three years **Includes** • Women aged 23–69 years at the index date • Index date was defined by service date in OHIP in a three-year period • Pap tests identified using fee codes in OHIP (E430, G365a, G394a, L712 or L812) • Each woman is counted once regardless of the number of Pap tests performed in a three-year period
		Denominator Total number of screen-eligible women aged 23 to 69 years who are rostered or virtually rostered to the physician/practice of interest **Excludes** • Women with a missing or invalid health care number, date of birth, LHIN or postal code • Women with a history of cervical cancer or hysterectomy using the fee codes in OHIP (S710, S727, S757, S758, S759, S762, S763, S765, S766, S767, S810, S816)
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) N/A
	Data source/data elements	OHIP, Cytobase, Ontario Cancer Registry, Pathology Information Management System, CAPE database, Corporate Providers Database, RPDB Practices are able to receive performance data on this indicator from monthly SAR reports run by CCO
	Timing and frequency of data release	Biannual
	Levels of comparability	Across time, regional, across age group (20–29; 30–39; 40–49; 50–59; 60–69), neighbourhood income quintile, by Public Health Units, urban/rural residence, immigrant
	Targets or benchmarks	Performance target > 85%

	Target source	Ontario Cancer Plan target
OTHER RELEVANT INFORMATION	***Limitations/caveats***	• A small proportion of Pap tests performed as a diagnostic test could not be excluded from the analysis • The indicator does not capture tests done in hospital laboratories or paid through alternate payment plans, such as out-of-pocket
	Guidelines, SOPs, evidence for best practice	CCO cervical cancer screening guidelines
	Comments	None

Prevalence of overweight, underweight and obesity		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents who are obese, overweight, underweight or normal weight according to self-reported weight and height data: • Adults aged 18 and over • Children aged 12–17 (obese, overweight or neither)
	Relevance/rationale	Obesity has reached epidemic proportions in Canada and Ontario. Between 1981 and 2007–2009, obesity roughly doubled in most age groups in the adult and youth categories. Given these trends, obesity poses a significant burden to the health care system. Obesity increases the risk of a variety of chronic conditions ranging from type 2 diabetes to some forms of cancer, and evidence suggests that those who are severely obese have a greater risk of premature mortality.[46] The financial burdens of obesity are also great. According to a study, the cost of obesity to Ontario in 2009 was $4.5 billion, resulting from both direct and indirect costs.[47]
	HQO's reporting tool or product	Yearly Report (formerly Quality Monitor)
	Attribute	Focus on population health
	Type	Context indicator
	External alignment	Ontario's Action Plan for Health Care; Quality Monitor; Statistics Canada, CCO; potential PCPM alignment
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of adults aged 18 and over who were categorized to one of the following categories, according to their self-reported body mass index (BMI): • Underweight (BMI < 18.5) • Normal weight (BMI 18.5–24.9) • Overweight (BMI 25.0–29.9) • Obese (BMI ≥ 30.0) Number of children aged 12–17 who were categorized to one of the following categories, according to their self-reported BMI: • Obese • Overweight • Neither obese nor overweight

		Denominator Number of individuals • Aged 18 and over • Aged 12–17 **Excludes** Women who were pregnant or did not answer the pregnancy question)
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) N/A
	Data source/data elements	No data available; EMR/EHR data extraction recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATION	***Limitations/caveats***	This indicator has limitations both with its use of the BMI to assess obesity and with how the data are collected. As this indicator relies on self-reported data, the true rate might in fact be higher or lower. Differences in musculature or bone mass among individuals, as well as across ethnocultural groups and sexes, do not factor into how the BMI is calculated.[48] Therefore, this indicator does not capture the true rate of obesity, rather a close approximation of it Comparisons of self-reported height and weight with actual measurements have shown that women are inclined to underestimate their weight, while men tend to overestimate their height. The report found that the obesity rate was 7.4 percentage points higher and the overweight rate was 1.9 percentage points higher when based on measured height and weight rather than self-reported data. Measured height and weight raises the actual proportion of obese adults by an estimated 6 to 9 percentage points above the 18%, which is based on self-reports.[49]
	Guidelines, SOPs, evidence for best practice	2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children.[50]
	Comments	None

Smoking prevalence		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents aged 15 and over who report smoking daily or occasionally
	Relevance/rationale	Tobacco is a leading preventable cause of premature death in Canada and is the main risk factor for four of the leading causes of death in Canada: cancer, heart disease, stroke and lung disease.[51] Tobacco is responsible for over 85% of deaths from lung cancer; over 70% of deaths from cancers of the mouth, oropharynx and esophagus; and significant proportions of deaths from some other cancers.[52] Approximately 37,000 Canadians die each year as a result of tobacco use.[76] Smoking cigarettes is the most common method of tobacco use and in 2010, it was estimated that approximately 16.7% of the Canadian population, or 4.7 million persons, smoked.[76] Approximately half of those smokers are expected to become ill or die from continued tobacco use.[53] In addition, tobacco-related illnesses cost the Ontario economy $1.6 billion in health care costs and $4.4 billion in productivity losses, while contributing an estimated 500,000 hospital patient days annually.[54]
	HQO's reporting tool or product	Yearly Report (formerly Quality Monitor)
	Attribute	Focus on population health
	Type	Context indicator
	External alignment	Statistics Canada
	Other reporting	N/A
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported smoking cigarettes daily or occasionally **Recommended survey question** At the present, do you smoke cigarettes daily, occasionally or not at all? • Daily • Occasionally • Not at all • Don't know • Refused
		Denominator All respondents aged 15 and older
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) N/A
	Data source/data elements	No data available; practice-level survey recommended

	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	N/A
	Target source	N/A
OTHER RELEVANT INFORMATIO	***Limitations/caveats***	As this indicator relies on self-reported data, the true rate might in fact be higher or lower
	Guidelines, SOPs, evidence for best practice	Canadian Smoking Cessation Clinical Practice Guideline[55]
	Comments	None

Pneumococcal immunization among people 65 years of age and over		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of respondents aged 65 and older who have a record of receiving a pneumococcal vaccine in the past 12 months
	Relevance/rationale	Canada's immunization guide recommends one dose of the pneumococcal vaccine for all adults 65 years of age and older, and for immunocompetent adults less than 65 years of age in long-term care facilities or who have conditions putting them at increased risk of pneumococcal disease.[56]
	HQO's reporting tool or product	N/A
	Attribute	Focus on population health
	Type	Process indicator
	External alignment	N/A
	Other reporting	N/A
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of people, 65 years and over, who have a record in their medical chart of receiving a pneumococcal immunization in the past 12 months
		Denominator All people 65 years and over
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) N/A
	Data source/data elements	No data available EMR/EHR data extraction recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	N/A

	Target source	N/A
OTHER RELEVANT INFORMATION	***Limitations/caveats***	N/A
	Guidelines, SOPs, evidence for best practice	Guidelines: One dose of Pneu-P-23 vaccine is recommended for all adults 65 years of age and older[81]
	Comments	Potential data source: Limited data (only participating public health units) are available through the Rapid Risk Factor Surveillance System (RRFSS)

Patient Centred

Patient involvement in decisions about their care and treatment		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report their family physician, nurse practitioner or someone else in their office involves them as much as they want in decisions about their care or treatment
	Relevance/rationale	Shared decision making, where physicians and patients work together to make health care decisions while using the best possible evidence, is now widely accepted to be the cornerstone of patient-centred care.[31] Evidence has demonstrated that shared decision making could potentially increase patient knowledge, reduce anxiety over the care process, improve health outcomes, reduce variation in care and costs and lead to greater alignment of care with patients' values.[32,33]
	HQO's reporting tool or product	Primary care QIPs
	Attribute	Patient centred
	Type	Process
	External alignment	Primary care QIPs
	Other reporting	None
	Accountability	Primary care
DEFINITION AND SOURCE INFORMATION	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported their family doctor, nurse practitioner or someone else in the office often or always involved them in the decisions about their care and treatment as much as they wanted **Recommended survey question** When you see your family doctor or someone else in their office, how often do they involve you as much as you want to be in decisions about your care and treatment? • **Always** • **Often** • Sometimes • Rarely • Never • Volunteers: it depends on who they see and/or what they are there for • Volunteers: no decisions required on care or treatment/not applicable • Don't know • Refused

		Denominator Respondents who have a regular primary care provider **Base (respondents who answer yes)** Do you have a family doctor, a general practitioner or GP, or nurse practitioner that you see for regular check-ups, when you are sick and so on? **Exclude** • Volunteers: it depends on who they see and/or what they are there for • Volunteers: no decisions required on care or treatment/not applicable • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) None
	Data source/data elements	No data available; practice-level patient experience survey recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Data for this indicator are self-reported and may therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

Primary care providers spending enough time with patients		
INDICATOR DESCRIPTION	***Indicator description***	Percentage of patients who report that their family physician, nurse practitioner or someone else in their office spends enough time with them
	Relevance/rationale	Having enough time with a care provider can be an important component to receiving quality care. Some evidence shows that patient satisfaction, prescribing practices, physician satisfaction and chronic disease outcomes are all components of care that could potentially be affected by time spent with a physician.[57]
	HQO's reporting tool or product	N/A
	Attribute	Patient-centred
	Type	Process
	External alignment	N/A
	Other reporting	None
	Accountability	Primary care
DEFINTION AND SOURCE INFORMATION/	***Unit of analysis***	Percentage
	Calculation	**Numerator** Number of respondents who reported that their family doctor, nurse practitioner or someone else in the practice often or always spends enough time with them **Recommended survey question** When you see your (family doctor, nurse practitioner) or someone else in their office, how often do they spend enough time with you? • **Always** • **Often** • Sometimes • Rarely • Never • It depends on who they see and/or what they are there for • Don't know • Refused
		Denominator Respondents who have a regular primary care provider **Base (respondents who answer yes)** Do you have a family doctor, a general practitioner or GP, or nurse practitioner that you see for regular check-ups, when you are sick and so on? **Excludes** • It depends on who they see and/or what they are there for • Don't know • Refused
		Methods (Numerator/denominator) * 100
		Adjustment (risk, age/sex standardization) None

	Data source/data elements	No data available; practice-level patient experience survey recommended
	Timing and frequency of data release	N/A
	Levels of comparability	N/A
	Targets or benchmarks	None
	Target source	None
OTHER RELEVANT INFORMATION	***Limitations/caveats***	Data for this indicator are self-reported and may therefore be subject to recall errors and over- and under-reporting
	Guidelines, SOPs, evidence for best practice	None
	Comments	None

1 Macinko J, Starfield B, Shi L. The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970–1998. Health Serv Res 2003;38(3):831-65.
2 Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank Q 2005;83(3):457-502.
3 Glazier RH. Balancing equity issues in health systems: perspectives of primary healthcare [Review]. Healthcarepapers. 2007;8:Spec-45.
4 Glazier RH, Kopp A, Schultz SE, Kiran T, Henry DA. All the right intentions but few of the desired results: lessons on access to primary care from Ontario's patient enrolment models. Healthc Q 2012;15:17-21.
5 Sanmartin C, Ross N. Experiencing difficulties accessing first contact health services in Canada: Canadians without regular doctors and recent immigrants have difficulties accessing first-contact healthcare services. Reports of difficulties in accessing care vary by age, sex and region. Healthcare Policy. January 2006;1(2):103-19.
6 Canadian Association of Emergency Physicians and National Emergency Nurses Affiliation (CAEP/NENA) Joint Position Statement on Emergency Department Overcrowding. Can J Emerg Med. 2001;3(2):82–4.
7 Gray DP, Evans P, Sweeney K, et al. Towards a theory of continuity of care. J R Soc Med. April 2003;96(4):160-6. PM:12668701.
8 Health Quality Ontario. Continuity of care to optimize chronic disease management in the community setting: an evidence-based analysis. Ont Health Technol Assess Ser [Internet]. September 2013;13(6):1–41. Available from: http://www.hqontario.ca/en/documents/eds/2013/full-report-OCDMcontinuity-of-care.pdf.
9 Reid RJ, Barer ML, McKendry R, McGrail KM, Prosser B, Green B, et al. Patient-focused care over time: issues related to measurement, prevalence, and strategies for improvement among patient populations. Ottawa, ON: Canadian Health Services Research Foundation; 2003.
10 Agency for Healthcare Research and Quality. Early follow-up with a physician reduces readmissions for Medicare patients hospitalized for heart failure: research activities. Rockville, MD: Agency for Healthcare Research and Quality; September 2010, No. 361.
11 Canadian Institute for Health Information. All cause readmission to Canadian hospitals. Ottawa, ON: CIHI; 2012.
12 Canadian Institute for Health Information. Health indicators 2013: definitions, data sources and rationale. Ottawa, ON: CIHI; May 2013.
13 Canadian Institute for Health Information. Health care cost drivers: the facts. Ottawa, ON: CIHI; 2011.
14 Health Canada. A report on mental illnesses in Canada. Ottawa, ON: Health Canada; 2002.
15 Government of Canada. The human face of mental health and mental illness in Canada. Ottawa, ON: Queen's Printer; 2006. Available from: http://www.phac-aspc.gc.ca/ publicat/human-humain06/pdf/human_face_e.pdf.
16 Luoma JB, Martin CE, Pearson JL. Contact with mental health and primary care providers before suicide: a review of the evidence. Am J Psychiatry 2002;159:909-16.

17 Public Health Agency of Canada. Diabetes in Canada: facts and figures from a public health perspective. Ottawa, ON: PHAC; 2011. Available from: http://www.phac-aspc.gc.ca/cd-mc/publications/diabetes-diabete/ facts-figures-faits-chiffres-2011/pdf/facts-figures-faits-chiffreseng.pdf.
18 Booth GL, Kapral MK, Fung K, Tu JV. Relation between age and cardiovascular disease in men and women with diabetes compared with non-diabetic people: a population-based retrospective cohort study. Lancet. July 1, 2006;368(9529):29-36.
19 Hux JE, Booth GL, Slaughter PM, Laupacis A. Diabetes in Ontario: an ICES practice atlas. Ottawa, ON: Institute for Clinical Evaluative Sciences; 2003. Available from: http://www.ices.on.ca/file/DM_Intro.pdf. Accessed July 2012.
20 Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2013 clinical practice guidelines for the prevention and management of diabetes in Canada. Can J Diabetes 2013;37(Suppl 1):S1-S212.
21 Canadian Cancer Society's Steering Committee on Cancer Statistics. Canadian cancer statistics 2011. Toronto, ON: Canadian Cancer Society; 2011. Available from: www.cancer.ca/statistics.
22 Canadian Task Force on Preventive Health Care. Colorectal cancer screening. Ottawa, ON: CTFPHC; 2001. Available from: http://www.canadiantaskforce.ca/recommendations/ 2001_03_eng.html.
23 Colorectal cancer screening: recommendation statement from the Canadian Task Force on Preventive Health Care. CMAJ. 2001;165(2):206-8. Available from: http://www.cmaj.ca/content/165/2/206.full.
24 Canadian Partnership Against Cancer. Colorectal cancer screening. Toronto, ON: CPAC; 2010. Available from: http://www.cancerview.ca/idc/groups/public/documents/ webcontent/rl_cancer_1crcscreen.pdf.
25 McLeod R, Canadian Task Force on Preventive Health Care. Screening strategies for colorectal cancer: a systematic review of the evidence. Can J Gastroenterol. Oct 2001;15(10):647–60.
26 Institute for Safe Medication Practices. Medication reconciliation: moving forward. ISMP Canada Safety Bulletin. Dec 27 2011;11(9). Available from: http://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2011-09-MedRec_MovingForward.pdf.
27 Institute for Safe Medication Practices, Health Quality Ontario. Ontario primary care medication reconciliation guide. Toronto, ON: Institute for Safe Medication Practices, Health Quality Ontario; 2015. Available from: http://www.ismp-canada.org/download/PrimaryCareMedRecGuide_EN.pdf.
28 Varkey P, Cunningham J, Bisping D. Improving medication reconciliation in the outpatient setting. Jt Comm J Qual Patient Saf. 2007 May;33(5):286-92.
29 Charles C, Gafni A, Whelan T. Shared decision-making in the medical encounter: what does it mean? (or it takes at least two to tango). Soc Sci Med March 1997;44(5):681–92.
30 Oshima Lee E, Emanuel EJ. Shared decision making to improve care and reduce costs. N Engl J Med2013;368:6-8.
31 Barry MJ, Edgman-Levitan S. Shared decision making — the pinnacle of patient centered care. N Engl J Med. 2012;366:780-781
32 Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. Can J Diabetes 2013;37(suppl 1):S1-S212.
33 Heart and Stroke Foundation. Getting your blood pressure in check. Ottawa, ON: Heart and Stroke Foundation; 2014. Available from: http://www.heartandstroke.com/site/c.ikIQLcMWJtE/b.3484023/k.2174/Heart_disease__High_blood_pressure.htm [Accessed July 13, 2015].
34 Quality Outcomes Network. The percentage of patients with hypertension in whom there is a record of the blood pressure in the previous 9 months [Indicator metadata]. Leeds, West Yorkshire: Health & Social Care Information Centre; 2012. Available from: https://indicators.ic.nhs.uk/download/IQI/Specification/QOF%20BP%204%20Metadata.pdf.
35 McCutcheon G. F2F Follow up within 7 days of an mental health inpatient discharge [slide presentation]. Harrisburg, PA: Case Management Unit for Dauphin County; 2015. Available from: http://www.slideshare.net/gregmccutcheon1?utm_campaign=profiletracking&utm_medium=sssite&utm_source=ssslideview.
36 Fortney J, Sullivan G, Williams K, Jackson C, Morton SC, Koegel P. Measuring Continuity of Care for Clients of Public Mental Health Systems. Health Services Research. 2003; 38: 1157-1175.
37 Cougnard A, Parrot M, Grolleau S, Kalmi E, Desage A, Misdrahi D, Brun-Rousseau H, Verdoux H. (2006) Pattern of health service utilization and predictors of readmission after a first admission for psychosis: a 2-year follow-up study. Acta Psychiatr Scand 113:340-9
38 Crowford M. Suicide following discharge from in-patient psychiatric care.
39 Medicare Payment Advisory Commission. Report to the Congress: promoting greater efficiency in Medicare. Washington, DC: Medicare Payment Advisory Commission; 2007. p. 107.
40 Substance Abuse and Mental Health Services Administration. Results from the 2008 national survey 155 on drug use and health: national finding (Office of Applied Studies, NSDUH Series H-36, HHS Publication No. SMA 09-4434). Rockville, MD: Substance Abuse and Mental Health Services Administration; 2009. 304 p.
41 Hospital Report Research Collaborative; University of Toronto. Hospital report. 2007. Mental health. Toronto, ON: Ontario Hospital Association and Government of Ontario; 2007. Available from:

https://www.oha.com/KnowledgeCentre/Library/HospitalReports/Documents/Hospital%20Reports%202007/Mental%20Health.pdf.
42 Colorectal cancer screening: Recommendation statement from the Canadian Task Force on Preventive Health Care. CMAJ. 2001;165(2):206-208. http://www.cmaj.ca/content/165/2/206.full.
43 Canadian Partnership Against Cancer. Colorectal Cancer Screening. 2010. http://www.cancerview.ca/idc/groups/public/documents/ webcontent/rl_cancer_1crcscreen.pdf.
44 Cancer Care Ontario. Cervical cancer screening. Toronto, ON: Cancer Care Ontario; 2015. Accessed at https://www.cancercare.on.ca/pcs/screening/cervscreening/.
45 Cancer Care Ontario. Ontario cervical screening cytology guidelines summary. Toronto, ON: Cancer Care Ontario; 2012. Accessed at: https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=13104
46 Public Health Agency of Canada; Canadian Institute for Health Information. Obesity in Canada. Ottawa, ON: Her Majesty the Queen in Right of Canada, 2011. Accessed from: http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/oic-oac/assets/pdf/oic-oac-eng.pdf.
47 Katzmarzyk PT. The economic costs associated with physical inactivity and obesity in Ontario. Health Fitness J Can. 2011:4(4).
48 Health Canada. Canadian guidelines for body weight classification in adults Ottawa, ON: Health Canada; 2003.
49 Shields M, Connor Gorber S, Tremblay MS. Estimates of obesity based on self-report versus direct measures. Health Reps 2008;19(2): 61-76.
50 Lau DCW, Douketis JD, Morrison KM, et al. Obesity Canada Clinical Practice Guidelines Expert Panel. 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children. Can Med Assoc J. 2006;176(8 Suppl):1-117. Available from: www.cmaj.ca/cgi/content/full/176/8/S1/DC1.
51 Canadian Cancer Society. Tobacco. Toronto, ON: Canadian Cancer Society; 2015. Available from: http://www.cancer.ca/en/cancer-information/cancer-101/what-is-a-risk-factor/tobacco/?region=on.
52 Danaei G, Vander Hoorn S, Lopez AD, Murray CJL, Ezzati M. Causes of cancer in the world: comparative risk assessment of nine behavioural and environmental risk factors. Lancet 2005;366:1784-93.
53 Reid J, Hammond D, Burkhalter R. Tobacco use in Canada: patterns and trends, 2012 Edition. Waterloo, ON: Propel Centre for Population Health Impact, University of Waterloo; 2012. http://www.tobaccoreport.ca/2012/TobaccoUseinCanada_2012.pdf.
54 Ministry of Health Promotion. Costs of tobacco use and tax revenues fact sheet. Toronto, ON: Government of Ontario; May 2006. Available from: http://www.mhp.gov.on.ca/en/smoke-free/factsheets/Tobacco_Revenue-120208.pdf
55 Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment (CAN-ADAPTT). Canadian Smoking Cessation Clinical Practice Guideline. Toronto, ON: Available from: http://www.strokebestpractices.ca/wp-content/uploads/2012/04/CAN-ADAPTT2.pdf.
56 Public Health Agency of Canada. Canadian immunization guide. Ottawa, ON: Public Health Agency of Canada; 2015. Available from: http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-pneu-eng.php.
57 Dugdale DC, Epstein R, Pantilat SZ. Time and the patient–physician relationship. J Gen Intern Med. 1999;14(Suppl 1):S34–S40. doi:10.1046/j.1525-1497.1999.00263.x.