The Common Quality Agenda 2015 Measuring Up Technical Appendix

> ) Ontario

> > Health Quality Ontario Qualité des services de santé Ontario

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# 1. Introduction

Each year, Health Quality Ontario (HQO) produces a report on the health of Ontarians and on how Ontario's health system is performing. This technical appendix accompanies this year's report: *Measuring Up*, 2015.

The technical appendix provides detailed specifications for each of the indicators presented in the report. It also includes general information on the indicator selection process, the analytical methods, the data sources and the external review process.

### Indicator selection

The indicators included in *Measuring Up* are drawn from the Common Quality Agenda, a set of key performance indicators selected in collaboration with health system partners. The Common Quality Agenda indicator set reflect the key priorities of patients and health care providers.

The Common Quality Agenda indicators are used to track long-term progress in meeting Ontario's health goals, and help make the health system more transparent and accountable. The indicators are also used to promote an integrated, patient-focused system.

The Common Quality Agenda has been evolving since its inception and changes are made annually based on data availability, data quality and indicator relevance. It currently includes 44 indicators. The set is expected to continue to evolve in line with HQO's public reporting and as HQO works with partners on the Common Quality Agenda.

Each chapter of *Measuring Up* (and the accompanying technical specifications represents a sector of the health system that aligns with the Common Quality Agenda indicators (Figure 1.1): Health of Ontarians, System Integration, Primary Care, Mental Health, Home Care, Hospital Care, Long-Term Care, Health Workforce and Health Spending.

### Common Quality Agenda

#### Health of Ontarians\*

Smoking	
3	

Physical inactivity

Obesity

Inadequate fruit and vegetable intake

Life expectancy at birth

Infant mortality

Self-reported health status

Potentially avoidable deaths

### System Integration

Doctor visit within seven days of hospital discharge

30-day readmission rates for medical and surgical patients

Hospitalizations for ambulatory care sensitive conditions

Percentage of acute care hospital days spent as alternate level of care

Primary Care	
Having a primary care provider	
Timely access to primary care	
Accessing after-hours primary care	
Patients' involvement in decisions regarding their care	
Colorectal cancer screening	
Diabetes eye exams	
Mental Health Hospital admissions for a mental illness or an addiction	
Doctor visit within seven days of hospital discharge for mental illness or an addiction	
Readmission rates for a mental illness or an addiction	
Use of physical restraints in acute mental	

health care

Suicide rates

### Home Care Patient experience

Waiting for some home care services

Placement in long-term care homes

Informal caregiver distress

### Hospital Care

Patient experience

Emergency department's length of stay

Hip or knee replacements completed within arget wait time (Wait times for procedures)

Cardiac procedures completed within target time frame (Wait times for procedures)

Cancer surgery wait times (Wait times for procedures)

Clostridium difficile infections acquired in hospital

Caesarean section deliveries

## Long-Term Care

Waiting for a bed in a long-term care home

Use of daily physical restraints in long-term care homes

Falls in long-term care homes

New or worsening pressure ulcers

## Health Workforce

Nurses

Family doctors and specialists

Lost time injury rates

### **Health Spending**

Total health expenditure per capita

Health expenditure per capita on drugs

Prescription or dose of medicine skipped due to cost

\*Immunization on indicators are not presented in this year's edition of Measuring Up, due to changes in the data collection on system, but will be included in future editions.

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## Analysis

#### Data over time

For each indicator, we report the data for the most recent year (fiscal year, calendar year) in which the data are complete and scientifically sound (reliable and valid). Where possible, we present data over time that is comparable and of similar validity and reliability. We report the longest duration available up to a maximum of 10 years. In some cases, where provincial targets exist, we also note these, along with the most recent performance of the corresponding indicator.

### Comparisons within Ontario

In addition to examining changes in performance for the province as a whole, for some indicators we also report the data at the regional level. There are 14 Local Health Integration Networks (LHINs) in Ontario, based on geographical regions (Figure 1.2). For regional comparisons in Ontario, we typically report the data for each LHIN region along with the Ontario data for context. To determine if regional variation is significant, we compared confidence intervals of the LHINs with the lowest and highest values and if these did not overlap, there was said to be regional variation.





It should be noted that for some indicators, regions of comparison are shown by way of Community Care Access Centres (CCACs). There are 14 CCACs in Ontario that follow the same boundaries as the LHIN regions.

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#### How Ontario performs compared to others

To provide context on how Ontario's health system performs, we also provide comparisons with other provinces in Canada, as well as other countries, where possible. We do not include data for Canadian territories as their geographic locations and population sizes are different from Ontario, and they may not be appropriate comparators.

Where data are available to allow for international comparisons, we typically compare Ontario's performance to the 10 other countries that participate in the Commonwealth Fund's widely cited international survey. In addition to Canada, the countries included in the survey are: Australia, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom and the United States. These countries have many economic and demographic similarities to Canada and therefore are generally considered to be appropriate comparators.

When pan-Canadian or international comparisons are available, the estimate of Ontario's performance on an indicator within the same period (e.g., fiscal year) may vary slightly between the pan-Canadian or international comparison and the regional comparison within Ontario. This may be due to differences in the data sources (e.g., one survey for an international comparison and a different one for a regional comparison within Ontario) or due to differences in the methods used to calculate the indicator (e.g. Statistics Canada uses Canada's population as the standard while the Ontario population is used as the standard for the same indicator when reported provincially, so the data values may differ).

### Adjustments (for age, sex and risk)

Where appropriate, indicators are age-adjusted or age- and sex-adjusted to the 1991 Canadian Census population, which is a commonly used standard population. In some cases, indicators are risk-adjusted for several factors that are thought to affect the indicator result. Adjustments are done primarily for the purposes of comparison across geographic regions and over time. For details on which indicators were adjusted and the methodology used, please see the individual indicator specifications.

## Data providers and Data Sources

HQO does not collect personal health information but rather partners with others to analyze and report performance on quality indicators. The indicator results presented in *Measuring Up* were provided to HQO by a variety of data providers, including:

- The Better Outcomes Registry & Network (BORN)
- The Canadian Institute for Health Information (CIHI)
- The Cardiac Care Network of Ontario (CCN)
- Cancer Care Ontario (CCO)
- The College of Nurses of Ontario (CNO)
- The Institute for Clinical Evaluative Sciences (ICES)
- The Ministry of Health and Long-Term Care (MOHLTC)
- The Ontario Association of Community Care Access Centres (OACCAC)
- The Ontario Hospital Association (OHA)
- The Ontario Physician Human Resources Data Centre (OPHRDC)
- Statistics Canada

• The Workplace Safety and Insurance Board (WSIB)

The data source(s) for each indicator are listed within the individual indicator specifications. More details on the specific data sources that HQO used to produce the indicators are noted below.

#### Better Outcomes Registry & Network (BORN)

BORN is Ontario's pregnancy, birth and early childhood registry and network. Established in 2009 to collect and share data about each child born in the province, BORN Ontario manages an advanced database (BORN Information System) that provides reliable, secure and comprehensive information on maternal and child care. The BORN Information System (BIS) enables the collection of, and access to, data on every birth and young child in Ontario. The BIS is a province-wide, web-based system in which data on mothers and babies are directly entered either by care providers or data entry clerks, or extracted and uploaded by a hospital's electronic patient record. As of November 2009, all hospitals in the province with a maternal/newborn program were contributing birth data.

### Canadian Community Health Survey (CCHS) - Statistics Canada

The CCHS is a nationally representative, cross-sectional survey of the Canadian community-dwelling population conducted by Statistics Canada. It collects information related to health status, health care utilization and health determinants of the Canadian population. It covers the population 12 years of age and older. Residents living on Indian Reserves and Crown Lands, institutional residents, full-time members of the Canadian Armed Forces, and residents of certain remote regions are excluded from the survey. The Ontario share files for the CCHS survey are used for all analyses and were prepared by the Institute for Clinical Evaluative Sciences. The CCHS is offered in English and French. To remove language as a barrier in conducting interviews, each of the Statistics Canada Regional Offices recruits interviewers with a wide range of language competencies. In addition, the survey questions are translated into Chinese, Punjabi and Inuktitut. As of 2007, data are now collected on an ongoing basis with annual releases rather than every two years, as was the case prior to 2007.

#### Cardiac Care Network of Ontario (CCN) cardiac registry

The CCN oversees the planning and provision of cardiac services in Ontario, which includes monitoring and measuring wait times for cardiovascular procedures in all regions of Ontario, including the priority cardiac services included in Ontario's Wait Times Strategy, which are presented in this report. CCN maintains a centralized provincial registry of all patients waiting for cardiac surgery, and includes (and reports on) all hospitals that conduct coronary artery bypass graft surgery (CABG) and percutaneous coronary intervention (PCI) in Ontario. The CCN calculates an individualized urgency score for all patients awaiting procedures, which determines their urgency level and their individualized wait time. In addition, provincial standard targets have been set based on urgency levels for each procedure.

#### Census – Ministry of Finance's population estimates

For some indicators, the Ministry of Finance provides population estimates for the province and for each LHIN region. The Ministry of Finance methodology for allocating populations to LHIN regions differs from that used by Statistics Canada. The Ministry of Finance uses the most recent Statistics Canada population estimates by census subdivision as the base for the LHIN region population projections. The method of allocation to LHIN regions varies depending on the geographic makeup of the LHINs. Population projections are based on a Statistics Canada base year (2013) population estimate, and

then adjusted for births, deaths and migration, and are calculated for each of the 49 census divisions. These census divisions are then summed to provide regional and provincial population estimates.

### Client and Caregiver Experience Evaluation (CCEE) Survey – National Research Corporation Canada (NRCC)

The CCEE survey interviews Community Care Access Centre (CCAC) home care patients (active inhome, discharged in-home, and placement home care patients) and their caregivers. The purpose is to provide the home care sector with statistically meaningful information and comparable data about patients' experience when receiving services and to support the home care sector in identifying levers and opportunities for quality improvement. The NRCC developed the CCEE survey tool in collaboration with researchers, CCACs and service provider organization members. In Ontario, the survey is conducted in four waves per year in all 14 CCACs by Computer Assisted Telephone methodology. The tool is currently being used in home care environments across Canada.

## Client Profile Database (CPRO) – Ministry of Health and Long-Term Care (MOHLTC)

The CPRO contains long-term care (LTC) home application information at the patient level. The database includes three broad types of information: patient characteristics and location at application, long-term care home choices, and milestone (date) events throughout the LTC placement process. CPRO receives patient-level data from each Community Care Access Centre on a monthly basis to support bed utilization monitoring, performance management and LTC accountability planning. Data from CPRO are housed by the Ministry of Health and Long-Term Care.

### Commonwealth Fund's (CMWF) International Health Policy (IHP) Survey

As part of its mandate, the CMWF has been conducting the IHP Survey in 11 countries for more than a decade. In a triennial cycle, the IHP survey targets different populations, including physicians, older adults, and the general adult population.

The 2013 Commonwealth Fund International Health Policy Survey of the General Public reflects the perceptions of a random sample of the general public (aged 18 and older) in 11 countries: Australia, Canada, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom and United States. In *Measuring Up* 2015 we compare Ontario data to the 2013 CMWF IHP Survey results where possible. Participants were interviewed by telephone (land line or cellphone) between March and June 2013. In Canada, 5,412 respondents were surveyed; the Ontario population was oversampled to be able to calculate provincial estimates from the survey. HQO partners with the Commonwealth Fund to support the survey and support oversampling of the Ontario population so that the survey results can be used to reliably compare Ontario with other provinces and countries.

The 2013 survey of the general public was designed to explore and collect health-related data for the following main topics:

- Overall views of the health care system
- Patient's access to primary and preventive care, such as availability of same-day appointment
- Patient's relationship with regular doctor/GP, including experience with coordination of health care
- Patient's use of and experience with specialists
- Patient's experience with care in the hospital and emergency room

### Community Care Access Centre (CCAC) Client Management System

The CCAC Client Management System supports CCAC staff in the management of patients, referrals and services for residents of Ontario requiring information about health and community services, services at home or school, referrals to community services and/or access to long term care or post-acute hospital units. The system also supports the sharing of health information with service providers, vendors and external health partners.

# Continuing Care Reporting System (CCRS) – Canadian Institute for Health Information (CIHI)

CIHI developed the CCRS to enhance the collection of standardized facility-based long-term care and complex continuing care information for national comparative reporting. The CCRS contains demographic, administrative, clinical and resource utilization information on individuals receiving continuing care services in hospitals or in long-term care homes in Canada. Participating organizations also provide information on facility characteristics to support comparative reporting. The clinical data are collected using an internationally accepted standard, the Resident Assessment Instrument Minimum Data Set Version 2.0 (RAI-MDS 2.0). Each resident in a long-term care home is assessed at admission and every three months or whenever they experience a significant change in health status. The RAI-MDS 2.0 assessment includes patient-level measures of function, mental and physical health, social support and service use. It was modified by CIHI with permission for Canadian use. All long-term care homes in Ontario have submitted data to CIHI on a quarterly basis since 2009.

### Discharge Abstract Database (DAD) - Canadian Institute for Health Information (CIHI)

The DAD is a database of information abstracted from hospital records that captures administrative, clinical and patient demographic information on all hospital inpatient separations, including discharges, deaths, sign-outs and transfers. CIHI receives Ontario data directly from participating facilities or from their respective regional health authorities or the Ministry of Health and Long-Term Care. The DAD includes patient-level data for all acute- and chronic-care hospitals, and rehabilitation hospitals in Ontario. Data are collected, maintained and validated by CIHI. The main data elements of the DAD are patient identifier (e.g. name, health care number), administrative information, clinical information (e.g. diagnoses and procedures) and patient demographics (e.g. age, sex, geographic location).

# Health Care Experience Survey (HCES) – Ministry of Health and Long-Term Care (MOHLTC)

The HCES is a voluntary telephone survey aimed at Ontarians aged 16 and older and is conducted on a quarterly basis. The HCES asks randomly selected Ontarians for their views about their health care system, how healthy they are, if they have chronic conditions, if they have a primary care provider (family doctor, nurse practitioner or other health care provider), how long it takes to see their provider, their experience using the health care system, if they have been to an emergency room or a walk-in clinic, and their household and demographic characteristics.

People living in institutions, in households without telephones, and those with invalid/missing household addresses in the Registered Persons Database (RPDB) are excluded. The Ministry of Health and Long-Term Care uses the information from the survey to understand the experience of Ontarians with respect to primary care.

## Home Care Database (HCD) – Ministry of Health and Long-Term Care (MOHLTC)

The HCD is a clinical, patient-centred database that captures all home care services provided or coordinated by Ontario's Community Care Access Centres (CCACs), including government-funded

home and community services. The HCD is managed by the Ontario Association of Community Care Access Centres (OACCAC). It includes patient, intake, assessment, and admission/discharge information. This information is used to determine the eligibility of patients and the intensity of care coordination, care planning, and services that align with their care needs. Clinical data are collected using standardized interRAI tools, including the Resident Assessment Instrument for Home Care (RAI-HC).

### Home Care Reporting System (HCRS) – Canadian Institute for Health Information (CIHI)

The HCRS was created by CIHI to capture data from organizations responsible for providing publicly funded home care services in Canada. The HCRS contains demographic, clinical, functional and resource utilization information on all individuals who have been accepted into home care programs collected at multiple points throughout their home care services, as well as on individuals who receive an assessment for determining eligibility for placement into long-term care. The information within HCRS is collected using the Resident Assessment Instrument for Home Care (RAI-HC), which is a standardized, validated and multi-dimensional assessment tools for determining patient needs, measuring changes in clinical status and patient outcomes, and describing relative costs of services and supports that the patient will likely use. The HCRS also contains information on home care organization characteristics to support comparative reporting. Data from all 14 of Ontario's Community Care Access Centres (CCACs) have been submitted quarterly to CIHI since 2008.

#### Laboratory Reporting Tool (LRT) - Cancer Care Ontario (CCO)

The LRT includes data on the Colon Cancer Check (CCC) program, fecal occult blood testing (FOBT) kit distribution, dispensing, and results from eight CCC-participating laboratories, including a unique physician identifier (the CPSO number) of the ordering physician. Data are available on CCC FOBT kits processed from April 2008 onwards.

# National Ambulatory Care Reporting System (NACRS) – Canadian Institute for Health Information (CIHI)

NACRS contains data for all hospital-based and community-based emergency and ambulatory care, including day surgeries, outpatient clinics and emergency departments. Data are collected, maintained and validated by CIHI. CIHI receives Ontario data directly from participating facilities or from their respective regional health authorities or the Ministry of Health and Long-Term Care. Data are collected, maintained and validated by CIHI. Data elements of the NACRS include patient identifier (e.g. name, health care number), patient demographics (e.g. age, sex, geographic location), clinical information (e.g. diagnoses and procedures), and administrative information.

# National Health Expenditure Database (NHEX) – Canadian Institute for Health Information (CIHI)

The NHEX collects, processes, and analyzes summary data on all health spending in Canada from 1975 onwards with health expenditures for the most recent two years being forecasted. Data are extracted manually from various publicly available documents, such as Statistics Canada documents, national and provincial public accounts, and private insurance companies. The NHEX has data on health spending in Canada by spending category (i.e. public and private sectors) and source of funding (e.g. out of pocket, private health insurance, provincial government sector, etc.). National health expenditures in Canada are based on a system of classification consistent with international standards developed by the Organisation for Economic Co-operation and Development (OECD).

# National Research Corporation Canada (NRCC) Patient Experience Survey - Ontario Hospital Association (OHA)

NRCC Patient Experience Surveys have been implemented in many Ontario hospitals since 2002. Surveys are provided for the following sectors:

- Inpatient, including acute adult, maternity and obstetrics, and pediatrics, and neonatal intensive care
- Emergency Department
- Urgent Care Centre
- Rehabilitation
- Ambulatory Clinics
- Ambulatory Oncology
- Day Surgery
- Long Stay Resident Experience (LSRE) (Formally Complex Continuing Care and Long Term Care)
- Mental Health (long stay, short stay, out-patient)

The Ontario Hospital Association (OHA) works closely with NRCC to report and improve patient and family experience with their hospital care.

# Ontario Diabetes Database (ODD) – Institute for Clinical Evaluative Sciences (ICES) derived cohort

The ODD employs a validated algorithm to identify people with diabetes using data on hospitalizations and physician visits. Hospital discharge abstracts, collected by the Canadian Institute for Health Information (CIHI) from April 1988 onwards were used to identify Ontarians with a valid health card number who had been hospitalized with a new or pre-existing diagnosis of diabetes. Physician claim records held by the Ontario Health Insurance Plan (OHIP) from July 1991 onwards were also used to identify individuals with visits to a physician for diabetes. When there was a hospital record with a diagnosis of pregnancy care or delivery close to a diabetic record (i.e., diabetic record date between 120 days before and 180 days after a gestational admission date), the diabetic record was considered to be for gestational diabetes and was excluded. Individuals were considered to have diabetes if they had at least one hospitalization or two physician service claims over a two-year period. People enter the ODD as incident cases when they are defined as having diabetes (i.e., the first of DAD admission date or OHIP service date over the two-year period as incident date). An analysis reported that the current algorithm had a sensitivity of 86% and a specificity of 97% for identifying diabetes in the population. The positive predictive value of the algorithm was 80%.<sup>1</sup>

# Ontario Health Insurance Plan (OHIP) – Ministry of Health and Long-Term Care (MOHLTC)

The OHIP claims database covers all reimbursement claims to the MOHLTC made by fee-for-service physicians, community-based laboratories and radiology facilities. The OHIP database at ICES contains encrypted patient and physician identifiers, codes for services provided, date of service, the associated diagnosis and fee paid. Services which are missing from the OHIP data include: some lab services; services received in provincial psychiatric hospitals; services provided by health service organizations and other alternate providers; diagnostic procedures performed on an inpatient basis and lab services performed at hospitals (both inpatient and same day). Also excluded is remuneration to physicians

<sup>&</sup>lt;sup>1</sup> Hux JE, Ivis F, Flintoft V, Bica A. Diabetes in Ontario: determination of prevalence and incidence using a validated administrative data algorithm. Diabetes Care 2002;25(3):512-516.

through alternate funding plans (AFPs), which could distort analyses because of their concentration in certain specialties or geographic areas.

# Ontario Mental Health Reporting System (OMHRS) – Canadian Institute for Health Information (CIHI)

The OMHRS, housed at CIHI, collects information about individuals admitted to designated adult mental health beds in Ontario. OMHRS includes information on admissions and discharges as well as clinical information. Clinical data are sourced from the Resident Assessment Instrument for Mental Health (RAI-MH), a standardized assessment instrument for inpatient mental health care. It includes information about mental and physical health, social support and service use. Data are collected on clients from participating hospitals in Ontario at admission, discharge and every three months for patients with extended stays. Data are available from October 1, 2005 onward.

# Ontario Physician Human Resources Data Centre (OPHRDC) and College of Nurses of Ontario (CNO)

The Active Physician Registry held by the OPHRDC includes information on physicians and postgraduate medical trainees in Ontario. OPHRDC maintain a registry of all licensed physicians practicing in Ontario, the Active Physician Registry. From this registry, the centre produces numerous reports and analyses, including an annual report, Physicians in Ontario (PIO), and special reports based on the annual PIO dataset.

The CNO is the governing body for nurse practitioners (NPs), registered nurses (RNs) and registered practical nurses (RPNs) in Ontario. Members of the CNO are required to renew their membership every year for nurses in the General, Extended, and Non-Practising Classes. The CNO releases a report annually on the College's membership and statistics on nursing employment and overall gain and loss rates.

# Registered Persons Data Base (RPDB) – Ministry of Health and Long-Term Care (MOHLTC)

The RPDB provides basic demographic information about anyone who has ever received an Ontario health card number. The RPDB is a historical listing of the unique health numbers issued to each person eligible for Ontario health services. This listing includes corresponding demographic information such as date of birth, sex, address, date of death (where applicable) and changes in eligibility status. Data from the RPDB are enhanced with available information through other administrative data sources at the Institute for Clinical Evaluative Sciences (ICES); however, even the enhanced dataset overestimates the number of people living in Ontario for several reasons, including the source of death information and record linkage issues. Although improvements have been made in recent years, the RPDB still contains a substantial number of individuals who are deceased or no longer living in Ontario. As such, the RPDB will underestimate mortality. To ensure that rates and estimates are correct, a methodology has been developed to adjust the RPDB so that regional population counts by age and sex match estimates from Statistics Canada.

### Self-Reporting Initiative (SRI) – Ministry of Health and Long-Term Care (MOHLTC)

SRI is the self-reporting solution for information collection and sharing among health service providers, Local Health Integration Networks (LHINs) and the MOHLTC. Ontario hospitals submit patient safety

data to the MOHLTC through SRI on a regular basis, and the data are publicly reported on Health Quality Ontario's Public Reporting Patient Safety web pages.

### Wait Time Information System (WTIS) - Cancer Care Ontario (CCO)

The Ontario WTIS is maintained by CCO on behalf of the Ministry of Health and Long-Term Care. The web-based system collects data on wait times including surgical and diagnostic imaging and ED wait times and alternate level of care days. The ALC days includes both acute care and post-acute care ALC patients. Robust wait time data will help the Ministry of Health and Long-Term Care, Local Health Integration Networks (LHINs) and facilities to identify issues surrounding access to care and inform performance improvement strategies.

### Workplace Safety and Insurance Board (WSIB) Statistical Report

Information on the frequency of work-related injury and disability in five sectors in the Ontario health care system was produced by the WSIB using a standardized data resource termed the Enterprise Information Warehouse. The results were produced in consultation with the Institute for Work and Health and WSIB and calculated by HQO from information in the *By the Numbers: WSIB Statistical Report* for the following rate groups: long-term care homes, hospitals, nursing services (home care and other settings), treatment clinics and specialized services, and professional offices and agencies. *By the Numbers: WSIB Statistical Report* is released to the public every year and provides information on the wider prevention system and individual workplaces. It provides a valuable resource for workers and employers as they continue the important work of making their workplaces safer and healthier. The WSIB administers compensation and no-fault insurance for Ontario workplaces.

## External review

We obtained external peer reviews of each chapter in *Measuring Up*. Subject matter experts, stakeholders and data providers were sent preliminary drafts of the chapters, which included indicator results and our interpretations of the results. We asked reviewers to comment on the accuracy of the data and our interpretations of the results. We revised chapters accordingly. A list of external reviewers is located in the Acknowledgements section of the main report.

# 2. Health of Ontarians Indicators

SMOKING	
Description	This indicator reports the percentage of the population aged 12 and older who report smoking cigarettes (daily or occasionally).
	A lower percentage is better.
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. <sup>1</sup> 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 others cancers. <sup>2</sup> Approximately 37,000 Canadians die each year as a result of tobacco use. <sup>1</sup>
	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. <sup>3</sup> Approximately half of those smokers are expected to become ill or die from continued tobacco use. <sup>3</sup>
	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. <sup>4</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools	Statistics Canada CANSIM tables and Health Fact Sheets
CATCHING TO THE	Other indicators in the same family:
	Cancer Care Ontario Cancer System Quality Index (CSQI):
	Daily/occasional smoking for those aged 20+
	<ul> <li>Ontario Tobacco Research Unit (OTRU): Use of tobacco (cigarettes, cigars, pipes) in past 30 days for those aged 12+; and those aged 12+ who have smoked cigarettes in the past 30 days and had smoked at least 100 cigarettes in their lifetime</li> </ul>
Unit of analysis	Percentage
Calculation	Numerator The number of respondents who were reported current daily or occasional smoking of cigarettes.
	<ul> <li>Inclusions:</li> <li>if SMKDSTY = 1, 2, 3</li> </ul>
	Based on the Canadian Community Health Survey (CCHS) variable SMKDSTY which indicates the type of smoker the respondent is, based on their smoking habits: <b>1 = Daily</b>
	<ul> <li>2 = Occasional smoker (former daily smoker)</li> <li>3 = Occasional smoker (never a daily smoker or has smoked less than 100 cigarettes in lifetime)</li> </ul>
	<ul> <li>4 = Former daily smoker (non-smoker now)</li> <li>5 = Former occasional smoker (at least 1 whole cigarette, non-smoker now)</li> <li>6 = Never smoked (a whole cigarette)</li> </ul>

	99 = At least one required question was not answered (don't know, refusal,
	not stated)
	Exclusions:
	• if SMKDSTY = 4, 5, 6
	Denominator
	All CCHS respondents aged 12 or above.
	Evolusions:
	<b>Exclusions.</b> And $< 12$ at the time of interview
	<ul> <li>Invalid indication/Missing values</li> </ul>
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age) using 1991 Canadian Census population aged 12+.
	Age groups are 12-17, 18–29, 30–39, 40–49, 50–59, 60–69, 70+)
	Compling weights are used for coloulating all estimates
Levels of	Data are compared over time, by I HIN region, neighbourbood income
comparability	quintile, education level, age groups, area of residence and sex
Data source	Canadian Community Health Survey (CCHS) provided by the Institute for
	Clinical Evaluative Sciences
Limitations / Caveats	As this indicator relies on self-reported data, the true rate might in fact be
	nigner or lower.
	In addition, this survey excludes individuals living on Indian Reserves and on
	Crown Lands, institutional residents, full-time members of the Canadian
	Forces, and residents of certain remote regions, which will affect the
	representativeness of the sample and underestimation of the true rates.
	Altogether, these exclusions represent <3% of the target population.
	Call phones were not allowed for interviewing in the CCHS up to and
	including 2014. If an interviewer discovers that the phone the respondent is
	on is cellular, they ask if there is another number to call back on. This is also
	the case if they discover that the respondent answered on a cell that was
	forwarded to by a landline. The interviewer would not be able to enter the
	case once they determined the phone was a cell. As of 2015 cell phones are
	allowed. This will help increase number of respondents and avoid biasing
	against the increasing trend for households to only have cell phones.

PHYSICAL INACTIVITY	
Description	This indicator reports the percentage of the population aged 12 and older who report being physically inactive. Inactivity was measured via the PACDPAI variable in the CCHS.
	A lower percentage is better.
Relevance/Rationale	A significant number of Ontarians report being physically inactive, expending less than 1.5 kcal/kg/day. <sup>5</sup> This is problematic as a lack of physical activity is an important cause of preventable death worldwide. <sup>6</sup> In addition, regular physical activity reduces the risk of several chronic conditions, including hypertension, coronary heart disease, stroke, diabetes, breast and colon

	cancer, and depression. <sup>7</sup> Furthermore, the financial burden of physical
	inactivity is also great; one study has estimated that inactivity costs Ontario
	roughly \$3.4 billion a year in direct and indirect costs.8
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools	Statistics Canada CANSIM tables and Health Fact Sheets
external to HOO	
	Other indicators in the same family:
	Cancer Care Ontario Cancer System Quality Index (CSOI):
	Moderately active or active adults (ared 18+)
Unit of analysis	Percentage
Calculation	Numerator
Guiodiation	Total number of respondents categorized as "inactive"
	Inclusions:
	Physical inactivity is measured via the PACDPAL variable in the CCHS, which
	estegerizes respondents as "active" "moderately active" or "inactive" in their
	leisure time based on total daily Energy Expanditure values calculated
	according to responses about the nature frequency, and duration of
	activity to responses about the nature, nequency, and duration of
	2 Moderately active
	2 Inactive
	5 Induive
	Denominator
	Total number of respondents aged 12 or older.
	Exclusions:
	<ul> <li>Age &lt; 12 at the time of interview</li> </ul>
	Invalid indication/Missing values
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age) using 1991 Canadian Census population aged 12+.
	Age groups are 12-17.18-29, 30-39, 40-49, 50-59, 60-69, 70+
	<b>3 3 1 1 1 1 1 1 1 1 1 1</b>
	Sampling weights are used for calculating all estimates.
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Canadian Community Health Survey (CCHS) provided by the Institute for
	Clinical Evaluative Sciences
Limitations / Caveats	CCHS does not collect information regarding the intensity level of activities.
	As such, the energy expenditure calculated is based on low-intensity value of
	metabolic equivalent value, an approach adopted from the Canadian Fitness
	and Lifestyle Research Institute because individuals tend to overestimate the
	intensity, frequency and duration of their activities.9
	As this indicator relies on self-reported data, the true rate might in fact be
	higher or lower.
	In addition, this survey excludes individuals living on Indian Reserves and on
	Crown Lands, institutional residents, full-time members of the Canadian
	Forces, and residents of certain remote regions, which will affect the

representativeness of the sample and underestimation of the true rates.
Altogether, these exclusions represent <3% of the target population.
Cell phones were not allowed for interviewing in the CCHS up to and
including 2014. If an interviewer discovers that the phone the respondent is
on is cellular, they ask if there is another number to call back on. This is also
the case if they discover that the respondent answered on a cell that was
forwarded to by a landline. The interviewer would not be able to enter the
case once they determined the phone was a cell. As of 2015 cell phones are
allowed. This will help increase number of respondents and avoid biasing
against the increasing trend for households to only have cell phones.

OBESITY	
Description	This indicator reports the percentage of the overall population who report being obese. Obesity is measured using body mass index (BMI), based on self-reported height and weight. For adults 18 years and older, BMI > 30 is considered obese. A lower percentage is better.
Relevance/Rationale	Obesity has reached epidemic proportions in Canada and Ontario. Between 1981 and 2007/09, obesity roughly doubled in most age groups in the adult and youth categories. Given these trends, obesity poses a significant burden to the healthcare 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. <sup>10</sup> The financial burdens of obesity are also great. According to a study, in 2009, the cost of obesity to Ontario was 4.5 billion dollars resulting from both direct and indirect costs. <sup>8</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Statistics Canada CANSIM tables and Health Fact Sheets (these tools report the inverse-adequate intake) Cancer Care Ontario (CCO) Cancer System Quality Index (CSQI)
Unit of analysis	Percentage
Calculation	Numerator Number of respondents with a BMI > 30. BMI is defined as weight in kilograms divided by height in meters squared.
	Obese if: Yes if HWTDISW = 4, 5, or 6 No if HWTDISW = 1, 2, or 3 Missing otherwise
	CCHS, 2013 variable HWTDISW Codes for HWTDISW (BMI class): 1 = Underweight: BMI < 18.50 = underweight

	2 = Normal weight: 18.50 <= BMI < 25 = normal
	3 = Overweight: 25<= BMI < 30 = overweight
	4 = Obese - class 1: 30 <= BMI < 35 = obese (class I)
	5 = Obese – class 2: 35 <= BMI < 40 = obese (class II)
	6 = Obese – class 3: 40 <= BMI = obese (class III)
	96 = Not applicable
	90 - Not stated
	33 – Not Stated
	The DMI actorecian are adapted from a hadrowickt descification contains
	The bin categories are adopted from a body weight classification system
	recommended by Health Canada and the World Health Organization (WHO)
	which has been widely used internationally. This variable excludes female
	respondents aged 18 to 49 who were pregnant or did not answer the
	pregnancy question (i.e.MAM_037 = don't know, refusal, not stated).
	Denominator
	Total number of respondents aged 18 or older.
	Exclusions:
	<ul> <li>Age &lt; 18 at the time of interview</li> </ul>
	Invalid indication/Missing values
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age) using 1991 Canadian Census population aged 12+.
	Age groups are 18–29, 30–39, 40–49, 50–59, 60–69, 70+
	Sampling weights are used for calculating all estimates.
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Canadian Community Health Survey (CCHS) provided by the Institute for
	Clinical Evaluative Sciences
Limitations / Caveats	This indicator has limitations with both, its use of the BMI to assess obesity,
	as well with how the data are collected. As this indicator relies on self-
	reported data (height and weight) the true rate might in fact be higher or
	lower
	Differential musculature or bone bass among individuals as well as across
	ethno cultural groups and sexes does not factor into how the BMI is
	calculated <sup>11</sup> Therefore, this indicator does not canture the true rate of
	obesity rather a close approximation of it
	The results shown here are based on beight and weight as reported by
	survey respondents. Comparisons of self-reported beight and weight with
	solvey respondents. Comparisons of sen-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 than the 18%, which is based on self-reports. <sup>12</sup>

INADEQUATE FRUIT	AND VEGETABLE INTAKE
Description	This indicator reports the percentage of the population aged 12 and older who report inadequate fruit and vegetable intake. Inadequate intake was measured via the FVCGTOT variable in the CCHS.
Relevance/Rationale	A significant proportion of Optarians report fruit and vegetable intake
Kelevance/Kationale	considered to be inadequate (less than 5 servings per day). Fruit and vegetables are an important part of a healthy diet as they are an excellent source of vitamins and minerals, are high in fibre and low in fat and calories. They are also a source of antioxidants, phytochemicals and other compounds that may protect against cancer and other diseases. <sup>13</sup> In particular, non-starchy vegetables and fruit may protect against cancers of the oral cavity and pharynx, larynx, esophagus and stomach, while fruit may protect against lung cancer. <sup>14</sup>
	In addition, inadequate fruit and vegetable intake has been associated with other health risk behaviours, including physical inactivity, obesity, and smoking. <sup>15</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Statistics Canada CANSIM tables and Health Fact Sheets (these tools report the inverse-adequate intake)
	<ul> <li>Other indicators in the same family:</li> <li>Cancer Care Ontario Cancer System Quality Index (CSQI): Adequate fruit and vegetable intake for adults (aged 18+)</li> </ul>
Unit of analysis	Percentage
Calculation	Numerator Total number of respondents categorized as "eats fruits and vegetables less than 5 times per day".
	<b>Inclusions:</b> If FVCGTOT equals 1, the individual was included in the numerator.
	Inadequate fruit and vegetable consumption is measured via the FVCGTOT variable in the CCHS, which based on the total number of times per day he/she eats fruits and vegetables categorizes respondents as 1- <b>"eats fruits and vegetables less than 5 times per day"</b> , 2- <b>"eats fruits and vegetables between 5 and 10 times per day"</b> 3- <b>"eats fruits and vegetables more than 10 times per day"</b> . 9 includes "don't know", "refusal", and "not stated". Note: The derived variable is based on questions asked in CCHS that included daily consumption (number of times) of: • Fruit juice • Other fruit • Green salad • Potatoes • Carrots • Other vegetables

	Denominator
	Total number of respondents aged 12 or older.
	Exclusions:
	<ul> <li>Age &lt; 12 at the time of interview</li> </ul>
	<ul> <li>Invalid indication/Missing values</li> </ul>
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age) using 1991 Canadian Census population aged 12+.
	Age groups are 12-17,18-29, 30-39, 40-49, 50-59, 60-69, 70+
	Sampling weights are used for calculating all estimates.
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Canadian Community Health Survey (CCHS) provided by the Institute for
	Clinical Evaluative Sciences
Limitations / Caveats	Questions related to fruit and vegetable intake are limited to the number of times (frequency) and not the amount consumed, thus not translating to number of servings per day.
	As this indicator relies on self-reported data, the true rate might in fact be higher or lower.
	In addition, this survey excludes individuals living on Indian Reserves and on Crown Lands, institutional residents, full-time members of the Canadian Forces, and residents of certain remote regions, which will affect the representativeness of the sample and underestimation of the true rates. Altogether, these exclusions represent <3% of the target population.
	Cell phones were not allowed for interviewing in the CCHS up to and including 2014. If an interviewer discovers that the phone the respondent is on is cellular, they ask if there is another number to call back on. This is also the case if they discover that the respondent answered on a cell that was forwarded to by a landline. The interviewer would not be able to enter the case once they determined the phone was a cell. As of 2015 cell phones are allowed. This will help increase number of respondents and avoid biasing against the increasing trend for households to only have cell phones.

	AT BIRTH
Description	Life expectancy is the number of years a person would be expected to live, starting at birth (for life expectancy at birth) if the age- and sex-specific mortality rates for a given observation period (such as a calendar year) were held constant over his/her life span.
Relevance/Rationale	Life expectancy at birth is used worldwide and it tells us about the general health of a population. The World Health Organization defines life expectancy as "the average number of years a person can expect to live, if in the future they experience the current age-specific mortality rates in the population.

	<ul> <li>Healthy life expectancy is a related statistic, which estimates the equivalent years in full health that a person can expect to live on the basis of the current mortality rates and prevalence distribution of health states in the population."</li> <li><u>Statistics Canada definition</u>: Life expectancy is the number of years a person would be expected to live, starting at birth (for life expectancy at birth) or at age 65 (for life expectancy at age 65) if the age- and sex-specific mortality rates for a given observation period (such as a calendar year) were held constant over his/her life span.</li> <li>Life expectancy at birth has been increasing for many decades. In Canada it has increased substantially going up from about 60 years in 1920 to more than 80 in 2009.</li> <li>In 2009, life expectancy at birth in Canada has ranked in the top 9 among the 34 countries in the Organisation for Economic Co-operation and</li> </ul>
HQQ reporting tool	Development (OECD). Vearly Report/Common Quality Agenda
Reporting tools external to HQO	Statistics Canada CANSIM tables Commonwealth Fund reports ( <b>country level</b> ) Canadian Institute for Health Information Your Health System Organization for Economic Co-operation and Development (OECD) Health Statistics ( <b>country level</b> )
Unit of analysis	Years
Calculation	Numerator
	Cumulative number of person-years lived, for a cohort of 100,000 persons
	Denominator
	Number of persons in an initial cohort of 100,000 live births
	Exclusions:
	Rates used by Statistics Canada to calculate life expectancy are calculated with data that excludes the following:
	<ul> <li>Births to mothers who are not residents of Canada</li> </ul>
	Births to mothers who are residents of Canada whose province or
	territory of residence was unknown
	Deaths of non-residents of Canada
	Deaths of residents of Canada whose province of territory of residence was unknown
	<ul> <li>Deaths for which age or sex of the decedent was unknown</li> </ul>
	Methods
	in the initial cohort.
	Age- and sex-specific mortality rates corresponding to the reference period are applied to a hypothetical cohort, typically of 100,000. Starting at birth, the probability of dying at each age or age interval is applied to the number of people surviving to that age or the beginning of the age interval respectively.
	Adjustment (risk, including age/sex standardization)
Levels of	None Data are compared over time and by LHIN region
comparability	

Data source	Statistics Canada. CANSIM Table 102-4307.
Limitations / Caveats	Life expectancy does not provide information about the quality of life. Other measures have been developed using a composite of morbidity and mortality data. For example, health-adjusted life expectancy (HALE) is the average number of years that an individual is expected to live in a healthy state. <sup>16</sup>

INFANT MORTALITY	,
Description	<ul> <li>Statistics Canada definition:</li> <li>Infants who die in the first year of life, expressed as a count and a rate per 1,000 live births.</li> <li>The Association of Public Health Epidemiologists in Ontario (APHEO) defines infant mortality rate as:</li> <li>The ratio of the number of deaths of live born infants, 0 – 364 days of age, during a calendar year per 1,000 live births in the same calendar year<sup>17</sup></li> <li>Subcategories of infant mortality also reported are:</li> </ul>
	<ul> <li>Neonatal mortality rate: 0 – 6 days of age</li> </ul>
	<ul> <li>Post-neonatal mortality rate: 7 – 27 days of age</li> </ul>
	A lower rate is better.
Relevance/Rationale	Reflects the effect of economic and social conditions on the health of mothers and newborns as well as the effectiveness of health systems". <sup>18</sup> "The indicator can help us understand the nature of the disparities between population subgroups and the factors that may be responsible" <sup>19</sup> This is not only a measure of child health, but also of the well-being of a society. This indicator reflects the level of mortality, health status, and health
	care of a population, and the effectiveness of preventive care and the attention paid to maternal and child health <sup>20</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Health Canada Perinatal Health Indicators for Canada PHAC Canadian Perinatal Health Report, Perinatal Health Indicators for Canada and BORN Ontario Perinatal health indicators in Ontario Health status reports produced by Ontario Public Health Units
Unit of analysis	Rate per 1,000 live births
Calculation	Numerator Total number of deaths of live born infants 364 days or younger
	<ul> <li>Denominator</li> <li>Number of persons in an initial cohort of 100,000 live births</li> <li>Exclusions: Rates used by Statistics Canada to calculate life expectancy are calculated with data that excludes the following:</li> <li>Births to mothers who are not residents of Canada</li> <li>Births to mothers who are residents of Canada</li> </ul>
	territory of residence was unknown

	Deaths of non-residents of Canada
	<ul> <li>Deaths of residents of Canada whose province or territory of residence was unknown</li> </ul>
	<ul> <li>Deaths for which age or sex of the decedent was unknown</li> </ul>
	Methods
	This indicator is calculated by dividing the total number of deaths for live born infants (364 days or younger) by total number of live births (per 1000 live births) for the same year, regardless of birth weight.
	Mortality data collection method:
	o registry
	<ul> <li>data are extracted from death certificates and include characteristics of the deceased and cause and location of death<sup>21</sup></li> <li>all deaths within Ontario are registered in the office of the division registrar within which the death occurs<sup>22</sup></li> </ul>
	<ul> <li>Registry: Live birth is registered by Office of the Registrar General (ORG) upon receipt of the Notice of Live Birth from the birth attendant within two business days AND the Statement of Live Birth completed by the parent/informant within 30 days.<sup>23</sup> If both forms are not received in the specified time, registration is considered "incomplete" and the birth is not included in the electronic file of data submitted for official live birth statistical purposes.</li> <li>Over time, there has been increased registration of live births with birth weight less than 500 grams. To improve comparability of this indicator over an extended time period, infant death counts and infant mortality rates are calculated two ways, including and excluding live births with birth weight under 500</li> </ul>
	grams.
	None
Levels of comparability	Data are compared over time and by country
Data source	Statistics Canada, Canadian Vital Statistics, Birth and Death Databases and
Limitations / Caveats	Introduction of birth registration fees in 1996 resulted in an excess of unregistered live births in municipalities that charged parents for birth registration, compared with those that did not, particularly in certain vulnerable groups. <sup>24</sup> (This would result in higher infant mortality rates [i.e., deaths of unregistered infants would be excluded from the denominator of the indicator but included in the numerator]. Birth registration fees were phased out in Ontario between 2007 and 2009 <sup>25</sup> . Systematic errors were found in the registration of birth weights in Ontario in the early and mid-1990s <sup>26</sup> which potentially could have affected infant
	mortality rate $\geq$ 500g, if infants were misclassified as weighing $\geq$ 500g. Unable to exclude deaths of infants weighing <500g at birth as no linked live birth and mortality files exist for Ontario. <sup>27</sup> Infants weight <500g at birth are subject to higher mortality rates and their inclusion may inflate the infant mortality rate. <sup>27,28</sup>

Vital Statistic data are typically two or three years behind the current calendar year.
Given the small number infant deaths, infant mortality rates may fluctuate from year to year. It may be of beneficial to group years when reporting infant mortality and/or calculate a three-year moving average. <sup>17</sup>
Increased registration of newborns weighing less than 500g as alive birth may result in increase of crude infant mortality rate. <sup>27</sup>

SELF-REPORTED HEALTH STATUS	
Description	This indicator reports the percentage of the population aged 12 and older who rated their general health as excellent/very good, good, and fair/poor.
Relevance/Rationale	Evidence shows that self-reported health status is a strong predictor of mortality, functional decline and other future health outcomes. <sup>29,30,31</sup> The results of a study showed that SRH is a strong and independent predictor of disability. <sup>32</sup> While subjective, this measure has the ability to capture aspects of health such as psycho-social factors, which can be hard to capture clinically. Taking this into account along with the predictive power of this indicator makes it important to measure and report.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Statistics Canada CANSIM tables Commonwealth Fund reports ( <b>country level</b> ) Canadian Institute for Health Information Your Health System Organization for Economic Co-operation and Development (OECD) Health Statistics ( <b>in population 15 years and older, by country</b> )
Unit of analysis	Percentage
Calculation	Numerator Number of respondents who rated their health as: • Excellent/Very good; • Good; or • Fair/Poor Inclusions: • Yes for "Excellent/Very good" if GENDHDI = 3, 4 • Yes for "Good" if GENDHDI = Yes for • "Fair/Poor" if GENDHDI = 0, 1
	Codes for GENDHDI 0 = Poor 1 = Fair 2 = Good 3 = Very Good 4 = Excellent 6 = Not Applicable 7 = Don't Know 8 = Refusal 9 = Not Stated

	Denominator
	All respondents aged 12 and above for years of interest.
	Exclusions:
	<ul> <li>Age &lt; 12 at the time of interview</li> </ul>
	<ul> <li>Invalid indication/Missing values</li> </ul>
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age) using 1991 Canadian Census population aged 12+.
	Age groups are 12-17,18-29, 30-39, 40-49, 50-59, 60-69, 70+
	Sampling weights are used for calculating all estimates.
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Canadian Community Health Survey (CCHS) provided by the Institute for
	Clinical Evaluative Sciences
Limitations / Caveats	As with any survey, data sourced from the CCHS has its own limitations.
	Behaviours or characteristics may be under-reported or over-reported due to
	the perceived desirability of the responses presented. In addition, as surveys
	are not always wholly representative of the population being studied, certain
	groups may be under-represented or over-represented.
	Some research points to concerns regarding the comparability of self-rated
	health status between ethnic groups, and or across other socio-economic and
	demographic variables. <sup>33,34,35</sup> Therefore, such comparisons should be
	interpreted with caution.

POTENTIALLY AVOI	DABLE DEATHS
Description	Statistics Canada definition: Age-standardized rate of premature deaths that could potentially have been avoided through all levels of prevention (primary, secondary, tertiary) per 100,000 population. Premature deaths are those of individuals who are younger than age 75.
	Additional information: The Canadian Institute for Health Information (CIHI) defines avoidable mortality as "Untimely deaths among those under age 75 that should not occur in the presence of health care or other public health practices, programs and policy interventions". Specifically:
	• Potentially avoidable mortality: premature deaths, of those younger than age 75, that could potentially have been avoided through all levels of prevention (i.e., primary, secondary, tertiary). Expressed as age-standardized mortality rate and age-standardized potential years of life lost per 100,000 population.
	<ul> <li>Potentially avoidable mortality can be further subdivided into:</li> <li>Mortality from preventable causes<sup>36</sup>: avoidable mortality that includes deaths which could be averted by preventing disease from developing (i.e., primary prevention) or injury from occurring. Includes deaths linked to</li> </ul>

	modifiable factors such as smoking or excessive alcohol consumption or
	those related to public health interventions such as vaccinations or traffic
	Mortality from treatable causes <sup>36</sup> : avoidable mortality that includes
	premature deaths which could be averted or significantly delayed through
	secondary and tertiary prevention measures, such as screening, early
	detection and appropriate treatment.
	A lower rate is better.
Relevance/Rationale	Premature mortality represents a large burden in Canada and in Ontario. In 2011, more than 91,900 deaths, occurred before the age of 75, which accounted for almost 38% of all deaths in Canada. The numbers are similar in Ontario; in 2011 of the total 89,500 deaths about 33,230 were premature deaths. <sup>37</sup> There were 23,880 potentially avoidable deaths in Ontario in 2011, which represents 72% of premature deaths, making it as an important health system performance indicator.
	Another importance of this indicator is that avoidable mortality has the potential to link population health outcomes to the functioning of the health system since it shows that there are known mechanisms of mortality reduction, making the measure "actionable". The review and understanding of variations in rates of avoidable mortality can identify the gaps as well as disadvantaged subgroups of population that should be targeted for further interventions.
	This is a population health outcome indicator which is also used as a health system performance measure.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools	Public Health Ontario: Snapshots: Mortality from preventable causes
external to HQO	(preventable mortality)
	Canadian Institute for Health Information: Health Indicators (avoidable
	mortality)
	Ministry of Health and Long-term Care (MOHLTC) Annual Report of the Chief
	Medical Officer of Health of Ontario to the Legislative Assembly of Ontario:
Unit of analysis	Pate per 100 000 population
Calculation	Numerator
	Number of deaths at age younger than 75 from avoidable/preventable/treatable causes (per 100,000)
	For the list of avoidable/preventable/treatable causes, refer to the Canadian Institute for Health Information's document 'List of Conditions for Potentially Avoidable Mortality and Mortality from Preventable and Treatable Causes Indicators' available at: http://indicatorlibrary.cihi.ca/download/attachments/1114195/List%20of%20C
	onditions%20for%20Potentially%20Avoidable%20Mortality%20and%20Morta
	lity%20From%20Preventable%20and%20Treatable%20Causes%20Indicator s.pdf?version=1&modificationDate=1401294745000&api=v2
	Denominator
	Total mid-year population younger than age 75

	Exclusions:
	Deaths of non-residents of Canada; deaths of residents of Canada whose
	province or territory of residence was unknown; deaths for which age of
	decedent was unknown.
	Methods
	Numerator/Denominator X $\times$ 100,000 (age-adjusted).
	Counts and rates are based on three consecutive years of death data which were summed and divided by three consecutive years of population data. All rates are per 100,000 population.
	Causes of death were assigned to preventable and treatable subcategories based on two main mechanisms of mortality reduction: incidence and case- fatality reduction. These subcategories are mutually exclusive. In cases where a prevention/treatment overlap exists, the case was assigned to the preventable category; the exceptions were ischemic heart disease and stroke, where a random half of cases were assigned as preventable and the other half assigned as treatable. However, the mutually exclusive nature of the subcategories does not imply that all cases assigned to the preventable
	group do not have a treatable component, and vice versa.
	Adjustment (risk, including age/sex standardization)
	Direct age-adjusted using the 1991 Canadian Census population, five year
	age groups.
Levels of	Data are compared by LHIN region and province
Data source	Statistics Canada, CANSIM Table 102 4211
Data Source	Statistics Carlada. CANSIM Table 102-4311.
Limitations / Caveats	ICD-10 coded data are only available from 2000 onwards. Avoidable mortality
	rates calculated for previous years may not be comparable.
	Diseases included as potentially avoidable vs. treatable may vary across jurisdictions. No internationally agreed-upon definition for this indicator. <sup>36</sup>
	As understanding of disease etiology and treatment options evolves, it may be necessary to revisit the classification of a disease as preventable vs. treatable. <sup>36</sup> For example, HIV/AIDS is currently classified as preventable in the Canadian indicator definition, although with the introduction of new therapies in the mid-1990s, HIV/AIDS could be considered highly treatable. <sup>36</sup>
	Not all deaths from potentially avoidable causes can actually be avoided (e.g., if diagnosed late, comorbidities exist). <sup>36</sup>
	Potentially avoidable deaths in those older than 75 years of age are not considered. <sup>36</sup>
	The time between the intervention or treatment and the impact on population mortality rates. For instance, the impact of decreased smoking on cardiovascular diseases can take as little as one to two years to manifest itself at the population level, but it can take up to 20 years to see tangible decreases in lung cancer mortality. <sup>38 39</sup>

# 3. System Integration Indicators

# DOCTOR VISIT WITHIN SEVEN DAYS OF HOSPITAL DISCHARGE FOR CONGESTIVE HEART FAILURE

Description	This indicator reports the percentage of patients that see a doctor within 7 days after discharge from an acute care hospital for congestive heart failure (CHF). A higher percentage is better.
Relevance/Rationale	It is important that patients who are hospitalized for CHF receive timely follow up once discharged from hospital to ensure that the patients are stable, understand their post-discharge instructions and medications and to transition them to community based care.
HQO reporting tool	Yearly Report/Common Quality Agenda Quality Improvement Plans indicator ( <b>practice-level results for visits to</b> <b>patient's own physician and for any condition</b> ) Other indicators in the same family:
<b>.</b>	Quality Based Procedures indicator (different definitions)
Reporting tools external to HQO	<ul> <li>Other indicators in the same family:</li> <li>The Ministry of Health and Long-Term Care reports a 7-day follow-up indicator that includes several conditions and only for certain age groups within each condition</li> </ul>
Unit of analysis	Percentage
Calculation	<b>Numerator</b> Number of patients discharged from acute care hospitals that had at least one physician visit within 7 days after discharge.
	<ul> <li>The follow-up data are received in the following subcategories:</li> <li>By any health care provider</li> <li>By primary care physician (GP/FP)</li> <li>By specialist (cardiologist)</li> </ul>
	<ul> <li>Inclusions:         <ul> <li>Ontario physician visits taking place in office, home, or long-term care (based on ICES location macro)</li> <li>Physician visits occurring between days 0 to 7 post-discharge (i.e., includes date of discharge)*</li></ul></li></ul>
	<ul> <li>Exclusions:         <ul> <li>Negated OHIP claims, duplicate claims and lab claims</li> <li>Records with missing or invalid data on discharge/admission date, health number, age and gender</li> </ul> </li> <li>Denominator</li> </ul>

	<ul> <li>Inclusions:</li> <li>Discharges from acute care hospitals with discharge date in the reporting period</li> <li>Admission for CHF (ICD10 codes I500, I501, I509)</li> <li>Diagnosis type ="M" (main)</li> </ul>
	<ul> <li>Exclusions: <ul> <li>Patients under age 40</li> <li>Deaths, acute transfers, patient sign-outs against medical advice;</li> <li>Records with missing or invalid data on discharge/admission date, health number, age and gender.</li> <li>Cases with no Resource Intensity Weight (RIW) assigned.</li> <li>Transfers to other hospital care and to other (palliative care/hospice, addiction treatment centre) as defined by discharge disposition '01', '03'.</li> <li>Short-stay cases, cadavers and stillbirths</li> </ul> </li> </ul>
	The admissions are unique by episode – so one patient can have more than one admission during the fiscal year.
	Methods Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization) Direct adjustment (age and sex) using 1991 Canadian Census population. Age groups are 40-64, 65-79, 80+
Levels of comparability	Data are compared over time and by LHIN region
Data source	Discharge Abstract Database (DAD), Ontario Health Insurance Plan (OHIP), ICES Physician Database (IPDB), Registered Persons Database (RPDB), provided by the Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	Follow-up visit does not necessarily have the same reason for visit as the hospitalization but the indicator captures a visit for any reason within 7 days.
	Follow up by nurse practitioners (in family health teams) or providers that do not provide billing or shadow billing will not be captured.

DOCTOR VISIT WITHIN SEVEN DAYS OF HOSPITAL DISCHARGE FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE	
Description	This indicator reports the percentage of patients that see a doctor within 7 days after discharge from an acute care hospital for chronic obstructive pulmonary disease (COPD). A higher percentage is better.

Relevance/Rationale	It is important that patients who are hospitalized for COPD receive timely follow up once discharged from hospital to ensure that the patients are stable, understand their post-discharge instructions and medications and to transition them to community based care.
HQO reporting tool	Yearly Report/Common Quality Agenda Quality Improvement Plans indicator (practice-level results for visits to patient's own physician and for any condition)
	Other indicators in the same family: • Quality Based Procedures indicator ( <b>different definitions</b> )
Reporting tools external to HQO	<ul> <li>Other indicators in the same family:</li> <li>The Ministry of Health and Long-Term Care reports a 7-day follow-up indicator that includes several conditions and only for certain age groups within each condition</li> </ul>
Unit of analysis	Percentage
Calculation	<b>Numerator</b> Number of patients discharged from acute care hospitals that had at least one physician visit within 7 days after discharge.
	<ul> <li>The follow-up data are received in the following subcategories:</li> <li>By any health care provider</li> <li>By primary care physician (GP/FP)</li> <li>By specialist (cardiologist)</li> </ul>
	<ul> <li>Inclusions:         <ul> <li>Ontario physician visits taking place in office, home, or long-term care (based on ICES location macro)</li> <li>Physician visits occurring between days 0 to 7 post-discharge (i.e., includes date of discharge)*</li></ul></li></ul>
	<ul> <li>Exclusions:</li> <li>Negated OHIP claims, duplicate claims and lab claims</li> <li>Records with missing or invalid data on discharge/admission date, health number, age and gender</li> </ul>
	Denominator
	Inclusions:
	Discharges from acute care nospitals with discharge date in the     reporting period
	<ul> <li>Admission for COPD (ICD10 codes J41, J42, J43, J44)</li> <li>Diagnosis type ="M" (main)</li> </ul>
	Fuchaciana
	Exclude patients under age 40
	Deaths, acute transfers, patient sign-outs against medical advice;

	<ul> <li>Records with missing or invalid data on discharge/admission date, health number, age and gender.</li> <li>Cases with no Resource Intensity Weight (RIW) assigned.</li> <li>Transfers to other hospital care and to other (palliative care/hospice, addiction treatment centre) as defined by discharge disposition '01', '03'.</li> <li>Short-stay cases, cadavers and stillbirths</li> </ul>
	The admissions are unique by episode – so one patient can have more than one admission during the fiscal year.
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age and sex) using 1991 Canadian Census population.
	Age groups are, 40-64, 65-79, 60+
comparability	
Data source	Discharge Abetract Database (DAD), Optarie Health Insurance Plan (OHID)
Data Source	ICES Physician Database (IPDB), Registered Persons Database (RPDB),
	provided by the Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	Follow-up visit does not necessarily have the same reason for visit as the
	hospitalization but the indicator captures a visit for any reason within 7 days.
	Follow up by nurse practitioners (in family health teams) or providers that do not provide billing or shadow billing will not be captured.

30-DAY READMISSION RATES FOR MEDICAL AND SURGICAL PATIENTS	
Description	This indicator reports the rate of urgent readmissions within 30 days of hospital discharge for episodes of care for medical patients and for surgical patients.
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.
HQO reporting tool	Yearly Report/Common Quality Agenda Other indicators in the same family: Quality Improvement Plans indicator (reports 30-day readmission indicator <b>for selected CMGs as well as HIGs at the provider level</b> ) Primary Care Public Reporting Web Pages (reports 30-day readmission rates
Reporting tools external to HQO	for selected CMGs) Canadian Institute for Health Information (CIHI) Your Health System (they also report obstetric readmissions and for patients 19 and younger)

	Other indicators in the same family:
	Ministry of Health and Long-Term Care Ministry-LHIN Performance
	Agreement indicator (reports 30-day readmission rates for selected
	HIGs) and Hospital-Sector Accountability Agreement explanatory
	indicator (reports 30-day readmission rates for selected CMGs)
Unit of analysis	Rate per 100 patients
Calculation	Numerator
	Cases within the denominator with an urgent readmission within 30 days of
	discharge
	Inclusions
	Emergent or urgent (non elective) readmission to an acute care bespital
	<ul> <li>Admission date on readmission record) – (Discharge date on the last</li> </ul>
	record of the index episode of care) less than or equal to 30 days
	Exclusions:
	Presence of at least one record in the episode with one of the following:
	• Delivery (ICD-10-CA: O10–O16, O21–O29, O30–O37, O40–O46, O48,
	O60–O69, O70–O75, O85–O89, O90–O92, O95, O98, O99 with a sixth
	digit of 1 or 2; or Z37 recorded in any diagnosis field)
	Chemotherapy for neoplasm (ICD-10-CA: Z51.1) as MRDx
	Admission for mental illness (MCC = 17)
	• Admission for palliative care (ICD-10-CA: Z51.5) coded as MRDx. For
	Quebec MED-ÉCHO data: Z51.5 coded as MRDx, or cancer (C00–C97)
	coded as MRDx and Z51.5 coded in any secondary diagnosis field
	Records with an invalid admission date
	Denominator
	Number of episodes of care discharged between April 1 and March 1 of the
	fiscal year 2013/14 for surgical and medical patients
	Inclusions:
	Episodes involving inpatient care. An episode may start or end in a day
	are not included
	<ul> <li>Discharge between April 1 and March 1 of the following year (period of</li> </ul>
	case selection ends on March 1 of the following year to allow for 30 days
	of follow-up)
	Sex recorded as male or female
	Ontario resident
	Age 20 and older
	Exclusions:
	Records with an invalid health card number
	Records with an invalid date of birth
	Records with an invalid admission date or time
	Records with an invalid discharge date or time
	Records with admission category of still birth or cadaveric donor
	Episodes with discharge as death or self sign-out
	Presence of at least one record in the episode with MCU 17 (Mental Diseases and Diseases)
	<ul> <li>Presence of at least one record in the enisode with palliative care (ICD)</li> </ul>
	10-CA: 751.5) coded as most responsible diagnosis (MRDy)
	<ul> <li>Presence of at least one record in the episode with MCC 13 (Pregnancy</li> </ul>
	and Childbirth)

	Surgical Group
	MCC Partition Code = I (intervention)
	Medical Group
	MCC Partition Code = D (diagnosis) (not an intervention)
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Risk-Adjusted Rate= Observed Cases/Expected Cases X Canada Average
	Risk adjustment factors: Age group, sex, acute care hospitalization in
	previous six months, urgent admission, Charlson Comorbidity score group*
	and selected CMG group**
	* Charlson score group 1 = Charlson score 1–2; Charlson score group 2 =
	Charlson score 3 or higher (reference category is Charlson score group 0
	= Charlson score 0).
	** CMGs included in the model are those that account for the top 80% of the
	total number of readmissions among medical patients.
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Discharge Abstract Database (DAD), National Ambulatory Care Reporting
	System (NACRS), provided by CIHI
Limitations / Caveats	

HOSPITALIZATIONS FOR AMBULATORY CARE SENSITIVE CONDITIONS	
Description	This indicator reports the hospitalization rate for ambulatory care sensitive conditions (ACSCs), which include: asthma, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), diabetes, epilepsy, angina and hypertension. A lower rate is better.
Relevance/Rationale	ACSCs are conditions where appropriate ambulatory care may prevent or reduce the need for hospitalization. It is an important indicator because monitoring potentially avoidable hospitalization for ACSCs can help track the performance of the primary care system.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Ministry of Health and Long-Term Care (MOHLTC) Ministry-LHIN Performance Agreement indicator Other indicators in the same family: • The Canadian Institute for Health Information reports a similar
	indicator except the methodology differs slightly
	Per 100,000 population
Calculation	Numerator Number of inpatient records from acute care hospitals during each fiscal year with any of ACSCs as the most responsible diagnosis. The ACSCs are defined by most responsible diagnosis ICD-10 codes as follows:
Condition	ICD-10 codes (DXTYPE = M )
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Asthma	J45^
Congestive heart failure and Pulmonary edema	I50^, J81^ excluding cases with CCI codes for cardiac surgical procedures (see below)
Diabetes	E10.0^, E10.1^, E10.63, E10.64, E10.9^, E11.0^, E11.1^, E11.63, E11.9^, E13.0^, E13.1^, E13.63, E13.9^, E14.0^, E14.1^, E14.63, E14.9^ ,E11.64,,E13.64,E14.64
Chronic obstructive pulmonary disease	J41^, J42^, J43^, J44^, J47^ or J10.0,J11.0,J12-J16,J18,J20,J21,J22 when J44^ is also present as a secondary diagnosis
Grand mal status and other epileptic convulsions	G40^, G41^
Hypertensio n	110.0 <sup>^</sup> , 110.1 <sup>^</sup> , 111 <sup>^</sup> , excluding cases with CCI codes for cardiac surgical procedures
Angina	I20^, I23.82^, I24.0^, I24.8^, I24.9^, excluding cases with CCI codes for cardiac surgical procedures
Proced	lure CCI codes
Cardiac surgica procedures	J1HA58, 1HA80, 1HA87, 1HB53, 1HB54, 1HB55, 1HB87, 1HD53, 1HD54, 1HD55, 1HH59, 1HH71, 1HJ76, 1HJ82, 1HM57, 1HM78, 1HM80, 1HN71, 1HN80, 1HN87, 1HP76, 1HP78, 1HP80, 1HP82, 1HP83, 1HP87, 1HR71, 1HR80, 1HR84, 1HR87, 1HS80, 1HS90, 1HT80, 1HT89, 1HT90, 1HU80, 1HU90, 1HV80, 1HV90, 1HW78, 1HW79, 1HX71, 1HX78, 1HX79, 1HX80, 1HX83, 1HX86, 1HX87, 1HY85, 1HZ53 rubric (except 1HZ53LAKP), 1HZ55 rubric (except 1HZ55LAKP), 1HZ56, 1HZ57, 1HZ59, 1HZ80, 1HZ85, 1HZ87, 1IF83, 1IJ50, 1JJ55, 1JJ57, 1JJ76, 1JJ86, 1JJ80, 1IK57, 1IK80, 1IK87, 1IN84, 1LA84, 1LC84, 1LD84, 1YY54LANJ
Exclusions: Death b Patients Transfe Patients	efore discharge who signed themselves out rs from another acute care facility age 75 and older

	Ontario RPDB:
	Annual number of adults aged 0-74 inclusive
	<ul> <li>Exclusions:</li> <li>Birthdate after April 1<sup>st</sup> of given fiscal year</li> <li>Death date before April 1<sup>st</sup> of given fiscal year</li> <li>Missing sex</li> <li>Non-Ontario resident (April 1<sup>st</sup> of given fiscal year)</li> </ul>
	• Age less than 0 or greater than 74 (April 1 <sup>st</sup> of given fiscal year)
	Not eligible for OHIP (April 1 <sup>st</sup> of given fiscal year)
	Methods
	Numerator/Denominator X100,000
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age and sex) using 1991 Canadian Census population
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Discharge Abstract Database (DAD), Registered Persons Database (RPDB),
	provided by the Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	

PERCENTAGE OF ACUTE CARE HOSPITAL DAYS SPENT AS ALTERNATE LEVEL OF CARE	
Description	This indicator reports the percentage of inpatient bed days that are designated as being alternate level of care (ALC) in acute hospitals in Ontario.
	A lower percentage is better.
Relevance/Rationale	The indicator reports the unnecessary use of high cost hospital services. There is a clear and pressing need to improve efficiencies and implement sustainable solutions that maximize our ability to provide the right service, in the right place, at the right time. ALC refers to those cases where a physician (or designated other) has indicated that a patient occupying an acute care hospital bed has finished the acute care phase of his/her treatment. Better quality of care is associated with a lower score on the indicator.
HQO reporting tool	Yearly Report/Common Quality Agenda Quality Improvement Plans indicator (hospital-level results)
Reporting tools external to HQO	Ministry of Health and Long-Term Care (MOHLTC) Quarterly Report and Hospital-Sector Accountability Agreement indicator
	Other indicators in the same family:
	• The Canadian Institute for Health Information (CIHI) reports a similar
	indicator except they exclude obstetric and pediatric cases
Unit of analysis	Percentage
Calculation	Numerator
	Total number of inpatient days designated as ALC in a given time period (i.e.
	monthly, quarterly, and yearly).

	Denominator
	Total number of acute care inpatient days in a given time period
	Inclusions
	<ul> <li>Data are retrieved for acute care hospitals (hospital type = AP, AT)</li> </ul>
	Exclusions:
	Newborns, stillborn, and records with missing or invalid "Discharge
	Date"
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Discharge Abstract Database (DAD), provided by CIHI
Limitations / Caveats	Only includes acute care hospital beds
	Not reported in a timely manner
	Only includes closed cases (these patients designated ALC who have been
	discharged) and so may miss cases that carry over to the part fiscal year
	discharged) and so may miss cases that carry over to the next listal year.
	This indicator is based on discharge. Successes resulting in a higher rate of
	discharges in ALC clients will result in an initial spike in the results. Discharges
	of long-stay ALC clients will attribute all days to the time period of discharge
	also not antially skewing the results. Point-in-time results must be applying with
	abo potentially skewing the results. For the results must be dialyzed with
	reaction, and trending of this indicator is preferred.

ALTERNATE LEVEL OF CARE DAYS RATE IN HOSPITALS	
Description	This indicator reports the total number of alternate level of care (ALC) days contributed by ALC patients within the specific reporting month/quarter using near-real time acute and post-acute ALC information and monthly bed census data.
Polovanoo/Potionalo	The indicator reports the uppercent use of high cost heavital convices
Kelevance/Kationale	The indicator reports the unnecessary use of high cost hospital services. There is a clear and pressing need to improve efficiencies and implement sustainable solutions that maximize our ability to provide the right service, in the right place, at the right time. ALC refers to those cases where a physician (or designated other) has indicated that a patient occupying an acute care hospital bed has finished the acute care phase of his/her treatment. Better quality of care is associated with a lower score on the indicator.
HQO reporting tool	Yearly Report/Common Quality Agenda
_	Quality Improvement Plans indicator (hospital-level results)
Reporting tools	Ontario Hospital Association (OHA) report
external to HQO	

	Ministry of Health and Long-Term Care Hospital-Sector Accountability
Unit of enclusio	Agreement indicator
Unit of analysis	Percentage
Calculation	Overall Exclusions Please note that only those facilities (Acute & Post-Acute) submitting both ALC data (to the WTIS) and Bed Census Summary (BCS) data (through the Health Database Web Portal) are included in ALC Rate calculation. Any master number that does not have inpatient days reported to the BCS for a given month/quarter will be excluded from reporting for that month/quarter
	<b>Numerator</b> Total number of inpatient days designated as ALC in a given time period (i.e. monthly, quarterly, and yearly)
	<b>Data Source</b> The data source used to calculate the total ALC days in the ALC Rate Report is the WTIS for ALC
	Calculation
	<ul> <li>Acute ALC days = the total number of ALC days contributed by ALC patients waiting in non-surgical (NS), surgical (SU), and intensive/critical care (IC) beds</li> <li>Post-Acute ALC days = the total number of ALC days contributed by ALC patients waiting in complex continuing care (CC), rehabilitation (RB), and mental health (MH) beds</li> <li>CCC ALC days = the total number of ALC days contributed by ALC patients waiting in complex continuing care (CC) beds</li> <li>Rehab ALC days = the total number of ALC days contributed by ALC patients waiting in rehabilitation (RB) beds</li> <li>Rehab ALC days = the total number of ALC days contributed by ALC patients waiting in rehabilitation (RB) beds</li> <li>Mental Health ALC days = the total number of ALC days contributed by ALC patients waiting in mental health (MH) beds</li> <li>Exclusions:</li> <li>ALC cases discontinued due to 'Data Entry Error'.</li> <li>ALC cases having Inpatient Service = Discharge Destination for Post-Acute Care (Exception: Bloorview Rehab, CCC to CCC).</li> </ul>
	ALC cases identified by the facility for exclusion.
	<b>Denominator</b> Total number of inpatient days in a given time period (i.e. monthly, quarterly, and yearly)
	<b>Data Source</b> The data source used to calculate the total patient days in the ALC Rate Report is the BCS [previously the Daily Census Summary (DCS)].
	<ul> <li>Calculation         <ul> <li>Acute Patient days = the total number of patient days contributed by inpatients in Medical (MED) + Surgical (SURG) + Combined Medical &amp; Surgical (CMS) + Intensive Care and Coronary Care (ICU) + Obstetrics (OBS) + Paediatric (PAE) + Child/Adolescent Mental Health (Children MH) + Acute Addiction (Addiction) + Pediatrics in Nursery (Paed Days in Nursery) + Newborns (Level 1 - General + Level 2 - Intermediate + Level 3 - ICU Neonatal + Not in Regular)</li> </ul> </li> </ul>

	<ul> <li>Post-Acute Patient days = the total number of patient days contributed by inpatients in Chronic (Chronic) + General Rehabilitation (Gen. Rehab) + Special Rehabilitation (Spec. Rehab) + Acute Psych (Acute Psy) + Addiction (Addiction) + Forensic (Forensic) + Psychiatric Crisis Unit (Crisis Unit) + Longer Term Psychiatric (Long Term)</li> <li>CCC Patient days = the total number of patient days contributed by inpatients in complex continuing care (Chronic) beds</li> <li>Rehab Patient days = the total number of patient days contributed by inpatients in General Rehabilitation (Gen. Rehab) + Special Details (Gen. Rehab) + Special Details (Gen. Rehab) + Special</li> </ul>
	<ul> <li>Mental Health Patient days = the total number of patient days contributed by inpatients in Acute Psych (Acute Psy) + Addiction (Addiction) + Forensic (Forensic) + Psychiatric Crisis Unit (Crisis Unit) + Longer Term Psychiatric (Long Term)</li> </ul>
	Exclusions:
	<ul> <li>Patient days contributed by inpatients in the emergency department (Bed Type = Emergency (Emerg + PARR, Emergency + PARR)).</li> </ul>
	Methods
	Numerator/Denominator X100
	None
Levels of	Data are compared by LHIN region
Comparability	Wait Time Information System (WTIS) and the Red Consus Symmetry (PCS)
Data Source	wait time momation system (withs) and the ded Census Summary (BCS)
Limitations / Caveats	ALC rate indicator excludes facilities that are currently not reporting ALC data to the WTIS
	WTIS-ALC data are only available since July 2011.
	The BCS has a three month reporting lag. Validation is required to ensure that specific bed types (in BCS) correspond to those in WTIS
	The information for both the numerator (WTIS) and denominator (BCS) are based on data that are available at a specific point in time. Therefore, rates calculated using these data are subject to change depending on when the calculations are made.

# 4. Primary Care Indicators

HAVING A PRIMARY	CARE PROVIDER
Description	This indicator reports the percentage of adults that have a family doctor, a general practitioner or GP, family physician, nurse practitioner, or family medicine resident that they see for regular check-ups and when they are sick.
	A higher percentage is better.
Relevance/Rationale	For most people, primary health care is the first point of contact with the healthcare system.
	Persons with a regular doctor should have better access to primary care than those without one. Research shows that increased access to a primary health care provider is associated with better health and lower total health care system costs. <sup>40</sup> Having a family doctor is also linked to positive health outcomes, including better preventive care and management of chronic conditions, decreased hospitalization and fewer emergency department visits. <sup>41</sup> , <sup>42</sup> Patients without family physicians seek care in other services such as walk-in clinics or emergency departments, <sup>43</sup> which may result in poor coordination of care, higher risk for drug interactions and delays in receiving results of lab or diagnostic tests.
	Among health providers, family physicians (FPs) and general practitioners (GPs) are the health professionals most often contacted at least once by Canadians and play the largest role in providing the care. <sup>44</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda Primary Care Public Reporting Web Pages Primary Care Performance Measurement Framework Primary Care Theme Report
Reporting tools external to HQO	<ul> <li>Other indicators in the same family:</li> <li>Canadian Institute for Health Information's Your Health System (the data source and population are different (CCHS) therefore the results reported on Your Health System are different from what is reported in <i>Measuring Up</i>)</li> <li>Commonwealth Fund International Health Policy Survey (The survey has a similar question i.e. regular doctor or place of care, but the population surveyed is different, therefore the results from the Commonwealth Fund Survey differ from what is reported in <i>Measuring Up</i>. Furthermore, the results from the Commonwealth Fund Survey are at the country and provincial level only and there are different populations surveyed depending on the survey cycle year.)</li> </ul>
Unit of analysis	Percentage
Calculation	Numerator Number of respondents who answered "yes" to the following question on the Health Care Experience Survey: Do you have a family doctor, a general practitioner or GP, family physician, nurse practitioner, or family medicine resident that you see for regular check- ups, when you are sick and so on? • Yes • No
	<ul><li>Don't know</li><li>Refused</li></ul>

	Denominator
	Number of respondents to the survey question
	Exclusions:
	<ul> <li>Respondents who answered "don't know" or refused to answer the</li> </ul>
	above question
	Methods
	Numerator/Denominator X100
	Health Care Experience Survey is administered via telephone to randomly
	selected Ontarians aged 16 years or older.
	Adjustment (risk, including age/sex standardization)
	Weighted to account for the design characteristics of the survey and post-
	stratified by age and sex to reflect the Ontario population.
Levels of	Data are compared by: LHIN, age group, sex, rural or urban setting, level of
comparability	education, immigration status, household income category, and language
	spoken most often at home.
Data source	Health Care Experience Survey (HCES) provided by the Ministry of Health
	and Long-Term Care (MOHLTC)
Limitations / Caveats	Only people aged 16 years and older can complete the survey
	People living in institutions, non-residential phone numbers, and people with
	invalid/missing household addresses in the Registered Persons Database
	(RPDB) are not captured.
	Deenendente whe were weekle te eneck Enelish er French ar were ret
	Respondents who were unable to speak English or French or were not
	nealing enough (physically or mentally) to complete the interview were not
	suiveyeu.

TIMELY ACCESS TO	PRIMARY CARE
Description	This indicator reports the percentage of adults who are able to see their primary care provider on the same or next day when they are sick.
Relevance/Rationale	A higher percentage is better. Access to primary care is key to keeping Ontarians healthy, however simply having a family doctor is not enough. About 20% of those with a regular doctor still make use of walk-in clinics, suggesting that it may be related to less timely access from their regular family doctors. <sup>45,46</sup>
	If people see their own family health care provider when they need to, it can prevent them from getting sicker and requiring costly hospital and emergency room care. It can also help to avoid emergency room visits for conditions that can be addressed by a primary care provider. <sup>47</sup>
	Timely access also allows patients and providers to better manage exacerbations of chronic diseases like diabetes and to stay up-to-date with preventive care and screenings. <sup>47</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda Primary Care Public Reporting Web Pages Primary Care Performance Measurement Framework Quality Improvement Plans (conducted by primary care organization)

Reporting tools	Other indicators in the same family:
external to HQO	Commonwealth Fund International Health Policy Survey (The survey
	has a similar question but the population surveyed is different,
	therefore the results from the Commonwealth Fund Survey differ
	from what is reported in <i>Measuring Up</i> . Furthermore, the results from
	the Commonwealth Fund Survey are at the country and provincial
	level only and there are different populations surveyed depending on
	the survey cycle year.)
Unit of analysis	Percentage
Calculation	Numerator
	Number of respondents who answered "same day" or "next day" to the
	following question on the Health Care Experience Survey:
	How many days did it take from when you first tried to see your (name type of
	provider) to when you actually saw him/her or someone else in their office?
	Saw doctor same day
	Saw doctor next day
	<ul> <li>2-19 (enter number of days)</li> </ul>
	Twenty or more days
	Don't know
	Refused
	Denominator
	Number of respondents who answered "yes" to the following question:
	Not counting yearly check-ups or monitoring of an ongoing health issue, in
	the last 12 months did you want to see your [name type of provider] because
	you were sick or were concerned that you had a health problem?
	• Yes
	• No
	Don't know
	Refused
	AND
	Respondents who answered "ves saw own doctor" "ves saw someone also
	in office" or "saw both [fill fd, type] and someone else (and others)" to the
	following question:
	Did you actually see your [fill fd_type] or someone else in their office?
	Yes saw own doctor
	Yes saw someone else in office
	Saw both [fill fd_type] and someone else (others)
	• No
	Don't know
	Refused
	Exclusions
	Respondents who answered don't know or refused to answer either
	of the above questions
	Methods
	Numerator/Denominator X100
	Health Care Experience Survey is administered via telephone to randomly
	selected Ontarians aged 16 years or older.
	Adjustment (risk, including age/sex standardization)
	Weighted to account for the design characteristics of the survey and post-
	stratified by age and sex to reflect the Ontario population.

Levels of comparability	Data are compared by: LHIN, age group, sex, rural or urban setting, level of education, immigration status, household income category, and language spoken most often at home.
Data source	Health Care Experience Survey (HCES) provided by the Ministry of Health
	Only reached and the warm and alder can complete the survey
	People living in institutions, non-residential phone numbers, and people with invalid/missing household addresses in the Registered Persons Database (RPDB) are not captured.
	Respondents who were unable to speak English or French or were not healthy enough (physically or mentally) to complete the interview were not surveyed.

ACCESSING AFTER-HOURS PRIMARY CARE	
Description	This indicator reports the percentage of adults who reported that getting access to medical care, without going to the emergency department, in the evening, on a weekend, or on a public holiday was difficult.
Relevance/Rationale	Providing after hours care is an important part of Ontario's <i>Action Plan for</i> <i>Health Care</i> to improve care for patients and reduce strain on other parts of the healthcare system, such as emergency rooms. <sup>48</sup> It is recognized that individuals are not always able to access primary care during regular office hours and may require care on evenings, weekends, and holidays.
HQO reporting tool	Yearly Report/Common Quality Agenda Quality Improvement Plans indicator (provider level data)
Reporting tools external to HQO	<ul> <li>Other indicators in the same family:</li> <li>Commonwealth Fund International Health Policy Survey (The survey has a similar question but the population surveyed is different, therefore the results from the Commonwealth Fund Survey differ from what is reported in <i>Measuring Up</i>. Furthermore, the results from the Commonwealth Fund Survey are at the country and provincial level only and there are different populations surveyed depending on the survey cycle year.)</li> </ul>
Unit of analysis	Percentage
Calculation	Numerator         Number of patients surveyed (i.e. respondents) who answered "saw the doctor on the same day" or "saw doctor next day" to the following question:         How many days did it take from when you first tried to see your (name type of provider) to when you actually saw him/her or someone else in their office?         • Saw the doctor the same day         • Saw doctor next day         • 2-19 (enter number of days)         • Twenty or more days         • Don't know

	<b>Denominator</b> Respondents who answered "yes" to the following question: Not counting yearly check-ups or monitoring of an ongoing health issue, in the last 12 months did you want to see your [name type of provider] because
	you were sick or were concerned that you had a health problem?
	AND
	Respondents who answered "yes saw own doctor", "yes saw someone else in office", or "saw both primary care provider and someone else (and others)" to the following question:
	Did you actually see your primary care provider or someone else in their office?
	Exclusions:
	Respondents who answered "don't know," or refused to answer, any of the above questions
	Methods
	Numerator/Denominator X100
	selected Ontarians aged 16 years or older
	Adjustment (risk, including age/sex standardization)
	Weighted to account for the design characteristics of the survey and post-
	stratified by age and sex to reflect the Ontario population.
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	and Long-Term Care (MOHLTC)
Limitations / Caveats	Only people aged 16 years and older can complete the survey
	People living in institutions, non-residential phone numbers, and people with
	invalid/missing household addresses in the Registered Persons Database
	(RPDB) are not captured.
	Respondents who were unable to speak English or French or were not
	healthy enough (physically or mentally) to complete the interview were not surveyed.
	Inability to capture if people consider Telehealth to be access to primary care after hours.

PATIENTS' INVOLVEMENT IN DECISIONS REGARDING THEIR CARE	
Description	This indicator reports the percentage of adults who state that their primary care provider always or often involves them as much as they want in decisions regarding their care and treatment. A higher percentage is better.

Relevance/Rationale	Involving patients in decisions about their care and treatment is a key
	contributing factor for providing patient centered care and ensuring
	engagement in their overall care.49
	Patients who are involved in their care <sup>50</sup> have improved recall of information,
	knowledge and confidence to manage their conditions and adherence to the
	chosen treatment plan. <sup>51</sup>
	Patient engagement also improves patient satisfaction. Studies have shown
	that Canadians who are engaged in their primary care are more likely to rate
	their recent medical care as excellent. They are also more likely to be very
	confident about the quality of future care and about their ability to manage
	their own health. <sup>52</sup>
	In addition, patients who are engaged in their primary care more often
	participate in disease prevention, screening, and health promoting activities,
HQQ reporting tool	Yearly Report/Common Quality Agenda
	Primary Care Public Reporting Web Pages
	Primary Care Performance Measurement Framework
	Quality Improvement Plans (conducted by each primary care
	organization)
Reporting tools	Other indicators in the same family:
external to HQU	Commonwealth Fund International Health Policy Survey (The survey     bas a similar quastian but the population surveyed is different
	therefore the results from the Commonwealth Fund Survey differ
	from what is reported in <i>Measuring Up</i> . Furthermore, the results from
	the Commonwealth Fund Survey are at the country and provincial
	level only and there are different populations surveyed depending on
	the survey cycle year.)
Unit of analysis	Percentage
Calculation	Numerator
	question on the Health Care Experience Survey.
	When you see your [fill fd type] 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
	Offen
	Sometimes     Borely
	<ul> <li>It depends on who they see and/or what they are there for</li> </ul>
	<ul> <li>Not using/on any treatments/not applicable</li> </ul>
	Don't know
	Refused
	Denominator
	Number of respondents who state that they have a primary care provider.
	Exclusions:
	Respondents who answered any of: "it depends on who they see
	and/or what they are there for", "did not use/were not on any

	treatments/not applicable", "don't know" or refused to answer the
	numerator question
	<ul> <li>Respondents who answered "never saw family doctor or anyone in</li> </ul>
	their office" to the first question in the Patient Experience section of
	the survey (When you see your [fill fd_type] or someone else in their
	office, how often do they know important information about your
	medical history?) (this is based on the skip pattern in the survey to
	exclude patients who didn't see their doctor)
	Methods
	Numerator/Denominator X100
	Health Care Experience Survey is administered via telephone to randomly
	selected Ontarians aged 16 years or older.
	Adjustment (risk, including age/sex standardization)
	Weighted to account for the design characteristics of the survey and post-
	stratified by age and sex to reflect the Ontario population.
Levels of	Data are compared by: LHIN, age group, sex, rural or urban setting, level of
comparability	education, immigration status, household income category, and language
	spoken most often at home.
Data source	Health Care Experience Survey (HCES) provided by the Ministry of Health
	and Long-Term Care (MOHLTC)
Limitations / Caveats	Only people aged 16 years and older can complete the survey
	People living in institutions, non-residential phone numbers, and people with
	invalid/missing household addresses in the Registered Persons Database
	(RPDB) are not captured.
	Respondents who were unable to speak English or French or were not
	healthy enough (physically or mentally) to complete the interview were not
	surveyed.

COLORECTAL CANO	CER SCREENING
Description	This indicator reports the percentage of Ontarians, 50–74 years of age, who were overdue for colorectal cancer screening in a calendar year.
Relevance/Rationale	A lower percentage is better. More than 7,800 Ontarians are diagnosed with colorectal cancer each year. Colorectal cancer is among the top four most commonly diagnosed cancers in Ontario, and is the second and third leading cancer cause of death in men and women, respectively. <sup>54</sup> If caught early through screening, a person with colorectal cancer has a very high chance of survival—90%. <sup>55</sup> It is recommended that people aged 50 to 74 be screened for colorectal cancer. For those at average risk for colorectal cancer, a home test—the Fecal Occult Blood Test (FOBT)—once every two years is recommended. For those at increased risk because of a family history, colonoscopy is advised. <sup>56</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda Primary Care Public Reporting Web Pages Primary Care Performance Measurement Framework Primary Care Theme Report

	Other indicators in the same family:
	Quality Improvement Plans provider level data and the inverse is
	reported, i.e. percentage of patients who are up to date in cancer
	Screening and is extracted from EMRS)
	Primary care practice reports (provider level data and the inverse is
	reported, i.e. percentage of patients who are up to date in cancer
Dementing to ale	Screening)
Reporting tools	Cancer Care Ontario Cancer Screening Quality Index
external to HQU	Other indicators in the same family
	Other indicators in the same family.
	Ministry of Realth and MORLTC Realth Analytics Branch - Resource for Indicator standards (RIS), Multi Sector Accountability Agroament
	(sector specific for CHCs)
Unit of analysis	Percentage
Calculation	
Calculation	Total number of Ontario screen-eligible individuals 50–74 years old who
	were overdue for colorectal screening by the end of the calendar year as
	defined by not having any of the following*:
	defined by not naving any of the following .
	Fecal Occult Blood Test (FOBT) in the last 2 years:
	Program CCC FOBTs were identified in Laboratory Reporting Tool
	<ul> <li>Non-program FOBTs were identified using fee codes in OHIP:</li> </ul>
	<ul> <li>G004 Lab.med.in office - Occult blood</li> </ul>
	L179 ColonCancerCheck Fecal Occult Blood Testing
	I 181 Lab Med - Biochem - Occult Blood
	Colonoscopy in the last 10 years
	Identified using fee codes Z555, Z491A, Z492A, Z493A, Z494A, Z495A,
	Z496A, Z497A, Z498A, and Z499A in OHIP
	Flexible sigmoidoscopy in the last 5 years
	Identified using fee code Z580 in OHIP
	*Neutrinia alaima with the come Lieghth Incurrence Neurohan (LUNI), comise data
	"Nultiple claims with the same Health Insurance Number (HIN), service date
	and tee code were assumed to be a single claim. Each individual was
	Denominator
	Total number of Ontario screen-eligible individuals 50–74 years old in each
	calendar vear
	Exclusions '
	Individuals with a missing or invalid HIN date of birth sex or postal
	code
	<ul> <li>Individuals with an invasive colorectal cancer prior to Jan 1 of the</li> </ul>
	calendar vear of interest: prior diagnosis of colorectal cancer was
	defined as: ICD-O-3 codes C18.0, C18.2-C18.9. C19.9. C20.9. a
	morphology indicative of colorectal cancer, microscopically confirmed
	with a path report.
	Individuals with a total colectomy prior to Jan 1 of the calendar year
	of interest. Total colectomy was defined in OHIP by fee codes S169,
	S170, S172
	Methods
	Numerator/Denominator X100
	I individuals were considered overdue for colorectal screening if they:

	(1) did not return a FOBT kit within the last two years (Jan 1 of the previous
	year to Dec 31st of the calendar year of interest) AND
	(2) did not have a colonoscopy in the last 10 years (Jan 1 nine years prior to
	the calendar year of interest to Dec 31st of the calendar year of interest) AND
	(3) did not have a flexible sigmoidoscopy in the last five years (Jan 1 four
	years prior to the calendar year of interest to Dec 31st of the calendar year of
	interest)
	Adjustment (risk, including age/sex standardization)
	Direct age standardization to the 2011 Canadian population
Levels of	Data are compared: over time, by LHIN, age group, sex, rural or urban
comparability	setting, neighbourhood income quintile (for urban population only)
Data source	<ul> <li>CIRT (Colonoscopy Interim Reporting Tool) – CCC program</li> </ul>
	colonoscopy records
	LRT-CCC FOBTs
	OHIP CHDB– Non-CCC FOBT, colonoscopy, flexible sigmoidoscopy
	and colectomy claims
	OCR (Ontario Cancer Registry) - Resolved invasive colorectal
	cancers
	RPDB (Registered Persons Database) – Demographics
	PCCE+, version 6A - Residence and socio-demographic info
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 (1st 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
	This indicator does not capture tests performed as part of the Registered
	Nurse Flexible Sigmoidoscopy Project (represents about 7,192 flexible
	sigmoidoscopies as of October, 2012)

DIABETES EYE EXA	MS
Description	This indicator reports the percentage of Ontarians with diabetes aged 20 and older who had an eye exam within a two-year period. A higher percentage is better.
Relevance/Rationale	Currently over one million Ontarians are living with diabetes. <sup>57</sup> Diabetic retinopathy (DR), is a non-inflammatory eye disorder caused by changes in the retinal blood vessels. The Eye Diseases Prevalence Research Group determined the crude prevalence rate of retinopathy in the adult

	population with diabetes of the United States to be 40.3%. <sup>58</sup> In 2006, it was estimated that close to 500,000 Canadians had some form of diabetic retinopathy. Of these, 100,000 had a vision-threatening form of the disease (defined as severe retinopathy, diabetic macular edema, or both), and 6,000 were already blind from the disease. <sup>59</sup> Screening is important for early detection of this treatable disease. Routine screening, referral and treatment for diabetic retinopathy can significantly reduce the onset of blindness and is a cost-effective way to prevent or delay vision loss. The clinical practice guidelines recommend screening for retinopathy in patients with type 2 diabetes every 1-2 years. <sup>60</sup> In individuals with type 2 diabetes, screening and evaluation for diabetic retinopathy by an expert professional should be performed at the time of diagnosis of diabetes and annually thereafter. The interval for follow-up assessments should be tailored to the severity of the retinopathy. In those with no or minimal retinopathy, the recommended interval is 1–2 years.
HQO reporting tool	Yearly Report/Common Quality Agenda
external to HQO	
Unit of analysis	Percentage
Calculation	Numerator
	Prevalent diabetics (for that specific FY) with any claim for an eye exam
	within 2 years
	Inclusion: OHIP feecodes = A115 (major eye exam), A233 to A240
	(ophthalmology), C233 to C236 (ophthalmology emergency and out-patient department),
	Optometrist fee codes V401, V402, V404 to V409, V450, V451
	Note: use spec=all when extracting OHIP
	OHIP fee codes = K065, K066 where spec=23 (Ophthalmology) A110, A111, A112, A114, A252, A253 and A254.
	Denominator
	All diabetes prevalent cases in ODD database for years from 2002/03- 2009/10 (the details for creation of the ODD can be taken from ICES data holdings)
	Exclusions:
	People who were not resident in Ontario in each year
	<ul> <li>Age on index date in each corresponding year exams: &lt;20 yrs</li> </ul>
	<ul> <li>Died before end of follow-up period</li> </ul>
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Diabetes Database (ODD) provided by the Institute for Clinical Evaluative
	Sciences (IUES)
Limitations / Caveats	ODD doesn't distinguish type1 and type 2 diabetes
	The entire ODD is re-created yearly using updated OHIP, CIHI/SDS, and RPDB data. The reason for re-creating the database is that RPDB may

change and also the 2-year diagnosis algorithm will alter the numbers of patients in more recent years as we receive more data.
It is not possible to specifically identify the detail/type of the screening using the admin database, instead it was attempted to select all possible opportunities for retinal screening.
OHIP has data only for MDs with fee for service practice. Some have alternate funding and their services would be missing from analysis
Since the OHIP database is updated bi-monthly there may be delays in capturing the completed eye exams.
The indicator does not specify patients with diabetes that have been already diagnosed with retinopathy. According to guidelines for these patients the appropriate monitoring intervals ( $\leq 1$ year) are established based on severity.

### 5. Mental Health Care Indicators

	ONS FOR A MENTAL ILLNESS OR AN ADDICTION
Description	This indicator reports the hospital readmission rate for a mental illness or an
	addiction condition per 1000 population.
	Generally, a lower rate is better.
Relevance/Rationale	Hospitalization remains an essential part of the continuum of care, especially
	to require care in specialized hospitals. Monitoring trends in hospital admissions for mental health and addictions provides important information for understanding the utilization of hospital services by these vulnerable
	patients.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Canadian Institute for Health Information interactive tool
Unit of analysis	Rate per 1,000 population
Calculation	Numerator
	addictions issues stated below.
	From DAD var DX10CODE with any of the following ICD-10-CA codes
	(dxtype = M):
	From OMHRS primary DSM4CODE (Q2A or Q2D with any of the following DSM-IV codes - below) or provisional var (Q1D/Q1E/Q1F/Q1G/Q1P/Q1O =
	<ul> <li>Substance-related disorders (SA)</li> </ul>
	<ul> <li>ICD-10-CA: F55, F10 to F19;</li> </ul>
	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
	<ul> <li>Schizophrenia, delusional and non-organic psychotic disorders (SCZ)</li> </ul>
	<ul> <li>ICD-10-CA: F20 (excluding F20.4), F22, F23, F24, F25, F28, F29, F53 1;</li> </ul>
	<ul> <li>DSM-IV: 295 xx (10, 20, 30, 40, 60, 70, 90), 297, 1, 297, 3</li> </ul>
	298.8, 298.9; Provisional diagnosis**: (e) schizophrenia disorder;
	Mood/affective disorders (MA)
	<ul> <li>ICD-10-CA: F30, F31, F32, F33, F34, F38, F39, F53.0;</li> </ul>
	<ul> <li>DSM-IV: 296.0x, 296.2x, 296.3x, 296.4x, 296.5x, 296.6x, 296.7,</li> </ul>
	296.80, 296.89, 296.90, 300.4, 301.13; Provisional diagnosis: (f)
	Anxiety disorders (ANX)
	<ul> <li>ICD-10-CA: F40, F41, F42, F43, F48.8, F48.9;</li> </ul>
	<ul> <li>DSM-IV: 300.xx (00, 01, 02, 21, 22, 23, 29), 300.3, 308.3, 309.x</li> </ul>

	(0, 3, 4, 9), 309.24, 309.28, 309.81; Provisional diagnosis**: (g)
	anxiety disorders or (o) adjustment disorders:
	<ul> <li>Selected disorders of adult personality and behavior (Other)</li> </ul>
	<ul> <li>DSM IV/: 201 0, 201 20, 201 22, 201 4, 201 50, 201 6, 201 7</li> </ul>
	DSIVI-IV. SUI.0, SUI.20, SUI.22, SUI.4, SUI.50, SUI.0, SUI.7, 004.04, 004.00, 004.00, 004.0, Double linearly linearly (a)
	301.81, 301.82, 301.83, 301.9, Provisional diagnosis (p)
	personality disorders.
	**For provisional diagnoses: only for data extracted from the Ontario Mental
	Health Reporting System (UMHRS) with no DSM-IV code recorded.
	Exclusions:
	Invalid IKN
	Missing sex
	• Age <15 or Age > 120
	Non-Ontario resident
	Denominator
	Total annual number of Ontario residents 15 years and older.
	Exclusions:
	<ul> <li>Birthdate after Aril 1st of given fiscal year</li> </ul>
	<ul> <li>Death date before April 1st of given fiscal year</li> </ul>
	<ul> <li>Missing sex</li> </ul>
	<ul> <li>Non-Ontario resident (April 1st of given fiscal year)</li> </ul>
	<ul> <li>Age less than 15 or greater than 120 (Apr 1st of given fiscal</li> </ul>
	vear)
	<ul> <li>Not eligible for OHIP (Apr 1st of given fiscal year)</li> </ul>
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	Direct adjustment (age and sex) using 1991 Canadian Census population.
	Age groups are 15-19, 20-44, 45-64, 65-79, 80+
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Discharge Abstract Database (DAD), Ontario Mental Health Reporting
	System (OMHRS), Registered Persons Database (RPDB), provided by the
Limitationa / Coverta	Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	munique as can be aumitted to hospital more than once for the treatment of a mental illness, and they can have more than 1 condition at a given time.
	Hospitalization data therefore does not represent either the number of
	mental illnesses that led to the hospitalizations. Furthermore, this indicator is
	not a measure of the appropriateness of the hospitalization.
	not a measure of the appropriateness of the hospitalization.

# DOCTOR VISIT WITHIN SEVEN DAYS OF HOSPITAL DISCHARGE FOR A MENTAL ILLNESS OR AN ADDICTION

Description	This indicator reports the rate of follow up with a physician (primary care
	provider or psychiatrist) within seven days per 100 psychiatric discharges.

	A higher rate is better
Relevance/Rationale	The transition from the inpatient to the outpatient setting is a critical point in the continuum of care and a real opportunity to prevent readmissions. <sup>61</sup> 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. <sup>62</sup>
	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. <sup>63</sup> The risk of suicide is higher during the period immediately following discharge from in-patient psychiatric care. <sup>64</sup> Readmissions in the immediate posthospital discharge period are more likely to be related to care during the 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. <sup>65</sup>
	Ensuring continuity of care by increasing compliance to outpatient follow-up care helps detect early post-hospitalization medication problems and provides continuing support that improves treatment outcomes and reduces health care costs. <sup>66</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Other indicators in the same family: Canadian Institute for Health Information: Hospital Report Mental Health <b>(measures 30-day follow-up)</b>
Unit of analysis	Rate per 100 discharges
Calculation	<b>Numerator</b> The number of patients who within 7 days of discharge following index hospitalization had at least one psychiatrist or primary care physician mental health visit.
	Inclusions:
	All-cause follow-up:
	<ul> <li>Any visit to a primary care provider (IPDB mainspecialty = 'GP/FP' or 'F.P./Emergency medicine') or a psychiatrist (IPDB mainspecialty ='psychiatry') taking place in office, home, or long-term care (OHIP – location = 'O' or 'H' or 'L')</li> </ul>
	<b>Denominator</b> Number of acute care discharges from episode of care in which a Mental Health and Addiction condition is diagnosed and is coded as most responsible diagnosis.
	<ul> <li>Inclusions: (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</li> <li>Substance-related disorders—ICD-10-CA: F55, F10 to F19; DSM-IV:</li> </ul>
	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
	<ul> <li>Schizophrenia, delusional and non-organic psychotic disorders—</li> </ul>
	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
	<ul> <li>Mood/affective disorders—Mood/affective disorders—ICD-10-CA:</li> </ul>
	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 <sup>^</sup> : (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, 0), 200.24, 200.28, 200.81; Provisional diagnosis**; (g) apviety
	4, 9), 509.24, 509.20, 509.01, PTOVISIONAL ULAYIOSIS . (9) ANXIETY
	<ul> <li>Selected disorders of adult personality and behaviour.</li> </ul>
	<ul> <li>Selected disorders of adult personality and behaviour—ICD-10-CA: E60, E61</li> </ul>
	E62 E69 E21 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**: (n)
	personality disorders.
	Age range to include: 15 – 120 years
	Exclusions:
	1. Patients without a valid health insurance number
	2. Patients without an Ontario residence
	3. Gender not recorded as male or female
	4. Invalid date of birth, admission date/time, discharge date/time
	5. Discharge where the patient signed him/hersell out of the patient diad
	uleu 6 Patients who die er had Hespitalizations with a subsequent
	c. Fatients who die of had hospitalizations with a subsequent readmission (any cause) to acute care (CIHI or OMHRS) within 7
	days of index hospitalization discharge date
	adys of mack hospitalization abonalge date
	Note: if OMHRS records occurs within 24 hours of discharge/admission from
	institution then this should be considered as part of the same episode of care.
	<ul> <li>**For provisional diagnoses: only for data extracted from the Ontario</li> </ul>
	Mental Health Reporting System (OMHRS) with no DSM-IV code
	recorded.
	Methods
	Adjustment (rick, including angless standardiretion)
	Direct adjustment (age and say) using 1991 Canadian Consults nonulation
	Age groups are 15-19 20-44 45-64 65-79 80+
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Discharge Abstract Database (DAD), Ontario Mental Health Reporting
	System (OMHRS), Registered Persons Database (RPDB), provided by the
	Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	The rate misses medical services delivered in other forms of post-discharge
	care and by non-physician providers. (e.g., salaried physicians, community
	mental health programs, client based initiatives).

#### **READMISSION RATES FOR A MENTAL ILLNESS OR AN ADDICTION** Description This indicator reports psychiatric (mental health and addiction) discharges that are followed within 30 days by another mental health and addiction admission as a rate per 100 discharges. A lower rate is better. Relevance/Rationale Readmission after psychiatric hospitalization is widely used as a quality of care indicator. It reflects both the quality of inpatient care as well as the transition to community-based care after hospitalization. It also reflects a negative clinical outcome for patients with mental illness, who after discharge should integrate back into community. At the system and policy levels the readmission rate is used to measure performance and allocate resources. It also gives an idea on the level of integration of hospitals with other parts of the mental health system and, the functioning of mental health services in terms of providing coordinated care and support across the continuum. In research and program evaluation the readmission rate can be used as an outcome to identify high-risk patients and measure the effects of inpatient and community interventions on quality of care. Considering all above mentioned, the measurement of readmission rates becomes very important.67 The aim of inpatient care for people with mental illnesses is to stabilize acute symptoms, rather than provide long-term care. After hospital discharge subsequent care and support are ideally provided through outpatient and community programs.68 Higher rates may flag poor preparation for discharge and/or poor community follow-up resulting in inappropriate use of inpatient resources. The selected indicator reports 7 and 30 day readmission rates at a larger system level rather within-hospital readmission, since the research has shown that more than 60% of 30-day readmissions for mental health occur at a different hospital from the discharging institution and counting only withinhospital readmission rates could underestimate the actual readmission rates.67 HQO reporting tool Yearly Report/Common Quality Agenda Reporting tools Canadian Institute for Health Information Health indicator report and external to HQO interactive tool Unit of analysis Rate per 100 discharges Calculation Numerator Number of subsequent readmissions to an acute care hospital within 30 days of discharge following index hospitalization discharge for mental health and addiction condition. Inclusions: Cases with the most responsible diagnoses (CIHI - ICD-10 with dxtype = M, OMHRS - DSM-IV in Q2A/Q2D or provisional dx Q1D/Q1E/Q1F/Q1G/Q1O/Q1P = 1) of a Mental Health and Addictions condition (see the diagnosis below). Denominator Number of acute care discharges from episode of care in which a Mental Health and Addiction condition (see below) is coded as most responsible diagnosis.

<ul> <li>Inclusions:</li> <li>CIHI – ICD-10 with dxtype = M, OMHRS - DSM-IV in Q2A/Q2D or provisional dx Q1D/Q1E/Q1F/Q1G/Q10/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</li> <li>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</li> <li>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</li> <li>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</li> <li>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</li> <li>Selected disorders of adult personality and behaviourICD-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.</li> </ul>
Note: the index cases are identified from the OMHRS database. CIHI/DAD was used to get the data for younger patients' admissions and admissions to hospitals with no designated mental health beds. Age range to include: 15-120 years
<ul> <li>Exclusions:</li> <li>Patients without a valid health insurance number</li> <li>Patients without an Ontario residence</li> <li>Gender not recorded as male or female</li> <li>Invalid date of birth, admission date/time, discharge date/time</li> <li>Discharge where the patient signed him/herself out or the patient died</li> </ul>
Note: For OMHRS records if admission to an institution or occurs within 24 hours of discharge from institution then this should be considered as part of the same episode of care. **For provisional diagnoses: only for data extracted from the Ontario Mental Health Reporting System (OMHRS) with no DSM-IV code recorded.
Methods Numerator/Denominator X100
Adjustment (risk, including age/sex standardization) The rates are risk adjusted to the following factors:
<ul> <li>Age 15-19, 20-44, 45-64, 65-79, and 80+.</li> </ul>
<ul> <li>Multiple previous admissions for a selected mental illness (two and more) during the past 12 months</li> </ul>

	Type of mental health condition
	Substance abuse related disorder
	Schizophrenia
	Anxiety disorder
	Personality disorder
Levels of comparability	Data are compared over time and by LHIN region
Data source	Discharge Abstract Database (DAD), Ontario Mental Health Reporting System (OMHRS), Registered Persons Database (RPDB), provided by the Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	It is not possible to differentiate between elective and non-elective admissions in OMHRS data base. It would be possible to do for the CIHI records that would approximately comprise around 23% of the cases, the remaining 77% are identified through OMHRS.
	These numbers cannot tell us what happens to individuals between discharge and readmission to hospital within 30 days. Both planned/unplanned readmissions are counted.
	Index discharges were all derived using the OMHRS. This may underestimate the total number of psychiatric admissions in the province because a certain proportion of psychiatric admissions are captured using only the CIHI-DAD.

USE OF PHYSICAL F	RESTRAINTS IN ACUTE MENTAL HEALTH CARE
Description	This indicator reports the percentage of mental health inpatients who were physically restrained in Ontario.
	A lower percentage is better.
Relevance/Rationale	Control interventions, such as acute control medication, mechanical or physical restraints and seclusion, are generally used with the intention of protecting individuals from self-harm or preventing harm to another person. However, the use of control interventions has been associated with a number of potentially adverse outcomes, such as further provocation of aggression, injury to staff or patients, recollections of past abuse, etc. <sup>69,70</sup>
	There have been a number of efforts to develop best practices and guidelines for the use of control interventions that were influenced by the following documents: Patient Restraint Minimization Act <sup>71</sup> , Mental Health Act <sup>72</sup> and the Health Care Consent Act. <sup>73</sup>
	Overall, close to one in four (24%) of all individuals admitted to a designated mental health bed in Ontario experienced at least one type of control intervention during their hospitalization. <sup>74</sup> Acute control medications (58.9%)

	were used most often, followed by the use of physical/mechanical restraint (20.7%). <sup>74</sup>
	Reports show that previous psychiatric hospitalizations and poor adherence to treatment <sup>75</sup> are the major factors contributing to use of control interventions. Current legislation and clinical practice guidelines <sup>76</sup> aim to minimize and even eliminate the use of control interventions and the reporting of the rates and understanding of the factors contributing to increased use may help target interventions for populations at risk.
HQO reporting tool	Yearly Report/Common Quality Agenda Quality Improvement Plans indicator
Reporting tools external to HQO	Canadian Institute for Health Information interactive tool
Unit of analysis	Percentage
Calculation	Numerator
	Number of patients who had mechanical restraint use indicated on their OMHRS records:
	Inclusions:
	• Mechanical restraint use $(M1A > 1)$
	• Chair prevents rising (M1B > 1)
	• Physical /manual restraint by staff (M1C > 1)
	Denominator
	Total number of individuals who were discharged from a designated adult mental health bed in an Ontario hospital and had a full assessment
	Detionte with records in OMHPS
	• Patients with records in OMIRS
	• Valid IKIN
	Methods
	Adjustment (risk including age/sex standardization)
	Direct adjustment (age and sex) using 1991 Canadian Census population
	Age groups are $<20, 20-44; 45-64; 65-79; 80+$
Levels of	Data are compared over time
comparability	
Data source	Ontario Mental Health Reporting System (OMHRS), provided by the Institute for Clinical Evaluative Sciences (ICES)
Limitations / Caveats	Control interventions in OMHRS are reported in full assessment records which typically occur at set intervals and may not capture information about incidents that occur between intervals. This is related to the fact that there is no reporting requirement for control interventions and, therefore, in instances where hospital stays are longer, a larger number of control interventions may go unreported.
	The analysis was limited by the exclusion of individuals with hospital stays of three days or less. Short-stay RAI-MH assessments do not require all data elements to be coded.

SUICIDE RATES	
Description	This indicator reports the rate of suicide per 100.000 population in Ontario.
	A lower rate is better.
Relevance/Rationale	Suicide is a major cause of premature and preventable death. In 2009, it was estimated there were roughly 100,000 years of potential life lost to Canadians, under 75, as a result of suicide. <sup>77</sup> Suicidal behaviour is associated with mental/ psychological and physical disorders, which include personality disorder, depression, schizophrenia, and terminal illness. <sup>78</sup> Mental health professionals consider suicidal behavior to be a result of irrational mental states brought on by mental illness as diagnoses of psychiatric conditions precede close to 90% of suicides. <sup>78,79,80</sup> The economic burden of suicide and self-harm are also substantial. A report in 2009 found that the indirect and direct cost of suicide/self-harm in 2004, nationwide, amounted to roughly 2.4 billion dollars. <sup>81</sup> Preventing suicide and self-harm is a major area
HQO reporting tool	Yearly Report/Common Quality Agenda
Poporting toolo	Organization for Economic Colonary and Development (OEOD) Usett
external to HQO	Statistics, Statistics Canada CANSIM tables
Unit of analysis	Rate per 100,000 population
Calculation	Numerator
	Total number of deaths resulting from intentional self-harm Inclusions:
	ICD-10 codes: X60-X84, Y87.0
	Denominator
	Total Ontario population – LHIN level population estimates
	Methods Numerator/Denominator X100.000
	Adjustment (risk, including age/sex standardization)
	Age-adjusted using the 1991 Canadian census population
Levels of comparability	Data are compared over time, by province, and by sex
Data source	Statistics Canada CANSIM Table 102-0552
Limitations / Caveats	There is an underestimation of suicide rates. The actual number of deaths from suicide may be greater because information regarding the nature of the death may only become available after the original death certificate is complete. In some situations, assessing whether the death was intentional may be difficult. <sup>82</sup> A death can only be certified as a suicide when the victim's intent is clear. <sup>83</sup>
	Deaths by suicide only reflect a small portion of suicide attempts. Some estimate that for every completed suicide there are as many as 20 suicide attempts. <sup>84</sup> While males are far more likely to die from suicide, females are roughly three to four times more likely to attempt suicide and are hospitalized 1.5 times more than males for attempted suicide. <sup>85,86,87</sup> This differences may occur as females tend to use less violent methods such as poisoning, while males tend to use more violent methods such as handing and firearms. <sup>85</sup>

Given these facts, the reported suicide rate is not a reflection of suicide
attempts and does not provide a complete picture of the problem of
intentional self-harm.

### 6. Home Care Indicators

WAITING FOR HOME CARE NURSING SERVICES		
Description	This indicator reports the percentage of home care patients authorized for nursing services who received their first nursing visit within five days. The wait time is described as the number of days between service authorization date and the date of Community Care Access Centre (CCAC) in-home nursing. A higher percentage is better.	
Relevance/Rationale	It is important that individuals with chronic conditions or complex needs who need home care services are provided with care as soon as possible; delays in service could mean that home care patients experience an abrupt decline in their condition and require immediate medical assistance or admission to hospital.	
	In the 2013/14 budget, the government announced a five-day target for wait times from time of assessment to time of first visit for nursing services and for personal support services for patients with complex needs, In February 2015, the government announced an investment of \$75 million to support more visits at home for people who need nursing services and help more patients receive care at home within Ontario's five-day wait time target.	
	The Ministry of Health and Long-Term Care committed to publicly reporting home care wait times, commencing with wait times for nursing for all home care patients and wait times for personal support services for complex care home care patients.	
HQO reporting tool	Yearly Report/Common Quality Agenda Home Care Public Reporting Web Pages Quality Improvement Plans indicator (CCAC-level results)	
Reporting tools external to HQO	Ontario Association of Community Care Access Centres (OACCAC) How CCACs Care: An Update on Quality Improvement for Patients Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator	
Unit of analysis	Percentage	
Calculation	<b>Numerator</b> The number of home care patients who received their first nursing service visit within five days of the date they were authorized for nursing services by the CCAC	
	Wait time = First Service Date – Care Authorization Date	
	Inclusions:	
	Patients who received CCAC in-home nursing service within five days from service authorization	
	Denominator The number of adult home care patients who received in-home nursing services	
	Three patient populations are included: 1) New patients	

	<ol><li>Existing patients who now require a new service</li></ol>
	3) Existing patients who are receiving services after a break in service
	Inclusions:
	<ul> <li>Home care patients who requested in-home program at the time of referral (Request program=1)</li> </ul>
	<ul> <li>Home care patients who received in-home service (SRC = 91 to 95)</li> <li>Home care patients who received nursing services (Service Type = 1, 17, 18)</li> </ul>
	Home care patients whose age at service authorization date is greater than 18
	Exclusions:
	<ul> <li>Shift nursing (Service type = 2)</li> </ul>
	Mental health and addiction nursing service, which is a service
	delivered in school setting for children (Service type = 16)
	<ul> <li>Children receiving nursing service (Age ≤ 18)</li> </ul>
	<ul> <li>Service delivered in school setting (Care site = 12, 24, 25)</li> </ul>
	<ul> <li>Episodes of care where service on hold date falls between the</li> </ul>
	service authorization date and first service date
	Methods
	Numerator/Denominator x 100
	Adjustment (risk, including age/sex standardization) None
Levels of	Data are compared over time and by CCAC
comparability	
Data source	Home Care Database (HCD), provided to the MOHLTC by the OACCAC
Limitations / Caveats	Each case is reported under the fiscal year and quarter in which the home
	care patient received their first home care service. Since wait times are not
	counted until the patient has received the service, wait lists in CCACs can
	Impact the indicator results.

WAITING FOR HOME	E CARE PERSONAL SUPPORT SERVICES
Description	This indicator reports the percentage of complex home care patients authorized for personal support services who received their first personal support service visit within five days. The wait time is described as the number of days between service authorization date and the date of Community Care Access Centre (CCAC) in-home personal support. A higher percentage is better.
Relevance/Rationale	It is important that individuals with chronic conditions or complex needs who need home care services are provided with care as soon as possible; delays in service could mean that home care patients experience an abrupt decline in their condition and require immediate medical assistance or admission to hospital. In the 2013/14 budget, the government announced a five-day target for wait times from time of assessment to time of first visit for nursing services and for

	personal support services for patients with complex needs. In February 2015,
	the government announced an investment of \$75 million to support more
	visits at home for people who need nursing services and help more patients
	receive care at home within Ontario's five-day wait time target.
	, , ,
	The Ministry of Health and Long-Term Care committed to publicly reporting
	home care wait times, commencing with wait times for nursing for all home
	care patients and wait times for personal support services for complex care
	home care patients
HQQ reporting tool	Yearly Report/Common Quality Agenda
ing o reporting tool	Home Care Public Reporting Web Pages
	Quality Improvement Plans indicator (CCAC-level results)
Poporting tools	Optorio Apposician of Community Care Appose Control (OACCAC) How
external to HOO	CACa Care: An Undete on Quality Improvement for Detients (Nevember
	2014) Ministry of Llookh, and Long Tama Oore Multi Ocetar Accountshility
	Ministry of Health and Long-Term Care Multi-Sector Accountability
	Agreement explanatory indicator
Unit of analysis	
Calculation	Numerator
	I ne number of complex nome care patients who received their first personal
	support service visit within five days of the date they were authorized for
	personal support services by the CCAC
	Wait time = First Service Date – Care Authorization Date
	Inclusions:
	<ul> <li>Patients who received CCAC in-home personal support service</li> </ul>
	within five days from service authorization
	Denominator
	The number of adult complex home care patients who received in-home
	personal support services
	Three patient populations are included:
	1) New patients
	<ol><li>Existing patients who now require a new service</li></ol>
	3) Existing patients who are receiving services after a break in service
	Inclusions:
	<ul> <li>Home care patients with complex needs (Authorization Client Care Model Population = 1)</li> </ul>
	Home care patients who requested in-home program at the time of
	referral (Request program=1)
	<ul> <li>Home care patients who received in-home service (SRC = 91 to 95)</li> </ul>
	<ul> <li>Home care patients who received personal support services (Service)</li> </ul>
	Type = 11, 12, 13, 15)
	Home are notiente whose are at earvies outherization date is
	• Nome care patients whose age at service authorization date is
	greater than to
	Frequesions
	• Children receiving personal support service (Age < 19)
	• Conduct receiving personal support service (Age $\geq$ 10)
	<ul> <li>Service delivered in school setting (Care Site = 12, 24, 25)</li> </ul>
	<ul> <li>Episodes of care where service on hold date fails between the convice outbourgetion date and first convice between the</li> </ul>
	service authorization date and first service date
	Methods
	Numerator/Denominator x 100

	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time and by CCAC
comparability	
Data source	Home Care Database (HCD), provided to the Ministry of Health and Long-
	Term Care (MOHLTC) by the OACCAC
Limitations / Caveats	Each case is reported under the fiscal year and quarter in which the home
	care patient received their first home care service. Since wait times are not
	counted until the patient has received the service, wait lists in CCACs can
	impact the indicator results.

Description         This indicator reports the percentage of home care patients placed in long- term care (LTC) homes with a Method for Assigning Priority Levels (MAPLe) score that is less than high or very high.           A lower percentage is better.         A lower percentage is better.           Relevance/Rationale         Home care patients want to preserve their ability to live well independently for as long as possible in their own homes. Unnecessary transfers to a higher level of care than what is required may cause a decline in health. It also contributes to longer waiting times for placement in a long-term care home for those who need to be there. The MAPLe scale was created to assist case managers in making systematic evaluations of the needs of home care patients and the urgency with which they should respond to these needs. <sup>80</sup> Identifying home care patients with the most urgent needs enables the system to fill available LTC beds with people who need it the most and prevent people from being admitted to LTC prematurely. People with low to moderate care MAPLe scores are usually able, with the right support, to remain at home, in a retirement home or in an assisted living facility.           HQO reporting tools         Yearly Report/Common Quality Agenda Home Care Public Reporting Web Pages           Reporting tools         Ontario Association of Community Care Access Centres (OACCAC) How CCACs Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)           Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe sc	PLACEMENT IN LONG-TERM CARE HOMES		
Description         This indicator reports the percentage of home care patients placed in long- term care (LTC) homes with a Method for Assigning Priority Levels (MAPLe) score that is less than high or very high.           A lower percentage is better.         A lower percentage is better.           Relevance/Rationale         Home care patients want to preserve their ability to live well independently for as long as possible in their own homes. Unnecessary transfers to a higher level of care than what is required may cause a decline in health. It also contributes to longer waiting times for placement in a long-term care home for those who need to be there. The MAPLe scale was created to assist case managers in making systematic evaluations of the needs of home care patients and the urgency with which they should respond to these needs. <sup>68</sup> Identifying home care patients with the most urgent needs enables the system to fill available LTC beds with people who need it the most and prevent people from being admitted to LTC prematurely. People with low to moderate care MAPLe scores are usually able, with the right support, to remain at home, in a retirement home or in an assisted living facility.           HQO reporting tool         Yearly Report/Common Quality Agenda Home Care Public Reporting Web Pages           Reporting tools external to HQO         Ontario Association of Community Care Access Centres (OACCAC) How CCACS Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)           Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC home			
Image: Second	Description	This indicator reports the percentage of home care patients placed in long-	
score that is less than high or very high.         A lower percentage is better.         Relevance/Rationale         Home care patients want to preserve their ability to live well independently for as long as possible in their own homes. Unnecessary transfers to a higher level of care than what is required may cause a decline in health. It also contributes to longer waiting times for placement in a long-term care home for those who need to be there. The MAPLe scale was created to assist case managers in making systematic evaluations of the needs of home care patients and the urgency with which they should respond to these needs. <sup>88</sup> Identifying home care patients with the most urgent needs enables the system to fill available LTC beds with people who need it the most and prevent people from being admitted to LTC prematurely. People with low to moderate care MAPLe scores are usually able, with the right support, to remain at home, in a retirement home or in an assisted living facility.         HQO reporting tool       Yearly Report/Common Quality Agenda Home Care Public Reporting Web Pages         Reporting tools external to HQO       Ontario Association of Community Care Access Centres (OACCAC) How CCACs Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Unit of analysis       Percentage         Calculation       <	Description	term care (LTC) homes with a Method for Assigning Priority Levels (MAPLe)	
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Intervention       Intervention         Interventing       Intervention		as long as possible in their own homes. Unnecessary transfers to a higher	
Indext of the second		contributes to longer waiting times for placement in a long-term care home for	
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HQO reporting tool       Yearly Report/Common Quality Agenda Home Care Public Reporting Web Pages         Reporting tools external to HQO       Ontario Association of Community Care Access Centres (OACCAC) How CCACs Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Unit of analysis       Percentage         Calculation       Numerator Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement		moderate care MAPLe scores are usually able, with the right support, to	
HQO reporting tool       Yearly Report/Common Quality Agenda Home Care Public Reporting Web Pages         Reporting tools external to HQO       Ontario Association of Community Care Access Centres (OACCAC) How CCACs Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Unit of analysis       Percentage         Calculation       Numerator Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement		remain at home, in a retirement home or in an assisted living facility.	
Reporting tools       Ontario Association of Community Care Access Centres (OACCAC) How         external to HQO       CACs Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Ministry of Health and Long-Term Care Multi-Sector Accountability         Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Unit of analysis       Percentage         Calculation       Numerator         Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement	HQU reporting tool	Yearly Report/Common Quality Agenda	
external to HQOCCACs Care: An Update on Quality Improvement for Patients (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)Ministry of Health and Long-Term Care Multi-Sector Accountability Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)Unit of analysisPercentageCalculationNumerator Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement	Reporting tools	Ontario Association of Community Care Access Centres (OACCAC) How	
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MAPLe scores high and very high as a proportion of total clients placed)         Ministry of Health and Long-Term Care Multi-Sector Accountability         Agreement explanatory indicator (reports the inverse of this indicator, i.e. the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Unit of analysis       Percentage         Calculation       Numerator         Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement		inverse of this indicator, i.e. the percentage of clients in LTC homes with	
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the percentage of clients in LTC homes with MAPLe scores high and very high as a proportion of total clients placed)         Unit of analysis       Percentage         Calculation       Numerator         Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement		Agreement explanatory indicator (reports the inverse of this indicator, i.e.	
Image       Numerator         Calculation       Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement		the percentage of clients in LTC homes with MAPLe scores high and very	
Calculation       Numerator         Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement	Unit of analysis	high as a proportion of total clients placed)	
Count of patients placed in LTC within the time period who had a MAPLe score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement	Calculation	Numerator	
score that is less than high or very high (i.e. moderate, mild, or low) in their most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement	Calculation	Count of patients placed in LTC within the time period who had a MAPLe	
most recent Resident Assessment Instrument for Home Care (RAI-HC) assessment prior to placement		score that is less than high or very high (i.e. moderate, mild, or low) in their	
assessment prior to placement		most recent Resident Assessment Instrument for Home Care (RAI-HC)	
		assessment prior to placement	
Denominator Total count of patients placed in a long term care home in the time paried for		Denominator	
whom a RAI-HC assessment could be identified		whom a RAI-HC assessment could be identified	

	Exclusions:
	<ul> <li>Transfers from one LTC home to another</li> </ul>
	Methods
	Numerator/Denominator x 100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time and by CCAC
comparability	
Data source	Client Profile Database (CPRO), CCAC Client Management System, RAI-HC
	via Long Stay Assessment Software (LSAS), provided by the OACCAC
Limitations / Caveats	

INFORMAL CAREGIN	VER DISTRESS
Description	This indicator reports the percentage of long-stay home care patients whose primary informal caregiver is unable to continue in caring activities and/or expresses feelings of distress, anger or depression.
Relevance/Rationale	Among home care patients assessed in the community using the Resident Assessment Instrument for Home Care (RAI-HC) in 2013/14, 97% indicated the presence of an informal caregiver (30.6% of primary caregivers were considered a spouse, 51.1% a child or child-in-law, and 18.3% a relative, friend, or neighbour). <sup>89</sup> Health Council of Canada reported that in 2009, 70- 75% of care provided in the home was by informal caregivers. <sup>90</sup> In 2009, the estimated economic value of care provided by informal caregivers in Canada was \$25 billion. <sup>91</sup>
	Though Ontario's home care system relies on informal caregivers to supplement formal care from service providers, it is important to be mindful of the impact that providing care can have on informal caregivers. For example, 13% of informal caregivers in Canada report that their work situations were affected by providing this care. <sup>92</sup> Impacts included things like having to reduce hours at work and taking unpaid leaves of absence. <sup>92</sup> 42% of informal caregivers in Canada reported having to incur out-of-pocket expenses to provide care, such as paying for transportation. <sup>92</sup> These costs and work-related strains can impact a caregiver's level of distress and anger about having to provide care to a friend or family member. The availability of respite care, number of hours of home care provided to patient, and access to community support programs all impact burden placed on informal caregivers.
	Federal and provincial governments have recognized the importance of informal caregivers (mostly through tax reduction strategies). In April 2014, Ontario government passed Bill 21, The Employment Standards Amendment Act (Leaves to Help Families), which allows caregivers to provide support to family members without fear of losing their jobs.

	Providing education and training to informal caregivers may also support
	caregivers to be able to continue to provide care to home care patients for
HOO reporting tool	Ionger and with greater confidence. <sup>33</sup>
Reporting tools	Health Council of Canada Seniors in need, caregivers in distress: What are
external to HQU	the nome care priorities for seniors in Canada? report
	home care and informal caregiving for seniors with chronic health conditions
	Canadian Institute for Health Information (CIHI) Supporting Informal
	Caregivers - The Heart of Home Care report
	Alzheimer Society of Ontario A Profile of Ontario's Home Care Clients with
	Alzheimer's Disease or Other Dementias report
Unit of analysis	Percentage
Calculation	Numerator
	activities
	-AND/OR-
	All clients with a primary caregiver who expresses feelings of distress, anger
	Include in numerator if G2a=1 AND/OR G2c=1
	Where,
	G2a = A caregiver is unable to continue in caring activities (e.g. decline in the
	n = no
	1 = ves
	G2c = Primary caregiver expresses feelings of distress, anger or depression
	Denominator
	All clients with a completed RAI-HC assessment who have primary caregiver
	Exclude if G1ea = 2
	Where G1ea = (primary informal caregiver) Lives with client $[0, 1, 2]$
	0 = ves
	1 = no
	2 = no such helper
	Methods
	Numerator/Denominator X 100
	None
Levels of	Data are compared over time and by CCAC
comparability	
Data source	Home Care Reporting System (HCRS), provided by CIHI
Limitations / Caveats	The results are derived from RAI-HC assessment information in the HCRS
	database. Therefore, the results are representative of long-stay home care
	patients receiving publicly funded home care (i.e., home care patients who
	require care for more than 60 days of continuous service). These long-stay

home care patients represent approximately half of publicly funded home care patients. The other half are short-stay home care patients who require short-term service while they recover from injury or surgery.
Distress, anger, or depression and ability to continue providing care are subjective measures. Results may underreport true rate of distress if some informal caregivers do not want to admit that they feel burdened by having to care for a friend or family member or if they do not exhibit obvious signs of distress. Similarly, cultural differences exist that can affect one's perception of distress caused by caring for a friend or family member since it is simply accepted as something that should be done, regardless of the stress it may cause.
Data are not risk adjusted for factors associated with rates of distress, such as cognitive impairment in the patient, hours of informal care provided by the caregiver, or hours of formal care provided to the patient. Includes patients of varying levels of complexity, including palliative patients.

	NCE
Description	This indicator provides information on the overall experience of home care
	patients. It reports the percentage of home care patients who are satisfied
	with services provided by Community Care Access Centres (CCACs), with
	provided by service provider organizations
	A higher percentage is better.
Relevance/Rationale	Higher patient satisfaction scores are associated with higher quality of care
	and have been shown to be reflective of greater patient engagement in their
	own health care plan. Therefore, measuring patient satisfaction with their
	care is an important component of evaluating and improving the quality of
	measuring patient satisfaction with services provided by CCACs provides an
	opportunity to evaluate care from the patients' perspective.
HQO reporting tool	Yearly Report/Common Quality Agenda
	Home Care Public Reporting Web Pages
-	Quality Improvement Plans indicator (CCAC-level results)
Reporting tools	Ontario Association of Community Care Access Centres (OACCAC)
external to HQO	How We Care: 2012-2013 CCAC Quality Report
	How CCACs Care: An Update on Quality Improvement for Patients
	National Research Corporation Canada (NRCC) Client and Caregiver
	Experience Evaluation (CCEE) Key Performance Indicator (KPI) 1
Unit of analysis	Percentage
Calculation	Numerator
	Sum* of the positive responses** (good, very good, and excellent) for
	questions 4, 24, and 39 in the CCEE survey
	$(n \operatorname{positive} O4) + (n \operatorname{positive} O24) + (n \operatorname{positive} O20)$
	(1) positive Q4) + (1) positive Q24) + (1) positive Q39)
1	

Question 4: Overall how would you rate the services that you received from your CCAC and any of the individuals who provided care to you? Question 24: Overall, how would you rate the management and handling of your care by your case manager? Question 39: Overall how would you rate the x service provided by y (where x is any of: nursing, personal support, physiotherapy, occupational therapy, nutrition/dietetics, speech and language, or social work and y is the name of the service provider)? *Sum of the weighted responses are used. Post-sample weighting is applied to adjust for disproportionate sampling and to ensure that the reported survey results are representative of the actual population served by the CCAC
**Possible responses for all 3 questions: poor, fair, good, very good, or excellent
Denominator
Sum of the number of home care patients who completed survey questions 4, 24, and 39 in the CCEE survey
(n Q4) + (n Q24) + (n Q39)
See numerator description for wording of survey questions
<ul> <li>General Survey Inclusion Criteria:</li> <li>Home care patients (active or discharged) who received one of the following in-home services within specified time period: <ul> <li>Nursing</li> <li>Personal Support</li> <li>Physiotherapy</li> <li>Occupational Therapy</li> <li>Nutrition/Dietetics</li> <li>Speech and Language Therapy</li> <li>Social Work</li> </ul> </li> </ul>
<ul> <li>Home care patients discharged from a placement referral within the fiscal year with one of the following discharge dispositions:</li> <li>Admission final</li> <li>Withdrawn, interim became final</li> <li>Withdrawn, placement by other CCAC</li> <li>Refused bed</li> </ul>
<ul> <li>Caregivers were surveyed in place of home care patients in the event any of the following criteria were met:</li> <li>Home care patient &lt; 19 years of age at time of sample selection</li> <li>Home care patient identified as cognitively incapable</li> <li>Home care patient discharged from placement with one of the four discharge dispositions listed above</li> </ul>
<ul> <li>General Survey Exclusion Criteria:</li> <li>Home care patients who indicate they do not want to participate in any survey conducted on behalf of the CCAC</li> <li>Home care patients who received in-school service only</li> <li>Nursing Clinic Services</li> <li>Respite Services</li> <li>Medical Supplies and Equipment</li> </ul>

	End of life home care patients (SRC 95)
	Home care patients not vet categorized (SRC 99)
	Home care patients classified as out of region
	Convalescent care home care patients
	Home care patients with hospital or death discharge dispositions
	Home care patients on hold in the hospital
	Home care patients without a health card number
	Home care patients with missing contact information
	<ul> <li>Home care patients with an active legal claim against the CCAC</li> </ul>
	<ul> <li>Home care patients with an active regarizing dating the ObAC</li> <li>Home care patients with an active claim before the Ontario Health</li> </ul>
	Services Anneal and Review Board
	Question Specific Exclusion Criteria:
	<ul> <li>Q4-Respondents who do not know the case manager or have not</li> </ul>
	seen or spoken to the case manager.
	<ul> <li>Q39-Respondents who do not recall the in-home service they</li> </ul>
	received
	Q39-Respondents who were surveyed about placement services
	Methods
	Numerator/Denominator X100
	CCEE Survey Sample Plan: The target population in each CCAC is stratified
	according to service type, service provider and/or deography and a random
	sample is drawn from each stratum. The number of surveys conducted is
	determined by estimating the number of surveys needed in order to obtain a
	minimum 10% annual Margin of Error with an average percent positive score
	of 50% in each stratum.
	The CCEE survey is administered over the telephone.
	Adjustment (risk including age/sex standardization)
	Results are weighted to reflect the population of home care patients eligible
	to be surveyed within each CCAC (i.e., sampled home care patients are
	standardized to CCAC-specific population).
Levels of	Data are compared over time and by CCAC
comparability	
Data source	Data from NRCC CCEE Survey, provided to HQO from the OACCAC
Limitations / Caveats	Several types of home care patients and services are excluded (e.g. end-of-
	life clients, respite services, nursing clinic services), suggesting these results
	cannot be widely applied to all home care patients and all home care services
	Caregivers were surveyed in place of clients in the event any of the following
	criteria were met:
	<ul> <li>Client is &lt;19 years of age at time of sample selection</li> </ul>
	Client is identified as cognitively incapable
	Client is discharged from placement with one of the four discharge
	dispositions listed under the General Survey Inclusion Criteria

# 7. Hospital Care Indicators

PATIENT EXPERIENCE: EMERGENCY DEPARTMENT		
Description	This indicator reports the percentage of survey respondents who would	
	"definitely" recommend a hospital's emergency department to family and	
	menus.	
	A higher percentage is better.	
Relevance/Rationale	It is crucial to learn from patients' perspective about the quality of services	
	provided by hospitals. The NRCC survey helps the hospitals to measure and	
	improve patient-centered care in ED.	
HQO reporting tool	Yearly Report/Common Quality Agenda	
Reporting tools	National Research Corporation of Canada Report	
external to HQU	Agreement explanatory indicator	
Unit of analysis	Percentage	
Calculation	Numerator	
	Number of survey respondents who answered "yes, definitely" to the following	
	Ontario Hospital Patient Experience Survey:	
	Would you recommend this ED to family and friends?	
	- Yes, definitely	
	- Yes, probably	
	- NO	
	Number of survey respondents	
	Methods	
	Numerator/Denominator X100	
	Adjustment (risk, including age/sex standardization)	
	None	
Levels of	Data are compared over time	
	National Descents Council of Concerts Optonic Upon its Dationst Functions	
Data Source	Survey provided by the Ontario Hospital Association	
Limitations / Caveats	Self-reported patient satisfaction; prone to survey-related biases	
	Fiscal year 2013/14: Number of responses=39388, Response Rate=22.2%	

PATIENT EXPERIENCE: INPATIENT CARE	
Description	This indicator reports the percentage of survey respondents who would "definitely" recommend a hospital's inpatient care to family and friends. A higher percentage is better.
	· · · · · · · · · · · · · · · · · · ·
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Relevance/Rationale	It is crucial to learn from patients' perspective about the quality of services provided by hospitals. The NRCC survey helps the hospitals to measure and
	improve patient-centered care in hospital.
HQO reporting tool	Yearly Report/Common Quality Agenda
	Quality Improvement Plans indicator (hospital-level data)
Reporting tools	National Research Corporation of Canada Report
external to HQO	Ministry of Health and Long-Term Care Ministry-LHIN Performance
	Agreement explanatory indicator
Unit of analysis	Percentage
Calculation	Numerator
	Number of survey respondents who answered "yes, definitely" to the following
	Ontario Hospital Patient Experience Survey:
	Would you recommend this hospital to family and friends?
	- Yes, definitely
	- Yes, probably
	- No
	Denominator
	Number of survey respondents
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time
comparability	
Data source	National Research Council of Canada Ontario Hospital Patient Experience
	Survey provided by the Ontario Hospital Association
Limitations / Caveats	Self-reported patient satisfaction; prone to survey-related biases
	Fiscal year 2013/14: Number of responses=45423, Response Rate=39.8%

#### EMERGENCY DEPARTMENT LENGTH OF STAY

Maximum amount of time nine out of 10 patients (90<sup>th</sup> percentile) and maximum amount of time five out of 10 patients (median) spent in the emergency department for

- low-acuity conditions
- high-acuity conditions

Description	This indicator reports the maximum amount of time (in hours) in which nine out of ten (five out of ten) high and low acuity patients have completed their ED visits. High and low acuity patients refer to the group of patients assigned with CTAS level 1 to 3, and CTAS level 4 to 5, respectively.
	A lower number of hours is better.
Relevance/Rationale	Long ED wait times are inconvenient and, in some cases, negatively affect a patient's health. Spending a long time in the waiting room, or on hallway stretchers waiting for admission, can also compromise comfort and privacy.
HQO reporting tool	Yearly Report/Common Quality Agenda

	Quality Improvement Plans indicator (hospital-level data but different
	subcategories are reported than those shown in <i>Measuring Up</i> )
Dementing to als	Occurrence Occurrence (difference out occurring and used)
Reporting tools	Cancer Care Ontario reports (different sub-categories are used)
	Agreement explanatory indicator. Quarterly report and Hospital Sector
	Accountability Agreement indicator (different sub-categories are used)
Unit of analysis	Hours
Calculation	All ED visits in the fiscal year of interest
	<ul> <li>From April 2013 Onwards:</li> <li>Exclusion Criteria: <ul> <li>Cases where Registration Date/Time and Triage Date/Time are both blank/unknown (9999)</li> <li>Cases where the MIS functional centre under Emergency Trauma, Observation and Emergency Mental Health Services (as of January 2015 data)</li> <li>Duplicate cases within the same functional center where all ER data elements have the same values except for Abstract ID number</li> <li>Cases where Patient Left ED Date/Time are blank/unknown (9999)</li> <li>Cases where patient has left without being seen by a physician during his/her visit (Disposition Code 02 &amp; 03)</li> <li>ED LOS is greater than or equal to 100000 minutes (1666 hours)</li> </ul> </li> <li>Calculation: <ul> <li>Visits without designated CDU:</li> <li>Date/time</li> </ul> </li> </ul>
	• ED Visits with designated CDU: ER LOS = Total ER LOS - CDU LOS i.e., ER LOS = [Patient left ED date/time - Triage or Registration (whichever is earlier and valid) date/time] - [CDU date/time Out or Patient left ED date/time - CDU date/time In].
	From FY 2011-2012 to FY 2012-2013 Exclusion Criteria:
	<ul> <li>Cases where Patient Left ED Date/Time are blank/unknown (9999)</li> <li>Cases where Registration Date/Time and Triage Date/Time are both blank/unknown (9999)</li> <li>Cases where patients over the age of 125 on the earlier of triage or registration date</li> <li>Duplicate cases within the same functional center where all ER data elements have the same values except for Abstract ID number</li> <li>Cases where the ED visit Indicator is = '0'</li> <li>Cases where patient by a physician during his/her visit (Disposition Code 02 &amp; 03)</li> <li>ED LOS is greater than or equal to 100000 minutes (1666 hours)</li> </ul>
	Calculation: • ED Visits without designated CDU: Date/time Patient Left ED - ED Triage/Registration (whichever is earlier and valid) Date/time

• ED Visits with designated CDU: ER LOS = Total ER LOS - CDU LOS i.e., ER LOS = [Patient left ED date/time - Triage or Registration (whichever is earlier and valid) date/time] - [CDU date/time Out or Patient left ED date/time - CDU date/time In]
<ul> <li>FY 2010-2011</li> <li>Exclusion Criteria: <ul> <li>Cases where Patient Left ED Date/Time and Disposition Date/Time are both blank/unknown (9999)</li> <li>Cases where Registration Date/Time and Triage Date/Time are both blank/unknown (9999)</li> <li>Cases where patients over the age of 125 on the earlier of triage or registration date</li> <li>Duplicate cases within the same functional center where all ER data elements have the same values except for Abstract ID number</li> <li>Cases where Patient left ED date/time is unknown or blank and the Disposition Code is 06-09, 12, 14 (admitted and transferred patients)</li> <li>Cases where patient has left without being seen by a physician during his/her visit (Disposition Code 02 &amp; 03)</li> </ul> </li> </ul>
<ul> <li>ED LOS is greater than or equal to 100000 minutes (1666 hours)</li> <li>Calculation:         <ul> <li>ED Visits without designated CDU:</li> </ul> </li> <li>Date/time Patient Left ED - ED Triage/Registration (whichever is earlier and valid) Date/time         <ul> <li>Note: If Patient Left ED Date/Time is unknown (9999) or blank, use</li> <li>Disposition Date/Time.</li> </ul> </li> </ul>
<ul> <li>ED Visits with designated CDD.</li> <li>ER LOS = Total ER LOS - CDU LOS i.e.,</li> <li>ER LOS = [Patient left ED date/time - Triage or Registration (whichever is earlier and valid) date/time] - [CDU date/time Out or Patient left ED date/time</li> <li>CDU date/time In]</li> </ul>
<ul> <li>FY 2009-2010</li> <li>Exclusion Criteria:</li> <li>Cases where Patient Left ED Date/Time and Disposition Date/Time are both blank/unknown (9999)</li> <li>Cases where Registration Date/Time and Triage Date/Time are both blank/unknown (9999)</li> </ul>
<ul> <li>Cases where patients over the age of 125 on the earlier of triage or registration date</li> <li>Duplicate cases within the same functional center where all ER data elements have the same values except for Abstract ID number</li> <li>Cases pertaining to Psychiatric assessment units reported in functional centre 7131076 - evaluated and approved by CCO's ED Information Program</li> <li>Cases where the Scheduled visit Indicator flag is = 'Y'</li> <li>Cases where ED LOS are negative</li> <li>Cases where Date/Time patient left ED missing and the Disposition Code is 06-09 (admitted patients and transferred patients)</li> <li>Cases where patient has left without being seen by a physician during his/her visit (Disposition Code 02 &amp; 03)</li> </ul>
Calculation:

	• ED Visits without designated CDU: Date/time Patient Left ED - ED Triage/Registration Date/time (earlier one)
	Disposition Date/Time.
	• ED Visits with designated CDU: ER LOS = Total ER LOS - CDU LOS i.e., ER LOS = [Patient left ED date/time - Triage or Registration (whichever is earlier and valid) date/time] - [Date/time Patient Left ED - CDU admission Date/Time]
	Methods Calculate median and 90 <sup>th</sup> percentile
	Adjustment (risk, including age/sex standardization)
Levels of	Data are compared over time, by I HIN region and by acuity level (high vs
comparability	low)
Data source	National Ambulatory Care Reporting System (NACRS), provided by Cancer Care Ontario (CCO)
Limitations / Caveats	

PERCENTAGE OF HIP OR KNEE REPLACEMENTS COMPLETED WITHIN TARGET WAIT TIME	
Description	I his indicator reports the percentage of patients who met the access targets
	replacement procedure (decision-to-treat) until when the actual procedure is completed.
	A higher percentage is better.
	The access targets are as follows for each of the priority levels:
	Priority 2=42 days
	Priority 3=84 days
	Priority 4=182 days
Relevance/Rationale	Hip/knee replacement is one of the high priority areas to reduce wait times.
	Collecting and reporting accurate and up-to-date data on wait times allow
HQO reporting tool	Yearly Report/Common Quality Agenda
	Quality Based Procedures indicator
Reporting tools	Ministry of Health and Long-Term Care Ministry-LHIN Performance
external to HQO	Agreement explanatory indicator (all priority levels), Quarterly report, wait
	time website, and Hospital-Sector Accountability Agreement indicator
	(priority 4 only)
	levels)
Unit of analysis	Percentage
Calculation	Numerator

	Number of patients whose surgery wait times is within the access targets. (See access targets below.)
	Inclusions:
	• Wait time (in days) = "treatment" date <i>minus</i> "decision to treat" date
	The wait time is calculated for each patient who received treatment within the reporting time period.
	<b>Denominator</b> All hip or knee replacement (i.e. primary/revision, total/partial) surgeries meeting the inclusion/exclusion criteria below.
	<ul> <li>Inclusions:</li> <li>All closed wait list entries with procedure dates within date range;</li> <li>Patient was 18 years or older on the day the procedure was completed.</li> </ul>
	<ul> <li>Exclusions:</li> <li>Procedures no longer required.</li> <li>Procedures assigned as Priority 1 level.</li> <li>Wait list entries identified by hospitals as data entry errors.</li> </ul>
	Other Criteria: If patient unavailable dates fall outside the Decision to Treat Date up to Procedure Date, the patient unavailable dates are not deducted from the patient's wait days. These are considered data entry errors.
	Methods Numerator/Denominator X100
	<b>Cell Suppression Guide:</b> Wait time metrics (i.e. Average, Median, 90th Percentile and Percent completed within target) are suppressed if the volumes used to calculate the metrics are below 10 cases
	Adjustment (risk, including age/sex standardization) None
Levels of comparability	Data are compared over time, by LHIN region and by priority level
Data source	Wait Times Information System (WTIS) provided by Cancer Care Ontario
Limitations / Caveats	<ul> <li>Small volumes: small number of cases within a certain reporting period may have a big impact on the result, and thus makes it difficult to draw conclusions about what should be expected</li> <li>Other Factors Affecting Wait Times: There are factors that affect wait times that do not relate to a hospital's efficiency, to a particular doctor or the availability of resources. They include :         <ul> <li>Patient Choice – a patient with a non-life-threatening condition may decide to delay treatment for personal or family reasons to a more convenient time.</li> <li>Patient Condition – a patient's condition may need to improve before the surgery or exam takes place.</li> <li>Follow-up Care – a patient who has an existing condition may be pre-booked for a follow-up treatment or exam a long</li> </ul> </li> </ul>

<ul> <li>Treatment Complexity – a patient with special requirements may need specific equipment or a certain kind of facility and there is a delay until these can be scheduled.</li> </ul>
Right now, there is no way to capture all of these possible factors in the information that hospitals are reporting. However, the provincial WTIS will collect information about when patients are not available for treatment. Although these factors may have a significant effect on the wait time for an individual patient, overall wait times are still a good reflection of the current situation for a typical patient at that hospital.

# PERCENTAGE OF DIAGNOSTIC CARDIAC CATHETERIZATION ANGIOGRAPHIES COMPLETED WITHIN TARGET WAIT TIME

Description	This indicator reports the percentage of patients that require diagnostic cardiac catheterization and receive it within the access target time, based on their urgency level (urgent, semi-urgent, and elective).
	A higher percentage is better.
	<ul> <li>Recommended maximum wait times are as follows for each urgency level:</li> <li>Urgent (7 days)</li> <li>Semi-urgent (28 days)</li> <li>Elective (84 days)</li> </ul>
	Diagnostic cardiac catheterization: A catheter based diagnostic test that involves selectively injecting x-ray contrast dye into one or more coronary arteries in order to visualize blockages in the arteries and vessels that supply blood to the heart.
	More information regarding definitions of procedures can be found on CCN
	http://www.ccn.on.ca/ccn_public/FormsPatientPortal/ProceduresSurgeries.as
Relevance/Rationale	Reporting cardiac wait times is an important part of being open and accountable about how well Ontario is doing in reducing wait times for the procedure. It is also an important tool to help hospitals monitor and manage the services they provide to patients in these areas.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Cardiac Care Network (CCN) wait time report Ministry of Health and Long-Term Care wait time website and Quarterly report
Unit of analysis	Percentage
Calculation	Numerator Number of angiography procedures completed within recommended maximum wait time (stratified by urgency level)
	DenominatorAll adult non-emergent angiography procedures that are done withinOntario's 18 member hospitals that have cardiac centres

	Inclusions:
	1. Static (month-end) Data
	<ol><li>Must be onlisted and offlisted as that procedure :</li></ol>
	<ul> <li>Onlisted and offlisted refers to being put on the waiting list. Once a patient sees a specialist (cardiologist, cardiac surgeon) and that physician accepts the patient for a procedure (CATH, PCI, CABG) they are "onlisted" to the wait list. Once the patient receives their treatment and the procedure is over the patient is "offlisted" from the wait list (because the treatment is done).</li> <li>exclude patients who die before they receive their procedures)</li> <li>Ontario patients with valid OHIP</li> <li>Takes into account up to one DART* per patient. If a patient has two DARTs, the second one will not be counted.</li> </ul>
	*DART stands for Dates Affecting Readiness to Treat. It means that a wait list
	clock is paused because the patient asked the physician to pause it.
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time
comparability	
Data source	Wait Times Information System (WTIS), CCN cardiac registry, provided by
	CCN
Limitations / Caveats	Data cannot be reported by Local Health Integration Network (LHIN) region
	because cardiac centres are not distributed across all LHINs

PERCENTAGE OF F WITHIN TARGET W	PERCUTANEOUS CORONARY INTERVENTIONS COMPLETED AIT TIME
Description	This indicator reports the percentage of patients that require percutaneous coronary intervention (PCI) and receive it within the access target time, based on their urgency level (urgent, semi-urgent, and elective).
	A higher percentage is better.
	<ul> <li>Recommended maximum wait times are as follows for each urgency level:</li> <li>Urgent (7 days)</li> <li>Semi-urgent (14 days)</li> <li>Elective (28 days)</li> </ul>
	Percutaneous coronary intervention (PCI): a procedure that involves inserting a balloon catheter into blocked coronary arteries. The inflation of the balloon opens up the arteries so that blood flow can be returned through the arteries and to the heart. A metal stent may or may not be inserted.
	More information regarding definitions of procedures can be found on CCN website:

	http://www.ccn.on.ca/ccn_public/FormsPatientPortal/ProceduresSurgeries.as
	рх
Relevance/Rationale	Reporting cardiac wait times is an important part of being open and accountable about how well Ontario is doing in reducing wait times for the procedure. It is also an important tool to help hospitals monitor and manage
	the services they provide to patients in these areas.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools	Cardiac Care Network (CCN) wait time report
external to HQO	Ministry of Health and Long-Term Care wait time website and Quarterly
	report
Unit of analysis	Percentage
Calculation	Numerator
	Number of PCIs completed within recommended maximum wait time (stratified by urgency level)
	Denominator
	All adult non-emergent PCIs that are done within Ontario's 18 member hospitals that have cardiac centres
	Inclusions:
	1. Static (month-end) Data
	2. Must be onlisted and offlisted as that procedure:
	<ul> <li>Onlisted and offlisted refers to being put on the waiting list. Once a patient sees a specialist (cardiologist, cardiac surgeon) and that physician accents the patient for a</li> </ul>
	procedure (CATH, PCI, CABG) they are "onlisted" to the wait list. Once the patient receives their treatment and the procedure is over the patient is "offlisted" from the wait list (because the treatment is done).
	<ul> <li>exclude patients who die before they receive their procedures)</li> </ul>
	3 Ontario patients with valid OHIP
	4 Takes into account up to one DART* per patient. If a patient has two
	DARTs, the second one will not be counted.
	*DART stands for Dates Affecting Readiness to Treat. It means that a wait list clock is paused because the patient asked the physician to pause it.
	Methods Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time
comparability	
Data source	Wait Times Information System (WTIS), CCN cardiac registry, provided by
	CCN
Limitations / Caveats	Data cannot be reported by Local Health Integration Network (LHIN) region
	because cardiac centres are not distributed across all LHINs

# PERCENTAGE OF CORONARY ARTERY BYPASS GRAFTS COMPLETED WITHIN TARGET WAIT TIME

Description	This indicator reports the percentage of patients that require coronary artery bypass graft (CABG) surgery and receive it within the access target, based on their urgency level (urgent, semi-urgent, and elective).
	A higher percentage is better.
	<ul> <li>Recommended maximum wait times are as follows for each urgency level:</li> <li>Urgent (14 days)</li> <li>Semi-urgent (42 days)</li> <li>Elective (90 days)</li> </ul>
	Coronary artery bypass graft (CABG): A surgical procedure performed on patients with coronary artery disease to bypass areas of blockage. Blood vessels, most commonly from the legs or chest wall, are grafted onto the heart to allow blood to flow past diseased heart vessels.
	More information regarding definitions of procedures can be found on CCN website: http://www.ccn.on.ca/ccn_public/FormsPatientPortal/ProceduresSurgeries.as
Relevance/Rationale	Reporting cardiac wait times is an important part of being open and accountable about how well Ontario is doing in reducing wait times for the procedure. It is also an important tool to help hospitals monitor and manage the services they provide to patients in these areas.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Cardiac Care Network (CCN) wait time report Ministry of Health and Long-Term Care wait time website, Hospital-Sector Accountability Agreement indicator, Ministry-LHIN Performance Agreement indicator ( <b>elective only</b> ), and Quarterly report
Unit of analysis	Percentage
Calculation	Numerator Number of CABG surgeries completed within recommended maximum wait time (stratified by urgency level)
	<b>Denominator</b> All adult non-emergent CABG surgeries that are done within Ontario's 18 member hospitals that have cardiac centres
	<ul> <li>Inclusions: <ol> <li>Static (month-end) Data</li> <li>Must be onlisted and offlisted as that procedure: <ul> <li>Onlisted and offlisted refers to being put on the waiting list. Once a patient sees a specialist (cardiologist, cardiac surgeon) and that physician accepts the patient for a procedure (CATH, PCI, CABG) they are "onlisted" to the wait list. Once the patient receives their treatment and the procedure is over the patient is "offlisted" from the wait list (because the treatment is done).</li> <li>exclude patients who die before they receive their</li> </ul> </li> </ol></li></ul>

	3. Ontario patients with valid OHIP
	<ol><li>Takes into account up to one DART* per patient. If a patient has</li></ol>
	two DARTs, the second one will not be counted.
	*DART stands for Dates Affecting Readiness to Treat. It means that a wait list
	clock is paused because the patient asked the physician to pause it.
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time
comparability	
Data source	Wait Times Information System (WTIS), CCN cardiac registry, provided by
	CCN
Limitations / Caveats	Data cannot be reported by Local Health Integration Network (LHIN) region
	because cardiac centres are not distributed across all LHINs

PERCENTAGE OF C	ANCER SURGERIES COMPLETED WITHIN TARGET WAIT TIME
Description	This indicator reports the percentage of patients who met the access targets from when a patient and surgeon decide to proceed with cancer surgery until when the actual procedure is completed.
	A higher percentage is better.
	<ul> <li>Recommended maximum wait times are as follows for each priority level:</li> <li>Priority 2 (14 Days)</li> <li>Priority 3 (28 Days)</li> <li>Priority 4 (84 Days)</li> </ul>
Relevance/Rationale	Reporting cancer surgery wait times is an important part of being open and accountable about how well Ontario is doing in reducing wait times for these procedures. It is also an important tool to help hospitals monitor and manage the services they provide to patients in these areas.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Cancer Care Ontario (CCO) Cancer Quality Council of Ontario report Ministry of Health and Long-Term Care wait time website ( <b>quarterly data by</b> <b>procedure</b> ), Hospital-Sector Accountability Agreement indicator, Ministry- LHIN Performance Agreement indicator, and Quarterly report
Unit of analysis	Percentage
Calculation	Number of patients whose cancer surgery wait times is within the access targets. (See wait times calculation & access targets below.)
	Inclusions:Wait times calculation:Wait times are measured in days.Wait time = "treatment" date minus "decision to treat" date.The wait time is calculated for each patient who received treatment within the most current time period, for a particular service area and hospital. Using

	these individual wait times, there are three other calculations: median wait
	time, average wait time and 90 per cent completed within access targets.
	Denominator
	All cancer surgeries meeting the inclusion/exclusion criteria below.
	In sheet on a
	Inclusions:
	All closed wait list entries with cancer procedure dates within date
	range.
	<ul> <li>Patients that are 18 years and older on the day the procedure was completed.</li> </ul>
	<ul> <li>Treatment Cancer procedures only. Procedures classified as "NA" are currently included.</li> </ul>
	Exclusions:
	Diagnostic Palliative and Reconstructive cancer procedures
	<ul> <li>Procedures on Skin - Carcinoma, Skin-Melanoma, and Lymphomas</li> </ul>
	<ul> <li>Procedures on longer required</li> </ul>
	<ul> <li>Procedures assigned as Priority 1 level</li> </ul>
	<ul> <li>Mait list antrias identified by bosnitals as data antry arrors</li> </ul>
	<ul> <li>Wait list entries identified by hospitals as data entry entries.</li> <li>Diagnostic imaging cases classified as specified data procedures.</li> </ul>
	<ul> <li>Diagnostic imaging cases classified as specified date procedures (SDP) or timed procedures. SDP cases are evoluted from MPI and</li> </ul>
	(SDF) of time procedures. SDF cases are excluded from with and CT wait time information as of January 1, 2008
	CT wait time information as of bandary 1, 2000.
	Other Criteria
	If natient unavailable dates fall outside the Decision to Treat Date up to
	Procedure Date the natient unavailable dates are not deducted from the
	natient's wait days. These are considered data entry errors
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time and by LHIN region
comparability	
Data source	Wait Times Information System (WTIS), provided by Cancer Care Ontario
Limitations / Caveats	The intent of the data collection is to have the wait time for a patient
	undergoing an operation where cancer is a real possibility. In some cases, it
	is only after surgery that a negative result is known. Some reported wait time
	data for cancer surgery includes data for surgeries where there are benign or non-cancerous tumours.
	The Ministry of Health and Long-Term Care is working with the surgical
	community to have more accurate reporting of surgical treatment data
	involving "intentional" and "patient unavailable" wait times either by:
	Subtracting the "patient unavailable dates" from the overall wait time.
	• Entering the "decision to treat date" as the date when the patient is
	first recovered from treatment.
	For detailed limitations, see:
	http://www.health.gov.on.ca/en/pro/programs/waittimes/surgery/data.aspx#5
	Many cancer surgery procedures are the same as the procedures for benign (non-cancerous) conditions, and the same doctors perform both cancer

surgery and non-cancer surgery. As a result, almost every hospital in Ontario performs at least a few cancer surgeries every year. However, the hospitals with smaller numbers of cancer procedures may not have a formal cancer program or specialize in cancer surgery. A number of these smaller hospitals do not report their wait time data to WTIS.
Text adapted from the Comprehensiveness of Cancer Surgery Reporting: http://www.health.gov.on.ca/en/pro/programs/waittimes/surgery/data.aspx#4

CLOSTRIDIUM DIFF	ICILE INFECTIONS ACQUIRED IN HOSPITAL
Description	This indicator reports the incidence rate of hospital acquired <i>Clostridium</i>
	difficile infection (CDI) within Ontario hospitals per 1000 inpatient days.
	A lower rate is better
Relevance/Rationale	C. difficile is a leading cause of healthcare associated diarrhea. Infection
	acquired in a hospital is an unnecessary waste of healthcare resources and
	suffering for patients, and can sometimes result in death.
HQO reporting tool	Yearly Report/Common Quality Agenda
	Patient Safety Public Reporting Web Pages (monthly reporting)
Bonorting toolo	Quality Improvement Plans Indicator (facility-level)
external to HOO	Agreement and Quarterly report
Colculation	Percentage
Calculation	Total number of new hospital acquired CDI Cases
	Inclusions:
	1. All publicly funded hospitals
	2. Inpatient beds
	3. Laboratory-confirmed CDI cases (i.e. confirmation of a positive toxin assay
	(A/B) for <i>Clostridium difficile</i> together with diarrnea OR visualization of
	histological/pathological diagnosis of pseudomembranous colitis)
	4. New hospital acquired cases associated with the reporting facility defined
	as - the infection was not present on admission (i.e., onset of symptoms > 72
	hours after admission) or the infection was present at the time of admission
	but was related to a previous admission to the same facility within the last 4
	weeks and the case has not had <i>Clostridium difficile</i> Associated Disease
	(CDAD) in the past 8 weeks.
	Exclusions:
	1. Patients less than 1 year of age
	Denominator
	Total number of inpatient days
	Inclusions:
	2 Innationt hods

	Exclusions:
	1. Patients less than 1 year of age
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)
	None
Levels of	Data are compared over time and by LHIN
comparability	
Data source	Self-Reported by hospitals, collected by Health Analytics Branch of the
	Ministry of Health and Long-Term Care (MOHLTC), provided by the MOHLTC
Limitations / Caveats	Data are self-reported by hospitals
	Captures only hospital-acquired infections

CAESARIAN SECTIO	ON DELIVERIES-OVERALL
Description	This indicator reports the percentage of women who gave birth in Ontario hospitals and had a caesarean delivery.
Relevance/Rationale	A caesarean section is a surgical procedure to deliver one or more babies. Often it is performed when a vaginal delivery would put the mother's or baby's health or life at risk.
	The rate of caesarean section delivery has steadily increased in Canada since 1995 <sup>94</sup> , from 17% to 28% in 2013 <sup>95</sup> . It was the most common inpatient surgical procedure performed in Canada in 2013/14. <sup>96</sup>
	There is concern that serious complications may occur for the mother and/or baby as a result of a caesarean section procedure. These risks, as well as greater recovery time and financial costs of a caesarean delivery, indicate that this rate is important to monitor.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	Better Outcomes Registry & Network (BORN) Annual Report, BORN Perinatal Health Report, BORN Public Health Region Reports Public Health Agency of Canada Perinatal Health Indicators for Canada 2013
	<ul> <li>Other indicators in the same family:</li> <li>Canadian Institute for Health Information Childbirth Quick Stats: Total caesarian section rate (excludes stillbirths)</li> </ul>
Unit of analysis	Percentage
Calculation	Numerator
	Number of cases within denominator resulting in a caesarean section delivery
	Denominator
	Exclusions:
	Deliveries occurring outside of Ontario hospital
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization)

	N/A
Levels of comparability/ stratification descriptions	Data are compared over time and by LHIN region
Data source	BORN Information System
Limitations / Caveats	<ul> <li>Data can only be reported for hospitals who submit and acknowledge their own data</li> <li>Data for FY2006/07- 2011/12 extracted from the Niday perinatal legacy dataset; data from FY2012/13 onwards extracted from the BORN Information System (BIS)</li> <li>Historical dataset did not capture 100% of births</li> </ul>

CAESARIAN SECTIO	ON DELIVERIES AMONG LOW-RISK AND VERY LOW-RISK WOMEN
Description	This indicator reports the percentage of caesarean section deliveries among women who gave birth in Ontario hospitals and had:
Relevance/Rationale	A caesarean section is a surgical procedure to deliver one or more babies. Often it is performed when a vaginal delivery would put the mother's or baby's health or life at risk.
	The rate of caesarean section delivery has steadily increased in Canada since 1995, <sup>94</sup> from 17% to 28% in 2013. <sup>95</sup> It was the most common inpatient surgical procedure performed in Canada in 2013/14. <sup>97</sup> Over one third of women who undergo caesarean delivery are having a repeat caesarean. <sup>26</sup> Therefore it is important to prevent the primary caesarean sections where possible.
	Women giving birth for the first time to a single, full-term, cephalic presenting baby are considered to be at lower risk of having a complicated vaginal delivery. Within this group, women aged 20-34 without any medical problems are considered to be very low-risk.
	There is concern that serious complications may occur for the mother and/or baby as a result of a caesarean section procedure. These risks, as well as greater recovery time and financial costs of a caesarean delivery, indicate that this rate is important to monitor.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools external to HQO	<ul> <li>Other indicators in the same family:</li> <li>Canadian Institute for Health Information: Low-Risk Caesarean Section Rate among singleton term cephalic pregnancies for women without placenta previa or previous C-Section</li> </ul>
Unit of analysis	Percentage
Calculation	Numerator
	delivery, by level of risk:
	1. Low-Risk
	2. Very Low-Risk
	Denominator

	Total number of live-birth deliveries in Ontario hospitals, by level of risk:
	<ol> <li>Inclusions:         <ol> <li>Low-Risk: Nulliparous (first time mothers) who had live, singleton, full-term (gestational age &gt;=37 weeks and &lt;=42 weeks), and cephalic (head first) delivery</li> <li>Very Low-Risk: Low-Risk women (as defined above) aged 20-34 who did not have maternal or obstetrical complications and without the following indications for caesarean delivery: cord prolapse, diabetes, fetal anomaly, placental abruption, placenta previa, preeclampsia, or other fetal or maternal health problems</li> </ol> </li> </ol>
	Exclusions: • Stillbirths
	<ul> <li>Deliveries occurring outside of Ontario hospital</li> </ul>
	Methods
	Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization) N/A
Levels of comparability/ stratification descriptions	Data are compared over time and by LHIN region
Data source	Better Outcomes Registry & Network (BORN) Information System
Limitations / Caveats	<ul> <li>Data can only be reported for hospitals who submit and acknowledge their own data</li> <li>Data for FY2006/07- 2011/12 extracted from the Niday perinatal legacy dataset; data from FY2012/13 onwards extracted from the BORN Information System (BIS)</li> <li>Historical dataset did not capture 100% of births</li> </ul>

## 8. Long-Term Care Indicators

WAITING FOR A BEI	D IN A LONG-TERM CARE HOME
Description	This indicator reports the median number of days a client waited to be placed in a long-term care (LTC) home from the date of LTC home application or consent to the date of placement, whichever is longer. Fewer number of days is better (at the system-level from the perspective of potential residents). This is not an indicator of home performance.
Relevance/Rationale	It is important that individuals who need LTC are placed in a home of their choice as quickly as possible. When people wait for a long time at home, their health may get worse, which can lead to additional stress on them and on the people caring for them. Many people also wait for long-term care after being hospitalized. Waiting in hospital puts people at higher risk of problems like infections or functional decline and can also affect the ability of hospitals to provide regular services like emergency care or elective surgeries.
HQO reporting tool	Yearly Report/Common Quality Agenda Long-Term Care Public Reporting Web Pages
Reporting tools external to HQO	Ministry of Health and Long-Term Care Ontario's Seniors Strategy
Unit of analysis	Number of days
Calculation	Numerator         The median time, in days, for each included placement from the earlier of LTC Home Application Date or Consent Date to date of placement         Inclusions:         All non-crisis clients (includes priority category 3A, 3B, 4A, 4B) placed from locations other than LTC Homes
	<b>Exclusions:</b> Clients whose "Admitted from" and/or "Prior Location Code" is unknown The median is calculated stratified into the following groups:
	<ul> <li>1) Placed from acute care: Inclusions: All non-crisis clients (priority category 3A, 3B, 4A, 4B) placed from acute care hospitals. Does not include clients placed from rehab, complex continuing care, etc.</li> </ul>
	<ul> <li>2) Placed from community</li> <li>Inclusions:</li> <li>All non-crisis clients (priority category 3A, 3B, 4A, 4B) placed from home, retirement homes, and supportive housing.</li> </ul>
	<i>Placement Priority Categories:</i> Category 1: People who need immediate admission to long-term care and cannot have their needs met at home, or who are in hospital, when hospital is in crisis. People in long-term care home that is closing within 12 weeks.

	<b>Category 2:</b> People who need to be reunified with their spouses/partners who are currently residing in a long-term care home, and who meet eligibility requirements (including care needs).
	<b>Category 3A:</b> People waiting for a long-term care home serving those of a particular religion, ethnic origin or culture. People who have high care needs, but can still be supported at home until a bed becomes available. People in hospital waiting for long-term care. People in a long-term care home seeking transfer to their home of choice.
	<b>Category 3B:</b> People waiting for a long-term care home serving those of a particular religion, ethnic origin or culture. People with care needs who are currently managing at home with supports. Wait times for clients in this category are much longer.
	<b>Category 4A:</b> People who have high care needs, but can still be supported at home until a bed becomes available. People in hospital waiting for long-term care. People in a long-term care home seeking transfer to their home of choice.
	<b>Category 4B:</b> People with care needs who are currently managing at home with supports. Wait times for people in this category are much longer.
	<b>Veterans:</b> People with care needs who are currently managing at home with supports. Wait times for clients in this category are much longer.
	Denominator N/A
	Methods The median is the number of days within which 50% of individuals waited from the date of application or consent to the date of placement. The results by LHIN region represent the median of the wait times for clients placed within a LHIN region (i.e., the result is the median of the wait experienced by clients by the LHIN where the placement occurred (based on location of the LTC home) regardless of their home LHIN).
	Adjustment (risk, including age/sex standardization) None
Levels of comparability	Data are compared over time and by LHIN region
Data source	LTCPR Client Profile database (CPRO), provided to the Ministry of Health and Long Term Care by the Community Care Access Centres (CCACs)

Limitations / Caveats	Placements included in this indicator do not include individuals identified as crisis, spousal/partner reunifications, or individuals transferring from another LTC home, whose wait times are much shorter. The included placements make up approximately 40% of all placements to LTC and 70% of all placements excluding transfers from other LTC homes.
	The wait time for LTC placement is a measure for those individuals who have been placed into LTC, so does not capture those who wait for LTC but die or find alternative arrangements before receiving LTC home accomodation.
	The median was chosen as a summary measure because the overall distribution of wait time is highly skewed by very long waits.
	Although priority categories are assigned based on a provincially standardized process, variation between CCAC processes exist for prioritizing individuals within priority categories.
	The priority categories changed in 2010. For 2003/04 to 2009/10, non-crisis clients were denoted by priority category 1B, 2, and 3. From 2010/11 to 2012/13, non-crisis clients were denoted by priority category 3A, 3B, 4A, and 4B.
	Clients were excluded if their location at placement was unknown.

USE OF DAILY PHYSICAL RESTRAINTS IN LONG-TERM CARE HOMES	
Description	This indicator reports the percentage of long-term care (LTC) residents in daily physical restraints.
	A lower percentage is better.
Relevance/Rationale	Some LTC homes use restraints as a way of managing potentially harmful resident behaviours, such as wandering or aggression (e.g., hitting). Residents who display these behaviours often have dementia or other cognitive impairments and can sometimes pose a risk to themselves or others. However, restraints are known to cause injury and even accidental death. They are also associated with social isolation and a reduced quality of life. For this reason, it is important to reduce the use of restraints and find alternate ways of managing behaviours.
HQO reporting tool	Yearly Report/Common Quality Agenda
	Long-Term Care Public Reporting Web Pages
	Quality Improvement Plans indicator (home-level data)
Reporting tools	Ministry of Health and Long-Term Care Long-Term Care Sector
external to HQO	Accountability Agreement explanatory indicator
	Canadian Institute for Health Information (CIHI) Your Health System

Unit of analysis	Percentage
Calculation	Numerator
	LTC residents who were physically restrained daily on their target Resident Assessment Instrument – Minimum Data Set 2.0 (RAI-MDS 2.0) assessment
	Inclusions:
	(P4c = 2) OR (P4d = 2) OR (P4e = 2)
	Where,
	P4c = Trunk restraint [0,1,2]
	P4d = Limb restraint [0,1,2]
	P4e = Chair prevents rising [0,1,2]
	0 = not used
	1 = used less than daily 2 = used daily
	2 – used daily Denominator
	LTC residents with valid RAI-MDS 2.0 assessments*
	Exclusions:
	<ul> <li>Residents who were comatose (B1= 1)</li> </ul>
	<ul> <li>Residents who were quadriplegic (I1bb = 1)</li> </ul>
	*For an assessment to be valid and included in the quality indicator
	calculation the selected assessment must:
	Be the latest assessment in the guarter
	Be carried out more than 92 days after the Admission Date
	Not be an Admission Full Assessment
	Methods
	The indicator is calculated using four rolling quarters of data by summing the
	number of residents that meet the inclusion criteria for the target quarter and
	each of the previous three fiscal quarters. This is done for both the numerator
	and denominator. The unadjusted rate is the quotient of the summed
	Adjustment (risk including age/sex standardization)
	This indicator is risk adjusted through direct standardization using the
	Activities of Daily Living (ADL) Long Form, which includes bed mobility,
	transfer, locomotion, dressing, eating, toileting and personal hygiene self-
	performance.
Levels of comparability	Data are compared over time, by LHIN region and by province
Data source	Continuing Care Reporting System (CCRS) provided by CIHI
Limitations / Caveats	Does not measure the use of bed rails or chemical restraints (i.e. medication)
	Includes only long-stay beds
	Rolling four quarter averages stabilize the rates from quarter-to-quarter variations, especially for smaller facilities, but make it more difficult to detect quarterly changes
	There may be some inconsistencies in how homes code restraints due to the difference in RAI-MDS physical restraint definition and the Ministry legislated definition.

General limitations when using RAI-MDS 2.0 data, including random error,
coding errors, and missing values

FALLS IN LONG-TERM CARE HOMES	
Description	This indicator reports the percentage of long-term care (LTC) residents who
-	fell in the last 30 days.
Polovonco/Potionalo	A lower percentage is the better.
Relevance/Rationale	that limit their independence and increase their care needs. Falls also have
	an effect on other parts of the health care system, leading to more
	emergency department visits, hospitalizations and surgeries.
	The Long-Term Care Homes Act, 2007, requires all homes in Ontario to have
	and the risk of injury
HQO reporting tool	Yearly Report/Common Quality Agenda
	Long-Term Care Public Reporting Web Pages
	Quality Improvement Plans indicator (home-level data)
Reporting tools	Ministry of Health and Long-Term Care Long-Term Care Sector
external to HQO	Accountability Agreement explanatory indicator
	Canadian Institute for Health Information (CIHI) Your Health System
Unit of analysis	Percentage
Calculation	Numerator
	LTC residents who had a fall in the last 30 days recorded on their target
	Resident Assessment Instrument – Minimum Data Set (RAI-MDS 2.0)
	Inclusions:
	J4a = 1
	Where,
	J4a = Fell In past 30 days [0,1]
	1 = Yes
	Denominator
	LTC residents with valid RAI-MDS 2.0 assessments*
	*For an assessment to be valid and included in the quality indicator
	calculation, the selected assessment must:
	Be the latest assessment in the quarter
	Be carried out more than 92 days after the Admission Date
	Not be an Admission Full Assessment
	Methods
	number of residents that meet the inclusion criteria for the target quarter and
	each of the previous three fiscal guarters. This is done for both the numerator

	and the second sectors with the second sector is the second sector fully a second sector the second sector is the second second sector is the second s
	and denominator. The unadjusted rate is the quotient of the summed
	numerator divided by the summed denominator, multiplied by 100.
	Adjustment (risk, including age/sex standardization)
	This indicator is risk adjusted at the individual covariate level and through
	direct standardization
	Individual Covariates
	Individual Covanates
	Not totally dependent in transferring
	Locomotion problem
	<ul> <li>Personal Severity Index (PSI)**: Subset 2: Non-Diagnoses</li> </ul>
	Any wandering
	Unsteady gait/cognitive impairment
	Age younger than 65
	Direct Adjustment
	• Case Mix Index (CMI) <sup>A</sup>
	**PSI is statistically linked to the likelihood of death within six months
	^The relative resource use compared to the overall average resource use for
	all Ontario LTC residents
Levels of	Data are compared over time, by LHIN region and by province
comparability	
Data source	Continuing Care Reporting System (CCRS), provided by CIHI
Data Source	Continuing Care Reporting System (CCRS), provided by Cirn
Limitations / Caveats	Includes only long-stay beds
	Rolling four guarter averages stabilize the rates from guarter-to-guarter
	variations especially for smaller facilities but make it more difficult to detect
	quarterly changes
	quarterly onlanges
	Concret limitations when weine DALMDC 2.0 date including regulate arrest
	General limitations when using RAI-MDS 2.0 data, including random error,
	coding errors, and missing values
	A study of nursing home residents suggested that falls are underreported
	according to the RAI-MDS 2.098

NEW OR WORSENIN	IG PRESSURE ULCERS
Description	This indicator reports the percentage of long-term care (LTC) residents who had a newly occurring stage 2 to 4 pressure ulcer or a pressure ulcer that worsened to a stage 2, 3 or 4. A lower percentage is better.
Relevance/Rationale	Pressure ulcers are skin wounds that can develop when someone has been sitting or lying down for prolonged periods of time. Residents who develop pressure ulcers are at risk of serious health complications, such as infections and severe pain. Pressure ulcers are also very difficult and expensive to treat.

	The <i>Long-Term Care Homes Act, 2007</i> requires all homes in Ontario to have a skin and wound care program to promote skin integrity, prevent the development of wounds and pressure ulcers, and provide effective skin and wound care interventions.
HQO reporting tool	Yearly Report/Common Quality Agenda Long-Term Care Public Reporting Web Pages Quality Improvement Plans indicator
Reporting tools external to HQO	Ministry of Health and Long-Term Care Long-Term Care Sector Accountability Agreement explanatory indicator
	Canadian Institute for Health Information (CIHI) Your Health System
Onit of analysis	Numerator
Calculation	LTC residents who had a pressure ulcer at stage 2 to 4 on their target RAI- MDS 2.0 assessment and either they did not have a pressure ulcer on their prior assessment or the stage of pressure ulcer is greater on their target compared with their prior assessment
	Inclusions: M2a > 1 AND (M2a – Prev_M2a) > 0 AND Prev_M2a < 4 Prev_M2a = Stage of pressure ulcer at prior assessment [0-4]
	Where, M2a = Stage of pressure ulcer at target assessment [0-4]
	<b>Denominator</b> LTC residents with valid RAI-MDS 2.0 assessments*, excluding those who had a stage 4 pressure ulcer on their prior assessment (i.e., residents are only included if they did not have a pressure ulcer at the maximum stage on their prior assessment)
	Exclusions: • Prev_M2a = 4
	<ul> <li>*Two valid assessments within consecutive quarters are required for a given resident to calculate the quality indicator. The assessment selected as the "target" assessment in the current quarter must:</li> <li>Be the latest assessment in the quarter</li> </ul>
	<ul> <li>Be carried out more than 92 days after the Admission Date</li> <li>Not be an Admission Full Assessment</li> </ul>
	<ul> <li>Be from a resident that had an assessment in the previous quarter</li> <li>Have 45 to 165 days between the target assessment and assessment in the previous quarter (Note: If there are multiple assessments from the previous quarter that meet the time period criteria, the latest assessment is selected as the "prior" assessment)</li> </ul>
	Methods The indicator is calculated using four rolling quarters of data by summing the number of residents that meet the inclusion criteria for the target quarter and each of the previous three fiscal quarters. This is done for both the numerator and denominator. The unadjusted rate is the quotient of the summed numerator divided by the summed denominator, multiplied by 100.
	Adjustment (risk, including age/sex standardization) This indicator is risk adjusted at the individual covariate level and through direct standardization.

	<ul> <li>Individual Covariates</li> <li>Age younger than 65</li> <li>Resource Utilization Group (RUG) Late Loss Activities of Daily Living (ADL)</li> </ul>
	<ul> <li>Direct Standardization</li> <li>Case Mix Index (CMI)**</li> </ul>
	**The relative resource use compared to the overall average resource use for all Ontario LTC residents
Levels of comparability	Data are compared over time, by LHIN region and by province
Data source	Continuing Care Reporting System (CCRS), provided by CIHI
Limitations / Caveats	Includes only long-stay beds Some anecdotal evidence that assessors may not remove bandages to assess ulcers or restage pressure ulcers as instructed by RAI-MDS 2.0 Rolling four quarter averages stabilize the rates from quarter-to-quarter variations, especially for smaller facilities, but make it more difficult to detect quarterly changes General limitations when using RAI-MDS 2.0 data, including random error,
	General limitations when using RAI-MDS 2.0 data, including random error, coding errors, and missing values

### 9. Health Workforce Indicators

#### NUMBER OF EMPLOYED NURSES (BY NURSING CATEGORY), OF FAMILY DOCTORS AND SPECIALIST DOCTORS PER 100,000 PEOPLE This indicator reports the supply per 100,000 people in Ontario, of: Description Family doctors **Specialists** Nurse practitioners **Registered nurses** Registered practical nurses **Relevance/Rationale** A crucial element in the delivery of health services in Canada and Ontario is human resources. The health care system relies on the services of trained health professionals to deliver health care. The Health Human Resources Strategy Division was established in 2005 as part of the Government's overall health strategy to increase the supply of appropriately educated health professionals in Ontario to address the needs of the public.<sup>99</sup> This indicator reports the number of health care providers per 100.000 population, which offers an estimate of provider availability. **HQO** reporting tool Yearly Report/Common Quality Agenda Reporting tools Ontario Physician Human Resources Data Centre (OPHRDC) Annual reports external to HQO CIHI, Your Health System (family doctors only) Other indicators in the same family: Canadian Institute for Health Information (CIHI), Supply, Distribution and Migration of Canadian Physicians (different sources are used to determine the number of physicians so values differ from what is reported in *Measuring Up*) Unit of analysis Rate per 100,000 people Calculation Numerator Number of: -Family doctors -Specialists **Exclusions:** • Deceased physicians Licensed physicians who reach age 85 in the reporting year Physicians with expired licenses Physicians not practicing regularly in Ontario Physicians with educational, short-term, or academic visitor license class Post graduate trainees holding a general license who had not completed training by July 31 of the year of interest Number of: -Nurse practitioners<sup>100</sup> -Registered nurses<sup>1000</sup> -Registered practical nurses<sup>10000</sup> Exclusions:

Nurses not registered with the College of Nurses of Ontario (CNO)

•

	Nurses registered with CNO who do not report at least one nursing
	employment position in Ontario in the last year
	<ul> <li>Nurses registered with CNO who are on leave</li> </ul>
	Denominator
	Population estimates from the Ministry of Finance
	Methods
	Numerator/Denominator X 100,000
	Adjustment (risk, including age/sex standardization)
	N/A
	OPUPDC Active Physician Pagistry (Crude rates based on numbers of
Data Source	CERTIC Active Environmental Registry (Crude rates based on numbers of
	Collage of Nurses of Optaria 2014 Membership Statistics Highlights (the
	number of RN_RPN and NP)
Limitations / Caveats	The measure looks at the number of health care providers per 100 000
	population, however it does not count for differences in scope of practice
	(comprehensive care).
	Does not adjust for physicians accepting new patients, the health status
	profile of patients population served, full time vs part time health providers,
	locums, or geographic location (and inflow/outflow).
	The indicator is based on information provided in the license and could be
	different from the practice location.
	These indicators look into variations among different LHINs in Ontario but are
	not adjusted for the characteristics of the population being served in each
	region.
	LHIN data for nursing are not reported because it reflects number of filled
	nursing employment positions rather than number of nurses employed in
	nursing.
	A LHIN's boundaries don't necessary reflect natient flow as individuals can
	seek care across the boundary of their I HIN the I HIN represents the
	physician's primary practice address

LOST-TIME INJURY	RATES
Description	<ul> <li>This indicator reports lost-time injury rates per 100 full-time equivalent workers in: <ul> <li>Homes for Nursing Care</li> <li>Hospitals</li> <li>Healthcare sector</li> </ul> </li> <li>A lower rate is better.</li> </ul>

Relevance/Rationale	There are 775,800 registered workers in Ontario's health care sector that work at more than 6,000 hospitals, long-term care homes, retirement homes, community care and other workplaces across Ontario. The health care sector faces some challenges which may have significant impacts on worker health and on lost-time injury (LTI) rates. These include increased care
	requirements resulting from Ontario's aging population, increased patient and resident needs, increased obesity rates and increased demand on health and community care services. In addition, employers face recruitment and
	retention challenges, an aging workforce, a shortage of skilled professional staff, and an increase in casual and part-time workforce <sup>101</sup>
	Implementing healthy work environments and building a culture of safety for health care workers are key to ensuring quality patient care. Enhancing morale and reducing absenteeism can reduce adverse events, improve patient safety and support improved patient outcomes. <sup>102</sup>
HQO reporting tool	Yearly Report/Common Quality Agenda Long-Term Care Public Reporting Web Pages (for Homes for Nursing Care only)
Reporting tools external to HQO	Workplace Safety and Insurance Board Statistical Reports (they report only the raw number of injuries and the number of full-time equivalent workers in each sector)
Unit of analysis	Rate per 100 full-time equivalent (FTE) workers
Calculation	Numerator
	Total number of lost-time injuries* that occurred during the period of interest,
	in each health care setting.
	* Lost-Time injuries (LTIs) are allowed injury/illness claims by workers who
	have lost wages as a result of temporary or permanent impairment. Excludes fatalities.
	<b>Denominator</b> Total full-time equivalent (FTE)** workers in each health care setting
	**FTE Workers is an estimate based on the average hourly wage for the rate group and the insurable earnings for the calendar year, assuming a person works an average of 2,000 hours per year.
	Methods Numerator/Denominator X100
	Adjustment (risk, including age/sex standardization) N/A
Levels of	Data are compared over time and by health care settings
comparability	
Data source	WSIB Enterprise Information Warehouse as of March 31st, of the following year for each injury year.
Limitations / Caveats	The number of full time equivalent workers is an estimate based on data from
	Statistics Canada's Survey of Employment, Payrolls and Hours (SEPH).
	The number of injuries is based on claims by workers, so if a claim for benefits is not filed for an injury, then it would not be counted.
	This indicator reports the rate of injuries for worker groups but does not specify who is included within each worker group (e.g. physicians who are self-employed may not be insured by WSIB. However, those who are employed by hospitals or specialty clinics may be insured, based on the WSIB's policy).

## 10. Health Spending Indicators

#### TOTAL HEALTH EXPENDITURE PER CAPITA

Description	This indicator reports total expenditure on health per person in a given period
Polovonco/Potionalo	Of unite.
Relevance/Rationale	health system can be determined by leaking at the performance of the
	system in combination with the amount of monoy spont on health care
	Though the relationship between backle energing and backle subserves in
	not dear yet, reporting how much eport on health could tall how the health
	not clear yet, reporting now much spent on nearth could tell now the nearth
HOO reporting tool	Voarly Poport/Common Quality Agonda
	reary Report Common Quality Agenda
Reporting tools	National Health Expenditure Trends, 1975 to 2014, Canadian Institute for
external to HQO	Health Information (CIHI)
	Health Statistics, Organization for Economic Co-operation and Development
	(OECD)
Unit of analysis	Dollars per person
Calculation	Numerator
	Total health expenditure in a given period of time. Total expenditure on
	health measures the final consumption of health goods and services (i.e.
	current health expenditure) plus capital investment in health care
	infrastructure. This includes spending by both public and private sources on
	medical services and goods, public health and prevention programmes and
	administration.
	Denominator
	I ne most recent revised population estimates from the demography division
	Of Statistics Canada
	The date are obtained from National Health Expanditure database (NIHEX) of
	CIUL or Health Statistics of OECD is a they are not calculated by HOO
	Adjustment (risk including age/sex standardization)
	To compare spending over time in Ontario, constant (1997) dollars is used to
	adjust for both population growth and inflation, which varied over time. To
	compare spending levels between countries. Purchasing Power Parities
	(PPPs) which are the rates of currency conversion that equalize the
	purchasing power of different currencies, is used to eliminate differences in
	price levels between countries. Health expenditures per capita are converted
	to a common currency (US dollar) and adjusted to take account of the
	different purchasing power of the national currencies.
Levels of	Data are compared over time, by province, and by country
comparability	
Data source	NHEX, provided by CIHI; population and price indices, provided by Statistics
	Canada. Health Statistics, provided by OECD.
Limitations / Caveats	OECD member countries are asked to report health expenditure according to
	concepts presented in the OECD manual A System of Health Accounts
	(SHA). Countries are at varying stages of reporting total health expenditure
	according to the boundary of health care proposed in the SHA manual. That
	means data presented in OECD health Statistics 2015 is at the varying levels
	of comparability. This indicator most closely follows the health care
	boundaries proposed in the SHA and is believed to be fairly comparable,

although some deviations from SHA definitions may still exist among sub-
categories.

	JRE PER CAPITA ON DRUGS
Description	This indicator reports health expenditure on drugs per person in a given
Decemption	period of time.
Relevance/Rationale	Prescription drugs have become an important component of the healthcare
	system. CIHI reports that drugs were one of the fastest-growing categories of
	health system spending between 2001 and 2013. Drugs constitute a large
	category of health expenditure across OECD countries, accounting for, on
	average, almost a fifth of total health care spending.
	Ontario has a universal health system that is largely funded by the public
	sector but drugs spending is one category where the share of private funding
	is higher than the public share.
HQO reporting tool	Yearly Report/Common Quality Agenda
Reporting tools	National Health Expenditure Trends, 1975 to 2014, Canadian Institute for
external to HQO	Health Information (CIHI)
	Health Statistics. Organization for Economic Co-operation and Development
	(OECD)
Unit of analysis	Dollars per person
Calculation	Numerator
	Health expenditure on drugs in a given period of time.
	Drugs in this analysis include as prescribed and non-prescribed drugs (often
	referred to as over-the-counter drugs) as well as other medical non-durables
	(or personal health supplies) such as bandages, syringes, elastic stockings
	and knee supports, and contraceptive devices. Drugs consumed in hospitals
	are excluded as, under the SHA, they are considered intermediate
	Consumption in the production of hospital care.
	The most recent revised population estimates from the demography division
	of Statistics Canada
	Methods
	The data are obtained from National Health Expenditure Database (NHEX) of
	CIHI or Health Statistics of OECD i.e. they are not calculated by HQO.
	Adjustment (risk, including age/sex standardization)
	To compare spending over time in Ontario, constant (1997) dollars is used to
	standardize for both population growth and inflation, which varied over time.
	To compare spending levels between countries, Purchasing Power Parities
	(PPPs), which are the rates of currency conversion that equalize the
	purchasing power of different currencies, is used to eliminate differences in
	price levels between countries. Health expenditures per capita are converted
	to a common currency (US dollar) and adjusted to take account of the
Lovals of	Data are compared over time, by province, and by couptry
comparability	
Data source	NHEX, provided by CIHI; population and price indices, provided by Statistics
	Canada. Health Statistics, provided by OECD.
Limitations / Caveats	OECD member countries are asked to report health expenditure according to
	concepts presented in the OECD manual A System of Health Accounts

(SHA). Countries are at varying stages of reporting total health expenditure
according to the boundary of health care proposed in the SHA manual. That
means data presented in OECD health Statistics 2015 is at the varying levels
of comparability. This indicator most closely follows the health care
boundaries proposed in the SHA and is believed to be fairly comparable,
although some deviations from SHA definitions may still exist among sub-
categories.

PRESCRIPTION OR DOSE OF MEDICINE SKIPPED DUE TO COST	
This indicator reports the percentage of survey respondents who reported not	
filling a prescription or skipping medicine because of the cost.	
A lower percentage is better.	
system CIHI reports that drugs were one of the fastest-growing categories of	
health system spending between 2001 and 2013. Ontario has a universal	
health system that is largely funded by the public sector but drugs spending is	
one category where the share of private funding is higher than the public	
share. Given the relatively high proportion of private spending on drugs, it is	
Worth knowing whether cost prevents people from accessing needed drugs.	
really Report Common Quality Agenda	
Commonwealth Fund International Health Policy Survey of Older Adults	
reports	
Other indicators in the same family:	
A similar indicator was reported in a 2011 news release from the	
Health Council of Canada. The question from the Commonwealth	
Fund Survey was the same but the population surveyed was	
sicker adults (i.e. those with chronic conditions)	
Percentage	
Numerator	
During the past 12 months, was there a time when you did not fill/collect a	
prescription for medicine, or you skipped doses of your medicine because of	
the cost?	
Denominator	
Total number of survey respondents	
Methods	
The percentage is provided by Commonwealth Fund. No calculation is	
conducted on-site.	
Survey is administered via telephone to randomly selected people aged 55	
years or older	
Adjustment (risk, including age/sex standardization)	
I weighted to account for the design characteristics of the survey and post-	

Levels of comparability	Data are compared by province and country
Data source	2014 Commonwealth Fund International Health Policy Survey of Older Adults
Limitations / Caveats	The indicator only captures adults aged 55 and older

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