Public Health Ontario | Santé publique Ontario

TECHNICAL NOTES

Cancer Incidence Snapshot

This Snapshot captures incidence of selected cancers, reported by calendar year of diagnosis (2010 – 2014) for 35 Public Health Units and other geographic comparators, and 14 Local Health Integration Networks (LHIN) in Ontario.
Adapted From: APHEO Cancer Incidence Core Indicator (core.apheo.ca/index.php?pid=102)

Cancers of interest:

- All cancers (ICD-O-3 Codes: C00.0 to C80.9)
- Female breast cancer (ICD-O-3 Codes: C50.0 to C50.9)*
- Cervical cancer (ICD-O-3 Codes: C53.0 to C53.9)*
- Colorectal cancer (ICD-O-3 Codes: C18.0 to C18.9, C19.9, C20.9, C26.0)*
- Lung cancer (ICD-O-3 Codes: C34.0 to C34.9)*
- Malignant melanoma (ICD-O-3 Codes: C44.0 to C44.9 along with morphology codes: M-8720 to M-8790 only)
- Oral cancer (ICD-O-3 Codes: C00.0 to C00.9, C01.9 to C06.9, C07.9 to C11.9, C12.9 to C14.0, C14.2 to C14.8)*
- Prostate cancer (ICD-O-3 Codes: C61.9)*

* excludes cases with morphology codes M-9590 to M-9989, M-9050 to M-9055, M-9140
NOTE: In October 2014, the Ontario Cancer Registry (OCR) implemented a new set of rules for identifying multiple primary cancers which has led to an increase in the number of reported cases for certain cancer types. The OCR is the provincial database containing information about all newly diagnosed cancer cases in Ontario and its new rules are applied to cases diagnosed from 2010 onward. As such, this Snapshot contains indicator trends from 2010 onward. For more information please see: cancercareontario.ca/en/cancer-facts/new-ontario-cancer-registry-rules.

Measures included:

Age-standardized rates

- Age-standardized rate (both sexes)
- Age-standardized rate (males)
- Age-standardized rate (females)

Standardized incidence ratios (SIR)

- Standardized incidence ratio (both sexes)
- Standardized incidence ratio (males)

- Standardized incidence ratio (females)

Crude rates

- Crude rate (both sexes)
- Crude rate (males)
- Crude rate (females)

Age-specific rates

- Age-specific rate (ages 0 to 14)
- Age-specific rate (ages 15 to 29)
- Age-specific rate (ages 30 to 49)
- Age-specific rate (ages 50 to 64)
- Age-specific rate (ages 65 to 79)
- Age-specific rate (ages 80+)

Metrics included:

- Rates (Age-standardized, SIRs, crude, age-specific)
- 95% confidence intervals (CIs for rates calculated using a Poisson approximation of the binomial distribution, CIs for SIRs calculated using Byar's Approximation)
- Statistical significance compared to Ontario (for rates, confidence interval around the difference between the health unit rate and the Ontario rate does not include zero; for SIRs, confidence interval around SIR does not include one)
- Cases (numerator)
- Population (denominator)
- Flag to indicate if result was suppressed in accordance with PHO-CCO data sharing agreement in regards to small cell count (between 1 and 5 cases in a year)

Geographic comparisons included:

- Ontario
- Ontario minus Toronto
- Snapshots peer groups (based on Statistics Canada peer groups). For more information on Statistics Canada peer group methodology see: Health region peer groups – working paper, 2018 on the Statistics Canada website. Table 1 shows the mapping between the peer groupings used in Snapshots and the nationally defined 2018 Statistics Canada peer groups:

Table 1. Mapping between Snapshots Peer Groups and Statistics Canada 2018 Peer Groups
Mainly urban centres with moderate population density (Statistics Canada peer group B)
Durham Region Health Department
Halton Region Public Health
City of Hamilton Public Health Services
Middlesex-London Health Unit
Ottawa Public Health
Region of Waterloo Public Health and Emergency Services
Windsor-Essex County Health Unit
Sparsely populated urban-rural mix (Statistics Canada peer group C)
Algoma Public Health
Brant County Health Unit
Chatham-Kent Health Unit
Eastern Ontario Health Unit
Haliburton, Kawartha, Pine Ridge District Health Unit
Hastings Prince Edward Public Health
Kingston, Frontenac and Lennox & Addington Public Health
Lambton Public Health
Niagara Region Public Health
North Bay Parry Sound District Health Unit
Porcupine Health Unit
Peterborough Public Health
Public Health Sudbury & Districts
Thunder Bay District Health Unit
Timiskaming Health Unit
Mainly rural (Statistics Canada peer group D)
Grey Bruce Health Unit
Haldimand-Norfolk Health Unit
Huron County Health Unit
Leeds, Grenville & Lanark District Health Unit
Northwestern Health Unit
Perth District Health Unit
Renfrew County and District Health Unit
Simcoe Muskoka District Health Unit
Southwestern Public Health
Wellington-Dufferin-Guelph Public Health
Largest population centres with high population density (Statistics Canada peer groups G & H)
Toronto Public Health
Peel Public Health
York Region Public Health

Exclusion Criteria:

Records without a valid age have been excluded from overall age standardized rates and standardized incidence ratios. Records without a valid gender have been excluded from sex-specific age standardized rates, standardized incidence ratios and crude rates.

Methods

Elgin St. Thomas Public Health and Oxford County Public Health & Emergency Services merged to form Southwestern Public Health in 2018. In this Snapshot, case counts and population counts for the two public health units were summed to calculate cancer incidence rates for Southwestern Public Health.

Historical analysis was run on updated data. Counts and rates may have changed from previously published results.

Data Sources:

Numerator: Cancer incidence (2010 – 2014)

- Original source: Cancer Care Ontario (CCO), Ontario Cancer Registry (OCR)
- Distributed by: Cancer Care Ontario
- Cancer Incidence, 2010–2014, Cancer Care Ontario, Ontario Cancer Registry, Date received: December 14, 2018.

Denominator: Population estimates

- Original source: Statistics Canada
- Distributed by: Ontario Ministry of Health and Long-Term Care: IntelliHEALTH ONTARIO
- Population Estimates, 2010–2015, Ontario Ministry of Health and Long-Term Care : IntelliHEALTH ONTARIO, extracted: October 19, 2017.

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