

## TECHNICAL NOTES

# Alcohol Harms Snapshot

Updated: September 2024

This Snapshot captures emergency department (ED) visits (from the National Ambulatory Care Reporting System (NACRS)), hospitalizations (from both the Discharge Abstract Database (DAD) and the Ontario Mental Health Reporting System (OMHRS)) for those with a condition entirely caused by alcohol, and mortality (alcohol toxicity deaths) provided by the Office of the Chief Coroner/Ontario Forensic Pathology Service (OCC/OFPS). Data is reported by calendar year for ED visits (2014 to 2023), hospitalizations (2014 to 2023), and mortality (2018 to 2023) for local Public Health Units (PHU) and other geographic comparators in Ontario.

## Specific Indicators

### ED visits for conditions entirely caused by alcohol (NACRS)

- 3-digit All Dx ICD code = F10, K70, T51, X45, X65, Y15
- 4-digit All Dx ICD code = E24.4, G31.2, G62.1, G72.1, I42.6, K29.2, K85.2, K86.0, O35.4, Q86.0, R78.0
- Ambulatory case type = EMG (emergency)

### ED visits for mental health conditions entirely caused by alcohol (NACRS)

- 3-digit All Dx ICD code = F10
- Ambulatory case type = EMG (emergency)

### Hospitalizations for conditions entirely caused by alcohol (DAD + OMHRS)

- DAD:
  - 3-digit All Dx ICD code = F10, K70, T51, X45, X65, Y15
  - 4-digit All Dx ICD code = E24.4, G31.2, G62.1, G72.1, I42.6, K29.2, K85.2, K86.0, O35.4, Q86.0, R78.0
  - Includes those in acute care facilities only
- OMHRS:
  - DSM-IV Axis I Primary or DSM-IV Axis I Sec Dx or DSM-IV Axis I Tert Dx or DSM-IV Axis I Quat Dx or DSM-IV Axis II Other Primary Dx or DSM-IV Axis II Other Sec Dx = 291.0, 291.1, 291.2, 291.3, 291.5, 291.81, 291.82, 291.89, 291.9, 303.00, 303.90, 305.00
  - DSM-5 Psychiatric Dx A or DSM-5 Psychiatric Dx B or DSM-5 Psychiatric Dx C or DSM-5 Psychiatric Dx D or DSM-5 Psychiatric Dx E or DSM-5 Psychiatric Dx F = 291.0,
  - 291.1, 291.2, 291.81, 291.82, 291.89, 291.9, 303.00, 303.90, 305.00, F10.0, F10.1, F10.2, F10.3, F10.4, F10.5, F10.6, F10.7, F10.8, F10.9
  - Includes those in designated acute adult mental health beds

## Hospitalizations for mental health conditions entirely caused by alcohol (DAD + OMHRS)

- DAD:
  - 3-digit All Dx ICD code = F10
  - Includes those in acute care facilities only
- OMHRS:
  - DSM-IV Axis I Primary or DSM-IV Axis I Sec Dx or DSM-IV Axis I Tert Dx or DSM-IV Axis I Quat Dx or DSM-IV Axis II Other Primary Dx or DSM-IV Axis II Other Sec Dx = 291.0, 291.1, 291.2, 291.3, 291.5, 291.81, 291.82, 291.89, 291.9, 303.00, 303.90, 305.00
  - DSM-5 Psychiatric Dx A or DSM-5 Psychiatric Dx B or DSM-5 Psychiatric Dx C or DSM-5 Psychiatric Dx D or DSM-5 Psychiatric Dx E or DSM-5 Psychiatric Dx F = 291.0, 291.1, 291.2, 291.81, 291.82, 291.89, 291.9, 303.00, 303.90, 305.00, F10.0, F10.1, F10.2, F10.3, F10.4, F10.5, F10.6, F10.7, F10.8, F10.9
  - Includes those in designated acute adult mental health beds

### **Mortality:**

#### **Acute alcohol toxicity deaths\*:**

- Mortality from acute alcohol toxicity with or without drug involvement
- Mortality from acute alcohol toxicity without drug involvement
- Mortality from acute alcohol toxicity with drug involvement
- Mortality from acute alcohol toxicity with opioid involvement

\* Acute intoxication/toxicity deaths resulting from the direct contribution of consumed substance(s), where one or more of the substances was ethanol. Other non-ethanol substances may also be listed in the cause of death. These deaths do not include those due to 1) the medical effects of chronic alcohol use; 2) deaths due to methanol, isopropanol, ethylene glycol toxicity in the absence of ethanol toxicity 2) trauma where substance(s) contributed to the circumstances of the injury but were not directly involved in the immediate cause of death

## Measures Included

### **Age-standardized rates**

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

### **Crude rates**

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

### Age-specific rates (both sexes, males, females)

- Age-specific rate (ages 15 to 24)
- Age-specific rate (ages 25 to 44)
- Age-specific rate (ages 45 to 64)
- Age-specific rate (ages 65+)

## Metrics Included

- Rates (Age-standardized, crude, age-specific)
- 95% confidence intervals (CIs for rates calculated using a Poisson approximation of the binomial distribution)
- 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)
- Cases (Numerator)
- Population (Denominator)

## Geographic comparisons Included

- Ontario
- 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<sup>1</sup>](#) 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**

Peer Group	Public Health Unit (PHU)
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

Peer Group	Public Health Unit (PHU)
	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 Perth Public Unit Leeds, Grenville & Lanark District Health Unit Northwestern 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

## Other Methodological Notes

- Records without a valid age have been excluded from age standardized rates, standardized morbidity/mortality ratios, and age-specific rates. Records without a valid gender have been excluded from sex-specific age standardized rates, standardized morbidity/mortality ratios and crude rates.
- For mortality indicators:
  - As some data are based on ongoing investigations by coroners, they are considered preliminary and subject to change.
  - The majority of deaths reported involved a combination of substances. Deaths due to acute alcohol toxicity alone are less prevalent.

Deaths that were deemed an accident, suicide and undetermined were included in the reported data.

- A small number of deaths due to other alcohol (methanol, isopropanol, ethylene glycol toxicity in the absence of ethanol toxicity) were excluded.
- Due to the small sample size, use caution when interpreting the statistics.

## Data Sources

### Numerator:

- National Ambulatory Care Reporting System (NACRS). 2014-2023 [data file]. Ottawa, ON: Canadian Institute for Health Information [producer]; Toronto, ON: Ontario. Ministry of Health and Long-Term Care, IntelliHealth Ontario [distributor]; [unpublished] [data extracted 2023 Sep 4].
- Discharge Abstract Database (DAD). 2014-2023 [data file]. Ottawa, ON: Canadian Institute for Health Information [producer]; Toronto, ON: Ontario. Ministry of Health and Long-Term Care, IntelliHealth Ontario [distributor]; [unpublished] [data extracted 2023 Sep 4].
- Ontario Mental Health Reporting System (OMHRS). 2014-2023 [data file]. Ottawa, ON: Canadian Institute for Health Information [producer]; Ontario. Ministry of Health and Long-Term Care, IntelliHealth Ontario [distributor]; [unpublished] [data extracted 2023 Sep 4].
- 2018 to 2023 [data file]. Toronto, ON: Office of the Chief Coroner/Ontario Forensic Pathology Service (OCC/OFPS); [unpublished] [data received 2024 Aug 19].

### Population

- Statistics Canada. Population estimates, 2014 – 2021 [data file]. Ottawa, ON: Government of Canada [producer]; Toronto, ON: Ontario. Ministry of Health and Long-Term Care, IntelliHealth Ontario [distributor]; [unpublished] [data extracted 2023 May 10].
- Statistics Canada. Population projections, 2022 – 2023 [data file]. Ottawa, ON: Government of Canada [producer]; Toronto, ON: Ontario. Ministry of Health and Long-Term Care, IntelliHealth Ontario [distributor]; [unpublished] [data extracted 2023 May 10].

## References

Statistics Canada. Health region peer group – working paper, 2018 [Internet]. Ottawa, ON: Her Majesty the Queen in Right of Canada; 2018 [cited 2023 Jan 9]. Available from:

<https://www150.statcan.gc.ca/n1/en/pub/82-622-x/82-622-x2018001-eng.pdf?st=6nRTPtMo>

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