Public Health Ontario | Santé publique Ontario

TECHNICAL NOTES

Substance Use and Harms Tool

Updated: October 2026

Introduction

Following an increase in public health, health care and media concern about substance-related harms in Ontario and across Canada, understanding and addressing this problem became a provincial priority. Public Health Ontario (PHO) has developed an interactive surveillance report to describe the magnitude and distribution of substance-related morbidity and mortality, harm reduction, and substance use in Ontario. This report provides users with the ability to examine trends in emergency department visits, hospitalizations, and deaths by public health unit, age group, sex, and, where available, drug type. It also includes indicators of harm reduction—such as naloxone, needle, and foil distribution by provincial partners—as well as measures of tobacco, vaping, and cannabis use among adult and youth populations.

Indicators

Substance-related Harms

Emergency department visits for opioid poisonings

Includes:

- Unscheduled emergency department (ED) visits for opioid poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T40.0 (poisoning by opium)
  - T40.1 (poisoning by heroin)
  - T40.20-T40.28 (poisoning by codeine and derivatives [T40.20], poisoning by morphine [T40.21], poisoning by hydromorphone [T40.22], poisoning by oxycodone [T40.23], poisoning by other opioids not elsewhere classified [T40.28])
  - T40.3 (poisoning by methadone)
  - T40.40-T40.48 (poisoning by fentanyl and derivatives [T40.40], poisoning by tramadol [T40.41], poisoning by other synthetic narcotics not elsewhere classified [T40.48])
  - T40.6 (poisoning by other and unspecified narcotics)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Hospitalizations for opioid poisonings

Includes:

- Hospitalizations for opioid poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T40.0 (poisoning by opium)
  - T40.1 (poisoning by heroin)
  - T40.20-T40.28 (poisoning by codeine and derivatives [T40.20], poisoning by morphine [T40.21], poisoning by hydromorphone [T40.22], poisoning by oxycodone [T40.23], poisoning by other opioids not elsewhere classified [T40.28])
  - T40.3 (poisoning by methadone)
  - T40.40-T40.48 (poisoning by fentanyl and derivatives [T40.40], poisoning by tramadol [T40.41], poisoning by other synthetic narcotics not elsewhere classified [T40.48])
  - T40.6 (poisoning by other and unspecified narcotics)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Deaths due to opioid toxicity

Includes:

- All deaths where acute opioid toxicity was considered as contributing to the cause of death
- Confirmed opioid-related deaths where a stimulant, benzodiazepine, or alcohol also contributed to cause of death are reported as separate indicators
- Both confirmed and probable opioid-related deaths:
  - Confirmed opioid-related deaths are those for which conclusions on cause of death and autopsy results have indicated an opioid directly contributed to the cause of death
  - Probable opioid-related deaths are suspect drug-related deaths (with conclusions on cause of death/autopsy results pending) where toxicology is positive for opioids. These deaths should be considered as preliminary and are subject to change as remaining cases are closed by the Office of the Chief Coroner for Ontario
- Deaths from specific types of opioids:
  - Codeine
  - Fentanyl (including carfentanil and other fentanyl analogues)
  - Heroin
  - Hydrocodone
  - Hydromorphone
  - Methadone
  - Morphine
  - Nitazenes
  - Oxycodone

Excludes:

- Deaths due to chronic substance use, medical assistance in dying, or trauma where an intoxicant contributed to the circumstances of the injury and deaths classified as homicide

Emergency department visits for stimulant poisonings

Includes:

- Unscheduled emergency department (ED) visits for stimulant poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T40.5 (poisoning by cocaine)
  - T43.6 (poisoning by psychostimulants with abuse potential
  - T43.60 (poisoning by methamphetamine with abuse potential
  - T43.68 (poisoning by other specified psychostimulants with abuse potential
  - T43.69 (poisoning by unspecified psychostimulants with abuse potential

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Hospitalizations for stimulant poisonings

Includes:

- Hospitalizations for opioid poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T40.5 (poisoning by cocaine)
  - T43.6 (poisoning by psychostimulants with abuse potential
  - T43.60 (poisoning by methamphetamine with abuse potential
  - T43.68 (poisoning by other specified psychostimulants with abuse potential
  - T43.69 (poisoning by unspecified psychostimulants with abuse potential

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Deaths due to stimulant toxicity

Includes:

- All deaths where acute opioid toxicity was considered as contributing to the cause of death
- Confirmed stimulant-related deaths (those for which conclusions on cause of death and autopsy results have indicated a stimulant directly contributed to the cause of death)
- Deaths from specific types of stimulants:
  - Cocaine

- Methamphetamines
- Other stimulants (Amphetamine, methylenedioxyamphetamine (MDA), methylenedioxymethamphetamine (MDMA), mephedrone, methylphenidate, phentermine, pseudoephedrine, and methylenedioxypyrovalerone)

Excludes:

- Deaths due to chronic substance use, medical assistance in dying, or trauma where an intoxicant contributed to the circumstances of the injury, and deaths classified as homicide

Emergency department visits for benzodiazepine poisonings

Includes:

- Unscheduled emergency department (ED) visits for benzodiazepine poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T42.4 (poisoning by benzodiazepines)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Hospitalizations for benzodiazepine poisonings

Includes:

- Hospitalizations for opioid poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T42.4 (poisoning by benzodiazepines)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Deaths due to benzodiazepine toxicity

Includes:

- All deaths where acute benzodiazepine toxicity was considered as contributing to the cause of death
- Confirmed benzodiazepine-related deaths (those for which conclusions on cause of death and autopsy results have indicated a benzodiazepine directly contributed to the cause of death)
- Deaths from specific types of benzodiazepines
  - Approved benzodiazepines with Canadian federal approval for medical use (including diazepam, lorazepam, alprazolam, temazepam, clonazepam, oxazepam, nitrazepam, bromazepam, chlordiazepoxide, demoxepam (chlordiazepoxide metabolite), clobazam, flurazepam and midazolam)
  - Unapproved benzodiazepines without Canadian federal approval for medical use (including etizolam, flualprazolam and flubromazolam)

Excludes:

- Deaths due to chronic substance use, medical assistance in dying, or trauma where an intoxicant contributed to the circumstances of the injury, and deaths classified as homicide

Emergency department visits for alcohol poisonings

Includes:

- Unscheduled emergency department (ED) visits for alcohol poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T51.0 (toxic effect of ethanol)
  - T51.1 (toxic effect of methanol)
  - T51.2 (toxic effect of 2-propanol)
  - T51.3 (toxic effect of fusel oil)
  - T51.8 (toxic effect of other alcohols)
  - T51.9 (toxic effect of alcohol, unspecified)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Hospitalizations for alcohol poisonings

Includes:

- Hospitalizations for alcohol poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T51.0 (toxic effect of ethanol)
  - T51.1 (toxic effect of methanol)
  - T51.2 (toxic effect of 2-propanol)
  - T51.3 (toxic effect of fusel oil)
  - T51.8 (toxic effect of other alcohols)
  - T51.9 (toxic effect of alcohol, unspecified)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Deaths due to alcohol toxicity

Includes:

- All deaths where acute alcohol toxicity was considered as contributing to the cause of death
- Confirmed alcohol-related deaths (those for which conclusions on cause of death and autopsy results have indicated alcohol directly contributed to the cause of death)

Excludes:

- Deaths due to chronic substance use, medical assistance in dying, or trauma where an intoxicant contributed to the circumstances of the injury, and deaths classified as homicide

Emergency department visits for conditions entirely attributable to alcohol

Includes:

- Unscheduled emergency department (ED) visits for conditions entirely attributable to alcohol (all diagnosis types)
- ICD-10-CA codes:
  - E24.4 Alcohol-induced pseudo-Cushing's syndrome
  - F10 Mental and behavioural disorders due to use of alcohol
    - F10.0 Mental and behavioural disorders due to use of alcohol, acute intoxication
    - F10.1 Mental and behavioural disorders due to use of alcohol, harmful use
    - F10.2 Mental and behavioural disorders due to use of alcohol, dependence syndrome
    - F10.3 Mental and behavioural disorders due to use of alcohol, withdrawal state
    - F10.4 Mental and behavioural disorders due to use of alcohol, withdrawal state with delirium
    - F10.5 Mental and behavioural disorders due to use of alcohol, psychotic disorder
    - F10.6 Mental and behavioural disorders due to use of alcohol, amnesic syndrome
    - F10.7 Mental and behavioural disorders due to use of alcohol, residual and late-onset psychotic disorder
    - F10.8 Mental and behavioural disorders due to use of alcohol, other mental and behavioural disorders
    - F10.9 Mental and behavioural disorders due to use of alcohol, unspecified mental and behavioural disorder
  - G31.2 Degeneration of nervous system due to alcohol
  - G62.1 Alcoholic polyneuropathy
  - G72.1 Alcoholic myopathy
  - I42.6 Alcoholic cardiomyopathy
  - K29.2 Alcoholic gastritis
  - K70 Alcoholic liver disease
    - K70.0 Alcoholic fatty liver
    - K70.1 Alcoholic hepatitis
    - K70.2 Alcoholic fibrosis and sclerosis of liver
    - K70.3 Alcoholic cirrhosis of liver
    - K70.4 Alcoholic hepatic failure
    - K70.9 Alcoholic liver disease, unspecified

- K85.2 Alcohol-induced acute pancreatitis
- K86.0 Alcohol-induced chronic pancreatitis
- O35.4 Maternal care for (suspected) damage to fetus from alcohol
- Q86.0 Fetal alcohol syndrome (dysmorphic)
- R78.0 Finding of alcohol in blood
- T51 Toxic effect of alcohol
  - T51.0 Toxic effect of ethanol
  - T51.1 Toxic effect of methanol
  - T51.2 Toxic effect of 2-Propanol
  - T51.3 Toxic effect of fusel oil
  - T51.8 Toxic effect of other alcohols
  - T51.9 Toxic effect of alcohol, unspecified
- X45 Accidental poisoning by and exposure to alcohol
- X65 Intentional self-poisoning by and exposure to alcohol
- Y15 Poisoning by and exposure to alcohol, undetermined intent

Hospitalizations for conditions entirely attributable to alcohol

Includes:

- Hospitalizations for conditions entirely attributable to alcohol (all diagnosis types)
- ICD-10-CA codes (DAD):
  - E24.4 Alcohol-induced pseudo-Cushing's syndrome
  - F10 Mental and behavioural disorders due to use of alcohol
    - F10.0 Mental and behavioural disorders due to use of alcohol, acute intoxication
    - F10.1 Mental and behavioural disorders due to use of alcohol, harmful use
    - F10.2 Mental and behavioural disorders due to use of alcohol, dependence syndrome
    - F10.3 Mental and behavioural disorders due to use of alcohol, withdrawal state
    - F10.4 Mental and behavioural disorders due to use of alcohol, withdrawal state with delirium
    - F10.5 Mental and behavioural disorders due to use of alcohol, psychotic disorder
    - F10.6 Mental and behavioural disorders due to use of alcohol, amnesic syndrome
    - F10.7 Mental and behavioural disorders due to use of alcohol, residual and late-onset psychotic disorder
    - F10.8 Mental and behavioural disorders due to use of alcohol, other mental and behavioural disorders
    - F10.9 Mental and behavioural disorders due to use of alcohol, unspecified mental and behavioural disorder

- G31.2 Degeneration of nervous system due to alcohol
- G62.1 Alcoholic polyneuropathy
- G72.1 Alcoholic myopathy
- I42.6 Alcoholic cardiomyopathy
- K29.2 Alcoholic gastritis
- K70 Alcoholic liver disease
  - K70.0 Alcoholic fatty liver
  - K70.1 Alcoholic hepatitis
  - K70.2 Alcoholic fibrosis and sclerosis of liver
  - K70.3 Alcoholic cirrhosis of liver
  - K70.4 Alcoholic hepatic failure
  - K70.9 Alcoholic liver disease, unspecified
- K85.2 Alcohol-induced acute pancreatitis
- K86.0 Alcohol-induced chronic pancreatitis
- O35.4 Maternal care for (suspected) damage to fetus from alcohol
- Q86.0 Fetal alcohol syndrome (dysmorphic)
- R78.0 Finding of alcohol in blood
- T51 Toxic effect of alcohol
  - T51.0 Toxic effect of ethanol
  - T51.1 Toxic effect of methanol
  - T51.2 Toxic effect of 2-Propanol
  - T51.3 Toxic effect of fusel oil
  - T51.8 Toxic effect of other alcohols
  - T51.9 Toxic effect of alcohol, unspecified
- X45 Accidental poisoning by and exposure to alcohol
- X65 Intentional self-poisoning by and exposure to alcohol
- Y15 Poisoning by and exposure to alcohol, undetermined intent

- DSM IV/5 codes (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 bed

Emergency department visits due to cannabis-related poisonings

Includes:

- Unscheduled emergency department (ED) visits for cannabis poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T40.7 (Poisoning by cannabis (derivatives))
  - T40.70 (Poisoning by cannabis (derivatives), edibles and ingestibles)
  - T40.71 (Poisoning by synthetic cannabinoids)
  - T40.79 (Poisoning by cannabis (derivatives), unspecified)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Hospitalizations due to cannabis-related poisonings

Includes:

- Hospitalizations for cannabis poisoning (all diagnosis types)
- ICD-10-CA codes:
  - T40.7 (Poisoning by cannabis (derivatives))
  - T40.70 (Poisoning by cannabis (derivatives), edibles and ingestibles)
  - T40.71 (Poisoning by synthetic cannabinoids)
  - T40.79 (Poisoning by cannabis (derivatives), unspecified)

Excludes:

- Cases with a query/suspected diagnosis (diagnosis prefix = Q)

Emergency department visits due to cannabinoid hyperemesis syndrome

Includes:

- Unscheduled emergency department (ED) visits for cannabinoid hyperemesis syndrome (all diagnosis types), starting in April 2022
- ICD-10-CA codes:
  - K92.81 (Cannabinoid hyperemesis syndrome)

Hospitalizations due to cannabinoid hyperemesis syndrome

Includes:

- Hospitalizations for cannabinoid hyperemesis syndrome (all diagnosis types), starting in April 2022
- ICD-10-CA codes:
  - K92.81 (Cannabinoid hyperemesis syndrome)

Emergency department visits due to cannabis-related mental health conditions

Includes:

- Unscheduled emergency department (ED) visits for cannabis-related mental health conditions (all diagnosis types)
- ICD-10-CA codes:
  - All codes falling under F12 (Mental and behavioural disorders due to use for cannabinoids)

Hospitalizations due to cannabis-related mental health conditions

Includes:

- Hospitalizations for cannabis-related mental health conditions (all diagnosis types)
- ICD-10-CA codes (DAD):
  - All codes falling under F12 (Mental and behavioural disorders due to use for cannabinoids)
- DSM IV/5 codes (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 = 304.30, 305.20
  - 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 = 304.30, 305.20, F12 (all codes under this 3 digit code)

Emergency department visits due to all cannabis-related conditions

Includes:

- Unscheduled emergency department (ED) visits for all cannabis-related conditions including cannabis-related poisonings, cannabinoid hyperemesis syndrome, and cannabis-related mental health conditions (see those specific indicators for more details)

Hospitalizations due to all cannabis-related conditions

Includes:

- Hospitalizations for all cannabis-related conditions including cannabis-related poisonings, cannabinoid hyperemesis syndrome, and cannabis-related mental health conditions (see those specific indicators for more details)

Harm Reduction

Total number of naloxone doses

Includes:

- Total number of naloxone doses provided through the Ontario Naloxone Program (ONP) and the Ontario Naloxone Program for Pharmacies (ONPP)
- The Ontario Naloxone Program provides naloxone doses to Public Health Units for distribution through eligible community-based organizations, including Community Health Centres, Aboriginal Health Access Centres, shelters, withdrawal management programs, AIDS Service Organizations, outreach programs, Consumption Treatment Services, and hospitals with an emergency department and/or urgent care centre

- The Ontario Naloxone Program for Pharmacies provides naloxone doses through participating community pharmacies
- This indicator includes both injectable and intranasal naloxone
- Naloxone kits provided by pharmacies and community include 2 naloxone doses
- Kits are counted as 2 doses within the numerator of this indicator

Excludes:

- Naloxone doses provided to police, fire and St. John Ambulance

Community provided naloxone doses

Includes:

- Total number of naloxone doses provided through the Ontario Naloxone Program (ONP)
- The Ontario Naloxone Program provides naloxone doses to Public Health Units for distribution through eligible community-based organizations, including Community Health Centres, Aboriginal Health Access Centres, shelters, withdrawal management programs, AIDS Service Organizations, outreach programs, Consumption Treatment Services, and hospitals with an emergency department and/or urgent care centre
- This indicator includes both injectable and intranasal naloxone
- Naloxone kits provided by pharmacies and community include 2 naloxone doses

Excludes:

- Naloxone doses provided to police, fire and St. John Ambulance

Pharmacy provided naloxone doses

Includes:

- Total number of naloxone doses provided (number of kits provided x 2) through the Ontario Naloxone Program for Pharmacies (ONPP)
- The Ontario Naloxone Program for Pharmacies provides naloxone doses through participating community pharmacies
- This indicator includes both injectable and intranasal naloxone
- Naloxone kits provided by pharmacies and community include 2 naloxone doses and are counted as 2 doses within the numerator of this indicator
- As of March 2018, there are some instances in which a pharmacist is permitted to provide more than one naloxone kit (each containing two doses) to a recipient in a given naloxone claim. In this case, each kit and respective dose would be counted
- This is restricted to naloxone doses dispensed by pharmacies participating in the Ontario Naloxone Program for Pharmacies

Foils provided

Includes:

- Total number of foils provided through the Ontario Harm Reduction Distribution Program to a Public Health Unit

Needles provided

Includes:

- Total number of needles provided through the Needle Exchange Program to a Public Health Unit

Substance Use

Tobacco Use

Note on Terminology

Any reference to tobacco refers to use of commercial tobacco, such as mass-produced cigarettes, that is not associated with the sacred and traditional uses of tobacco, which Indigenous peoples have been using for thousands of years. Traditional or sacred tobacco differs from commercial tobacco both in the way that it is harvested and in the way it is used in ceremony and prayer, often for healing and purifying.

- **Cigarette use (adults):** Percentage of adults (19+) who reported smoking cigarettes daily or in the past 30 days (CCHS)
  - **Daily cigarette use:** Percentage of adults (19+) who reported smoking cigarettes daily (CCHS).
  - **Former cigarette use:** Percentage of adults (19+) who reported smoking at least 100 cigarettes in their lifetime and no cigarette use in the past 30 days (CCHS).
  - **Lifetime cigarette abstinence:** Percentage of adults (19+) who never smoked a whole cigarette in their lifetime (CCHS).
- **Cigarette use (youth):** Percentage of youth in grades 7 to 12 who reported cigarette use in the past 12 months (OSDUHS)
  - **Lifetime cigarette abstinence:** Percentage of youth in grades 7 to 12 who never tried a cigarette, not even a puff, in their lifetime (OSDUHS).
- **Exposure to tobacco smoke (adults):**
  - **Exposure to tobacco smoke in home:** Percentage of adults (18+) who did not use cigarettes in the past 30 days and reported exposure to tobacco smoke from someone smoking inside their home in the past 6 months (CAMH Monitor).
  - **Exposure to tobacco smoke in multi-unit dwellings:** Percentage of adults (18+) living in multi-unit dwelling and reported exposure to tobacco smoke from a neighbouring unit or from outside the building in the past 6 months (CAMH Monitor).
  - **Exposure to tobacco smoke at work**: Percentage of adults (18+) whose primary workplace is outside the home who reported exposure to indoor tobacco smoke at their workplace or inside a work vehicle in the past week (CAMH Monitor).
- **Exposure to tobacco smoke (youth):** Percentage of youth in grades 7 to 12 who reported exposure to others' tobacco smoke indoors or outdoors in the past 7 days (OSDUHS).

Vaping/Alternatives

- **Vape use (adults):** Percentage of adults (19+) who reported using an electronic cigarette or vaping device in the past month (CCHS).

- **Attempt to quit vaping:** Percentage of adults (18+) who reported using an electronic cigarette or vaping device in the past 30 days and made a serious attempt to quit in the past 12 months (CAMH Monitor).
- **Intend to quit vaping:** Percentage of adults (18+) who reported using an electronic cigarette or vaping device in the past 30 days and intent to quit in the next 6 months (CAMH Monitor).

- **Vape use (youth):**
  - **Past year:** Percentage of youth in grades 7 to 12 who reported using a vaping device, including a few puffs, in the past year (OSDUHS).
  - **Past month:** Percentage of youth in grades 7 to 12 who reported using a vaping device in the past month (OSDUHS).
  - **Past week:** Percentage of youth in grades 7 to 12 who reported using a vaping device at least once per week (OSDUHS).
  - **Lifetime vape abstinence:** Percentage of youth in grades 7 to 12 who reported never using a vaping device in their lifetime (OSDUHS).
  - **Attempt to quit vaping:** Percentage of youth in grades 7 to 12 who reported using a vaping device in the past 30 days and tried to stop vaping one day or longer in the past year (OSDUHS).
  - **Exposure to vape aerosol in home (adults):** Percentage of adults (18+) who did not vape in the past 30 days and reported exposure to electronic cigarette vapour from someone vaping inside their home in the past 6 months (CAMH Monitor).
- **Nicotine pouch use (youth):** Percentage of youth in grades 7 to 12 who reported using a nicotine pouch in the past year (OSDUHS).
- Percent of adults aged 19+ reporting a vape quit attempt in the past month (CAMH Monitor)

Cannabis Use

- **Cannabis use (adults):**
  - Percentage of adults aged 19+ reporting cannabis use one or more times per week in the past 12 months (CCHS)
  - Percentage of adults aged 19+ reporting cannabis use daily or near daily in the past 12 months (CCHS)
  - Percentage of adults aged 19+ reporting cannabis use before age 19 (CCHS)
  - Percentage of adults aged 25+ reporting cannabis use before age 25 (CCHS)
- **Cannabis use (youth):**
  - Percentage of youth in grades 7 to 12 reporting cannabis use one or more times per week in the past month (OSDUHS)
  - Percentage of youth in grades 7 to 12 reporting cannabis use in the past 12 months (OSDUHS)

Methodological Notes

Substance-related Harms

- Some deaths are attributed to multi-drug toxicity, therefore, a death can include more than one drug as a cause; the percentage attributed to any one drug is calculated using the total number of unique deaths
- Testing for detection of nitazenes (benzimidazole-opioids) in post-mortem toxicology became routine in September 2021. Detection in opioid-related deaths may be under-reported for 2021; nitazenes may have been detected in combination with other opioids, and due to limited understanding of these emerging substances, may not always be attributed to the cause of death
- Data presented for ED visits for opioid poisoning in the most recent quarter have been collected as part of a weekly reporting initiative by the Ministry of Health and Ontario hospitals and should be considered as preliminary and subject to change
- Data for ED visits and hospitalizations are updated quarterly, approximately 4–6 months after the quarter has passed (shortly after the data is made available to PHO); data for deaths are updated as that data is made available to PHO
- Indicators are calculated by visit registration date (ED visits), admission date (hospitalizations) and death date (deaths)
- For hospitalization data which are discharged-based, updates to include a current quarter of data may include admissions which happened in a previous quarter
- Demographic stratifiers include by sex and by age-group (<15, 20–24, 25–44, 4564, 65+).
- Death data were geocoded to Public Health Unit (PHU) by joining the postal code of the case with Statistics Canada Postal Code Conversion File (PCCF) and health-region boundary correspondence files using the single-link indicator (SLI)
- For ED visits and hospitalizations, the postal code represents the residence of the decedent. For deaths, the postal code represents the location of the incident, and if that was not available the location of death, followed by the location of residence. In death records prior to May 2017 the location of residence was used exclusively because incident and death location were not available
- Records without a recorded sex, age or PHU were not included in stratified results but are included in the overall totals
- Population data for month of year was calculated by interpolating the percent (%) change in population counts between the calendar year before and after with the annual estimates assigned to July (mid-year)
- Monthly and quarterly rates have been annualized for comparability between different time periods (i.e., monthly rates have been multiplied by 12 while quarterly rates have been multiplied by 4)
- Data for which sufficient risk of re-identification of an individual exists have been suppressed. For example, data for deaths by specific type of opioids, stimulants, and benzodiazepines have been suppressed when the denominator (total number of deaths in that drug class) was between 1 and 4 deaths

Harm Reduction

- Data for all harm reduction indicators have been calculated and provided by the Ontario Drug Research Policy Network (ODPRN)

- The Ontario Drug Benefit (ODB) database contains claims for dispensed drugs that are reimbursed through the Ontario Drug Benefit program through the Ontario government. This includes drugs listed on the ODB formulary, drugs covered under the Exceptional Access Program, and products and services such as blood glucose test strips, certain vaccinations, and naloxone doses. The Ontario Naloxone Program for Pharmacies (ONPP) was introduced on June 3, 2016, and provides government funding for the provision of naloxone, a medication that can counter the effects of an opioid overdose, at community pharmacies in Ontario. Through this program, all individuals in Ontario can receive a free naloxone kit from participating pharmacies without a prescription. Prior to March 27, 2018, only injectable naloxone was funded through the ONPP. On March 27, 2018, funding of intranasal naloxone was added to the ONPP, and pharmacists were granted the ability to provide a naloxone kit to individuals who do not present an Ontario health card at the time of dispensing, as well as to provide two naloxone kits to an eligible recipient at one time. On March 27, 2018, a change was made to the Ontario Naloxone Program for Pharmacies allowing pharmacists to provide naloxone kits to individuals who do not present an Ontario health card. As a result, 38% of naloxone claims beyond this date could not be linked to the Registered Persons Database to determine the location of residence of the recipient. To try to preserve as much information as possible in reporting, the following method was used to report pharmacy provided naloxone doses by PHU:
    - For records that could be linked to the Registered Persons Database, geography was based on the recipient's PHU of residence
    - For records that could not be linked to the Registered Persons Database, geography was based on the PHU of the pharmacy from which the naloxone kit was dispensed
- For indicators derived from ODB program data, PCCF+ Version 6D was used to assign PHU based on FSA of residence

Substance Use

Canadian Community Health Survey (CCHS)

- The Canadian Community Health Survey (CCHS) is a cross-sectional survey that collects information related to health status, health care utilization and health determinants for the Canadian population
- All analyses were conducted using CCHS share files, which include a subset (typically over 90%) of the master file. These files contain records only from respondents who agreed to share their information with provincial and territorial health departments
- Survey respondents who refused to answer the survey question or had a response coded as "don't know" or "not stated" were excluded from the indicators
- CCHS underwent major redesigns in 2015 and 2022, resulting in changes to data collection methods, sampling strategies, survey content, and population coverage. Caution is warranted when comparing estimates from 2015 to 2021 and estimates from 2022 onwards
- The release rules for estimated proportions are based on sample size and the effective sample size as estimated by the variable of interest; estimates may be flagged with 'Interpret with caution' or may be suppressed. This criteria for release based on effective sample size was introduced with the 2023 CCHS and has been applied consistently to all years of data. Users should use the 95% confidence interval to assess whether the quality of the estimate is sufficient
- For more detailed information on survey questions and responses used in the calculation of the indicators, users can email analytics@oahpp.ca

CAMH Monitor

- The CAMH Monitor provides epidemiological trends in alcohol, tobacco and other drug use; problem use; public opinion regarding drug issues and policies; and mental health among Ontario adults aged 18 and older
- The survey is conducted annually, except in 2021 when data were not collected
- Survey respondents who refused to answer the survey question or had a response coded as "don't know" or "not stated" were excluded from the indicators
- The release rules for estimated proportions are based on the co-efficient of variation (CV); estimates may be flagged with 'Interpret with caution' (CV between 16.6 and 33.2) or may be suppressed (CV 33.3 and over). Users should use the 95% confidence interval to assess whether the quality of the estimate is sufficient
- For more detailed information on survey questions and responses used in the calculation of the indicators, users can email analytics@oahpp.ca

Ontario Student Drug Use and Health Survey

- The Ontario Student Drug Use and Health Survey (OSDUHS) is a population survey of Ontario students in grades 7 through 12, with the purpose of identifying epidemiological trends in student drug use, mental health, physical health, gambling, bullying, and other risk behaviours
- Survey respondents who refused to answer the survey question or had a response coded as "don't know" or "not stated" were excluded from the indicators
- The release rules for estimated proportions are based on the co-efficient of variation (CV); estimates may be flagged with 'Interpret with caution' (CV between 16.6 and 33.2) or may be suppressed (CV 33.3 and over). Users should use the 95% confidence interval to assess whether the quality of the estimate is sufficient
- For more detailed information on survey questions and responses used in the calculation of the indicators, users can email analytics@oahpp.ca

Limitations

- Data from ED visits and hospitalizations only capture those who visit the ED/are hospitalized while only deaths investigated by the Office of the Chief Coroner are included and may not reflect the total burden in the population
- Data for Ontario residents who visit an ED/hospital or die outside of the province are not included
- Substance use indicators are based on self-reported data, and exclude persons living on reserves, full-time members of the Canadian Forces, and the institutionalized population

Data Sources

ED Visits

National Ambulatory Care Reporting System. Ottawa, ON: Canadian Institute for Health Information [producer]; Toronto, ON: Ontario. Ministry of Health, IntelliHealth Ontario [distributor]; [unpublished].

ED Visits (Preliminary)

National Ambulatory Care Reporting System. Ottawa, ON: Canadian Institute for Health Information [producer]; Toronto, ON: Ontario. Ministry of Health, Health Analytics Branch [distributor]; [unpublished].

Hospitalizations

Discharge Abstract Database (DAD). Ottawa, ON: Canadian Institute for Health Information [producer]; Toronto, ON: Ontario. Ministry of Health, IntelliHealth Ontario [distributor]; [unpublished].

Deaths

Ontario Substance-related Death Database. Toronto, ON: Office of the Chief Coroner for Ontario/Ontario Forensic Pathology Service (OCC/OFPS); [unpublished].

Pharmacy provided Naloxone

Ontario Drug Benefit (ODB) Database. Toronto, ON: Ontario. Ministry of Health [producer]; Toronto, ON: Ontario Drug Research Policy Network [distributor]; [unpublished].

Community provided Naloxone

Ontario Naloxone Program. Toronto, ON: Ontario. Ministry of Health [producer]; Toronto, ON: Ontario Drug Research Policy Network [distributor]; [unpublished].

Needles provided

Needle Exchange Program. Toronto, ON: Ontario. Ministry of Health [producer]; Toronto, ON: Ontario Drug Research Policy Network [distributor]; [unpublished].

Foils provided

Ontario Harm Reduction Distribution Program. Toronto, ON: Ontario. Ministry of Health [producer]; Toronto, ON: Ontario Drug Research Policy Network [distributor]; [unpublished].

Population

Population estimates and projections. Ottawa, ON: Statistics Canada [producer]; Toronto, ON: Ontario. Ministry of Health, IntelliHealth Ontario [distributor]; [unpublished].

CCHS

Statistics Canada. Canadian Community Health Survey. Ottawa, ON: Statistics Canada [producer]; Toronto, ON: Ontario. Ministry of Health [distributor]; [unpublished].

CAMH Monitor

Centre for Addiction and Mental Health (CAMH). CAMH monitor. Toronto, ON: CAMH; [unpublished].

Ontario Student Drug Use and Health Survey

Centre for Addiction and Mental Health (CAMH). Ontario Student Drug Use and Health Survey. Toronto, ON: CAMH; [unpublished].

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