

# National report: Apparent opioid-related deaths in Canada

(September 2019)

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## Considerations and Limitations

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## Definitions

**Apparent opioid-related death (AORD):** a death caused by an intoxication/toxicity (poisoning) resulting from substance use, where one or more of the substances is an opioid, regardless of how it was obtained (e.g. illegally or through personal prescription).

**Ongoing investigation:** Coroners and medical examiners continue to collect information on how and why the death occurred. Data for ongoing investigations are considered preliminary and subject to change.

**Completed investigation:** Coroners and medical examiners have collected all available information on how and why a death occurred. The time required to complete an investigation and related administrative processes is case-dependent and can range from approximately three to twenty-four months.

**Manner of death - Accident:** Deaths with completed investigations where the coroner or medical examiner determined that the death was unintentional. This category also includes deaths with ongoing investigations where the manner of death was believed to be unintentional or had not been assigned at the time of reporting.

**Manner of death - Suicide:** Deaths with completed investigations where the coroner or medical examiner determined that the opioids were consumed with the intent to die. This category also includes deaths with ongoing investigations where suicide was believed to be the manner of death at the time of reporting.

**Manner of death - Undetermined:** Deaths with completed investigations where a specific manner of death (e.g. accident, suicide) could not be assigned based on available or competing information. For this manner of death category, provinces and territories report only completed investigations with the exception of British Columbia which also includes data from ongoing investigations.

## How apparent opioid-related deaths are counted

Counts are provided by the provinces and territories that collect data from their respective offices of Chief Coroners or Medical Examiners. Rates are calculated using the most current population data from Statistics Canada.

The data provided by the provinces and territories can include deaths:

- with completed or ongoing investigations
- where manner of death is classified as accident, suicide, or undetermined

These data **do not** include deaths due to:

- the medical consequences of long term substance use or overuse (for example, alcoholic cirrhosis)
- medical assistance in dying
- trauma where use of the substance(s) contributed to the circumstances of the injury that lead to the death, but was not directly involved in the death
- homicide

However, some provincial and territorial differences remain in the type of data reported and in the time periods for which data are available (refer to [Table A](#)).

## Limitations of the data on apparent opioid-related deaths

Data presented in this report should be interpreted with caution.

- This report is based on data submitted to the Public Health Agency of Canada on or before August 30, 2019. New or revised data reported after this date will be reflected in future reports.
- Data released by provinces and territories may differ from the data provided in this report due to the availability of updated data, differences in the type of data reported (e.g. manners of death), the use of alternate age groupings, differences in time periods presented and/or population estimates used for calculations, etc.
- As some data are based on ongoing investigations by coroners and medical examiners, they are considered preliminary and subject to change. The time required to complete an investigation and related administrative processes is case-dependent and can range from approximately three to twenty-four months.
- This report is based on data that do not specify how the opioids were obtained (e.g. illegally or through personal prescription); the level of toxicity may differ depending on the opioid (substance(s) involved, concentration, and dosage).

- Jurisdictional differences in the death investigation process, death classification method, toxicology testing, and the manners of death reported may impact the interpretation and comparability of the data presented in this report over time and between provinces and territories.
- Rates reported here have not been adjusted for existing differences in provincial and territorial age distributions.
- The estimated annual rates for 2019 are based on available data from January to March 2019.

## Notes on provincial and territorial data

Due to differences in identifying and reporting cases, comparisons over time and between provinces and territories should be interpreted with caution.

### General notes

1. Data reported by some provinces and territories do not include all manners of death (accident, suicide, undetermined) or stages of investigation (ongoing, completed); refer to [Table A](#) for more details.
2. Data presented in this report will be updated on a quarterly basis based on results of completed investigations.
3. Rates for jurisdictions with relatively smaller populations may change substantially with even slight changes in the number of deaths.
4. Data from British Columbia include deaths related to all illicit drugs (including opioids) used alone or in combination with prescribed/diverted medication.
5. Data from Saskatchewan and Newfoundland and Labrador include deaths with completed investigations only.
6. Quebec data for 2016 and 2017 include deaths with completed investigations only; 4% of the investigations for deaths that occurred in 2016 and 13% of investigations of deaths that occurred in 2017 were underway. Available 2018 and 2019 data from Quebec include unintentional deaths with ongoing investigations related to all illicit drugs including, but not limited to, opioids. Preliminary data for drug-related poisonings, for which toxicology information was available, indicate that 49% of deaths between January 2018 and March 2019 involved an opioid. Data presented in this report will be updated on a quarterly basis based on results of completed investigations.
7. Data from Yukon include deaths with completed investigations only. In 2018, one apparent opioid-related death occurred in a different province following an overdose in Yukon. This death is included in the data from the jurisdiction where the death occurred and is not reported in the data from Yukon.
8. Data from Prince Edward Island include accidental deaths with completed investigations only. Only annual totals were available for 2016 data from Prince Edward Island; quarterly data for 2016 were not available at the time of this publication.

9. In Ontario, apparent opioid-related death data were captured using an enhanced data collection tool by the Office of the Chief Coroner as of May 1, 2017. Prior to this time period, retrospective case information was collected using a different tool.
10. Data from Nunavut were not included in national counts, rates, or percentages.

**Data on manner of death**

11. Manner of death is assigned by the coroner or medical examiner during, or following an investigation. The data in this report include accidental, suicide or undetermined deaths.
12. Suicide data were unavailable from Prince Edward Island and Nunavut.

**Data on sex and age group**

13. For most provinces/territories, data on the sex of the individual was based on biological characteristics or legal documentation. Data on sex were unavailable for less than five individuals in 2017. Due to rounding, percentages may not add to 100%.
14. For Ontario, from January 2016 to April 2017, data on the sex of the individual reflected the sex assigned at birth or was based on biological characteristics at the time of death; as of May 2017, the perceived or projected identity of the individual was reported.
15. Alberta uses data on the sex of the individual based on the medical examiner's decision, which is largely based on biological characteristics. In the small subset of cases where the individual was known to identify with a gender different than their biological sex, the medical examiner may indicate their identified gender.
16. Age group data were unavailable for less than five individuals in 2017. Due to rounding, percentages may not add to 100%.
17. The age group percentages for Quebec in 2019 may not add up to 100% as data for individuals 19 and under and 60 and over were suppressed due to low numbers of cases.

### **Fentanyl and fentanyl analogues**

18. Refer to [Table B](#) below for details on opioids.
19. Observed trends of accidental apparent opioid-related deaths involving fentanyl or fentanyl analogues should be interpreted with caution until additional data become available. In addition, changes to testing practices during the reporting period may affect observed trends.
20. Given jurisdictional differences in death classification methods, the term “involving” includes deaths where the substance was either detected and/or directly contributed to the death.
21. Data from British Columbia and available 2018 and 2019 data from Quebec on deaths related to illicit drugs where toxicology information was available and fentanyl (or fentanyl analogues) was detected were used to approximate apparent opioid-related deaths involving fentanyl (or fentanyl analogues).
22. National-level, quarterly data on accidental apparent opioid-related deaths involving fentanyl or fentanyl analogues do not include data from Prince Edward Island (2016 only), Newfoundland and Labrador, or Nunavut
23. For Ontario, only data on deaths with completed investigations, where relevant toxicology information was available, were included in percentages for fentanyl or fentanyl analogues.

### **Other non-opioid substances**

24. Refer to [Table B](#) below for details on other non-opioid substances.
25. National-level percentages of accidental apparent opioid-related deaths involving other non-opioid substances do not include data from British Columbia and Nunavut as these data were not available.
26. For Alberta, only data on deaths with completed investigations and specific substances causing death listed on the death certificate were included in percentages of accidental apparent opioid-related deaths involving other non-opioid substances.
27. For Ontario, only data on deaths with completed investigations, where relevant toxicology information was available, were included in percentages of accidental apparent opioid-related deaths involving other non-opioid substances. Data for non-opioid substances from Ontario between January 2016 and April 2017 were based on their detection and do not include alcohol; as of May 1, 2017, data on non-opioid substances are based on their direct effects and include alcohol.

## Data suppression

The suppression of data in this report is based on the preferences of individual provinces or territories to address concerns around releasing small numbers for their jurisdiction.

- Prince Edward Island suppressed counts between one and four for quarterly data, and for any data related to sex or age distribution.
- Newfoundland and Labrador suppressed counts between one and four for quarterly data, and data related to substances involved and sex or age distribution.
- Quebec suppressed counts less than five for deaths with ongoing investigations (2018 and 2019 data).
- Nunavut suppressed all counts less than five.

In addition, suppression was applied in some instances where all data for a province or territory fell in a single category of a given table or figure.

**Table A.** Reporting periods and manners of death included in apparent opioid-related deaths data used for this report by province or territory.

		BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	YT	NT	NU
<b>Reporting period (as of August 30, 2019)</b>														
2016	January to December	✓	✓	✓ (C)	✓	✓	✓ (C)	✓	✓	✓ (C)	✓ (C)	✓ (C)	✓	✓
2017	January to December	✓	✓	✓ (C)	✓	✓	✓ (C)	✓	✓	✓ (C)	✓ (C)	✓ (C)	✓	✓
2018	January to December	✓	✓	✓ (C)	✓	✓	✓	✓	✓	✓ (C)	✓ (C)	✓ (C)	✓	✓
2019	January to March	✓	✓	✓ (C)	✓	✓	✓	✓	✓	✓ (C)	✓ (C)	✓ (C)	✓	✓
<b>Classification of deaths included in the reported data</b>														
Accident	Completed investigations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
	Ongoing investigations where manner of death was believed to be unintentional	✓	-	N/A	✓	-	✓	✓	✓	N/A	N/A	N/A	✓	N/A
	Ongoing investigations where manner of death had not been assigned at the time of reporting	-	✓	N/A	✓	✓	N/A	✓	✓	N/A	-	-	✓	N/A
Suicide	Completed investigations	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	N/A
	Ongoing investigations where the manner of death was believed to be suicide	✓	N/A	N/A	✓	-	N/A	✓	✓	N/A	N/A	N/A	✓	N/A
Deaths with completed investigations and an undetermined manner of death		✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	N/A

✓ These data have been reported by the province or territory and are reflected in this report, unless otherwise specified

(C) Data includes deaths with completed investigations only

- The classification is not used in the province or territory

N/A Data were not available at the time of this publication

**Table B.** Opioids and other substances

<b>Category</b>	<b>Includes (but are not limited to):</b>	
Fentanyl and fentanyl analogues	<ul style="list-style-type: none"> <li>• 3-methylfentanyl</li> <li>• acetylfentanyl</li> <li>• acrylfentanyl</li> <li>• butyrylfentanyl</li> <li>• carfentanil</li> <li>• cyclopropyl fentanyl</li> </ul>	<ul style="list-style-type: none"> <li>• despropionyl-fentanyl</li> <li>• fentanyl</li> <li>• fluoroisobutyrylfentanyl (FIBF)</li> <li>• furanylfentanyl</li> <li>• methoxyacetylfentanyl</li> <li>• norfentanyl</li> </ul>
Non-fentanyl-related opioids	<ul style="list-style-type: none"> <li>• buprenorphine metabolites</li> <li>• codeine</li> <li>• dihydrocodeine</li> <li>• heroin</li> <li>• hydrocodone</li> <li>• hydromorphone</li> <li>• loperamide</li> <li>• meperidine</li> </ul>	<ul style="list-style-type: none"> <li>• methadone</li> <li>• monoacetylmorphine</li> <li>• morphine</li> <li>• normeperidine</li> <li>• oxycodone</li> <li>• tapentadol</li> <li>• tramadol</li> <li>• U-47700</li> </ul>
Non-opioid substances	<ul style="list-style-type: none"> <li>• alcohol</li> <li>• benzodiazepines</li> <li>• cocaine</li> </ul>	<ul style="list-style-type: none"> <li>• gabapentin</li> <li>• methamphetamine</li> <li>• W-18</li> </ul>

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