

Opioid-Related Fatalities in Brant: 2018-2022

**BRANT COUNTY
HEALTH UNIT**

Acknowledgements

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Authors:

Jennifer Rojas, Epidemiologist
Joyce Jang, Public Health Planner

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For questions about this report, please contact:

Hilary Wren-Atilola, MPH, Ph.D.
Manager, Population Health Assessment and Quality Assurance
Brant County Health Unit, 194 Terrace Hill Street, Brantford, ON N3R 1G7
Email: hilary.wren-atilola@bchu.org

Land Acknowledgement

Brant County Health Unit is located in the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples and is now home to many diverse First Nations, Inuit and Métis peoples. Brantford/Brant is situated on the Haldimand Tract, land promised to the Haudenosaunee, which includes six miles on each side of the Grand River. We recognize, honor and respect these Nations as the traditional stewards, since time immemorial, of these lands and water. We recognize the significance of the Dish with One Spoon Covenant to this land. The Dish with One Spoon Covenant is a peace agreement made between Indigenous Nations before the settlers arrived. It characterizes our collective responsibility to each other and Mother Earth - we should take only what we need, leave enough for others, and keep the dish clean. As settlers to this land, it reminds us of our important responsibilities to uphold this agreement through sustainable practices and for each one of us to reflect on building a future focused on reconnection with the land and to consider how we can individually and as an organization contribute to reconciliation and a future focused on equity.

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Executive Summary

This report describes the trends and characteristics of opioid-related fatalities in Brant, Ontario from 2018 to 2022. Data for the report was obtained from the completed investigations of opioid-related deaths conducted by the Office of the Chief Coroner/Ontario Forensic Pathology Services. This report offers insight into demographic characteristics of these persons and factors leading to their deaths, including but not limited to, location of the fatal incident, details of toxicity, and drug consumption methods.

Key Findings

In the period from 2018 to 2022:

- The number of opioid-related deaths in Brant more than doubled;
- The rate of opioid-related deaths in Brant increased and was consistently greater than the rate in Ontario in the reporting period;
- Males and individuals aged 25-44 represented most opioid-related fatalities;
- Most deaths occurred among individuals living in a private dwelling;
- More than a third of deaths occurred when the person was alone and nobody was present to intervene;
- Fentanyl was the most prevalent opioid that directly contributed to opioid-related deaths;
- Cocaine and methamphetamines were the most common non-opioids involved in opioid-related deaths;
- Deaths resulting from consuming drugs through inhalation increased, whereas the fatal cases where drugs were consumed by injection decreased over time;
- No more than a quarter of all opioid-related deaths involved the use of naloxone.

The information summarized in this report strives to raise awareness about the circumstances surrounding the opioid-related fatalities and inform local evidence-based actions to ultimately prevent and reduce opioid-related harms in Brant.

Introduction

Background

High rates of opioid-related deaths across Ontario have been a significant and enduring public health issue. In Ontario, rates of deaths have more than doubled in 15 of 34 public health units¹. Patterns describing opioid-related deaths in the province suggest a notable increase in the fatalities among those identified as male, an increase in the number of deaths with benzodiazepines involved, and a higher number of deaths without resuscitation attempts or naloxone administration². Given the increasing rates of harms associated with opioids in Ontario, it is important to understand factors that lead to opioid-related deaths in Brant. This report provides an overview of the trends and characteristics of opioid-related fatalities in Brant between 2018 to 2022.

Methods

This report uses data from the Office of the Chief Coroner for Ontario/ Ontario Forensic Pathology Services (OCC/OFPS) regarding investigations of confirmed opioid-related deaths occurred between January 1, 2018, and December 31, 2022. An opioid-related death is defined as an “acute intoxication/toxicity death resulting from the direct contribution of consumed substance(s), where one or more of the substances was an opioid, regardless of how the opioid was obtained². Data on characteristics of opioid-related deaths is routinely collected by the OCC/OFPS through a standardize tool called the Opioid Investigative Aid (OIA). The OIA is completed by the investigating coroner using a combination of sources (e.g., health records, family, bystanders, emergency responders), and captures demographic information as well as details related to the location of the incident, post-mortem toxicology results, and other circumstances surrounding the death. The cause and manner of death are determined through post-mortem examinations by pathologists and a review of the detailed information captured in the OIA.

Data was extracted in July 2022 and analyzed using descriptive statistics (e.g., proportions, rates). The majority of the analysis focused on deaths classified as accidents as they make up the largest proportion of deaths in Brant (97.9%) Deaths were examined by sex, age group, living arrangement, employment status, and ethnicity as well as circumstances surrounding these events such as incident location, consumption method, presence of another individual, resuscitation attempts and naloxone administration. Where relevant, results were compared to those for Ontario. Information on access to healthcare services, treatment for opioid use disorder and/or access to harm reduction services was beyond the scope of this report.

Limitations

Although the information in the report is based on the best available evidence collected and examined during the death investigations, there was a large proportion of missing

or unknown data on some variables (20% or higher), such as employment status, ethnicity, and being alone at the time of incident. Respective cautionary notes were added in the report. Furthermore, at the time of the analysis, the 2022 data was considered incomplete as it did not include detailed characteristics on all confirmed opioid-related fatal cases occurred in 2022. As such, the results presented should be interpreted with caution.

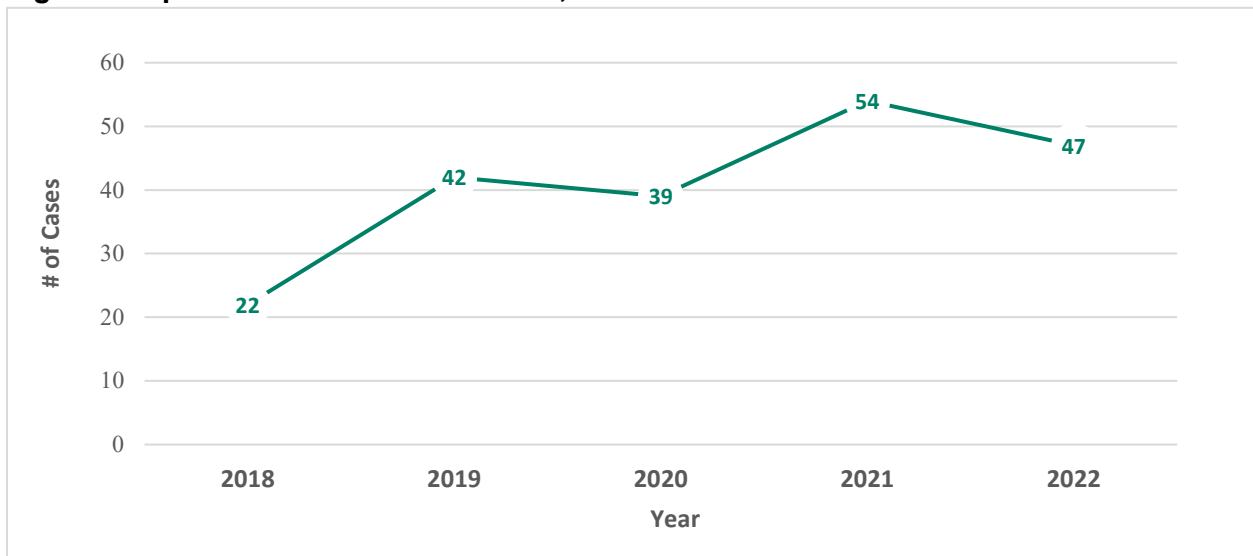
Findings

1. Opioid-Related Deaths

Number of Deaths in Brant

- The number of opioid-related deaths in Brant more than doubled from 2018 to 2022.
- In 2022, there were 47 opioid-related deaths (see Figure 1).

Figure 1: Opioid-related deaths in Brant, 2018-2022



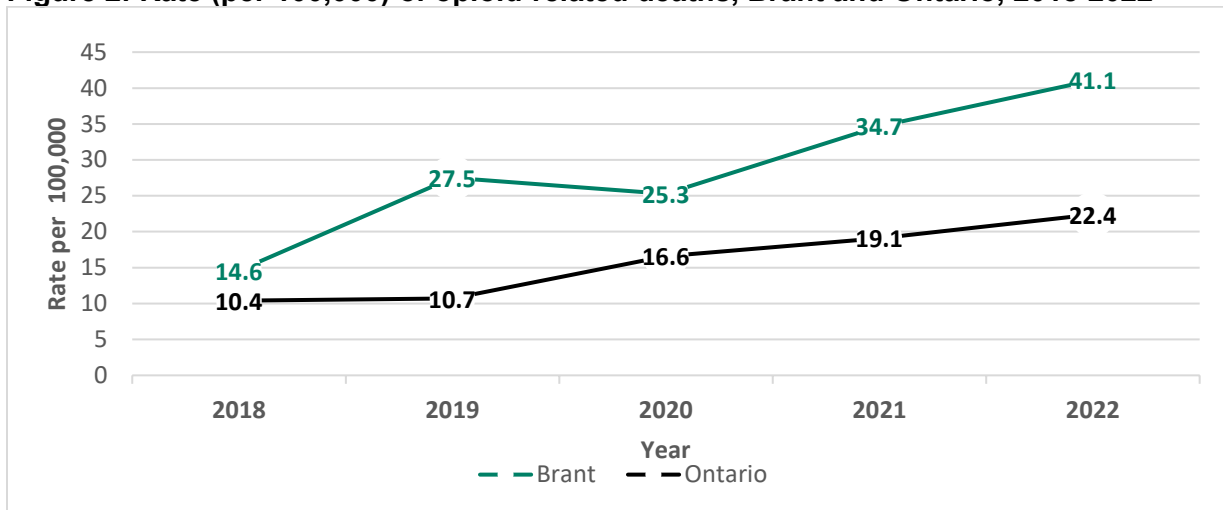
Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023.

Notes: Data represents opioid-related deaths classified as Accidental and/or Undetermined.

Rate of Deaths in Brant and Ontario

- From 2018 to 2022, the rate of opioid-related deaths increased in both Brant and Ontario. The rate was consistently higher in Brant than Ontario in this period.
- In 2022, the rate was 41.1 deaths per 100,000 people in Brant compared to 22.4 deaths/100,000 for Ontario (see Figure 2).

Figure 2: Rate (per 100,000) of opioid-related deaths, Brant and Ontario, 2018-2022



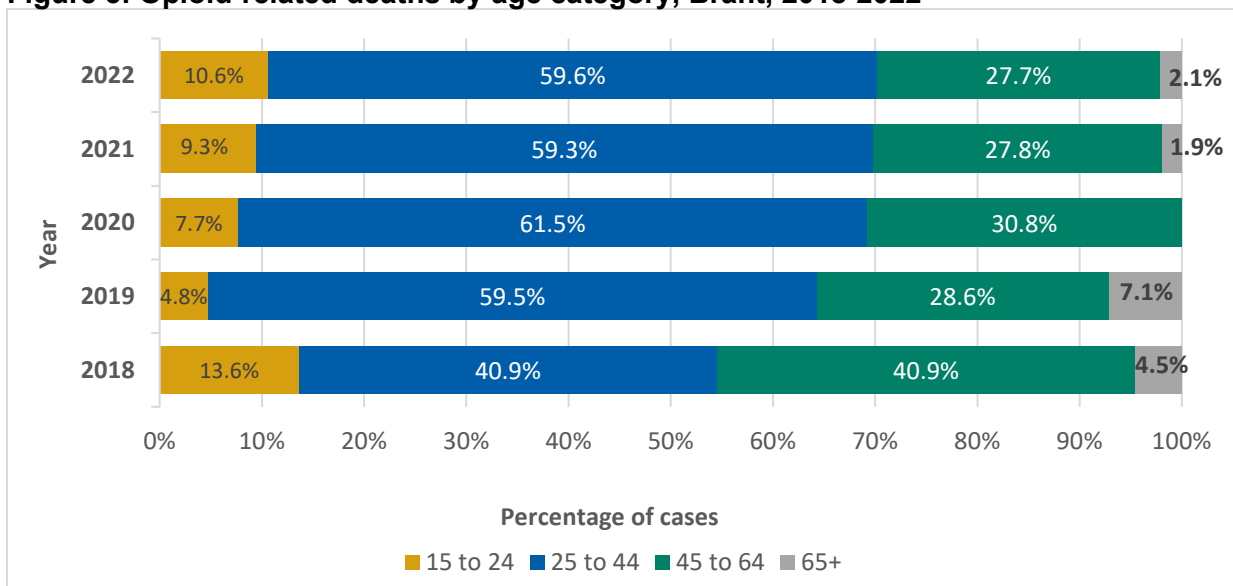
Source: Public Health Ontario. Interactive Opioid Tool: opioid-related morbidity and mortality in Ontario. Available from: <https://www.publichealthontario.ca/en/data-and-analysis/substance-use/interactive-opioid-tool> (Accessed July 3, 2023)

Notes: 2022 data on fatalities is preliminary, the results should be interpreted with caution.

Deaths by Age Group

- Between 2018 and 2022, most opioid-related deaths occurred among individuals aged 25 to 44 (see Figure 3).
- In 2022, 59.6% of fatal cases were reported among individuals aged 25-44, followed by those aged 45-64 (27.7%)

Figure 3: Opioid-related deaths by age category, Brant, 2018-2022



Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

Notes: The 0-14 age group was excluded from the figure as there was a single case recorded.

Deaths by Sex

- Between 2018 and 2022, most deaths occurred among individuals whom identified as male.
- In 2022, the proportion of opioid-related deaths was higher among males than females in Brant (78.8% vs. 21.2%) [data not shown].

Deaths by Employment Status

- Between 2018 to 2022, approximately 1/3 of opioid-related deaths in Brant (35%) were represented by those who were unemployed [data not shown]. Unemployed includes people who may be looking for employment, on income assistance or unable to work due to injury or disabilityⁱ

Deaths by Racial Identity

- Between 2018-2022, most deaths (65%) occurred among White individuals [data not shown]^{ii, iii}

2. Opioid-Related Deaths by Location

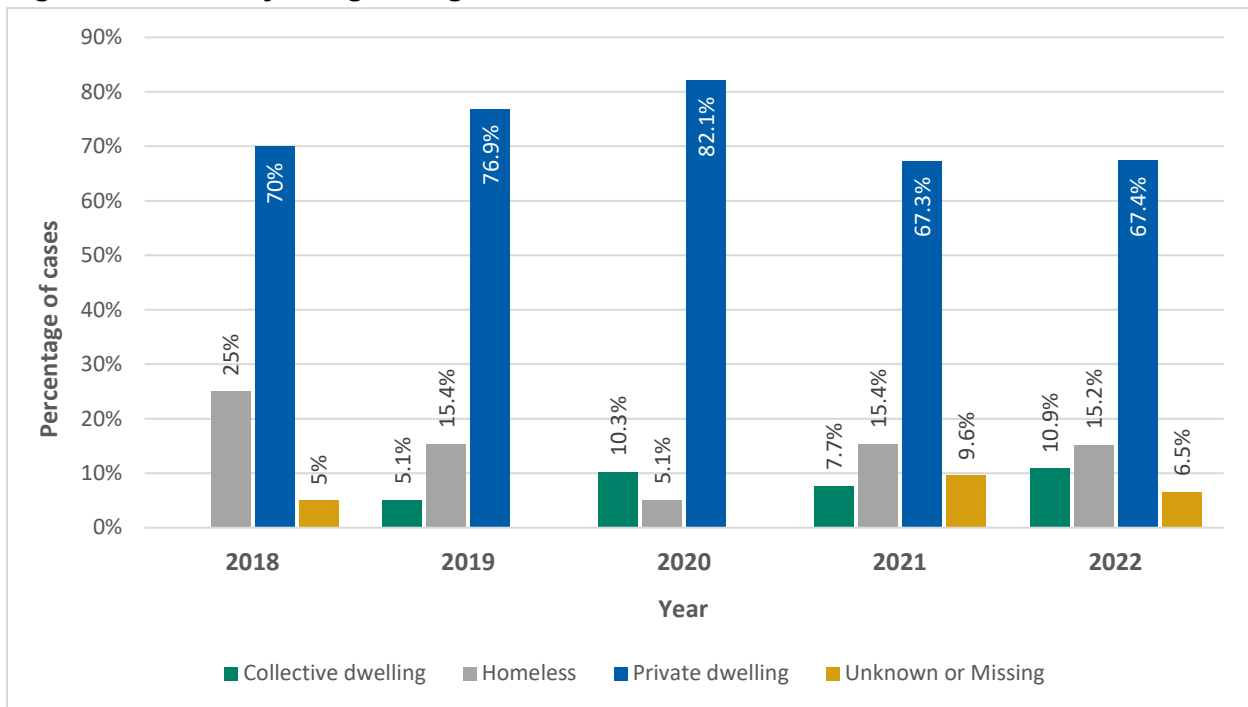
Deaths by Living Arrangement

- In 2018-2022, most deaths (67%-82%) occurred among individuals who lived in a private dwelling in Brant (see Figure 4).
- In 2022, approximately 15% of deaths were among people experiencing homelessness. This includes unsheltered, emergency sheltered (including in hotels), provisionally accommodated, or at immediate risk of homelessness.
- In 2022, approximately 11% of deaths occurred in a collective dwelling. This includes lodging and rooming houses, hotels, and sober living facilities.

ⁱ Data should be interpreted with caution due to a high percentage of missing data (greater than 50%).

ⁱⁱ Data should be interpreted with caution due to a high percentage of missing data (25-50%)

ⁱⁱⁱ Future work to collect race-based data and examine the ongoing overdose crisis among Black, Indigenous and People of Colour in Brant requires a collaborative effort with community organizations.

Figure 4: Deaths by living arrangements, Brant, 2018-2022

Source: Coroner's Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

Notes: The categories of Correctional Facility, Residential Care Facility and Other were removed from the figure as they consisted of little to no reported cases. There were less than 5% of cases reported under Other and Residential Care Facility in 2019 and 2020 respectively.

Deaths Alone

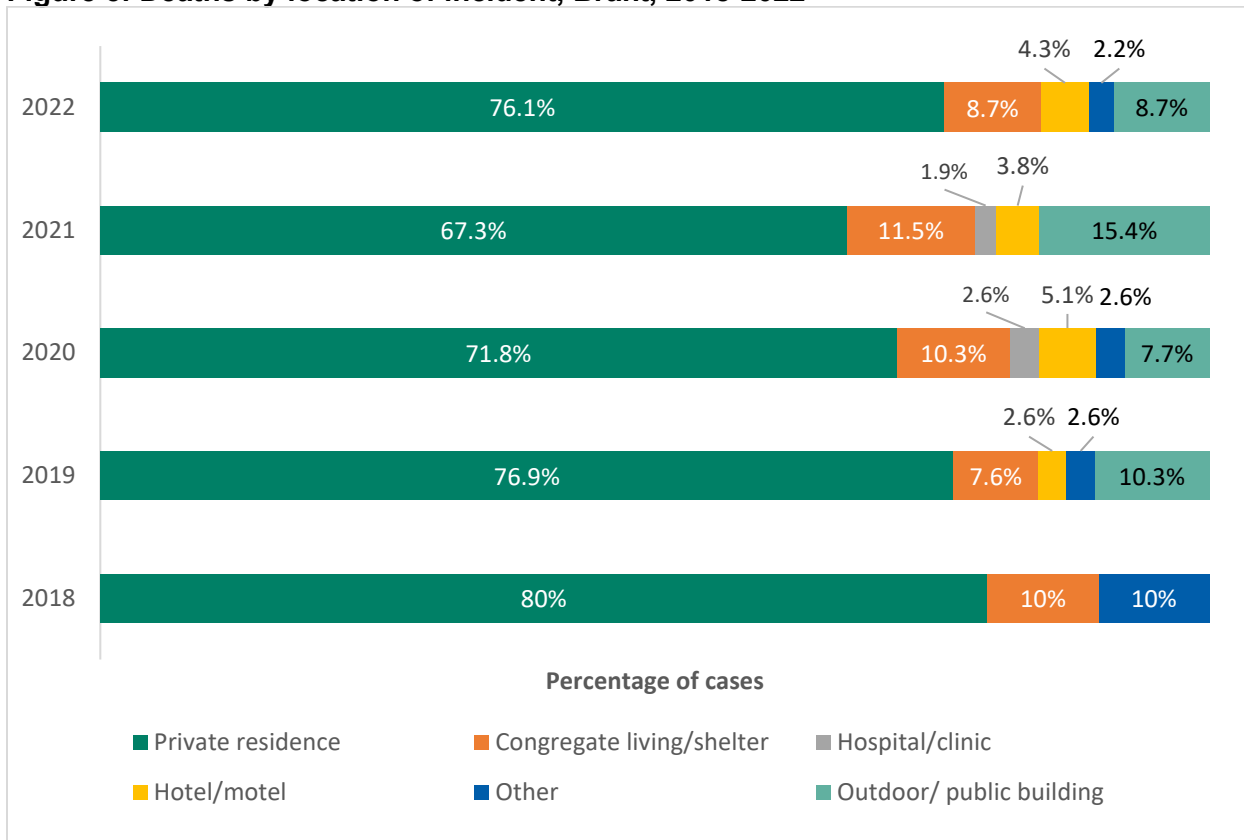
- From 2018 to 2022, on average, slightly more than one-third of all deaths (36.8%) occurred when the person was alone; no other individual was present at the time of the incident and thus no one was present to intervene [data not shown]^{iv}

Deaths by Location of Incident

- In 2018-2022, most deaths occurred within private residences (>67%)
- In 2022, almost 1 in 10 deaths (8.7%) occurred at a congregate living setting/shelter and 1 in 10 (8.7%) occurred at an outdoor/public setting (see Figure 5).

^{iv} Data should be interpreted with caution due to a high percentage of missing data (33-50%).

Figure 5: Deaths by location of incident, Brant, 2018-2022



Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

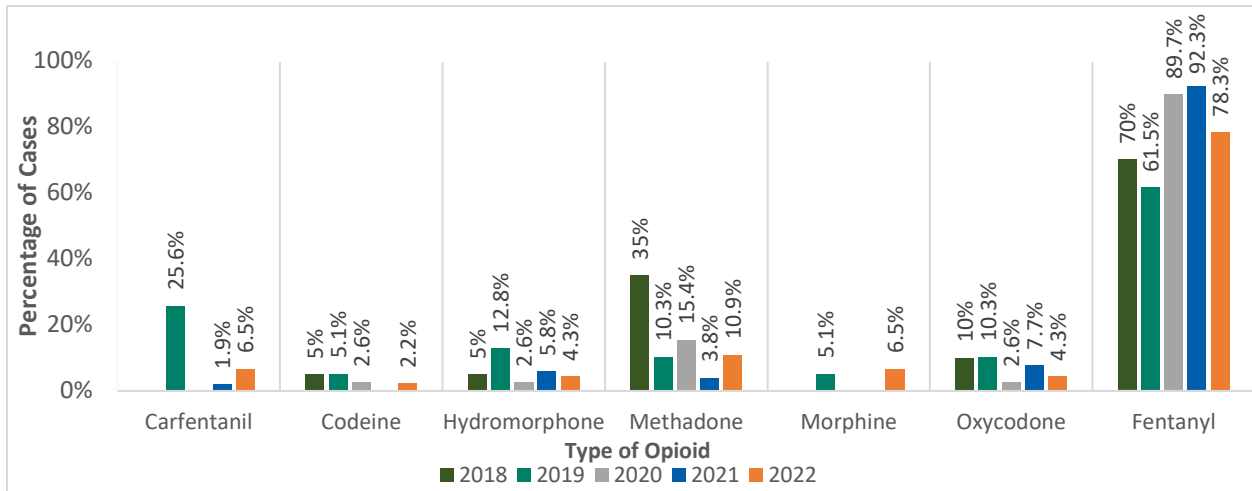
Notes: The categories of Correctional Facility, Industrial Setting, and Unknown or Missing were excluded due to no cases reported under these categories.

3. Opioid-Related Deaths by Toxicology

Deaths by Opioid Type

- From 2018 to 2022, fentanyl was the most prevalent opioid present at death (see Figure 6).
- In 2022, 78.3% of deaths involved fentanyl.

Figure 6: Death by opioid type, Brant, 2018-2022



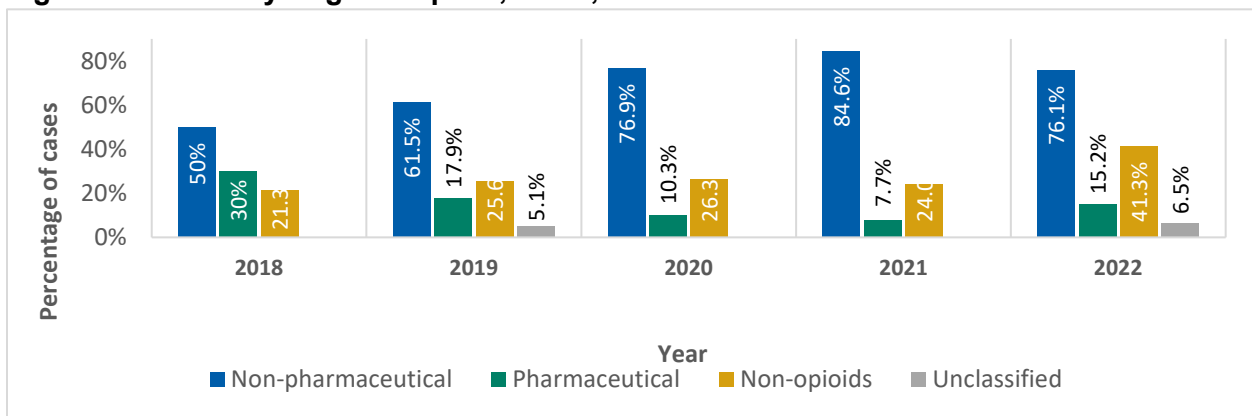
Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

Notes: The categories of Buprenorphine, Heroin, Nitazenes, Oxymorphone, Tramadol, and U47700 were excluded from the figure as they consisted of little to no cases. Heroin (2018) and Oxymorphone (2021) were reported in a single case.

Deaths by Origin of Opioid

- In 2018-2022, most deaths (50% - 85%) were attributed to non-pharmaceutical opioids in Brant (see Figure 7).
- In 2022, non-opioids were also present post-mortem in 41% of fatal cases.

Figure 7: Deaths by origin of opioid, Brant, 2018-2022



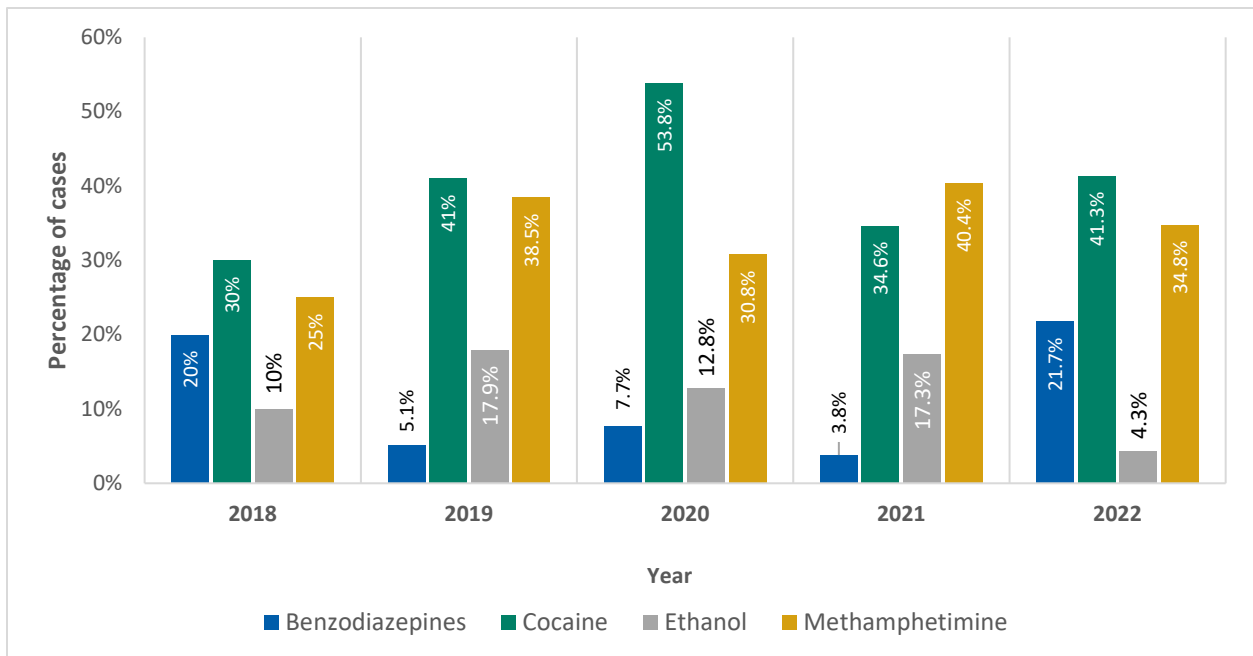
Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

Notes: Categorizations of origin of opioids were based on several assumptions and limitations such as documentation by coroner, availability of evidence in prescription information, and other considerations. Distinguishing characteristics of pharmaceuticals, non-pharmaceuticals, unclassified opioids and non-opioids can be found in the Public Health Ontario’s Opioid Mortality Surveillance Report (2019, p.6-7): https://www.publichealthontario.ca/-/media/Documents/O/2019/opioid-mortality-surveillance-report.pdf?rev=12c7390ee3eb40d29af1470497ea6210&sc_lang=en

Deaths and Non-Opioids

- In 2018-2022, cocaine and methamphetamines were the most common non-opioids involved in opioid-related deaths, except for 2021 (see Figure 8).
- In 2022, benzodiazepines were found to be a direct contributor in approximately 22% of cases.

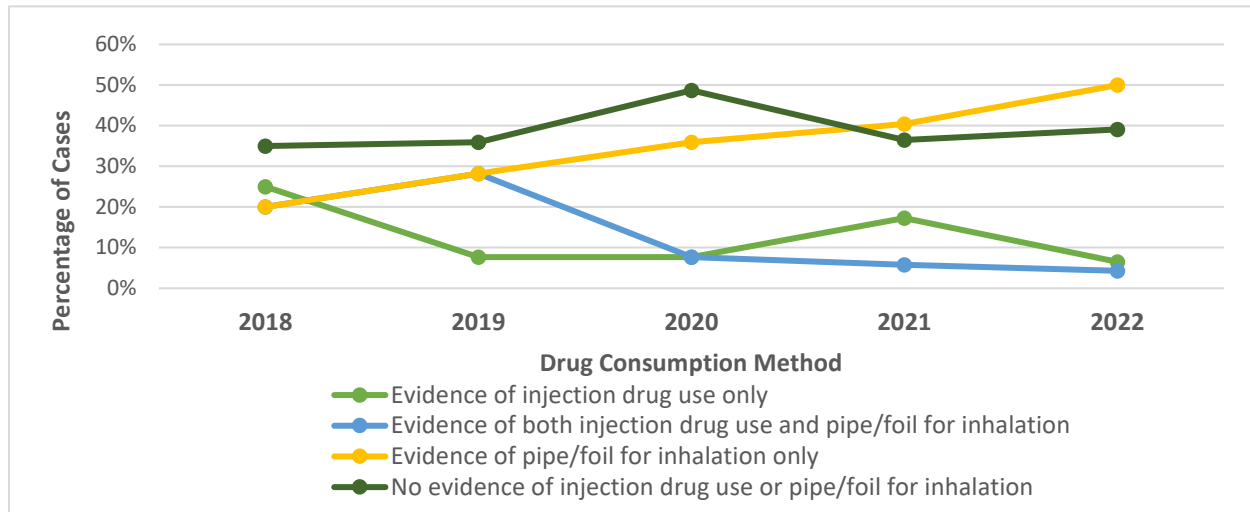
Figure 8: Deaths by non-opioids, Brant, 2018-2022



Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

Deaths by Drug Consumption Method

- Deaths resulting from the use of drugs through inhalation increased from 20% (2018) to 50% (2022). In contrast, the fatal cases where drugs were consumed by injection decreased from 25% (2018) to 7% (2022).
- It should be noted that in a large proportion of deaths (approximately 40%), the consumption method was not identified in the referenced period (see Figure 9).

Figure 9: Deaths by drug consumption method, Brant, 2018-2022

Source: Coroner's Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023

Notes: Drug paraphernalia found at the scene may provide proxy information for potential mode of drug use but may also reflect previous modes of use or paraphernalia that was used by someone else. Other drug paraphernalia besides a syringe, pipe and foil may have been found at scene (e.g., pill crusher, cooker, grinder, spoon). When no pipe, foil or evidence of injection was present, mode may include oral, nasal, transdermal, other, or unknown modes of drug use.

4. Opioid-Related Deaths by Resuscitation and Naloxone Use

Deaths by Resuscitation Attempt

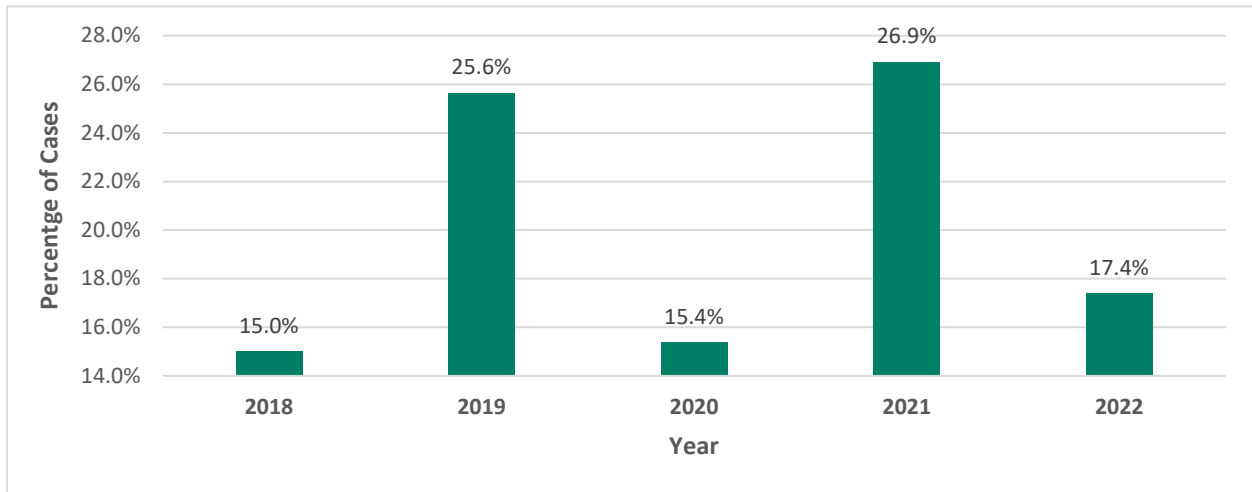
- The proportion of opioid-related deaths involving a resuscitation attempt varied greatly (range 30-70%) between 2018 and 2022 [data not shown].
- Most resuscitations were done by first responders, like Police, Fire and EMS (78.6% - 92.9%).

Deaths and Naloxone Use

- Between 2018 and 2022, no more than a quarter (range 15-27%) of all deaths involved the use of naloxone (see Figure 10).
- Within the cases where naloxone use was reported, bystanders were most likely to administer it (60% -75% of cases) excluding 2020, where the administration of naloxone by bystanders lowered to 33.3%^{vi}

^{vi} Data should be interpreted with caution due to a high percentage of missing data (50%)

Figure 10: Deaths where naloxone was used, Brant, 2018-2022



Source: Coroner’s Opioid Investigative Aid, January 2018 to December 2022, Office of the Chief Coroner for Ontario. Extracted July 3, 2023.

References

- ¹ Gomes T, Murray R, Kolla G, Leece P, Bansal S, Besharah J, Cahill T, Campbell T, Fritz A, Munro C, Toner L, Watford J on behalf of the Ontario Drug Policy Research Network, Office of the Chief Coroner for Ontario and Ontario Agency for Health Protection and Promotion (Public Health Ontario). *Changing circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic*. Toronto, ON: Ontario Drug Policy Research Network; 2021. Retrieved from <https://www.publichealthontario.ca/-/media/documents/c/2021/changing-circumstances-surrounding-opioid-related-deaths.pdf?la=en> (accessed August 14, 2023)
- ² Ontario Drug Policy Research Network; Office of the Chief Coroner for Ontario/Ontario Forensic Pathology Service; Ontario Agency for Health Protection and Promotion (Public Health Ontario); Centre on Drug Policy Evaluation. *Preliminary patterns in circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic*. Toronto, ON: Ontario Drug Policy Research Network; 2020. Retrieved from https://odprn.ca/wp-content/uploads/2020/11/Opioid-Death-Report_FINAL-2020NOV09.pdf (accessed August 14, 2023)