

Opioid Surveillance Update

To: Chair and Members of the Board of Health

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Recommendations

It is recommended that the Board of Health receive this report for information.

Key Points

- In 2023, both the City of Guelph and the province of Ontario experienced similar upward trends in opioid-related emergency department (ED) visits, with Guelph's rate surpassing the provincial average by 17%. Conversely, Wellington County saw a slight decline in these visits, while Dufferin County witnessed a 75% increase since 2022.
- Since 2021, opioid-related mortality rates have been gradually declining across the province and within the Wellington-Dufferin-Guelph (WDG) region. As of 2023, WDG's rate of opioid-related mortality is approximately 32% below the provincial average.

- According to Coroner data, the majority of substance-related deaths (approximately 74%) in the WDG region occurred within the City of Guelph in 2023.
- According to Coroner data, most substance-related deaths occur in private residences. Other common locations include outdoor environments, hotels/motels, and congregate living settings.
- Fentanyl and its analogues remain the leading cause of opioid-related deaths in both Ontario and the WDG region. In 2023, fentanyl was responsible for approximately 86% of all opioid deaths in Ontario and 78.8% in WDG.
- The Ontario Opioid Indicator Tool, provided by the Ontario Drug Policy Research Network, is a publicly available resource that presents various indicators describing opioid-prescribing trends across the province. In the WDG region, opioid prescriptions for pain have been steadily decreasing since 2013.
- WDG Public Health's FAST Surveillance System now includes EMS data, extending its coverage across the entire WDG region. Previously, FAST only covered the City of Guelph. WDG Public Health continues to collaborate with local partners and train individuals interested in reporting substance-related incidents.
- WDG Public Health continues to closely collaborate with community partners, including those of the Wellington-Guelph Drug Strategy (WGDS) and the Dufferin-Caledon Drug Strategy (DCDS), to develop a multidisciplinary and community-wide response to the opioid crisis.

Background

The purpose of this report is to provide the Board of Health with a comprehensive update on opioid-related events in Wellington County, Dufferin County, and the City of Guelph (WDG). Specifically, it provides an update to opioid-related data for the complete calendar year 2023 within the WDG regions, continuing from the previous 'Opioid Surveillance Update' from April 2023 (BH.01.APR0523.R13).¹ The report leverages various data sources to depict the broader context of the opioid crisis at both local and provincial levels. Understanding these regional differences is crucial, as it enables WDG Public Health to optimize resources and identify areas requiring additional efforts.² After detailing the trends observed across the regions, the report concludes by outlining recent developments in WDG Public Health partnerships and their contributions to the larger response to opioid-related harms.

Discussion

Surveillance

Wellington-Dufferin-Guelph (WDG) Public Health has access to and utilizes a variety of data sources to accurately monitor opioid (and other drug) usage in both the local and provincial context. A sample of these data sources include:

- Discharge Abstract Database (DAD) – hospitalization data
- Emergency Medical Services (EMS) – emergency response data
- Office of the Chief Coroner of Ontario (OCCO) – mortality data
- National Ambulatory Care Reporting System (NACRS) – confirmed emergency department data
- National Ambulatory Care Reporting System Plus (NACRS Plus) – preliminary emergency department data
- Ontario Drug Policy Research Network (ODPRN) – harm reduction data
- FAST Surveillance System (FAST) – local and live opioid incident data

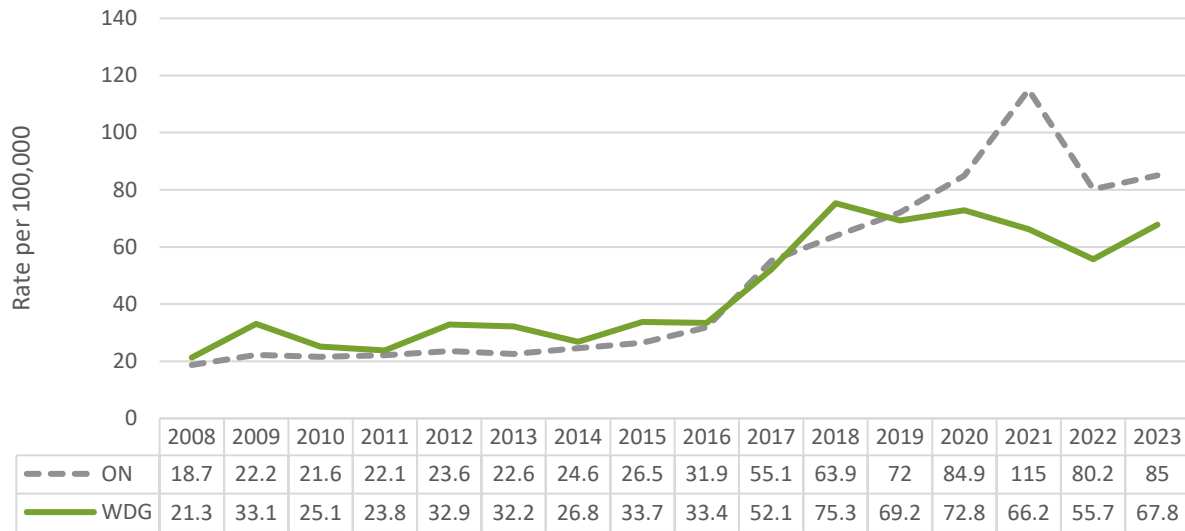
While each listed data channel provides valid sources of information, they each contain their own unique set of strengths and limitations. For example, DAD and NACRS provide the lowest level of geography of any of the data sources mentioned above; however, they are anywhere between three to six months behind at any given time. This makes their information less timely, but their data is considered the gold standard due to their level of quality.

Please note, the objective of this report is to provide a full year of 2023 data updates on opioid-related harms. At this time, WDG Public Health has access to up-to-date data needed to generate this objective, and thus, no estimations were needed to be made. The only estimations used in this report were for population size. Population size estimates were produced by Statistics Canada and made available by the Community Data Program.³

Opioid-Related Emergency Department (ED) Visits

According to data obtained from NACRS, the province of Ontario has seen a continuous increase in opioid-related emergency department visits since data collection commenced in 2006. There are three noteworthy observations to be made with respect to Ontario in Figure 1 below:

Figure 1 – Rate per 100,000 Residents of Opioid-Related Emergency Department (ED) Visits in WDG and Ontario, 2008-2023.



Data Source – National Ambulatory Care Reporting System (NACRS). 2008-2023. Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario.

1. In 2016, opioid-related ED visits in the province surged dramatically, rising by approximately 73% between 2016 and 2017. This sharp increase deviated from the steady, gradual trend observed in previous years. The most likely explanation for this sudden spike is the influx of fentanyl and its analogues into the unregulated drug supply during this period.^{4,6}
2. In 2021, opioid-related ED visits in the province experienced a notable rise once again, increasing by around 35%. Throughout the calendar year, there were approximately 115 opioid-related ED visits per 100,000 Ontarians. This trend can likely be attributed to the restricted availability of harm reduction resources and social programs during the COVID-19 pandemic.⁵
3. In 2022, the provincial rate of opioid-related ED visits saw a sudden 30% decrease compared to 2021. Data from 2023 indicates a reversal of this trend, with the rate increasing by approximately 6% (from 80.2 to 85 opioid-related ED visits per 100,000 Ontarians). The reasons for these decreases/increases are not entirely clear.

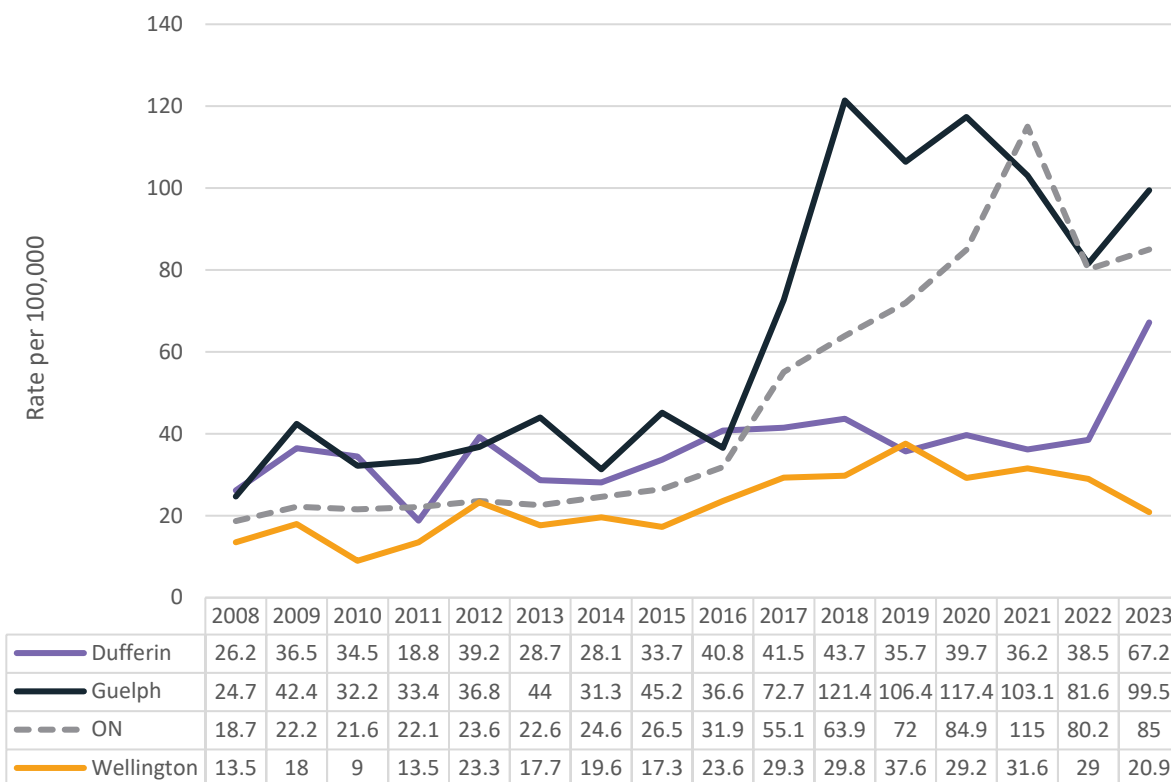
Regarding WDG data, the trendline appears to fluctuate more compared to the province. Fortunately, WDG did not experience the significant increase in ED visits seen provincially in 2021. Instead, WDG showed an opposing trend, which may suggest an efficient distribution of harm reduction services and an effective response to the opioid

epidemic during the global emergency (i.e., COVID-19). However, in 2023, WDG mirrored the provincial trend with an increase in opioid-related ED visits, rising from 55.7 to 67.8 per 100,000 WDG residents – a 22% increase. The reasons for this rise are not entirely clear.

The WDG rates for opioid-related ED visits remain below the provincial average from 2019 onwards.

Figure 2, shown below, disaggregates the WDG trendline from Figure 1 into its three sub-region components: Wellington County, Dufferin County, and the City of Guelph. These three regions are then compared to the provincial average to facilitate meaningful comparisons.

Figure 2 – Rate per 100,000 Residents of Opioid-Related Emergency Department (ED) Visits in Wellington County, Dufferin County, the City of Guelph, and Ontario, 2008-2023.



Data Source – National Ambulatory Care Reporting System (NACRS). 2008-2023. Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario.

Over the past several years, Wellington County and Dufferin County have experienced a relatively consistent rate of opioid-related ED visits. However, 2023 data reveals a divergent trend. Wellington County saw a decrease of 28% in opioid-related ED visits from 2022 to 2023, while Dufferin County experienced an increase of 75% over the same period. Specifically, in 2023, Dufferin County had approximately 67.2 opioid-related ED visits per 100,000 residents, compared to Wellington County's 20.9 visits per 100,000 residents. The reasons behind the substantial rise in Dufferin County remain unclear but highlights the need for enhanced opioid surveillance and response efforts in the region (detailed later in this report). Despite these trends, both Wellington County and Dufferin County still have rates below the provincial average – 75% and 21% lower, respectively.

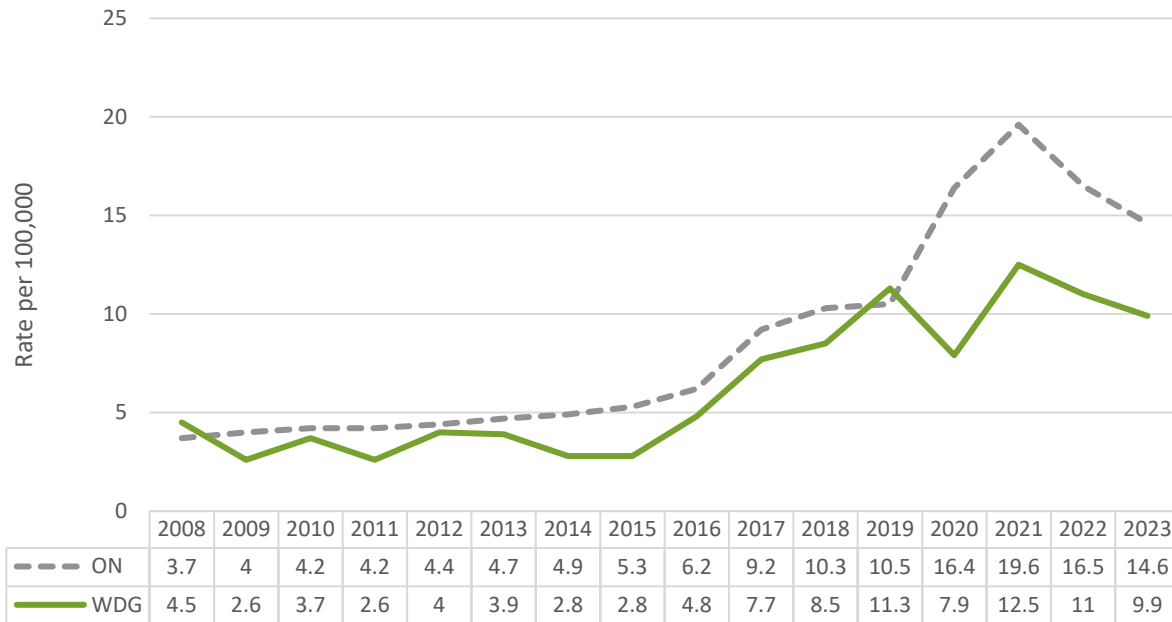
Since 2020, the City of Guelph has experienced a general decline in overall opioid-related ED visits. However, this trend reversed in 2023, with opioid-related ED visits increasing from 81.6 to 99.5 per 100,000 Guelph residents – a 22% rise. A similar upward trend is noted at the provincial level. Currently, the City of Guelph is the only sub-region exceeding the provincial rate by approximately 17%.

Opioid-Related Mortality

To understand mortality rates in the WDG region, WDGPH relies on two primary data sources: Coroner data and the Agency's internal FAST surveillance system. However, the figures below exclusively use data from the Coroner. The rationale for this is due to the Coroner's comprehensive data collection process and level of specificity embedded in their reporting.

Figure 3 below depicts the rate of opioid-related mortality for the province of Ontario and WDG, spanning from 2008 to 2023.

Figure 3 – Rate per 100,000 Residents of Opioid-Related Mortality in WDG and Ontario, 2008-2023.



Data Source – Ontario Opioid-Related Death Database, 2008-2023, Office of the Chief Coroner for Ontario; accessed through the Interactive Opioid Tool.

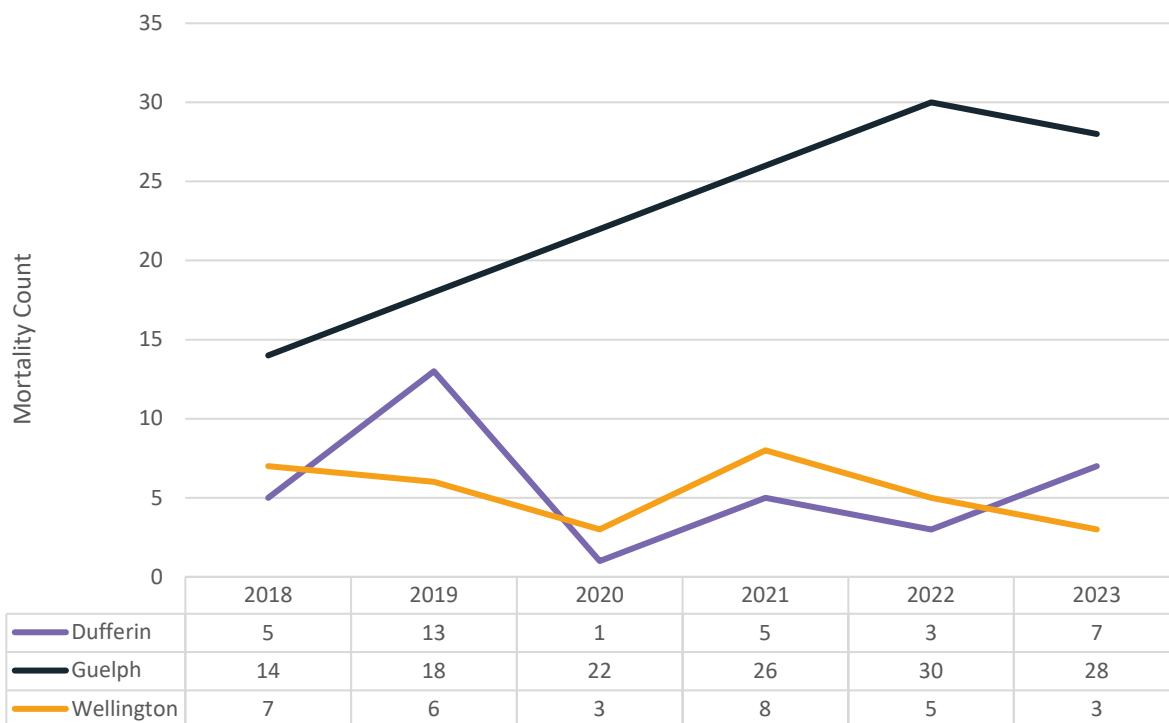
In both Ontario and WDG, the rate of opioid-related mortality has been steadily decreasing since 2021. In WDG the rate of opioid-related mortality went from 12.5 deaths per 100,000 WDG residents in 2021 to 9.9 deaths per 100,000 WDG residents in 2023 – a 21% decrease. In Ontario, the rate of opioid-related mortality went from 19.6 deaths per 100,000 Ontarians in 2021 to 14.6 deaths per 100,000 Ontarians in 2023 – a 26% decrease. The rationale for these gradual decreases is not likely attributable to a singular effort, but a myriad of harm reduction initiatives around the province, such as the distribution of naloxone, drug testing strips, and consumption and treatment service (CTS) sites.¹¹

WDG remains below the provincial average by approximately 32%.

Figure 4 presents a breakdown of WDG into its sub-regions to visualize mortality trends. Please note: the data provided by the Coroner used for Figure 4 includes both suspected and confirmed opioid-related deaths for 2023. This figure includes five suspect opioid-related deaths in addition to the 33 confirmed deaths as indicated in the WDG total in Figure 3 above. This graph is provided to give an understanding about how the WDG sub-regions are impacted by harms related to opioids and should be interpreted with some degree of caution.

Figure 4 indicates that the City of Guelph continues to have the highest number of opioid-related deaths compared to Wellington and Dufferin Counties. Up until 2022, Guelph exhibited a linear upward trend in these deaths, but in 2023, the number of deaths decreased by two. Ongoing monitoring efforts are needed to see if this is the beginning of a sustained downward trend.

Figure 4 – Count of Opioid-Related Mortality in the WDG Sub-Regions, 2018-2023.



Data Source – Ontario Opioid-Related Death Database (Deaths by CSD), 2018-2023, Office of the Chief Coroner for Ontario.

While not visualized in this report, Public Health Ontario (PHO) extracts OCCO data and distributes their own quarterly interactive reports for each health unit pertaining to opioid-related death data. The report consists of various indicators, but one of interest is the “accidental opioid-related deaths by location of incident.”

Table 1 below showcases that private residences are by far the most common locations for opioid-related deaths, accounting for 71% of cases across the province and 79% within the WDG region. This is particularly noteworthy because public perception often frames drug-related deaths as a ‘street’ issue. However, these numbers suggest that efforts should also be directed towards those residing in private homes. That said, other notable locations according to Table 1 include congregate living environments, hotel/motels, and outdoor settings. Data from the internal FAST Surveillance System

corroborates these findings, with homes and outdoors areas like sidewalks and parking lots frequently reported as common locations in the WDG sub-regions. Please note: the data embedded in Table 1 is representative of 2017 onward.

Table 1 – Percentage of Opioid-Related Deaths Occurring by Location Type in Ontario and WDG, 2017-2023 Inclusive.

Location	% of Opioid-Related Deaths (ON)	% of Opioid-Related Deaths (WDG)
Congregate living	6.3	3.7
Correctional facility	0.7	0
Hospital/clinic	1.2	0
Hotel/motel	5	6.3
Vehicle	1.1	1.1
Industrial setting	0.2	0.5
Other	1	0
Outdoors	7.1	3.7
Private residence	70.9	78.9
Public building	2.8	3.2
Shelter	2.9	2.1
Unknown	0.9	0.5

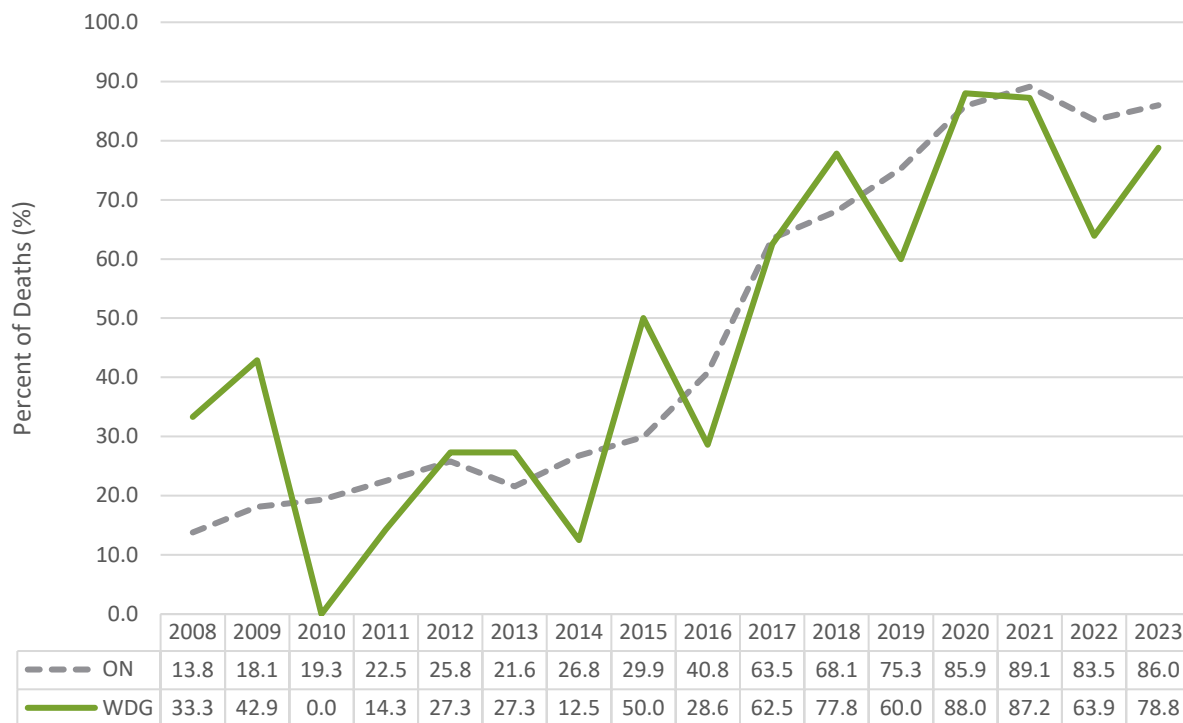
Data Source – Ontario Opioid-Related Death Database, 2017-2023, Office of the Chief Coroner for Ontario; accessed through Public Health Ontario (PHO) Quarterly Public Health Unit Opioid-Related Death Report (Last Updated: 05/2024).

Understanding the specific opioids contributing to deaths is a crucial aspect of analyzing these trends. Data from the Coroner’s office indicate that fentanyl and its analogues are significant contributors to the harms associated with the unregulated drug supply. To illustrate the magnitude of the fentanyl problem, Figure 5 shows the percentage of confirmed opioid-related deaths attributed to fentanyl.

Although the trendline for WDG in Figure 5 fluctuates yearly, the overall trend is upward, indicating that fentanyl and its analogues have become an increasing concern since their surge in the unregulated market between 2014 and 2017. From 2022 to 2023, the proportion of opioid-related deaths attributed to fentanyl in WDG rose from 63.9% to 78.8%.

In Ontario, the overall trend is similarly upward. Like WDG, Ontario experienced an increase in fentanyl-attributable deaths from 2022 to 2023, rising from 83.5% to 86.0% of all opioid-related deaths in the province.

Figure 5 – Percent of Opioid-Related Deaths by Fentanyl and its Analogues in WDG and Ontario, 2008-2023.



Data Source – Ontario Opioid-Related Death Database, 2008-2023, Office of the Chief Coroner for Ontario; accessed through the PHO Interactive Opioid Tool

While fentanyl remains a key driver of the opioid crisis in North America, it is also crucial to acknowledge other substances that contribute to opioid-related deaths. In addition to fentanyl, the OCCO has identified various non-opioid substances as direct contributors to these fatalities. Table 2 below provides an overview of these substances.

Please note: these substances are not mutually exclusive and may have been present in combination in each death.

Table 2 – Non-Opioid Substances Directly Contributing to Opioid-Related Death, WDG and Ontario, 2023.

Substance	WDG	ON
Methamphetamine	53%	36%
Cocaine	53%	50%
Benzodiazepines	22%	30%
Ethanol (Alcohol)	9%	11%

Data Source – Coroner’s Opioid Investigative Aid, Office of the Chief Coroner for Ontario.

Lastly, as highlighted in the previous Opioid Surveillance Update, concerns about xylazine entering the local unregulated drug supply remain apparent.¹ In 2022, a report by the Canadian Centre on Substance Use and Addiction revealed that approximately 3% of all opioid-related deaths involved detectable amounts of xylazine, with the majority of cases occurring in the Toronto region.⁷ Nevertheless, the report indicates that while the substance is present in the unregulated drug supply, it does not account for a significant number of fatal opioid toxicities in the Ontario context.⁷ To date, WDG Public Health has not received any confirmed Coroner’s reports attributing a death directly to xylazine.

Opioid Prescriptions and Dispensing

The Ontario Opioid Indicator Tool, developed by the Ontario Drug Policy Research Network (ODPRN) in collaboration with Public Health Ontario (PHO), is a publicly accessible resource.⁸ Using data from the Narcotics Monitoring System (NMS), this tool provides insights into prescription opioid dispensing from community pharmacies across Ontario. In addition to opioid dispensing, the tool also provides data with respect to

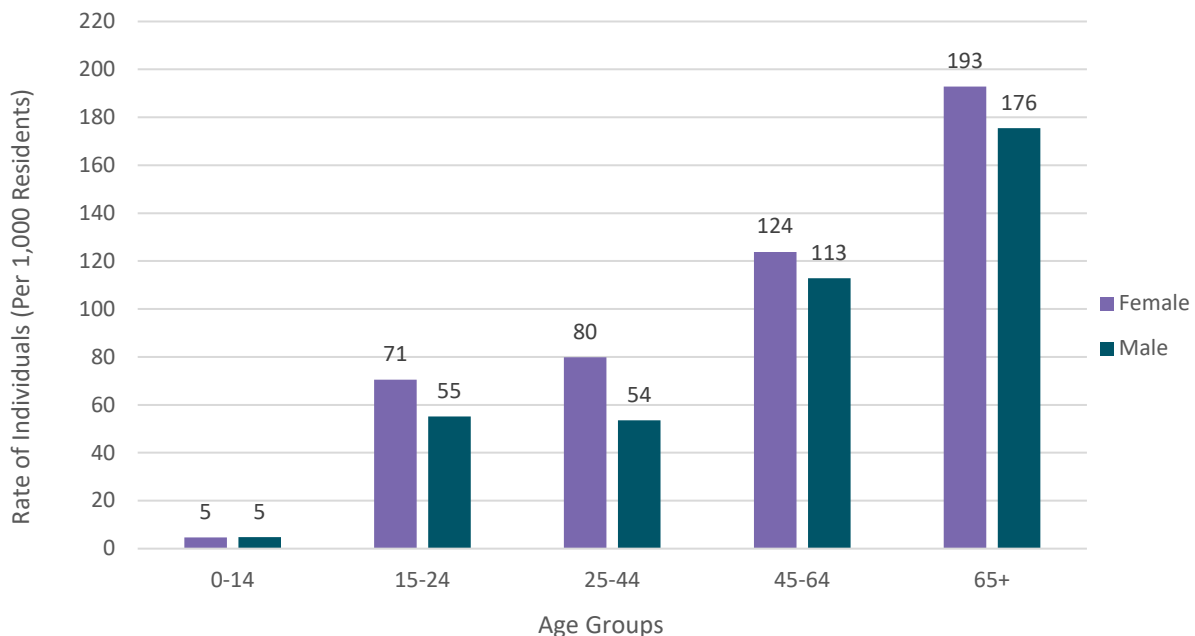
opioid agonist therapies (OAT), and as of early 2024, the distribution of harm reduction supplies (e.g., naloxone, needles, straight stems, bowl pipes, etc.).⁸ This section will outline the patterns of opioid dispensing in WDG compared to the entire province of Ontario.

Data from the NMS indicate a continuous decline in the legal dispensing rate of opioids since data collection began in 2013. Both Ontario and the WDG region exhibit similar trends in opioid dispensing patterns. Here is an overview of the provincial and local (WDG) trends:

- In 2013, approximately 123 out of every 1,000 Ontarians and WDG residents were prescribed opioids for pain management; by 2023, this had decreased to 87 out of every 1,000 Ontarians (a 29% decrease) and 89 out of every 1,000 WDG residents (a 28% decrease) over an 11-year period.

Figure 6 below investigates the patterns seen in WDG a bit closer by dissecting the WDG demographic by age and sex.

Figure 6 – Rate of Individuals per 1,000 Residents Dispensed Opioids to Treat Pain in WDG, by Age Group, 2023.



Data Source – Ontario Drug Policy Research Network (ODPRN). Ontario Opioid Indicator Tool.

As of 2023, older adults aged 65+ in WDG are more likely to be dispensed an opioid for pain management than any other identified age group. This is to be relatively expected, as older adults are more likely to be dispensed an opioid due to a higher prevalence of chronic pain.⁹ That said, this age group could be susceptible to opioid-related harms if used improperly.⁹ Another noteworthy trend seen in Figure 6 is that women are more likely to be dispensed an opioid for pain management than their male counterparts across each age group (apart from ages 0-14, where the rate is equal).

According to Figure 6, approximately 193 out of 1,000 WDG residents who identify as a women aged 65+ are dispensed an opioid to treat pain. In contrast, approximately 176 out of 1,000 WDG residents who identify as a male aged 65+ are dispensed an opioid to treat pain.

The FAST Surveillance System

The FAST Surveillance System is a WDG Public Health data platform that harnesses insights from local community partners to understand and visualize the unregulated drug supply and its impact on the WDG population. Community partners report drug poisonings (previously referred to as overdoses) through an online tool, which WDG Public Health staff regularly monitor to identify unusual or alarming trends. When patterns like an unexpected increase in incidents are detected a health alert is issued to inform those who use substances and alert local healthcare providers. This system was developed by WDG Public Health in collaboration with the Wellington-Guelph Drug Strategy (WGDS).

A significant enhancement to the FAST system since the last Opioid Surveillance Update is its expanded coverage, now encompassing the entire WDG region. Initially, the system was operational only in the City of Guelph, but as of late 2023, EMS data integration has extended coverage to both counties as well. Retrospective analysis of the data collected since the system's launch (August 2018) reveals a total of 2,436 substance-related incidents reported.

As highlighted in the 2023 update, one of the key strengths of the FAST system is its ability to capture and represent opioid incidents that are not reported by emergency response agencies (e.g., police, paramedics). With increased proficiency in using harm reduction supplies and services, such as naloxone and CTS sites, individuals may not always rely on emergency services. However, it remains crucial to capture these incidents to enable Public Health to accurately visualize regional differences and respond appropriately.

WDG Public Health is actively collaborating with the WGDS and Dufferin-Caledon Drug Strategy (DCDS) to onboard additional community partners into the FAST Surveillance System. Currently, select agencies in Dufferin County have shown interest and received training on the reporting process, and these efforts will continue to expand moving forward in hopes of making FAST more comprehensive.

As previously mentioned, the data collected through FAST enables WDG Public Health to monitor and identify spikes in reported incidents (and associated death), leading to the issuance of community health alerts. In 2023, three health alerts were distributed. Two of these alerts were triggered by a surge in overall opioid-related incidents, while the third was an awareness initiative to inform those who use substances about the potential introduction of xylazine into the local unregulated drug supply.

In conjunction with the data enhancements made to the FAST Surveillance System, ongoing updates are being made to the health alerts themselves. WDG Public Health staff have collaborated with peer advisory groups and youth to gather feedback on the visual design of these alerts, aiming to improve their overall messaging and effectiveness. Suggestions have included adding a QR code for additional information, highlighting crucial information, and adjusting the colour palette.

WDG Public Health Partnerships and Response

Currently, WDG Public Health staff supports the missions of two major coalitions: the WGDS and the DCDS. WDG Public Health is a member organization of the WGDS and co-chairs the DCDS alongside Family Transition Place. The primary goal of these coalitions is to prevent and mitigate the harms associated with drug use through a peer-informed, interdisciplinary, and evidence-based approach while also assisting with treatment options for those who use substances.¹⁰ This framework allows local agencies to collaborate, share concerns, and address issues within their respective communities.

WDG Public Health has been collaborating closely with the DCDS to implement the FAST Health Alert system in Dufferin County. Currently, two partners are onboard to facilitate the health alert process, with four additional agencies expressing interest in participating.

Beyond the FAST Health Alert system, WDG Public Health partnered with both drug strategies to raise awareness about the opioid crisis through local community events, including:

- Reducing Harms, Building Community in Wellington County (May 16, 2024)
- Drug Poisoning Awareness Day in Wellington County (August 22, 2024, in Mount Forest; August 29, 2024, in Guelph)
- International Overdose Awareness Day in Dufferin County (August 29, 2024, in Orangeville)

WDG Public Health continues to support local agencies and individuals in need of harm reduction supplies through the Ontario Naloxone Program. This support includes the distribution of naloxone, needles, straight stems, bowl pipes, foils, and straws. WDG Public Health is continually exploring opportunities to increase the number of community agencies distributing naloxone.

Conclusion

WDG Public Health continues to demonstrate a robust approach to monitoring and addressing opioid use and its associated harms through the utilization of various data sources. Each data source provides unique insights, enabling WDG Public Health to maintain a comprehensive and timely overview of the opioid crisis at both local and provincial levels.

The surveillance data reveal critical trends and regional variations in opioid-related incidents. Despite overall decreases in opioid-related mortality rates in recent years, WDG Public Health's data shows a rise in opioid-related emergency department visits in 2023, reflecting the ongoing challenges posed by the unregulated drug supply, including substances like fentanyl. The notable increase in opioid-related ED visits in Dufferin County and the City of Guelph underscores the necessity for tailored harm reduction strategies and enhanced community partnerships. Through ongoing collaboration with local agencies and continuous enhancements being made to data monitoring practices, WDG Public Health is well-positioned to adapt its public health strategies, ensuring that the community remains resilient against current and emerging opioid-related health risks. The strategic priorities outlined in WDG Public Health's 2024-2028 Strategic Plan, such as improving health outcomes and building strong partnerships will be pivotal in guiding these efforts.

Ontario Public Health Standards

Foundational Standards

- Population Health Assessment
- Health Equity
- Effective Public Health Practice
- Emergency Management

Program Standards

- Chronic Disease Prevention and Well-Being
- Food Safety
- Healthy Environments
- Healthy Growth and Development
- Immunization
- Infectious and Communicable Diseases Prevention and Control
- Safe Water
- School Health
- Substance Use and Injury Prevention

2024-2028 WDG Public Health Strategic Goals

- Improve health outcomes
- Focus on children's health
- Build strong partnerships
- Innovate our programs and services
- Lead the way toward a sustainable Public Health system

Health Equity

Health equity principles are being applied across all WDG Public Health opioid projects with the goal of reducing or eliminating differences in opioid-related harms between population groups. According to a study by the Public Health Agency of Canada, opioid and other drug-related overdose deaths occurred across all sociodemographic and socioeconomic groups. However, characteristics most common among those who died include⁹

- a history of mental health concerns, substance use disorder, trauma, and stigma
- decreased drug tolerance

- being alone at the time of overdose
- lack of social support
- lack of comprehensive and coordinated healthcare and social service follow-up

Strategies, such as Consumption and Treatment Services (CTS) Sites, tend to engage people who are more likely to be experiencing unstable living arrangements or homelessness, mental health concerns and/or chronic substance use. Different approaches and strategies are needed to reach a diversity of groups who have different risk factors and different needs. WDG Public Health will continue to explore the needs of different population groups and use a comprehensive and targeted approach to reduce health inequities and reduce the burden of substance related harm in the community.

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