Adult Substance Use & Harms in the SWPH Region

Opioids

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Summary

In the Southwestern Public Health Region (SWPH), harm reduction activities have increased over time and at the same time there has been a gradual decrease of new opioid users.

Locally, although there were recent decreases in both opioid-related emergency department (ED) visits and hospitalizations (i.e. opioid poisonings) in 2022, the rates have increased again into 2023. The rate of opioid toxicity deaths continued to decline in 2023, but given the increase in ED visits and hospitalizations, this will be important to monitor over the next year. In general, more males in the SWPH region experience opioid-related harms and make up the vast majority of opioid toxicity deaths (more than 50%).

Opioid agonist therapy (OAT) and other treatment options can be explored in order to decrease these rising opioid-related harms and improve the overall well-being of residents in the SWPH region.

Substance Use & Harms Among Adults

Opioid prescriptions & naloxone distribution

Public Health and Opioids

Both pharmaceutical and non-pharmaceutical opioids can have an impact on the health and wellbeing of the community.[1] However, in recent years the majority of substance-related toxicity deaths are attributable to non-pharmaceutical (or unregulated) opioids, benzodiazepines, and stimulants.[2] This is evident for local opioid toxicity deaths in the SWPH since 2019.

Further, the rising trend in polysubstance use (defined as the co-ingestion of multiple substances during the same instance) is increasing the risk of overdose as well as complicating local treatment and harm reduction responses.[2] SWPH has a role in harm reduction and health promotion activities in our community in order to curb the impact of these opioid and substance-related harms.

Opioids for pain relief

There has been a gradual change in opioid prescribing practice across Canada after 2013, with various provinces introducing prescription guidelines and monitoring programs.[3] This has resulted in decreasing numbers of opioid prescriptions and thus, opioid users.[4] This is evident in the SWPH region.

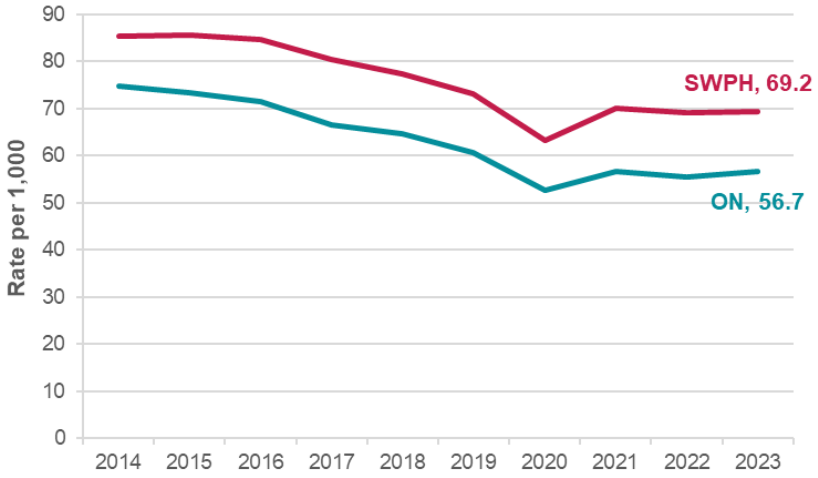
Since 2014, the count and rate of new users of opioids for pain has decreased year over year into the first year of the COVID-19 pandemic in 2020. However, this was followed by the first increase in several years in 2021, reaching 70.1 per 1,000 and remaining approximately the same for the following two years. The same trend was evident across Ontario (**Figure 1**).

Of note is that the overall local rate of new users of opioids for pain has historically always been higher compared to the province.

Data source:
Ontario Drug Policy Research Network. Ontario Opioid Indicator Tool. Toronto, ON.

Figure 1

The rate of new users of opioids for pain decreased into 2020, increasing again in 2021 but remained relatively stable into 2023.

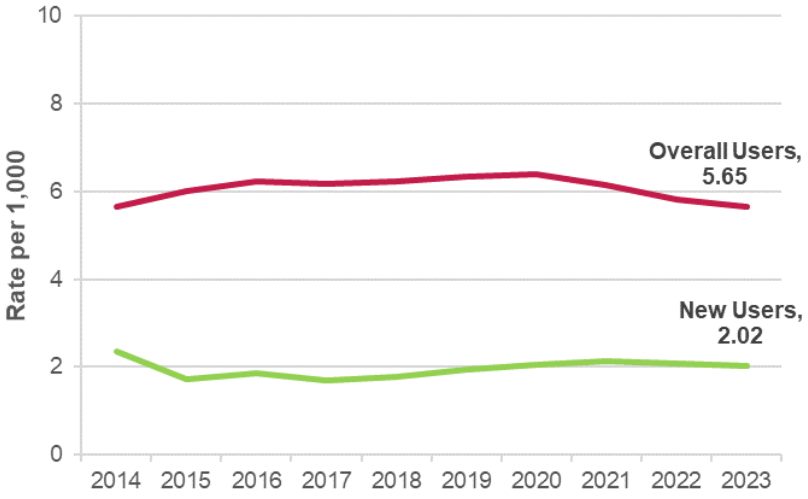


Opioid agonist therapy

Opioid agonist therapy (OAT) is often used to treat addiction to various opioid drugs by preventing withdrawal due to opioids or cravings for opioids.[4] The rate of overall users of OAT decreased slightly in 2021, 2022, and 2023, falling to about 5.7 users per 1,000 population (**Figure 2**). This is consistent with long-term users discontinuing therapy.[4] On the other hand, the trend in new opioid users (pharmaceutical opioids) has been relatively steady over the same period (2021-2023), remaining at about 2.0 new users per 1,000 population.

Figure 2

The rate per 1,000 of overall users of opioid agonist therapy (OAT) in the SWPH region has decreased slightly over time.



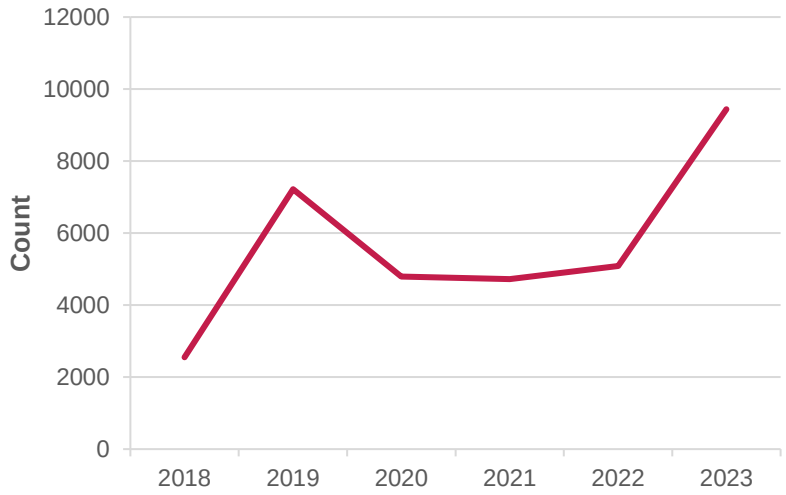
Naloxone distribution

The distribution of naloxone is a key harm-reduction activity in the community to help prevent opioid-related deaths. SWPH and local pharmacies are the main access points to naloxone for SWPH residents. As opioid-related harms became more frequent (covered in the next section of the current report), the number of doses given out by either SWPH, or local pharmacies increased sharply to meet the needs of the community (between 2018 and 2019).

There was a slight decrease in the number of naloxone doses distributed during the COVID-19 pandemic. However, the number rose again in 2022 and shot up to an all-time high in 2023, surpassing the initial jump in naloxone kit distribution in 2019 (**Figure 3**).

Figure 3

The number of naloxone kits being distributed to residents of the SWPH region has increased over time, remaining over 4000 each year since 2019 with a recent all-time high of over 9000 in 2023.



Although interesting, looking at naloxone data in this way does not fully represent the opioid overdose climate in the SWPH region. This is because the number of naloxone kits being distributed does not necessarily mean they were all used. Nor is it possible to determine how many doses were used on a single instance/individual. This is important to keep in mind as in many overdose situations, more than one dose of naloxone is used, especially if the opioid is mixed with other drugs that do not respond to naloxone. It may appear that the initial dose of naloxone is not working, and thus multiple doses are administered.

Opioid-related harms

Emergency department (ED) visits, Hospitalizations, & Mortality

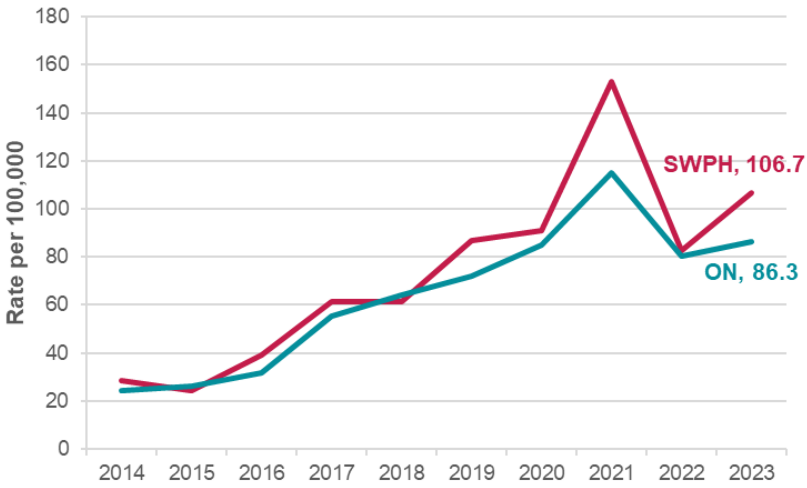
A recent report by the Ontario Drug Policy Research Network (ODPRN) and Public Health Ontario (PHO) reported that 17.5 % of people who died from substance-related toxicity (using alcohol, opioids, stimulants, and benzodiazepines) had visited the emergency department (ED) for a non-fatal substance-related toxicity in the 30 days prior to death.[2] This indicates a missed opportunity for high-risk individuals to be connected with low-barrier access to treatment or harm reduction services such as OAT before they experience a more severe outcome, such as death.[5] As the rate of new users of OAT has not increased and there have been increases in opioid-related harms, this could indicate limited access to treatment for those who need it most. This makes monitoring hospital administrative data an important part of opioid- and substance-related surveillance with the goal of decreasing mortality over time.

Opioid poisoning emergency department (ED) visits

Overall, the local rate of ED visits per 100,000 population for opioid poisonings among residents of the SWPH region has been increasing over time. ED visits reached an all-time high in 2021 of 153.0 visits per 100,000 compared to 115.2 per 100,000 in Ontario. The only decrease was observed in 2022, but this was followed by an increase to 106.7 per 100,000 in 2023. This was still higher compared to the local rate pre-pandemic of 86.8 per 100,000 (2019). The local rate has remained higher than the province almost every year since 2014 (**Figure 4**).

Figure 4

The rate of ED visits for opioid poisonings has been increasing over the last decade with the only significant decrease in 2022. However, this was followed by another increase in 2023.



Although the same trend is evident across both male and female residents in the SWPH region, males have had a higher rate of ED visits for opioid poisonings compared to females since 2015, reaching 134.7 per 100,000 in 2023 compared to 78.8 per 100,000 among females.

Figure 5

In 2023, male residents had an ED rate for opioid poisonings that was 1.7x higher compared to females.

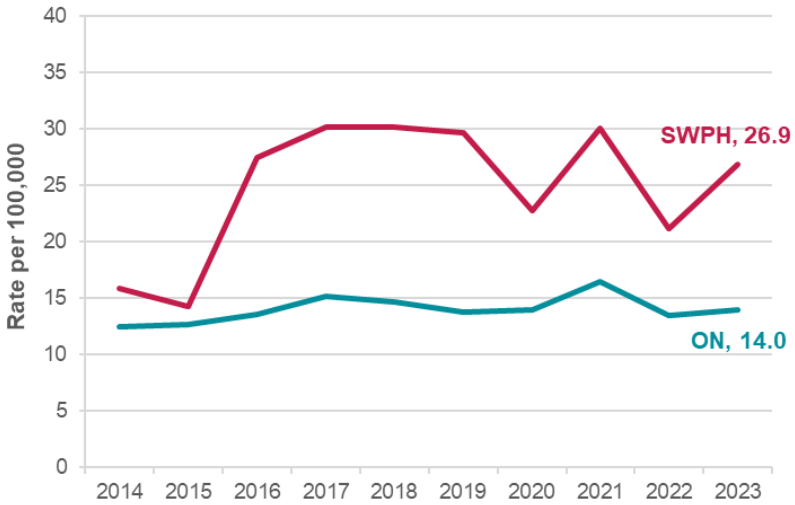
per 100,000

Opioid-related hospitalizations

Overall, the local rate of opioid-related hospitalizations has been unstable since 2020 but for the most part, has remained as high as the rate in 2016 (27.5 per 100,000) which was when the sharpest increase occurred in the SWPH region. This sharp increase was not evident across Ontario, where the increase over time was steady and more marginal (**Figure 6**). Further, despite some decreases in the local rate in 2020 and 2022, there continued to be more opioid-related hospitalizations in the SWPH region compared to Ontario (**Figure 6**).

Figure 6

The local rate of opioid-related hospitalizations sharply increased in 2016 and has remained relatively close to 27 per 100,000 since, although the trend has been a little unstable compared to Ontario.



Unlike with ED visits, the trend in the rate of hospitalizations among males and females was much more erratic over time with no one group being consistently higher compared to the other. Both males and females have also experienced various increases and decreases over time. This differs from the trend in Ontario where males have consistently experienced higher rates of hospitalization compared to females since 2017 (not shown).

Opioid-related deaths

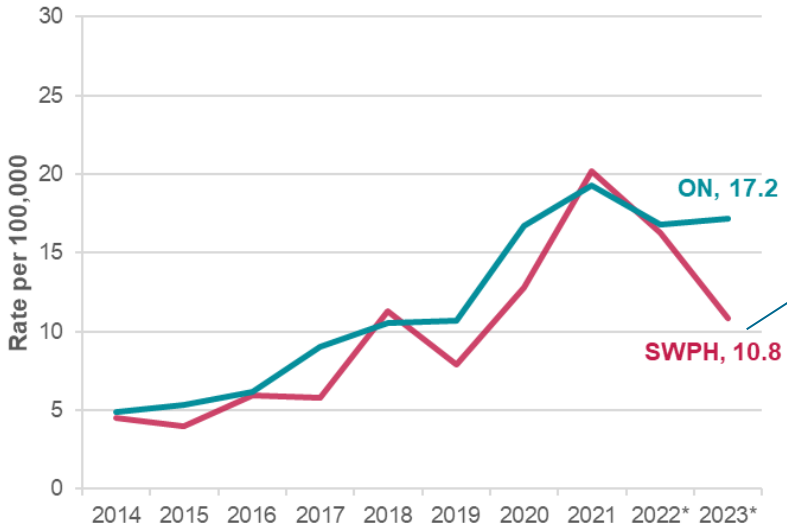
Similar to the provincial situation, the rate of deaths due to opioid toxicity increased dramatically between 2014 and 2017. It remained on an upward trajectory until 2022, with steep increases observed both locally and provincially during the onset of the COVID-10 pandemic in 2020 and 2021, where rates reached all-time highs.

Data source:
Office of the Chief Coroner Ontario.
Toronto, ON.

There was a universal decrease in opioid toxicity deaths in 2022 but in 2023, the provincial rate remained relatively unchanged, whereas the local rate continued to decline. However, it is important to note that both provincial and local rates in 2023 were still approximately 1.5x higher compared to 2019.

Figure 7

The rate of opioid-related deaths was on an upward trend, reaching an all-time high in 2021 (20.2 per 100,000). Although there were decreases in 2022 and 2023, the rate remained higher compared to pre-pandemic.



*2022 and 2023 mortality rates are preliminary and are subject to change

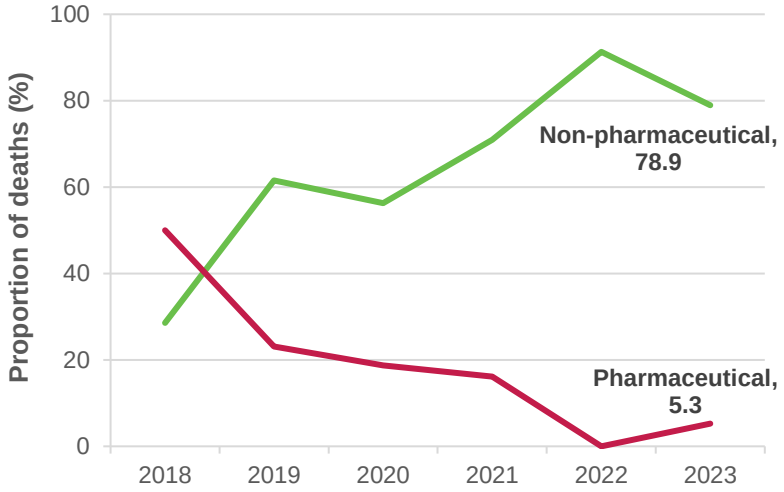
In 2023, **males** had a significantly **higher** mortality rate due to opioid toxicity compared to **females**.

15.6 versus 6.1

In Ontario, approximately 86% of opioid-toxicity deaths involved non-pharmaceutical opioids (i.e. unregulated fentanyl).[3] Locally, there has been a clear shift in the origin of the opioids that directly contributed to opioid toxicity deaths among residents. In 2018, a larger proportion of deaths were associated with prescription opioids accessed through a pharmacy. This changed drastically in 2019 when non-pharmaceutical opioids from unregulated sources represented more than 60% of drugs directly contributing to deaths (**Figure 8**).

Figure 8

In 2018, pharmaceutical opioids contributed to half of opioid toxicity deaths in the SWPH region, but non-pharmaceutical opioids have contributed to over 70% (on average) of opioid toxicity deaths between 2019 and 2023.



*does not equal 100% due to deaths having both types or unspecified types as contributory factors being excluded from the figure

Although the proportion of opioid-related deaths among people who are employed has increased over time, the majority were unemployed at the time of their death (two in three opioid-related deaths in 2023).

Between 2018 and 2023, opioid-related deaths occurred on average, **2.8x** more among the **unemployed**

Conclusion

Although the rate of new opioid users (pharmaceutical) has been decreasing over time, there has been an increase in access to non-pharmaceutical (non-regulated) opioids. There has also been a decrease in new users of OAT. Although not all users have an opioid-use disorder or require treatment, the lack of significant improvement in opioid-related harms could indicate a need for increased assess to opioid and substance use treatments

Therefore, OAT and other treatment options can be explored in order to decrease rising opioid-related harms and improve the overall well-being of residents in the SWPH region.

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Appendix A

Technical appendix – ICD-10 codes

ED visits and hospitalizations for opioid poisonings

- Includes unscheduled ED visits for opioid poisoning (all diagnosis types)
- 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).

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