

Opioid trends in Halton: Emergency department visits for opioid overdoses (2022)

Health indicator report

Background

- The purpose of this health indicator report is to provide information on emergency department (ED) visits for opioid overdoses among Halton residents.
- Opioids are a class of drugs that includes illegal drugs, such as heroin, and prescription drugs, such as codeine and morphine.¹
- Opioids impact the part of the brain that controls breathing, which can lead to a life-threatening overdose.¹ Some opioid overdoses occur accidentally, while others may occur as part of self-harm.
- In Ontario, the rate of opioid overdoses was increasing in the years leading up to the COVID-19 pandemic and the pandemic accelerated these harms in many areas throughout the province. This increase is thought to have been driven by several factors, including the volatility of the unregulated drug supply, changes in patterns of health care use and increased isolation due to public health measures intended to limit COVID-19 transmission.² Halton did not experience the same increase in opioid-related overdoses during the pandemic as other parts of province.
- This health indicator report uses data from the National Ambulatory Care Reporting System (NACRS).

Key findings

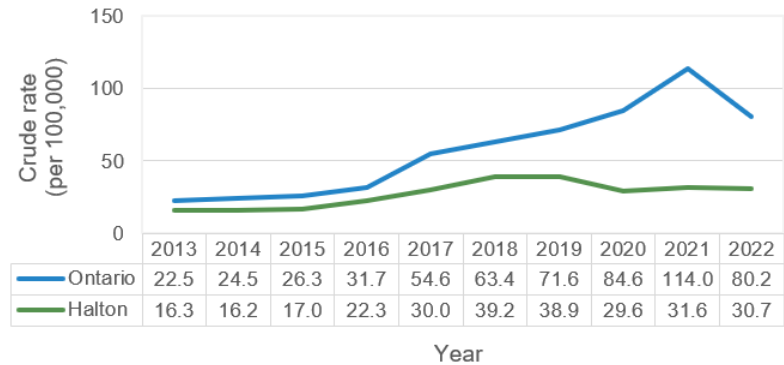
- Between 2013 and 2018, the rate of ED visits for opioid overdoses increased substantially in both Halton and Ontario. While this increase was further accelerated during the COVID-19 pandemic (2020 or after) in Ontario, a similar increase was not seen in Halton.
- In 2022, Halton residents made 197 ED visits for opioid overdoses (30.7 visits per 100,000 people). This was lower compared to Ontario.
- In 2022, most ED visits for opioid overdoses among Halton residents were accidental. Rates were higher among males or residents aged 15-44.
- Among Halton residents, fentanyl was the opioid most commonly involved in opioid overdoses resulting in an ED visit during 2022.



Emergency department visits

Trends over time

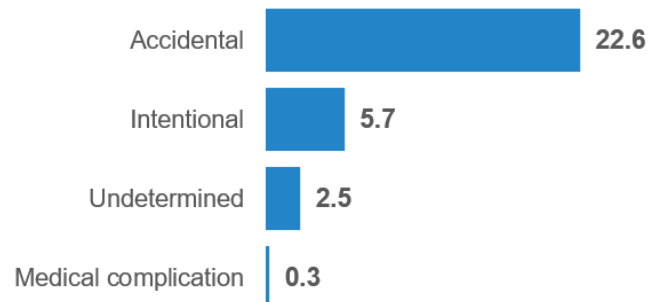
- In 2022, the rate of ED visits for opioid overdoses among Halton residents (30.7 per 100,000 people, or 197 visits) was lower compared to Ontario (80.2 per 100,000 people, or 12,144 visits). This difference was **statistically significant**.
- Between 2013 and 2018, the rate of ED visits for opioid overdoses increased substantially in both Halton and Ontario. While this increase was further accelerated during the COVID-19 pandemic (2020 or after) in Ontario, a similar increase was not seen in Halton.



Crude rate (per 100,000 population) of emergency department visits for opioid overdoses, Halton and Ontario, 2013-2022

Intentionality

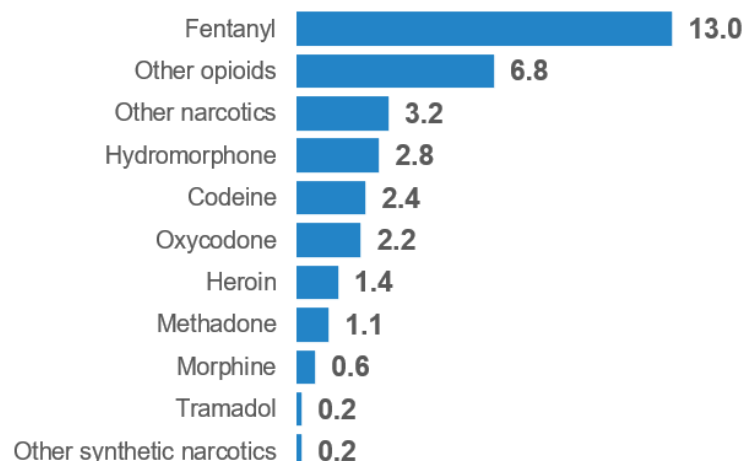
- In 2022, the rate of ED visits among Halton residents was highest for accidental opioid overdoses (22.6 visits per 100,000 people or 143 visits).
- During 2022, Halton residents made 36 visits for intentional opioid overdoses. For 16 visits, the intent could not be determined. For two visits, the overdose was considered a complication of medical or surgical care.



Crude rate (per 100,000 population) of emergency department visits for opioid overdoses, by external cause, Halton Region, 2022

Type of opioid

- A single ED visit can involve more than one type of opioid.
- In 2022, most ED visits for opioid overdose involved fentanyl. Halton residents made 82 ED visits for opioid overdoses involving fentanyl (13.0 visits per 100,000 people).



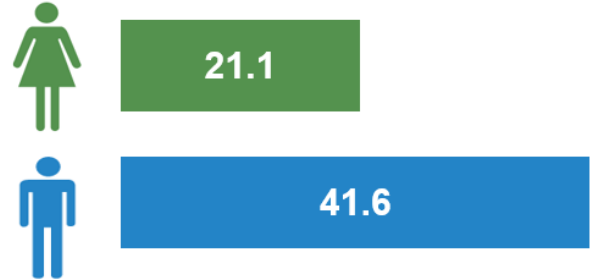
Crude rate (per 100,000 population) of emergency department visits for opioid overdoses, by type of drug, Halton Region, 2022



Emergency department visits

Sex

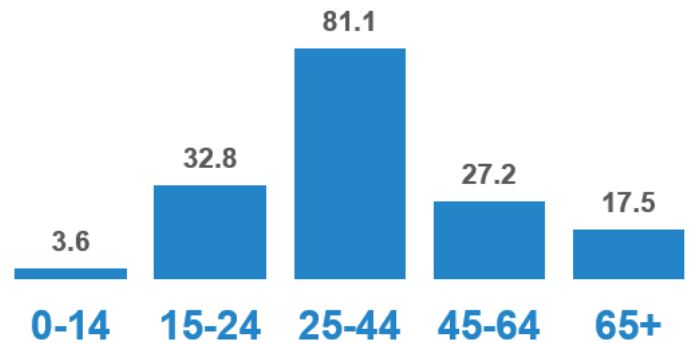
- In 2022, the rate of ED visits for opioid overdose was 21.1 per 100,000 females in Halton (68 visits) compared to 41.6 per 100,000 males (129 visits). This difference was **statistically significant**.



Crude rate (per 100,000 population) of emergency department visits for opioid overdoses, by sex, Halton Region, 2022

Age

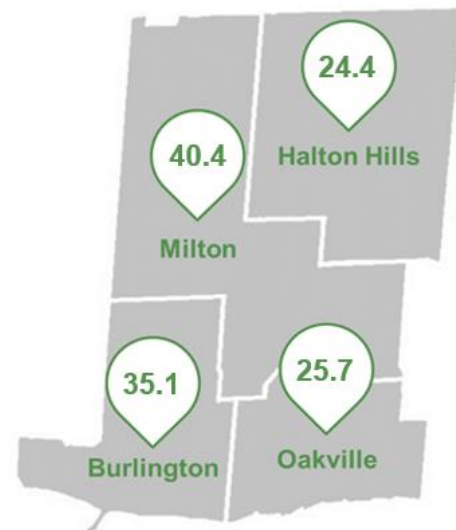
- In 2022, the rate of ED visits for opioid overdose was highest among Halton residents aged 25 to 44 (81.1 per 100,000 people or 131 visits) compared to any other age group. These differences were **statistically significant**.



Rate (per 100,000 population) of emergency department visits for opioid overdoses, by age, Halton Region, 2022

Municipality

- In 2022, there were 56 ED visits for opioid overdoses among Milton residents (40.4 per 100,000 people), 68 visits among Burlington residents (35.1 per 100,000 people), 57 visits among Oakville residents (25.7 per 100,000 people), and 16 visits among Halton Hills residents (24.4 per 100,000 people). Differences by municipality were not statistically significant.



Rate (per 100,000 population) of emergency department visits for opioid overdoses, by municipality, Halton Region, 2022

Data notes

Definitions:

Emergency department visit for opioid overdose is an unscheduled visit by an individual of any age to any emergency department in Ontario that was assigned the ICD-10 code of:

- 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]), or;
- T40.6 (poisoning by other and unspecified narcotics). Query diagnoses are excluded.

Intentionality reflects the cause of an overdose based on evidence available to hospital staff, and can be classified as:

- X42 (accidental poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified);
- X62 (intentional self-poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified);
- Y12 (poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified), or;
- Y450 (opioids and related analgesics causing adverse effect in therapeutic use). An overdose is classified as Y450 when it involves an opioid properly administered in therapeutic or prophylactic dosage as the cause of any adverse effect or misadventures to patients during surgical and medical care.

Type of opioid refers to the specific drugs thought to be involved in the overdose. More than one drug may be involved in a single overdose, and visits are counted once per relevant drug category.

Limitations:

Intentionality depends on information available to hospital staff and may not always be complete/accurate.

ED visits were calculated using 'all diagnosis', meaning that the opioid overdose may not have been the main diagnosis responsible for the ED visit.

All rates shown that are not age- and sex-specific are crude rates, meaning they have not been adjusted for factors such as age.

Population counts from 2021 were used to calculate the municipality-specific rates and may be underestimates for 2022 due to population growth, resulting in overall higher rates.

Non-opioid drugs may be involved in an overdose that also involves opioid drugs, but they have not been shown here.

ED data only reflect individuals who sought medical care for an overdose; it does not include individuals who overdosed and recovered outside hospital (e.g. because someone administered naloxone to them or because they refused transport by paramedics), or individuals who died from an overdose without visiting a hospital.

Some ED visits for opioid overdose may end in death, which has not been shown here.

Data Sources: ED visit trends: Public Health Ontario Interactive Opioid Tool. Accessed November 2023 from <https://www.publichealthontario.ca/en/data-and-analysis/substance-use/interactive-opioid-tool#/trends>

ED visits, all other analyses: National Ambulatory Care Reporting System (NACRS), IntelliHEALTH, Ministry of Health, extracted September 2023.

Population estimates, by municipality: Population estimates [2015-2021]: Ministry of Health, IntelliHealth Ontario, extracted June 2023.

Population projections, all other analyses: Population Projections [2022-2046], Ministry of Health, IntelliHealth Ontario, extracted June 2023.

References

1. Health Canada. 2023. About Opioids. Accessed January 2020 from <https://www.canada.ca/en/health-canada/services/substance-use/problematic-prescription-drug-use/opioids/about.html>
2. Ontario Drug Policy Research Network. 2021. Changing Circumstances Surrounding Opioid-Related Deaths in Ontario during the COVID-19 Pandemic. Accessed November 2023 from <https://odprn.ca/wp-content/uploads/2021/05/Changing-Circumstances-Surrounding-Opioid-Related-Deaths.pdf>

For more health indicator and health status reports, visit the Halton Health Statistics webpage at halton.ca.