



Chartbook

September 2017

Opioid-Related Harms in Canada



Canadian Institute
for Health Information
Institut canadien
d'information sur la santé

Production of this document is made possible by financial contributions from Health Canada and provincial and territorial governments. The views expressed herein do not necessarily represent the views of Health Canada or any provincial or territorial government.

Unless otherwise indicated, this product uses data provided by Canada's provinces and territories.

All rights reserved.

The contents of this publication may be reproduced unaltered, in whole or in part and by any means, solely for non-commercial purposes, provided that the Canadian Institute for Health Information is properly and fully acknowledged as the copyright owner. Any reproduction or use of this publication or its contents for any commercial purpose requires the prior written authorization of the Canadian Institute for Health Information. Reproduction or use that suggests endorsement by, or affiliation with, the Canadian Institute for Health Information is prohibited.

For permission or information, please contact CIHI:

Canadian Institute for Health Information
495 Richmond Road, Suite 600
Ottawa, Ontario K2A 4H6

Phone: 613-241-7860

Fax: 613-241-8120

www.cihi.ca

copyright@cihi.ca

ISBN 978-1-77109-637-9 (PDF)

© 2017 Canadian Institute for Health Information

How to cite this document:

Canadian Institute for Health Information. *Opioid-Related Harms in Canada*. Ottawa, ON: CIHI; 2017.

Cette publication est aussi disponible en français sous le titre *Préjudices liés aux opioïdes au Canada*.

ISBN 978-1-77109-638-6 (PDF)

Table of contents

- Acknowledgements 4
- About this chartbook 5
- Key findings: Hospitalizations 6
- Key findings: ED visits 7
- Hospitalizations due to opioid poisoning 8
- ED visits due to opioid poisoning 16
 - Alberta 19
 - Ontario 23
- Methodology 27
 - Data sources 27
 - Hospitalizations 29
 - ED visits 30
 - Limitations 30
 - Other methodology notes 30
- Appendix: Data tables for figures 31

Acknowledgements

The Canadian Institute for Health Information (CIHI) would like to acknowledge the input and advice of the Canadian Centre on Substance Use and Addiction and of the Public Health Agency of Canada.

Please note that the analyses and conclusions in this chartbook do not necessarily reflect the views of the organizations mentioned above.

About this chartbook

The rise in opioid-related harms is an issue of increasing public health importance in Canada. Measures that provide a better understanding of the harms associated with opioid use are a high priority.

This chartbook provides an overview of opioid-related harms in Canada, including available data on hospitalizations and emergency department (ED) visits due to opioid poisoning.

The hospitalization analysis includes 2007–2008 to 2016–2017 data from all provinces and territories (except Quebec and Nunavut, where the most recent data available at the time of release was 2015–2016).

The ED analysis is based on available, comparable data. At the time of release, this includes 2012–2013 to 2016–2017 data from Ontario and Alberta. Although ED data was available for Yukon, it was excluded due to small volumes.

Supplementary data tables accompany this chartbook and are available online. The data tables provide more detailed breakdowns and trending information for opioid poisoning hospitalizations and ED visits.

CIHI intends to publish updated analyses as more data becomes available, including ED data for more jurisdictions.



Key findings: Hospitalizations

- Opioid poisonings result in an average of 16 hospitalizations a day in Canada.
- Between 2007–2008 and 2016–2017, the rate of hospitalizations due to opioid poisoning increased 53%. Nearly half of the increase occurred over the last 3 years.
- Over the last 10 years, older adults age 45 to 64 and seniors age 65+ had the highest rates of hospitalizations. Hospitalizations increased across all age groups, although youth age 15 to 24 and younger adults age 25 to 44 had the fastest-growing rates.
- Opioid poisoning hospitalization rates varied across the provinces and territories in 2016–2017, with Northern and Western Canada having higher rates than Eastern Canada.
- In 2016–2017, more than half of hospitalizations for opioid poisonings were considered accidental and almost one-third were a result of purposely self-inflicted harm.



Key findings: ED visits

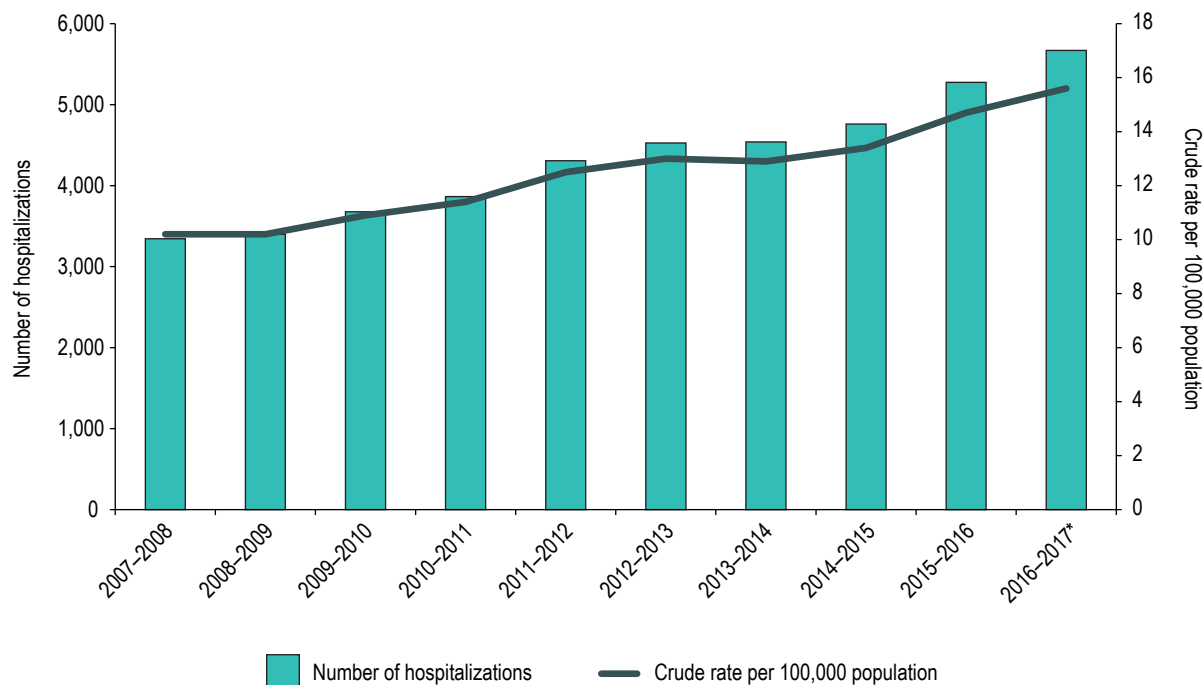
- Opioid poisonings result in an average of 13 ED visits in Ontario and 11 ED visits in Alberta every day.
- Between 2012–2013 and 2016–2017, rates of ED visits more than doubled in Alberta and increased by almost 50% in Ontario. The majority of the increase occurred over the past 3 years.
- In Alberta, over the past 5 years, the number of ED visits increased almost 10-fold for heroin poisonings and more than 10-fold for synthetic opioid poisonings (including those related to fentanyl). In Ontario, ED visits increased almost four-fold for heroin poisonings and more than doubled for synthetic opioid poisonings. The majority of the increase in each province occurred over the past 3 years.
- In Alberta, youth age 15 to 24 had the highest and fastest-growing rates of ED visits, tripling over the past 5 years. In Ontario, younger adults age 25 to 44 had the highest and fastest-growing rates of ED visits, increasing by 85%. The majority of the increase in both provinces occurred over the past 3 years.



Hospitalizations due to opioid poisoning

In 2016–2017, there were an average of **16 hospitalizations each day** for opioid poisoning in Canada.

Figure 1: Opioid poisoning hospitalizations in Canada, 2007–2008 to 2016–2017



Over the past 10 years, the rate of hospitalizations increased 53% to 15.6 per 100,000 population. Nearly half of the increase occurred over the last 3 years.

By comparison, the hospitalization rate for driver injuries in motor vehicle collisions is 25 per 100,000.ⁱ

i. Canadian Institute for Health Information. [Injury and Trauma Emergency Department and Hospitalization Statistics, 2015–2016](#). 2016.

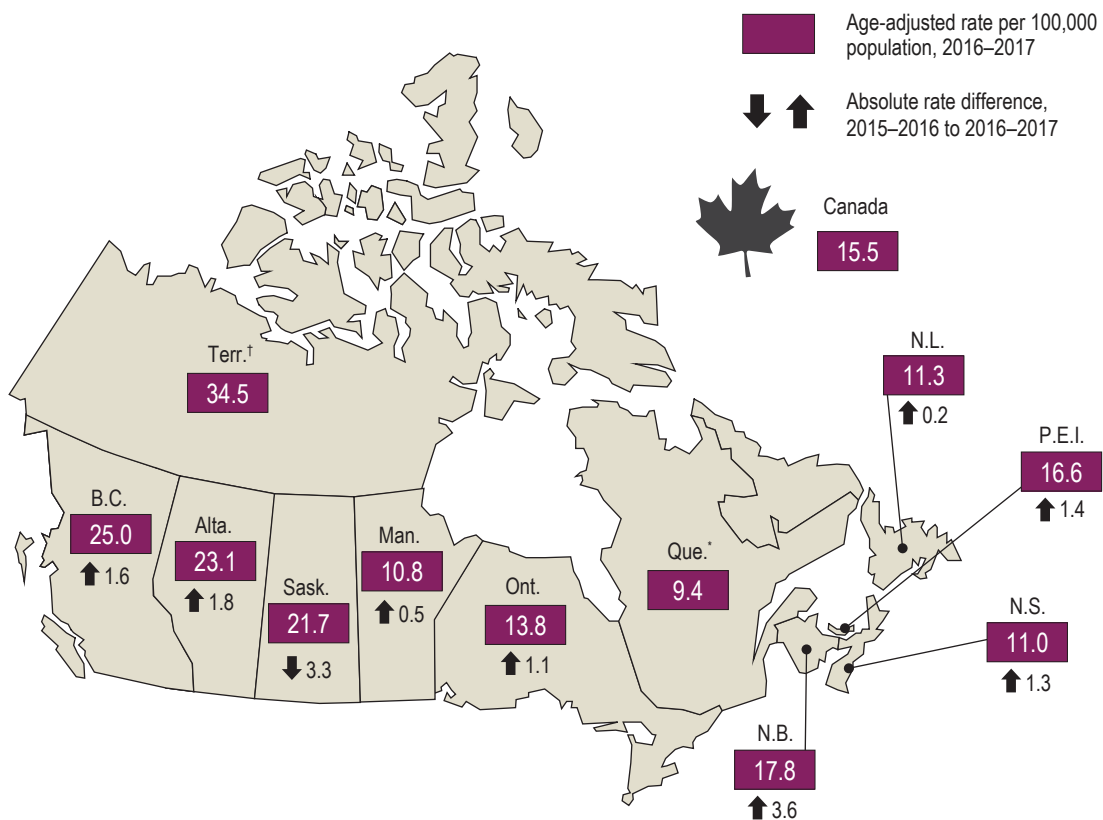
Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 2: Opioid poisoning hospitalization rates by province/territory, 2016–2017



Overall, in 2016–2017, Northern and Western Canada had higher rates of hospitalizations than Eastern Canada.

Notes

* Quebec data is from 2015–2016 (the most recent year of data available); therefore, there is no absolute rate difference shown.

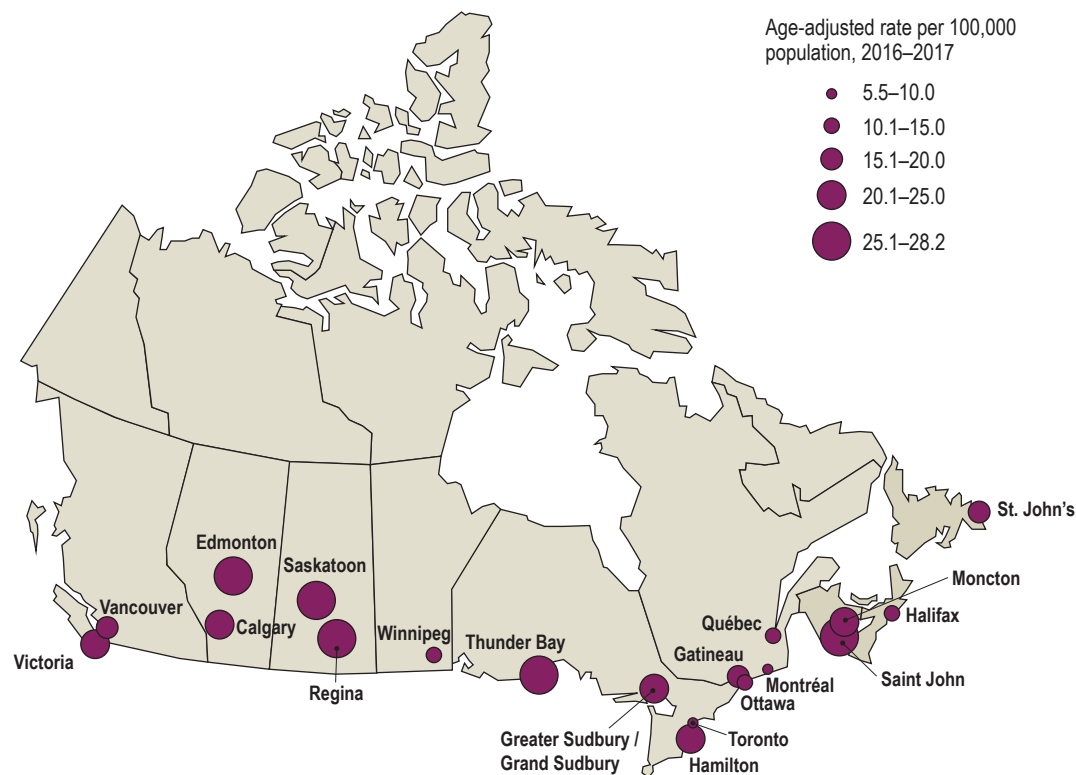
† Yukon, Northwest Territories and Nunavut data is grouped due to low volumes. This data should be interpreted with caution.

Nunavut data is from 2015–2016 (the most recent year of data available); therefore, there is no absolute rate difference shown.

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 3: Opioid poisoning hospitalization rates by selected census metropolitan areas,* 2016–2017



Rates of opioid poisoning hospitalizations vary by census metropolitan area (CMA).

Notes

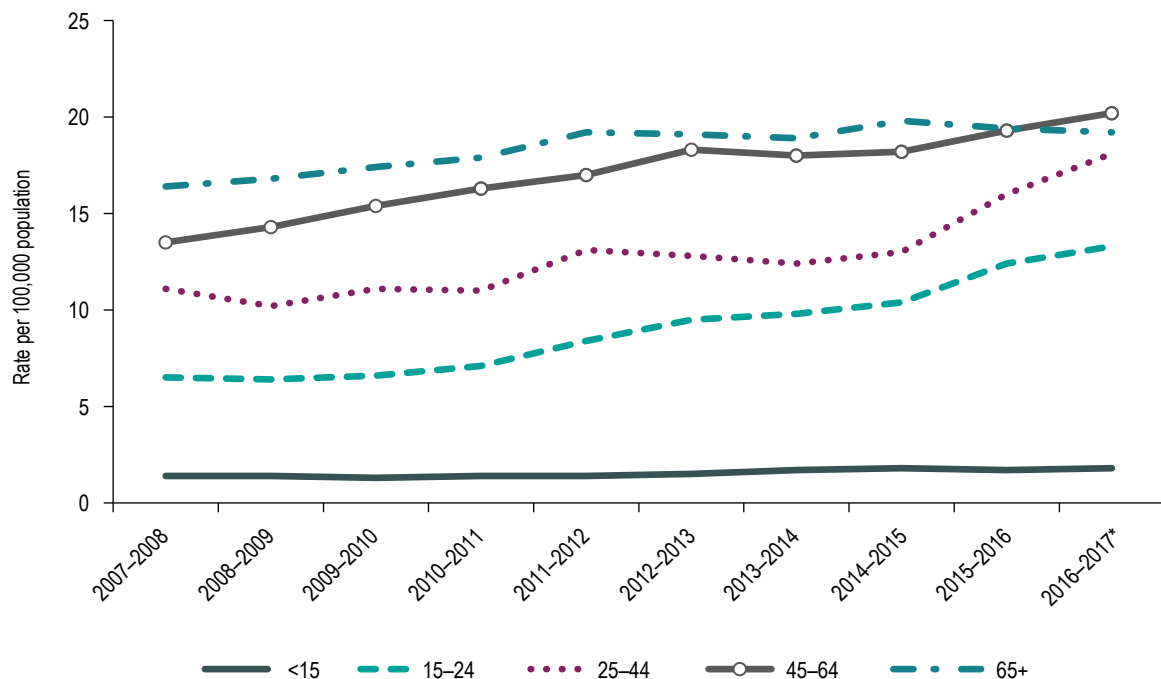
* To be considered a census metropolitan area, the area must have a total population of at least 100,000 of which 50,000 or more live in the urban core.

Quebec data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 4: Opioid poisoning hospitalizations by age, 2007–2008 to 2016–2017



Over the last 10 years, older adults age 45 to 64 and seniors age 65+ had the highest rates of hospitalizations. Youth age 15 to 24 and younger adults age 25 to 44 had the fastest-growing rates.

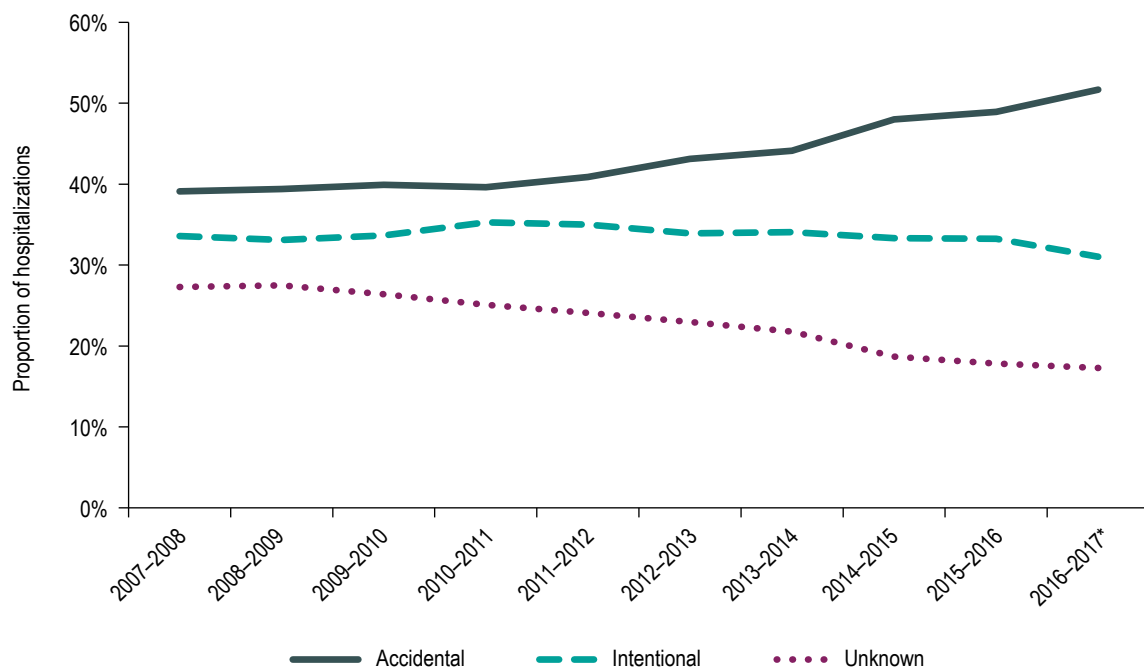
Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 5: Reasons for opioid poisoning hospitalizations, 2007–2008 to 2016–2017



In 2016–2017, more than half of opioid poisonings were accidental, 31% were intentional and 17% were of unknown reason.

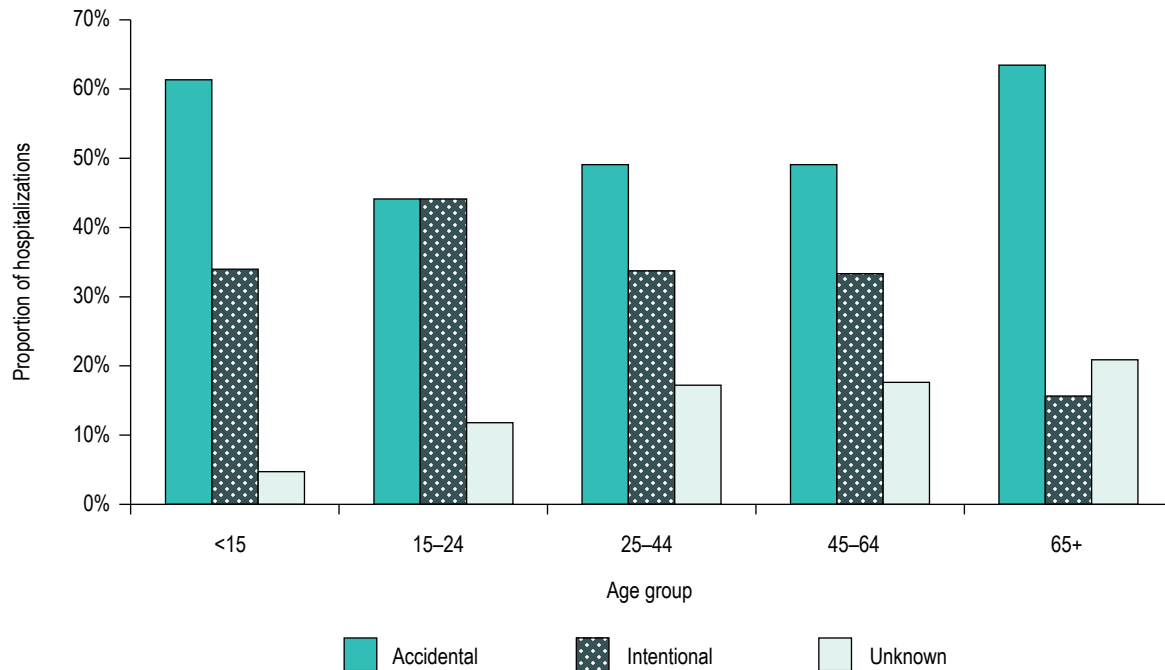
Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 6: Reasons for opioid poisoning hospitalizations by age, 2016–2017*



In 2016–2017, the majority (63%) of opioid poisonings among seniors age 65+ were accidental, while intentional poisonings were most prevalent for youth age 15 to 24, accounting for 44% of hospitalizations.

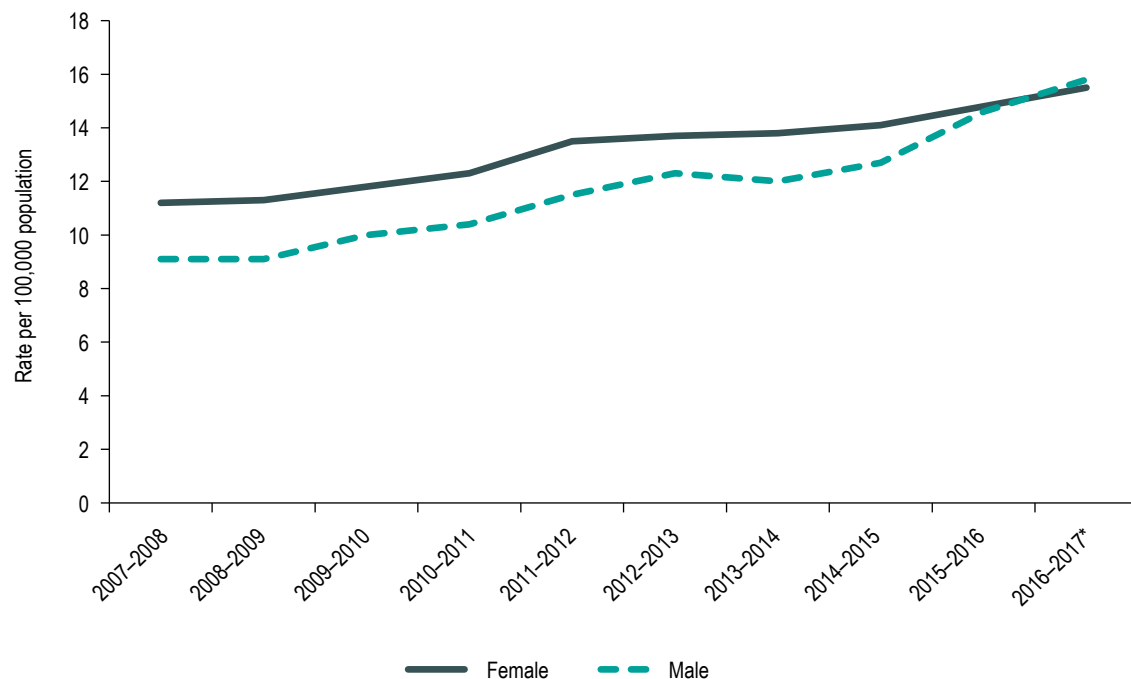
Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 7: Opioid poisoning hospitalizations by sex, 2007–2008 to 2016–2017



2016–2017 was the first year in which the rate of hospitalizations was higher among males than among females. Over the past 3 years, the rate increased 24% among males and 10% among females.

Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

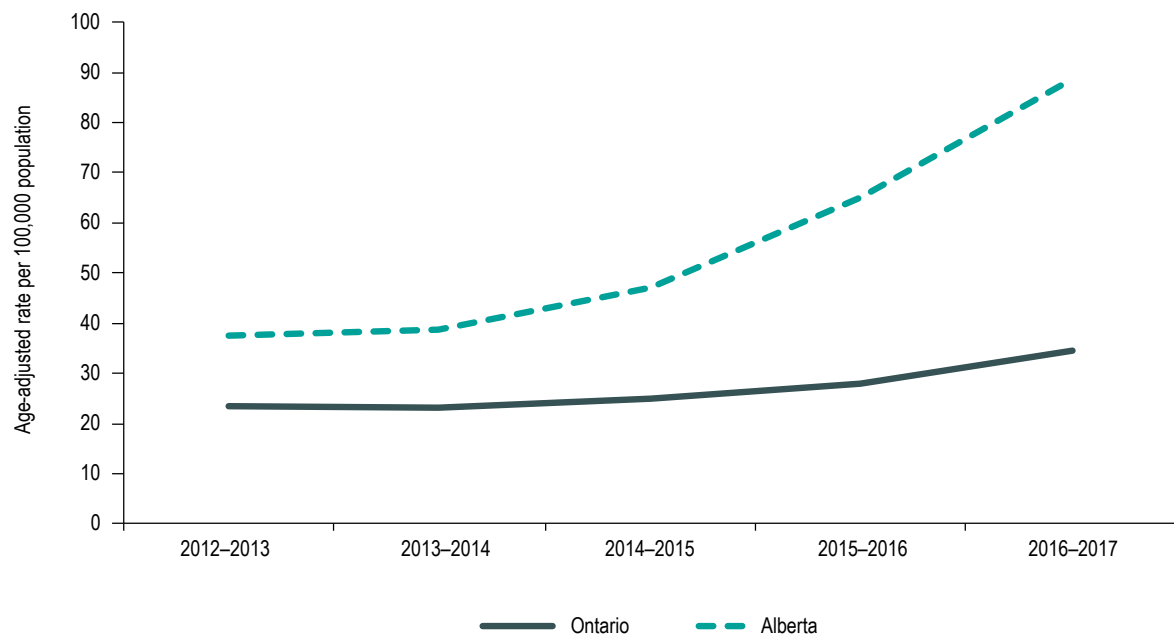


ED visits due to opioid poisoning

In 2016–2017, there were an average of **11 ED visits in Alberta** and **13 ED visits in Ontario** each day due to opioid poisoning.

The analysis of ED visits using National Ambulatory Care Reporting System (NACRS) data was limited to Ontario and Alberta. Although CIHI collects data in NACRS from other jurisdictions, these submissions do not yet include the level of detail or coverage required for this analysis.

Figure 8: Opioid poisoning ED visits, Ontario and Alberta, 2012–2013 to 2016–2017

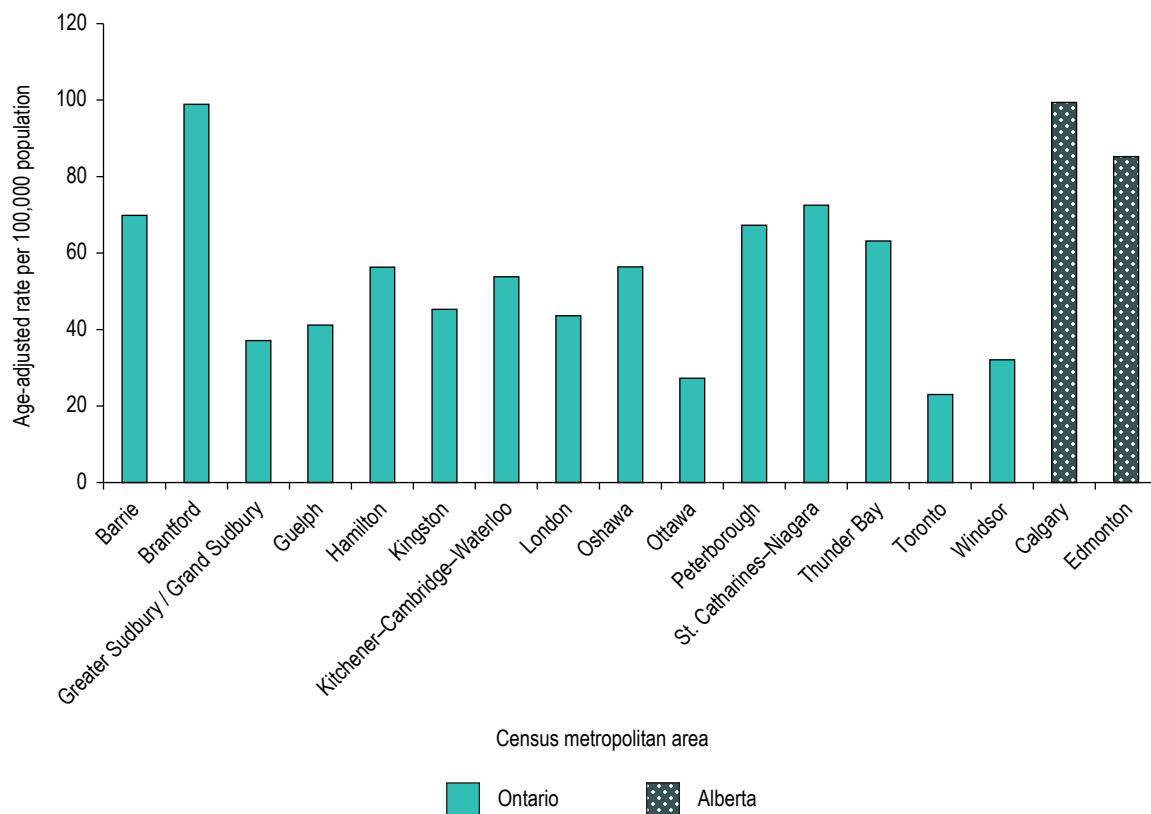


Over the past 5 years, rates of ED visits more than doubled in Alberta and increased by almost 50% in Ontario. The majority of the increase occurred over the past 3 years.

Note
ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source
National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 9: Opioid poisoning ED visits by census metropolitan areas,* Ontario and Alberta, 2016–2017



Rates of opioid poisoning ED visits varied by CMA in 2016–2017.

Notes

* To be considered a census metropolitan area, the area must have a total population of at least 100,000 of which 50,000 or more live in the urban core.

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

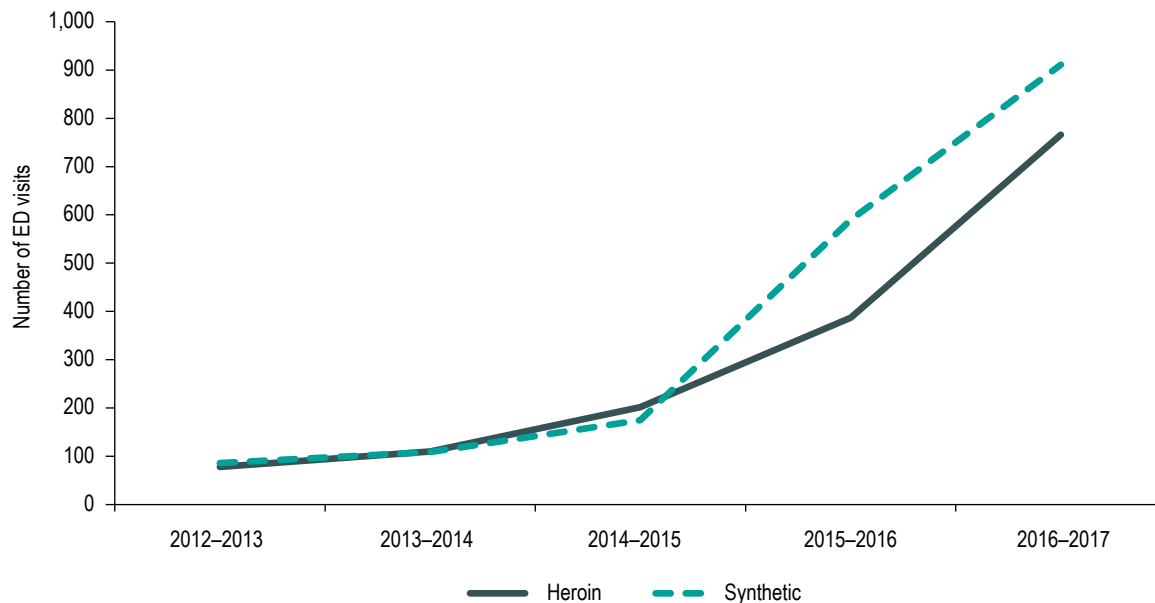
National Ambulatory Care Reporting System, Canadian Institute for Health Information.



Alberta

- ED visits due to heroin and synthetic opioid poisonings
- Opioid poisoning ED visits by age
- Opioid poisoning ED visits by sex

Figure 10: ED visits due to heroin and synthetic opioid poisonings, Alberta, 2012–2013 to 2016–2017



In Alberta, over the past 5 years, the number of ED visits increased almost 10-fold for heroin poisonings and more than 10-fold for synthetic opioid poisonings (including those related to fentanyl). The majority of the increase occurred over the past 3 years.

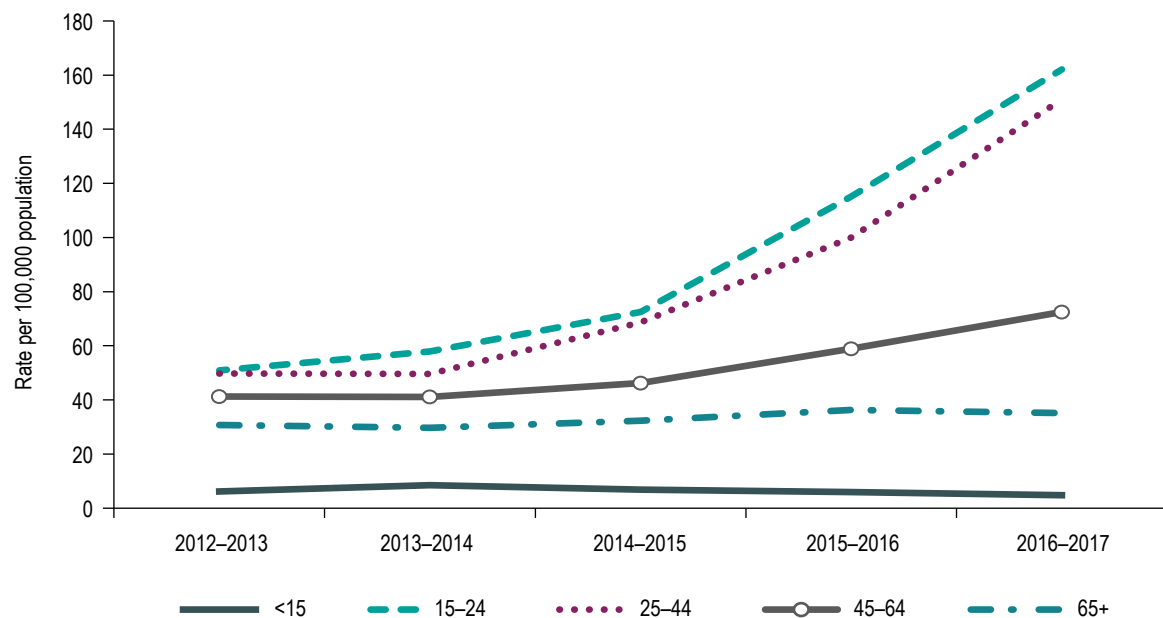
Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 11: Opioid poisoning ED visits by age, Alberta, 2012–2013 to 2016–2017

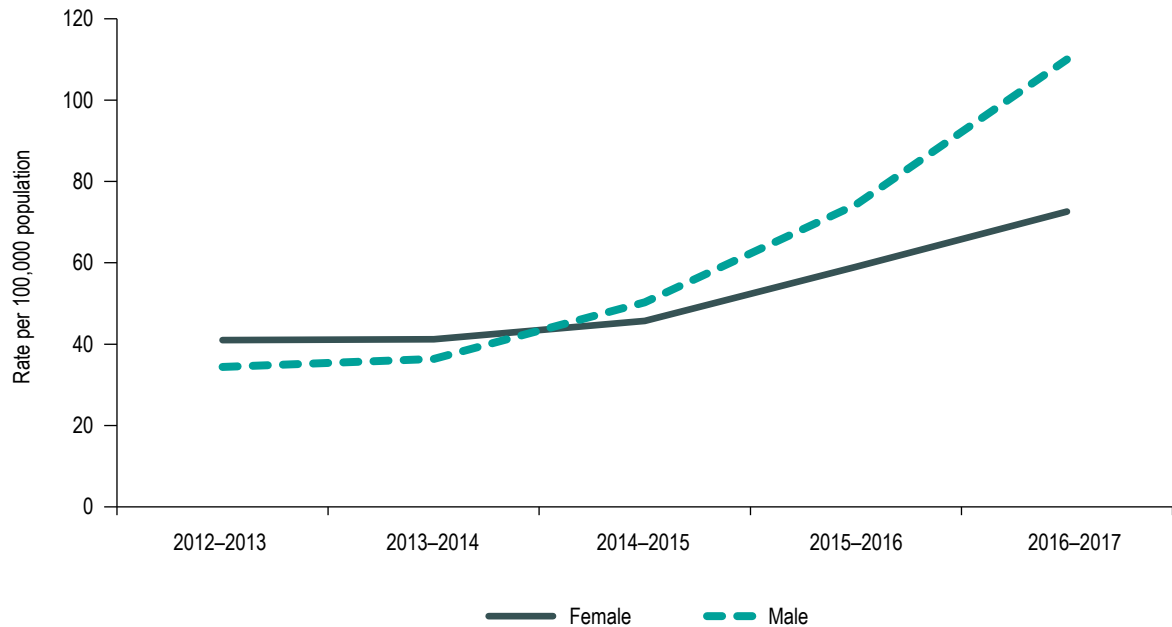


In Alberta, youth age 15 to 24 and younger adults age 25 to 44 had the highest and fastest-growing rates of ED visits, tripling over the past 5 years. The majority of the increase occurred over the past 3 years.

Note
ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source
National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 12: Opioid poisoning ED visits by sex, Alberta, 2012–2013 to 2016–2017



In Alberta, over the past 5 years, rates of ED visits more than tripled among males and increased by almost 80% among females. The majority of the increase occurred over the past 3 years.

Note
ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

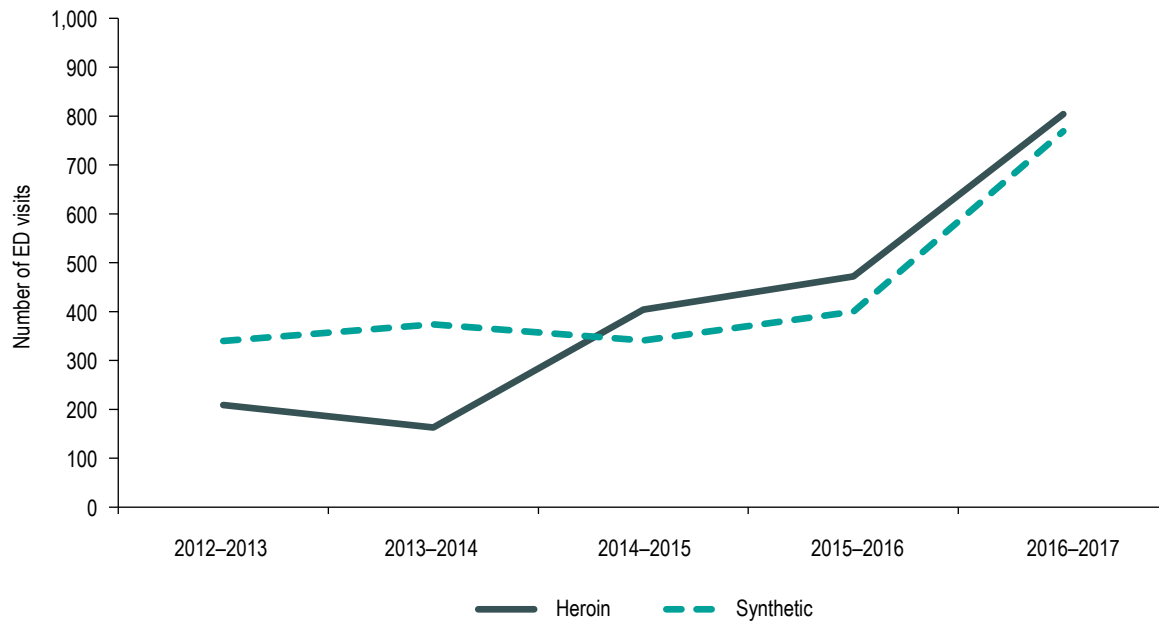
Source
National Ambulatory Care Reporting System, Canadian Institute for Health Information.



Ontario

- ED visits due to heroin and synthetic opioid poisonings
- Opioid poisoning ED visits by age
- Opioid poisoning ED visits by sex

Figure 13: ED visits due to heroin and synthetic opioid poisonings, Ontario, 2012–2013 to 2016–2017



In Ontario, over the past 5 years, the number of ED visits increased almost four-fold for heroin poisonings and more than doubled for synthetic opioid poisonings (including those related to fentanyl). The majority of the increase occurred over the past 3 years.

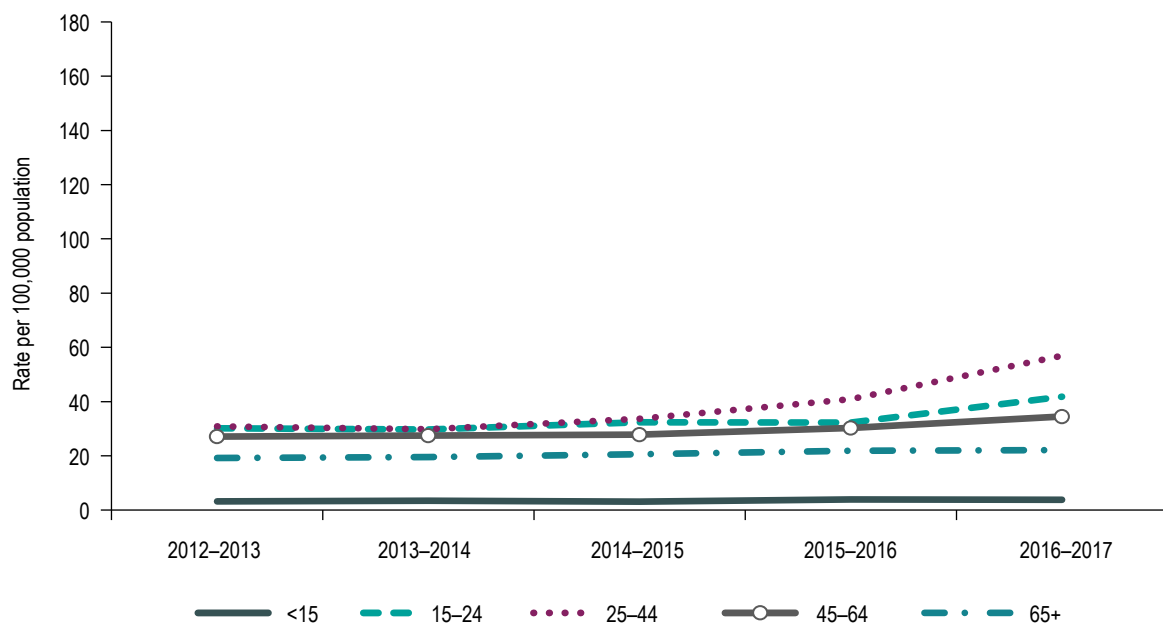
Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 14: Opioid poisoning ED visits by age, Ontario, 2012–2013 to 2016–2017

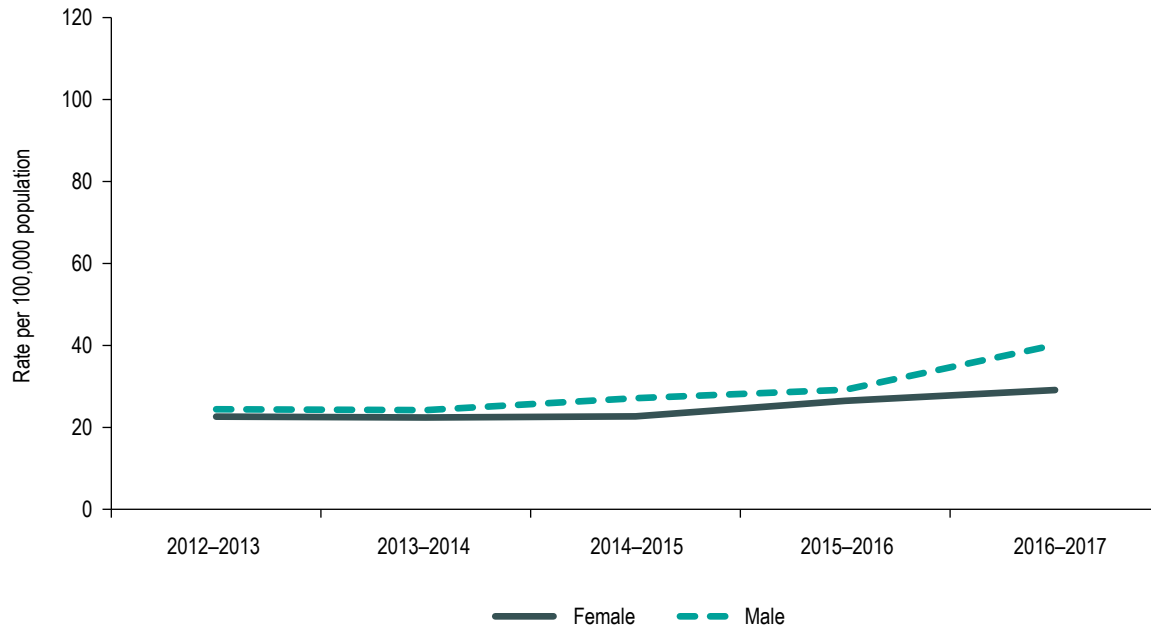


In Ontario, over the past 5 years, younger adults age 25 to 44 had the highest and fastest-growing rates of ED visits, increasing by 85%. The majority of the increase occurred over the past 3 years.

Note
ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source
National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 15: Opioid poisoning ED visits by sex, Ontario, 2012–2013 to 2016–2017



In Ontario, over the past 5 years, rates of ED visits increased almost 65% among males and 30% among females. The majority of the increase occurred over the past 3 years.

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Methodology

Data sources

Hospital Morbidity Database

The Hospital Morbidity Database (HMDB) captures administrative, clinical and demographic information on inpatient separations (referred to here as “hospitalizations”) from acute care hospitals. Hospitals in all provinces and territories (except Quebec) submit data directly to CIHI. Quebec data is submitted by the ministère de la Santé et des Services sociaux du Québec.

National Ambulatory Care Reporting System

The National Ambulatory Care Reporting System (NACRS) contains data on hospital-based and community-based ambulatory care — including day surgery, outpatient and community-based clinics and EDs — for 64% of the country: all of Ontario, Alberta and Yukon, and some facilities in Prince Edward Island, Nova Scotia, Manitoba, Saskatchewan and British Columbia. CIHI receives data directly from participating facilities or from regional health authorities and ministries of health.

ICD-10-CA coding

The following ICD-10-CAⁱⁱ version 2015 codes were used to identify opioid poisonings that resulted in hospitalizations and ED visits:

| ICD-10-CA code | Description | Example of opioids included |
|----------------|--|-----------------------------------|
| T40.0 | Poisoning by opium | Opium alkaloids |
| T40.1 | Poisoning by heroin | Heroin, diacetylmorphine |
| T40.2 | Poisoning by other opioids | Codeine, oxycodone, hydromorphone |
| T40.3 | Poisoning by methadone | Methadone |
| T40.4 | Poisoning by other synthetic narcotics | Fentanyl, tramadol |
| T40.6 | Poisoning by unspecified and other narcotics | Opiates not elsewhere classified |

Codes with a prefix of Q, indicating a suspected diagnosis, were excluded from this analysis.

Of note, neither the HMDB nor NACRS includes data on how the patient obtained the opioid that led to the poisoning. Therefore, the analysis likely includes poisonings due to prescription opioids as well as those due to illegally produced or obtained opioids.

ⁱⁱ. International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canada.

Opioid poisoning hospitalizations and ED visits were categorized based on the following ICD-10-CA categories:

- Accidental (X42): The poisoning was considered to be non-intentional in nature. Includes accidental poisoning of drug, wrong drug given or taken in error, and drug taken inadvertently.
- Intentional (X62): The poisoning occurred as a result of purposely self-inflicted harm.
- Unknown (Y12): Categorization of the poisoning was not possible due to unclear or insufficient information. In addition, poisonings missing a category (X42, X62 or Y12) were grouped in the *unknown* category.

Hospitalizations

HMDB data was included for 2007–2008 to 2016–2017 across all provinces and territories. The most recent data available for Quebec and Nunavut at the time of release was for 2015–2016. The analysis was limited to “significant opioid poisonings,” that is, cases in which opioid poisoning was considered influential to the time spent in hospital and treatment received by the patient while there. To determine significant opioid poisoning hospitalizations, the following diagnosis types were selected:

(M) = Most responsible diagnosis (MRDx)

(1) = Pre-admit comorbidity

(2) = Post-admit comorbidity

(6) = Proxy MRDx

(W), (X), (Y) = Service transfer diagnosis

(C) = CIHI-assigned value for Quebec

ED visits

NACRS data from Ontario and Alberta was included for 2012–2013 to 2016–2017. The analysis includes Level 3 ED abstracts where opioid poisoning was noted as either a “main” or “other” problem.

Limitations

The coding of diagnoses using ICD-10-CA is based on patients’ chart documentation. Deficiencies in chart documentation and/or failure to provide coders with appropriate documents can affect data quality and lead to under-reporting.

The data in this analysis includes only opioid poisonings for which an individual was admitted to hospital (or to the ED in Ontario and Alberta) and does not capture cases that received treatment in other environments. Therefore, these figures represent an underestimate of the extent of opioid poisonings in Canada; the magnitude of this underestimation is unknown.

Other methodology notes

For some analyses, Yukon, the Northwest Territories and Nunavut are grouped together and reported as “Territories” due to low volumes.

For analysis by age, the following age groups were used: younger than 15 (children); 15 to 24 (youth); 25 to 44 (younger adults); 45 to 64 (older adults); and 65 and older (seniors).

To calculate standardized rates, the direct standardization process was used with the 2011 Canadian population as the reference year.

This analysis uses fiscal year data, from April 1 of one year to March 31 of the next.

Appendix: Data tables for figures

Figure 1 Opioid poisoning hospitalizations in Canada, 2007–2008 to 2016–2017

| Fiscal year | Number of hospitalizations | Crude rate per 100,000 population |
|-------------|----------------------------|-----------------------------------|
| 2007–2008 | 3,344 | 10.2 |
| 2008–2009 | 3,399 | 10.2 |
| 2009–2010 | 3,677 | 10.9 |
| 2010–2011 | 3,866 | 11.4 |
| 2011–2012 | 4,307 | 12.5 |
| 2012–2013 | 4,527 | 13.0 |
| 2013–2014 | 4,540 | 12.9 |
| 2014–2015 | 4,761 | 13.4 |
| 2015–2016 | 5,275 | 14.7 |
| 2016–2017* | 5,670 | 15.6 |

Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 2 Opioid poisoning hospitalization rates by province/territory, 2016–2017

| Province/territory | Age-adjusted rate per 100,000 population, 2016–2017 | Absolute rate difference, 2015–2016 to 2016–2017 |
|---------------------------|---|--|
| Newfoundland and Labrador | 11.3 | +0.2 |
| Prince Edward Island | 16.6 | +1.4 |
| Nova Scotia | 11.0 | +1.3 |
| New Brunswick | 17.8 | +3.6 |
| Quebec* | 9.4 | n/a |
| Ontario | 13.8 | +1.1 |
| Manitoba | 10.8 | +0.5 |
| Saskatchewan | 21.7 | -3.3 |
| Alberta | 23.1 | +1.8 |
| British Columbia | 25.0 | +1.6 |
| Territories† | 34.5 | n/a |
| Canada | 15.5 | n/a |

Notes

* Quebec data is from 2015–2016 (the most recent year of data available).

† Yukon, Northwest Territories and Nunavut data is grouped due to low volumes. This data should be interpreted with caution.

Nunavut data is from 2015–2016 (the most recent year of data available).

n/a: Not available.

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 3 Opioid poisoning hospitalization rates by selected census metropolitan areas,* 2016–2017

| Census metropolitan area | Age-adjusted rate per 100,000 population, 2016–2017 |
|---------------------------------|---|
| Calgary | 21.1 |
| Edmonton | 25.8 |
| Gatineau† | 17.6 |
| Greater Sudbury / Grand Sudbury | 20.6 |
| Halifax | 11.6 |
| Hamilton | 21.8 |
| Moncton | 24.3 |
| Montréal† | 5.5 |
| Ottawa | 13.3 |
| Québec† | 13.2 |
| Regina | 28.2 |
| Saint John | 26.3 |
| Saskatoon | 26.1 |
| St. John's | 15.7 |
| Thunder Bay | 27.4 |
| Toronto | 7.9 |
| Vancouver | 20.0 |
| Victoria | 20.1 |
| Winnipeg | 10.2 |

Notes

* To be considered a census metropolitan area, the area must have a total population of at least 100,000 of which 50,000 or more live in the urban core.

† Quebec data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 4 Opioid poisoning hospitalizations by age, rate per 100,000 population, 2007–2008 to 2016–2017

| Age group | 2007–2008 | 2008–2009 | 2009–2010 | 2010–2011 | 2011–2012 | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017* |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| <15 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.5 | 1.7 | 1.8 | 1.7 | 1.8 |
| 15–24 | 6.5 | 6.4 | 6.6 | 7.1 | 8.4 | 9.5 | 9.8 | 10.4 | 12.4 | 13.3 |
| 25–44 | 11.1 | 10.2 | 11.1 | 11.0 | 13.1 | 12.8 | 12.4 | 13.0 | 16.0 | 18.1 |
| 45–64 | 13.5 | 14.3 | 15.4 | 16.3 | 17.0 | 18.3 | 18.0 | 18.2 | 19.3 | 20.2 |
| 65+ | 16.4 | 16.8 | 17.4 | 17.9 | 19.2 | 19.1 | 18.9 | 19.8 | 19.4 | 19.2 |

Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 5 Reasons for opioid poisoning hospitalizations, 2007–2008 to 2016–2017

| Fiscal year | Accidental | Intentional | Unknown |
|-------------|------------|-------------|---------|
| 2007–2008 | 39% | 34% | 27% |
| 2008–2009 | 39% | 33% | 27% |
| 2009–2010 | 40% | 34% | 26% |
| 2010–2011 | 40% | 35% | 25% |
| 2011–2012 | 41% | 35% | 24% |
| 2012–2013 | 43% | 34% | 23% |
| 2013–2014 | 44% | 34% | 22% |
| 2014–2015 | 48% | 33% | 19% |
| 2015–2016 | 49% | 33% | 18% |
| 2016–2017* | 52% | 31% | 17% |

Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 6 Reasons for opioid poisoning hospitalizations by age, 2016–2017*

| Age group | Accidental | Intentional | Unknown |
|-----------|------------|-------------|---------|
| <15 | 61% | 34% | 5% |
| 15–24 | 44% | 44% | 12% |
| 25–44 | 49% | 34% | 17% |
| 45–64 | 49% | 33% | 18% |
| 65+ | 63% | 16% | 21% |

Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 7 Opioid poisoning hospitalizations by sex, rate per 100,000 population, 2007–2008 to 2016–2017

| Sex | 2007–2008 | 2008–2009 | 2009–2010 | 2010–2011 | 2011–2012 | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017* |
|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Female | 11.2 | 11.3 | 11.8 | 12.3 | 13.5 | 13.7 | 13.8 | 14.1 | 14.8 | 15.5 |
| Male | 9.1 | 9.1 | 10.0 | 10.4 | 11.5 | 12.3 | 12.0 | 12.7 | 14.6 | 15.8 |

Note

* Quebec and Nunavut data is from 2015–2016 (the most recent year of data available).

Source

Hospital Morbidity Database, Canadian Institute for Health Information.

Figure 8 Opioid poisoning ED visits, age-adjusted rate per 100,000 population, Ontario and Alberta, 2012–2013 to 2016–2017

| Province | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|----------|-----------|-----------|-----------|-----------|-----------|
| Ontario | 23.5 | 23.3 | 24.9 | 27.9 | 34.6 |
| Alberta | 37.6 | 38.6 | 47.0 | 65.1 | 88.6 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 9 Opioid poisoning ED visit rates by census metropolitan areas,*
Ontario and Alberta, 2016–2017

| Census metropolitan area | Age-adjusted rate per 100,000 population, 2016–2017 |
|---------------------------------|---|
| Barrie | 69.9 |
| Brantford | 98.9 |
| Greater Sudbury / Grand Sudbury | 37.1 |
| Guelph | 41.2 |
| Hamilton | 56.3 |
| Kingston | 45.3 |
| Kitchener–Cambridge–Waterloo | 53.8 |
| London | 43.6 |
| Oshawa | 56.4 |
| Ottawa | 27.3 |
| Peterborough | 67.3 |
| St. Catharines–Niagara | 72.5 |
| Thunder Bay | 63.2 |
| Toronto | 23.0 |
| Windsor | 32.1 |
| Calgary | 99.4 |
| Edmonton | 85.2 |

Notes

* To be considered a census metropolitan area, the area must have a total population of at least 100,000 of which 50,000 or more live in the urban core.

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 10 Number of ED visits due to heroin and synthetic opioid poisonings, Alberta, 2012–2013 to 2016–2017

| Opioid type | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|-------------|-----------|-----------|-----------|-----------|-----------|
| Heroin | 78 | 110 | 202 | 387 | 766 |
| Synthetic | 86 | 109 | 175 | 590 | 911 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 11 Opioid poisoning ED visits by age, rate per 100,000 population, Alberta, 2012–2013 to 2016–2017

| Age group | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|-----------|-----------|-----------|-----------|-----------|-----------|
| <15 | 6.2 | 8.5 | 6.9 | 6.0 | 4.8 |
| 15–24 | 50.9 | 57.9 | 72.5 | 115.2 | 162.1 |
| 25–44 | 49.8 | 49.6 | 68.6 | 100.0 | 151.0 |
| 45–64 | 41.3 | 41.1 | 46.3 | 58.9 | 72.5 |
| 65+ | 30.7 | 29.7 | 32.3 | 36.3 | 35.1 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 12 Opioid poisoning ED visits by sex, rate per 100,000 population, Alberta, 2012–2013 to 2016–2017

| Sex | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|--------|-----------|-----------|-----------|-----------|-----------|
| Female | 41.0 | 41.2 | 45.7 | 59.0 | 72.6 |
| Male | 34.4 | 36.4 | 50.3 | 74.3 | 110.0 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 13 Number of ED visits due to heroin and synthetic opioid poisonings, Ontario, 2012–2013 to 2016–2017

| Opioid type | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|-------------|-----------|-----------|-----------|-----------|-----------|
| Heroin | 209 | 163 | 404 | 472 | 804 |
| Synthetic | 340 | 374 | 341 | 400 | 769 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 14 Opioid poisoning ED visits by age, rate per 100,000 population, Ontario, 2012–2013 to 2016–2017

| Age group | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|-----------|-----------|-----------|-----------|-----------|-----------|
| <15 | 3.2 | 3.4 | 3.1 | 3.9 | 3.8 |
| 15–24 | 30.1 | 29.7 | 32.4 | 32.2 | 41.8 |
| 25–44 | 30.8 | 29.8 | 33.6 | 40.9 | 56.9 |
| 45–64 | 27.1 | 27.5 | 27.8 | 30.3 | 34.5 |
| 65+ | 19.2 | 19.5 | 20.6 | 21.9 | 22.1 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.

Figure 15 Opioid poisoning ED visits by sex, rate per 100,000 population, Ontario, 2012–2013 to 2016–2017

| Sex | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|--------|-----------|-----------|-----------|-----------|-----------|
| Female | 22.6 | 22.4 | 22.7 | 26.5 | 29.1 |
| Male | 24.4 | 24.2 | 27.1 | 29.2 | 40.1 |

Note

ED visit analysis is limited to Ontario and Alberta, as other jurisdictions do not submit the level of detail and coverage required for this analysis.

Source

National Ambulatory Care Reporting System, Canadian Institute for Health Information.



CIHI Ottawa

495 Richmond Road
Suite 600
Ottawa, Ont.
K2A 4H6
613-241-7860

CIHI Toronto

4110 Yonge Street
Suite 300
Toronto, Ont.
M2P 2B7
416-481-2002

CIHI Victoria

880 Douglas Street
Suite 600
Victoria, B.C.
V8W 2B7
250-220-4100

CIHI Montréal

1010 Sherbrooke Street West
Suite 602
Montréal, Que.
H3A 2R7
514-842-2226

cihi.ca

15874-0817

