Alberta Health

Opioids and Substances of Misuse among First Nations People in Alberta

Alberta Report, 2017

November 6, 2017

The Alberta First Nations Information Governance Centre

Alberta Government

Key points

Apparent accidental opioid toxicity deaths

- Rates of apparent accidental opioid drug toxicity deaths per 100,000 were three times higher among First Nations people compared to Non-First Nations people from January 1, 2016 to March 31, 2017.

- First Nations people represented 12 per cent of all apparent accidental opioid toxicity deaths in Alberta from January 1, 2016 to March 31, 2017.

- While the proportion of apparent accidental opioid drug toxicity deaths involving fentanyl has increased from January 1, 2016 to March 31, 2017 for both First Nations and Non-First Nations people, the proportion of fentanyl-related opioid toxicity deaths is consistently higher among Non-First Nations people (approximately 18% higher than in First Nations people).

- Among First Nations people, males and females were nearly equally represented among apparent accidental opioid toxicity deaths January 1, 2016 to March 31, 2017. In comparison, among Non-First Nations people, males represented a much higher proportion of apparent accidental opioid toxicity deaths.

- In 2016, the rate of opioid toxicity deaths per 100,000 person years among individuals identifying as First Nations was significantly higher in the Calgary Zone compared to all other zones. Among Non-First Nations, the rate was marginally higher in the Edmonton Zone, compared to all other Zones.

Confirmed accidental and suicide drug & alcohol toxicity deaths

- In 2016, among First Nations people, accidental non-fentanyl opioid toxicity deaths represented the highest proportion of all confirmed drug & alcohol toxicity deaths. In comparison, accidental fentanyl toxicity deaths represented the highest proportion of all confirmed drug & alcohol toxicity deaths among Non-First Nations people.

- Among First Nations people, hydromorphone saw the largest increase as a substance causing drug toxicity death from 2014 to 2016. In comparison, among Non-First Nations people, methamphetamine and heroin saw the largest increase as substances causing drug toxicity death.

Opioid and opioid agonist therapy (OAT) dispensing from community pharmacies

- From 2013 to 2017, females represented a higher proportion of opioid dispensing from community pharmacies among both First Nations and Non-First Nations people.
- Among First Nations people and Non-First Nations people, hydromorphone saw the largest increase in dispensing rates from 2013 to 2017.
- From 2013 to 2017, while females represented a higher proportion of individuals dispensed a drug product for opioid agonist therapy (OAT) from community pharmacies among First Nations people, males represented a much higher proportion among Non-First Nations people.
- Among First Nations people, the number of individuals dispensed buprenorphine/naloxone for OAT increased by over 3,000 per cent from 2013 to 2017.

Health care utilization

- From 2014 to 2017, rates of emergency department (ED) visits and hospitalizations related to opioids and substances of misuse, opioid dispensing, and emergency medical responses (EMS) to opioid events per 100,000 were all higher among First Nations people compared to Non-First Nations people.
- From 2014 to 2017, among First Nations people, females represented a higher proportion of ED visits and hospitalizations related to opioids and substances of misuse.
- In comparison, from 2014 to 2017, among Non-First Nations people, males represented a higher proportion of ED visits and hospitalizations related to opioids and substances of misuse.
- In 2016, the rate of ED visits and hospitalizations related to opioid use and other substances of misuse per 100,000 was highest among First Nations people residing in the South Zone, followed by the Calgary Zone.
- In 2016, among Non-First Nations people, the rate of ED visits related to opioids and substances of misuse per 100,000 was highest in the North Zone, while the rate of hospitalizations related to opioids and substances of misuse was highest in the South Zone.

Disclaimer

This surveillance report presents emergency department, hospital, drug dispensing from community pharmacies, emergency medical services, and mortality data associated with opioids and other substances of misuse in Alberta among First Nations and Non-First Nations people.

Data sources are updated at differing time periods. Results are subject to change based on differences in data submission schedules and updates from the various data systems. Data may change in later reporting as it is submitted by the medical examiner, health facilities, and pharmacies. **Recent data may be less complete due to delays in data submission.**

The number of drug overdose deaths related to fentanyl/opioids and other substances may change (including increases/decreases in previous numbers) as certification of deaths can take six months or longer, and certification of cause of death may lead to a change in classification.

These results cannot be generalized to a specific First Nation community.

Apparent accidental opioid toxicity deaths = Preliminary evidence suggests that the death is most likely caused by an acute accidental (unintentional) opioid toxicity (poisoning).

Confirmed accidental and suicide drug & alcohol toxicity deaths = A Medical Examiner has determined the cause of death based on all available evidence, and listed the cause of death on a death certificate (including the substances directly involved in the death). Confirmed deaths in this report are for *all* drug and alcohol toxicity deaths, not just drug overdoses related to fentanyl and opioids. Accidental and suicide deaths are included.

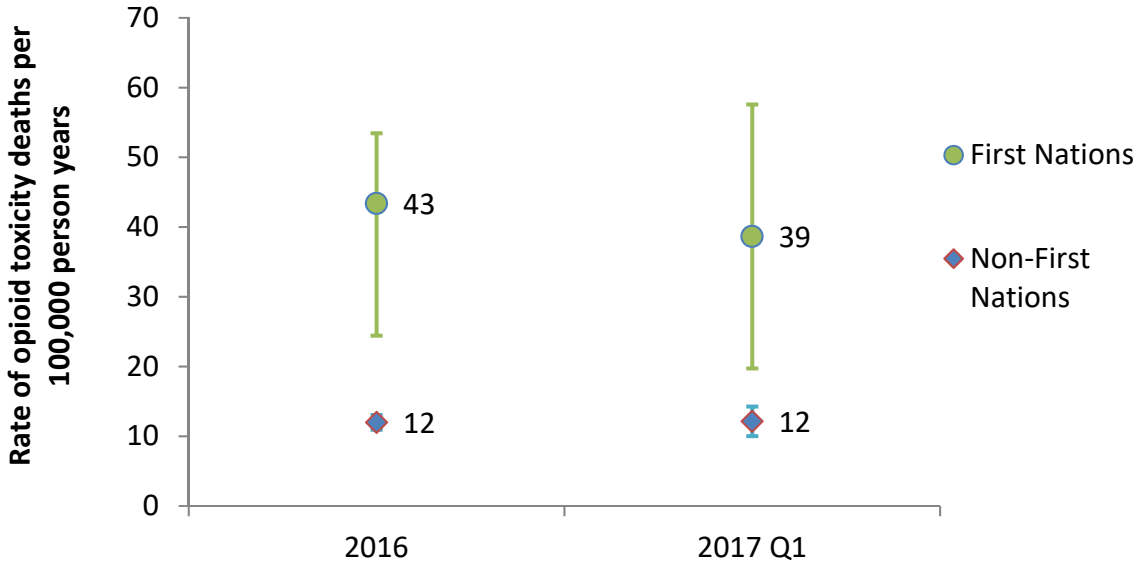
For more details on data sources and methods, please see the **Data notes (page 22)** section at the end of this report.

This report represents a collaboration between Alberta Health and the Alberta First Nations Information Governance Centre (AFNIGC).

Table of Contents

Mortality data: Apparent accidental opioid toxicity deaths (fentanyl/non-fentanyl opioids)

Figure 1: Rates of apparent accidental opioid toxicity deaths per 100,000 person years, by First Nations status and year. 2016 and 2017 Q1.



- In 2016 and in the first quarter of 2017, the rates of apparent accidental opioid toxicity deaths per 100,000 person years among individuals identifying as First Nations were approximately three times higher than among Non-First Nations people.

Table 1: Count and percentage of opioid poisoning deaths, by First Nations status and year. January 1, 2016 to March 31, 2017.

	First Nations		Non-First Nations		
	Count	Percent of total deaths	Count	Percent of total deaths	Total
2016	71	13%	489	87%	**560**
2017 (Jan 1-Mar 31)	16	11%	125	89%	**141**
Total	**87**	**12%**	**614**	**88%**	**701**

Table 2: Count and percentage of opioid poisoning deaths, by First Nations status and Zone. January 1, 2016 to March 31, 2017.

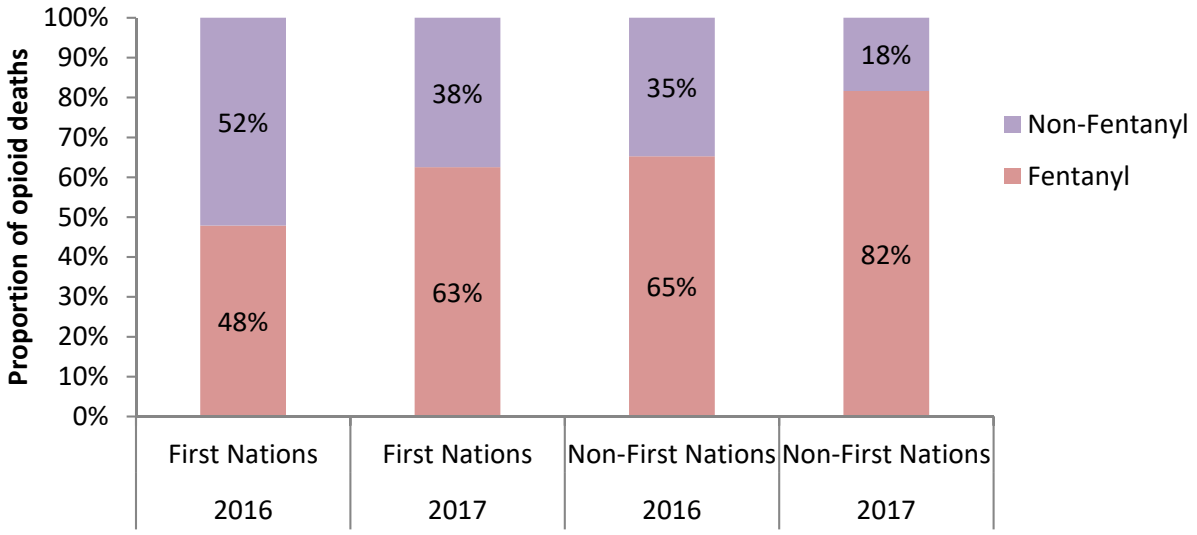
	First Nations		Non-First Nations	
	Count	**Proportion**	**Count**	**Proportion**
South	9	10%	26	4%
Calgary	41	47%	245	40%
Central	5	6%	74	12%
Edmonton	24	28%	220	36%
North	8	9%	49	8%
Total	**87**	**100%**	**614**	**100%**

Table 3: Count and percentage of opioid poisoning deaths, by First Nations status and municipality. January 1, 2016 to March 31, 2017.

	First Nations		Non-First Nations	
	Count	**Proportion**	**Count**	**Proportion**
Calgary	29	33%	226	37%
Edmonton	21	24%	187	30%
Red Deer	2	2%	34	6%
Fort McMurray	0	0%	14	2%
Grande Prairie	2	2%	14	2%
Lethbridge	5	6%	12	2%
Medicine Hat	0	0%	8	1%
Other AB locations	28	32%	119	19%
Total	**87**	**100%**	**614**	**100%**

Note: Individuals that could not be matched to a Unique Life Time Identifier (ULI) were excluded, as their First Nations status could not be verified.

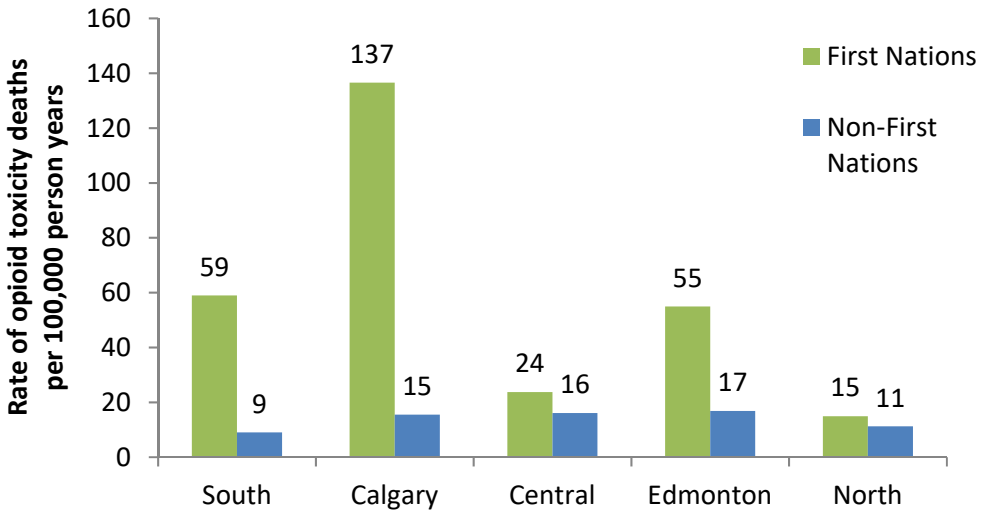
Figure 2: Proportion of fentanyl vs. non-fentanyl opioid apparent accidental toxicity deaths, by First Nations status and year. January 1, 2016 to March 31, 2017.



- The proportion of apparent opioid toxicity deaths related to fentanyl appears to be increasing relative to non-fentanyl opioid toxicity deaths among both individuals identifying as First Nations and Non-First Nations people.

- However, among Non-First Nations people the proportion of opioid toxicity deaths involving fentanyl is significantly higher compared to individuals identifying as First Nations.

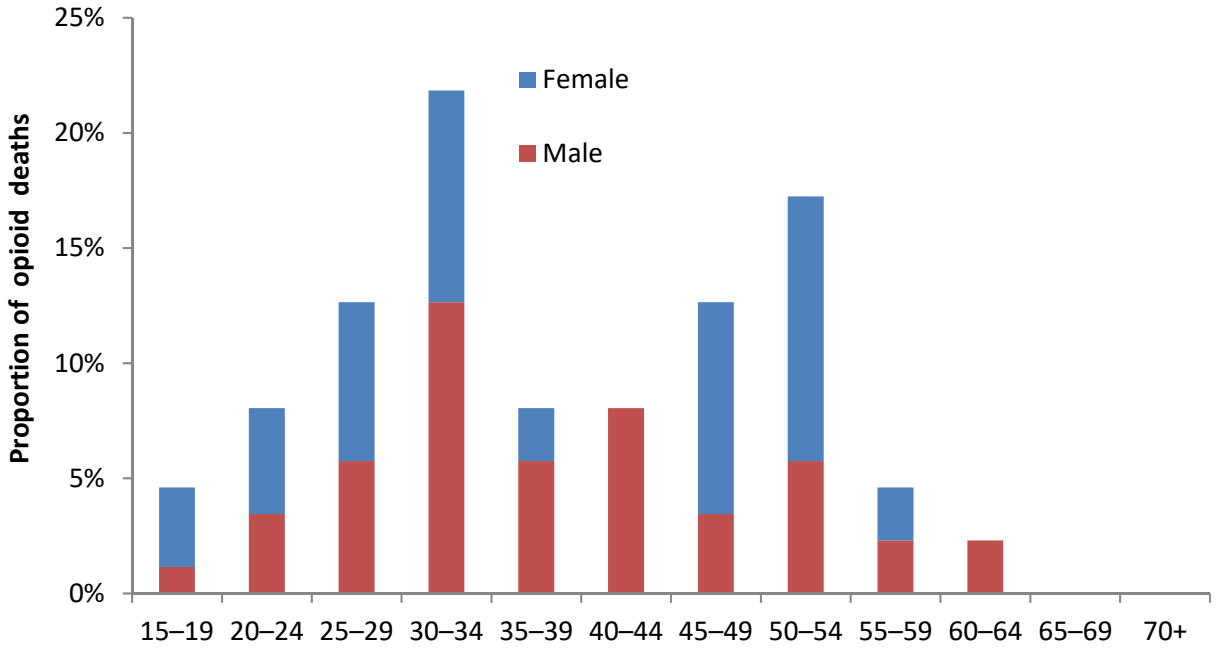
Figure 3: Rate of apparent accidental opioid toxicity deaths per 100,000 person years, by First Nations status and Zone. January 1, 2016 to Dec. 31, 2016.



- In 2016, the rate of apparent accidental opioid toxicity deaths per 100,000 person years among individuals identifying as First Nations was significantly higher in the Calgary Zone compared to all other zones.

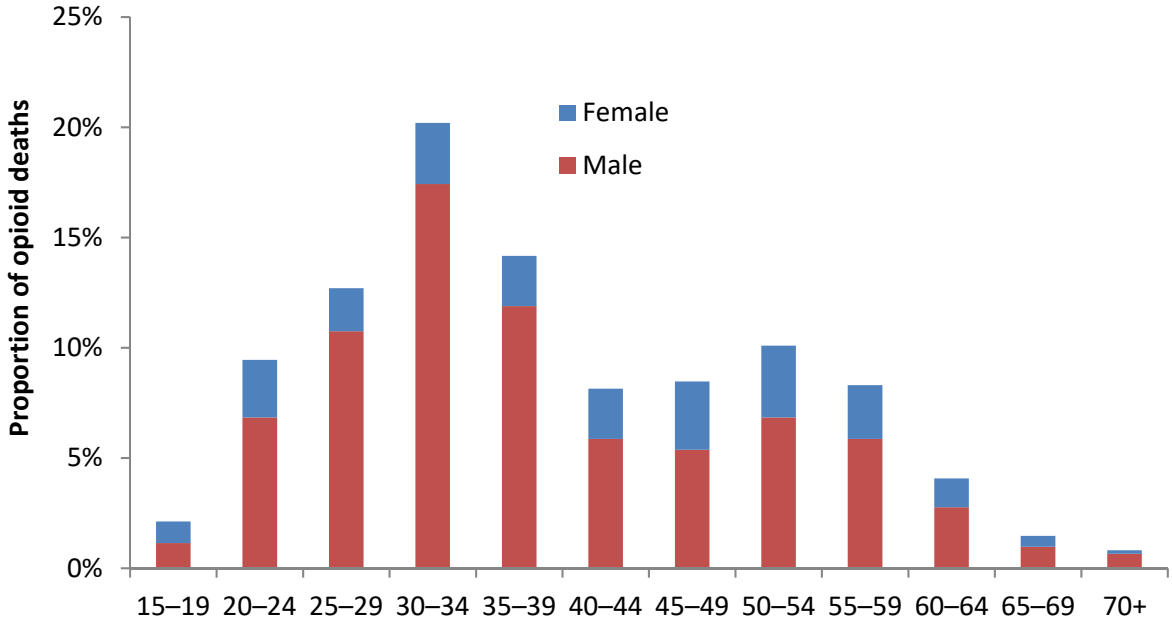
- The difference in rates of apparent accidental opioid toxicity deaths per 100,000 person years between zones did not differ substantially among Non-First Nations people.

Figure 4: Deaths due to apparent accidental opioid toxicity among First Nations people, by sex and age. January 1, 2016 to March 31, 2017.



- Among First Nations people, the proportion of deaths occurring among males (51 per cent) and females (49 per cent) was nearly evenly split. Among females, there were more deaths among individuals aged 50-54 years, and among males, 30-34 years.

Figure 5: Deaths due to apparent accidental opioid toxicity among Non-First Nations people, by sex and age. January 1, 2016 to March 31, 2017.



- Among Non-First Nations people, the highest proportion of deaths occurred among males (76 per cent), particularly in those aged 30-34 years.

Figure 6: Proportion of deaths due to an apparent accidental opioid toxicity, by medical history within the 30 days before the date of death among First Nations people. January 1, 2016 to March 31, 2017.

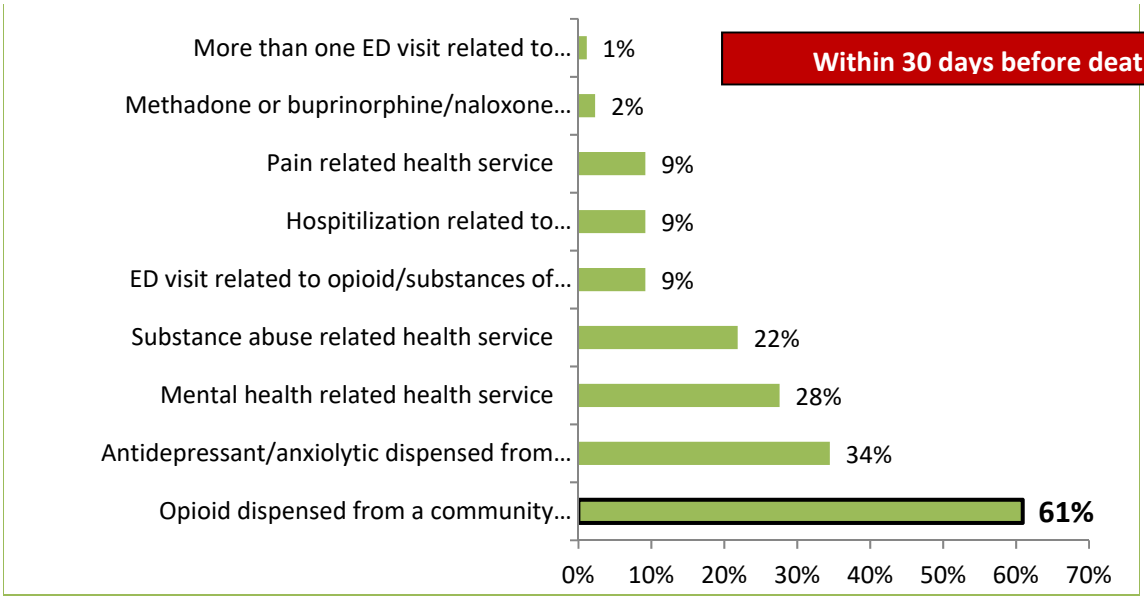
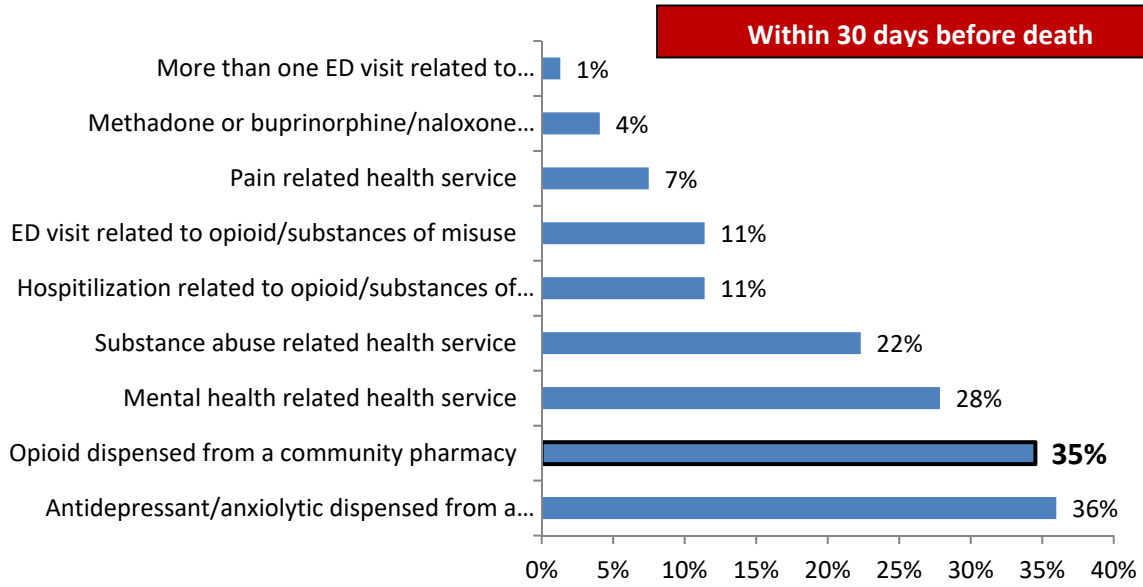


Figure 7: Proportion of deaths due to apparent accidental opioid toxicity, by medical history within the 30 days before the date of death among Non-First Nations people. January 1, 2016 to March 31, 2017.

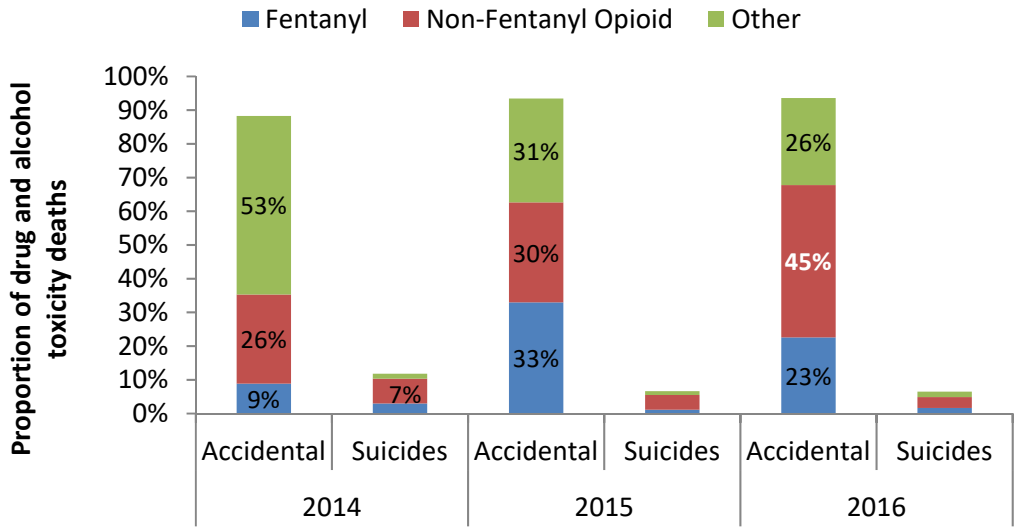


- Among First Nations people and Non-First Nations people, health utilization in the 30 days prior to death were similar, except for dispensing of an opioid from a community pharmacy, where 61 per cent of individuals who died from an apparent accidental opioid toxicity and identified as First Nations had an opioid dispensed from a community pharmacy in the 30 days prior to death compared to 35 per cent among Non-First Nations people.

Note: 95% of individuals had their primary healthcare number (PHN) available and were included in this analysis. The above includes the number of individuals who sought one of the services at least once. Individuals can be counted in more than one category. Health service means a physician, inpatient, or emergency department visit.

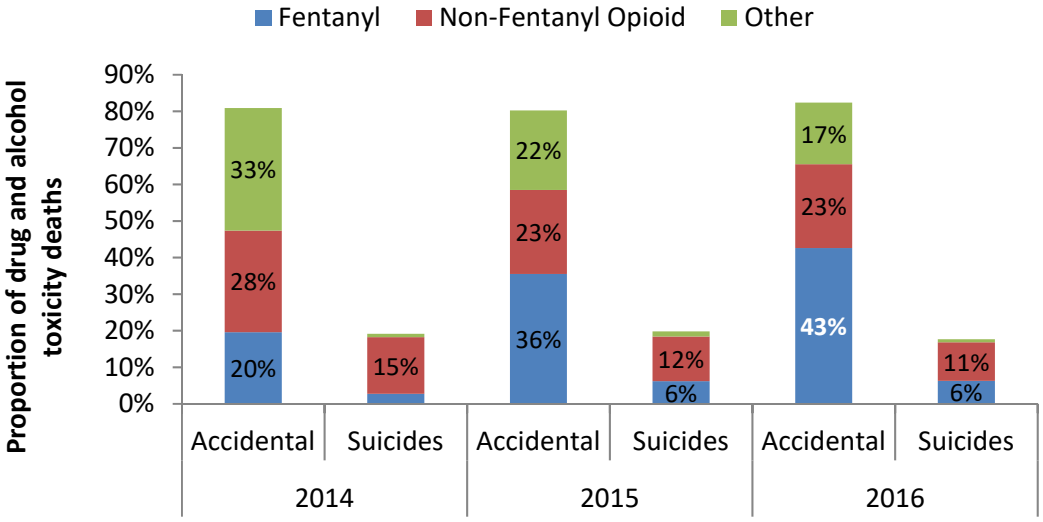
Confirmed drug and alcohol toxicity deaths*

Figure 8: Confirmed drug and alcohol toxicity deaths (accidental and suicides) among First Nations people. 2014 to 2016.



- Among First Nations people, accidental non-fentanyl opioid toxicity deaths were 45 per cent of all drug and alcohol toxicity deaths in 2016, increasing from about 25 per cent in 2014.
- Accidental fentanyl toxicity deaths have also increased since 2014. However, in 2016, the number of these deaths has decreased from 33 per cent in 2015 to 23 per cent.

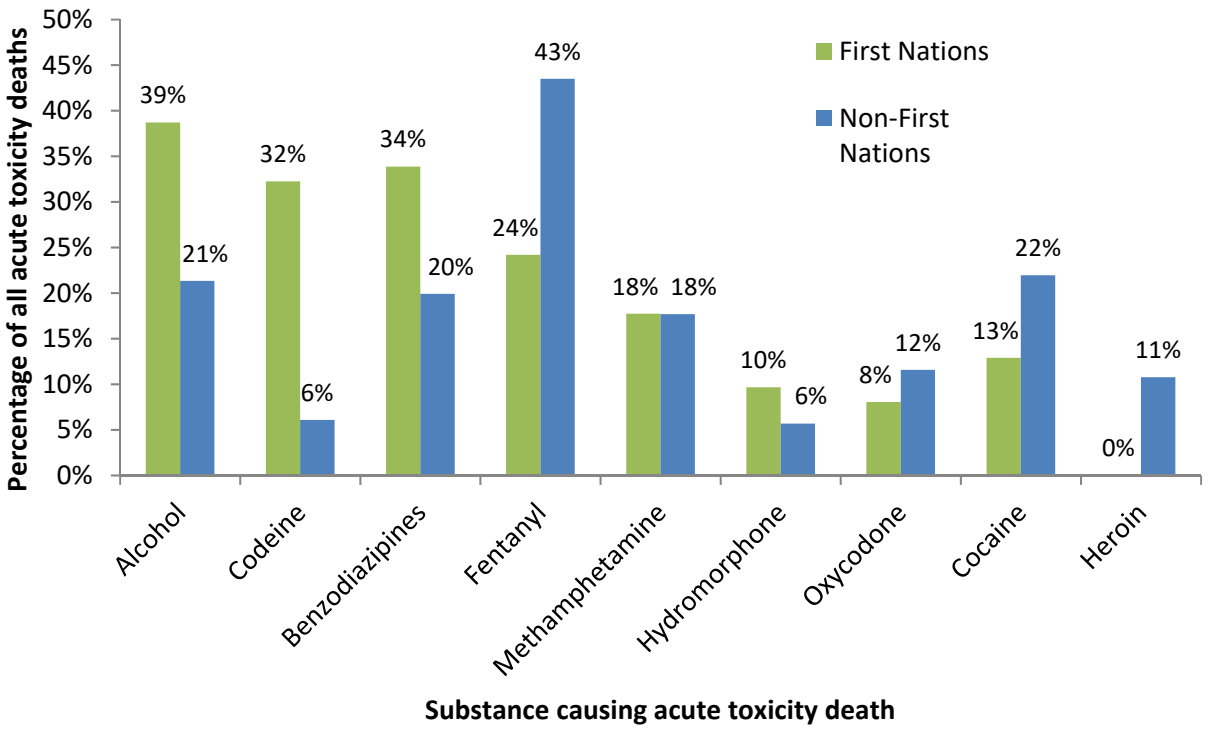
Figure 9: Confirmed drug and alcohol toxicity deaths (accidental and suicides) among Non-First Nations people. 2014 to 2016.



- Among Non-First Nations people, accidental fentanyl toxicity deaths were 43 per cent of all drug and alcohol toxicity deaths in 2016, increasing from 20 per cent in 2014.
- Accidental non-fentanyl opioid toxicity deaths have remained consistent at approximately 25 per cent of all drug and alcohol toxicity deaths from 2014-2016.

*Please see Data Notes (page 22).

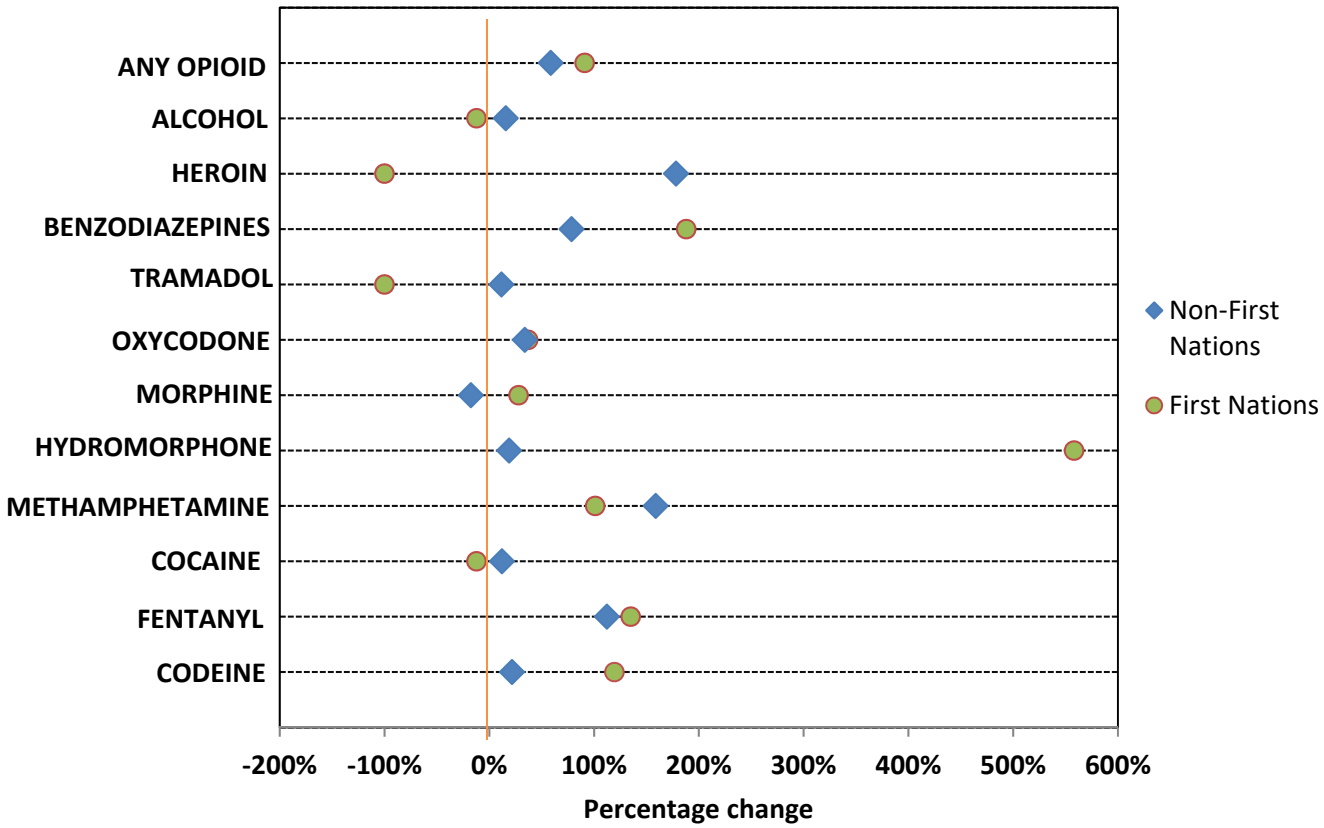
Figure 10: Frequency of substances causing acute toxicity death (accidental and suicides), by First Nations status, 2016.



- In 2016, among First Nations people, alcohol, codeine, benzodiazepines, and fentanyl were listed as the most frequent substances causing toxicity death, listed in 20 per cent or more of all drug & alcohol toxicity deaths.

- In 2016, among Non-First Nations people, alcohol, cocaine, benzodiazepines, and fentanyl were listed as the most frequent substances causing toxicity death, listed in 20 per cent or more of all drug & alcohol toxicity deaths.

Figure 11: Percentage difference in substances causing acute toxicity death between 2014 and 2016, by First Nations status, Alberta.

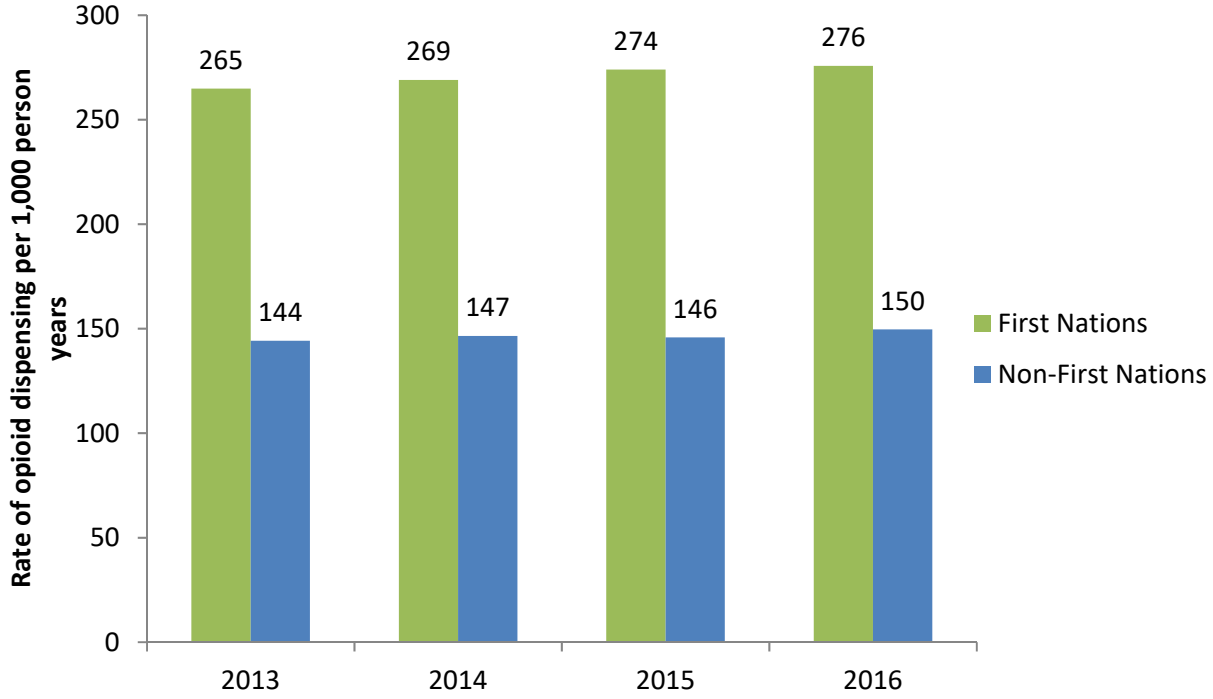


- Among First Nations people, hydromorphone (558 per cent) saw the largest increase as a substance causing drug toxicity death from 2014 to 2016, while heroin and tramadol saw the largest decrease (100 per cent).

- Among Non-First Nations people, methamphetamine (159 per cent) and heroin (178 per cent) saw the largest increase as a substance causing drug toxicity death from 2014 to 2016, while morphine saw the largest decrease (18 per cent).

Opioid dispensing data

Figure 12: Rate of opioid dispensing by First Nations status, 2013 to 2016.



- From 2013 to 2016, the rate of opioid dispensing from community pharmacies has remained stable among both First Nations people and Non-First Nations people.
- However, the rate of opioid dispensing from community pharmacies has consistently been approximately two times higher among First Nations people compared to Non-First Nations people.

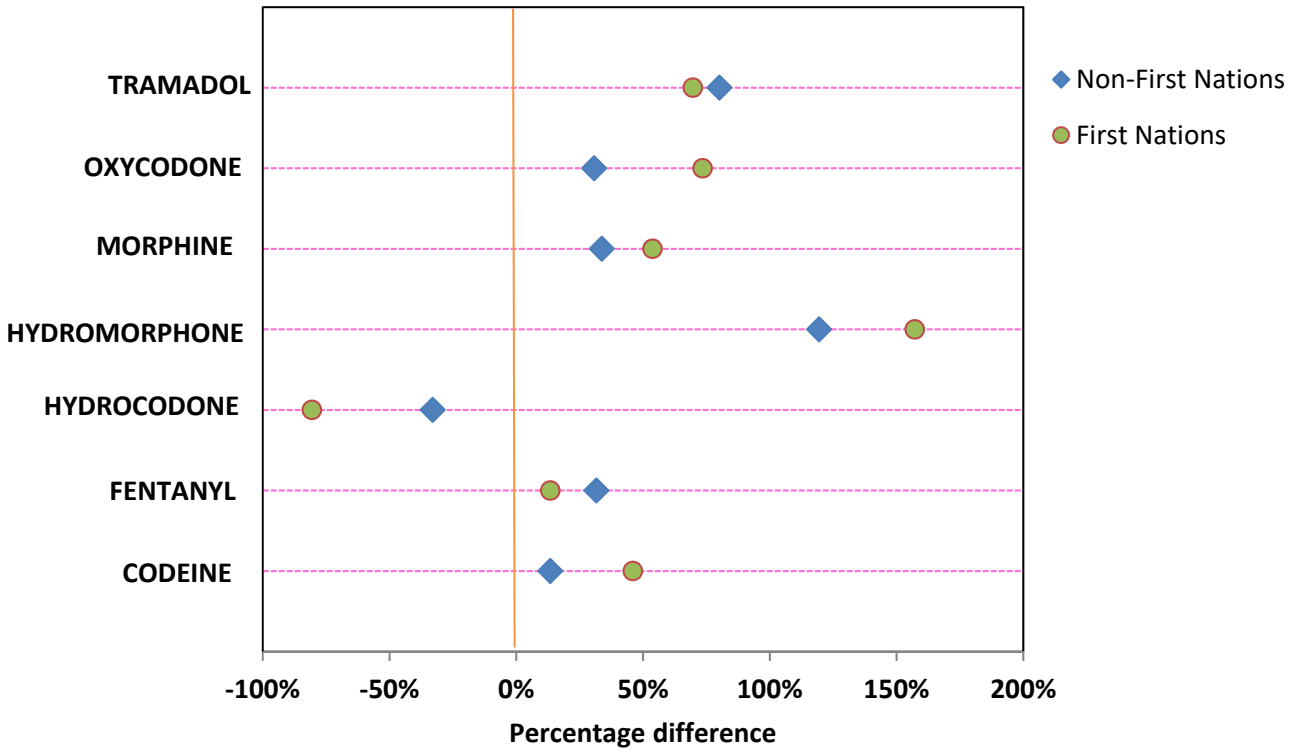
Table 4: Opioid dispensing and median age, by First Nations status and sex. January 1, 2014 to June 30, 2017.

	First Nations		Non-First Nations	
	Proportion of individuals dispensed an opioid	Median age	Proportion of individuals dispensed an opioid	Median age
Females	53%	43	53%	51
Males	47%	45	47%	50

- Among First Nations people and Non-First Nations people, females were more likely to have an opioid dispensed from a community pharmacy.

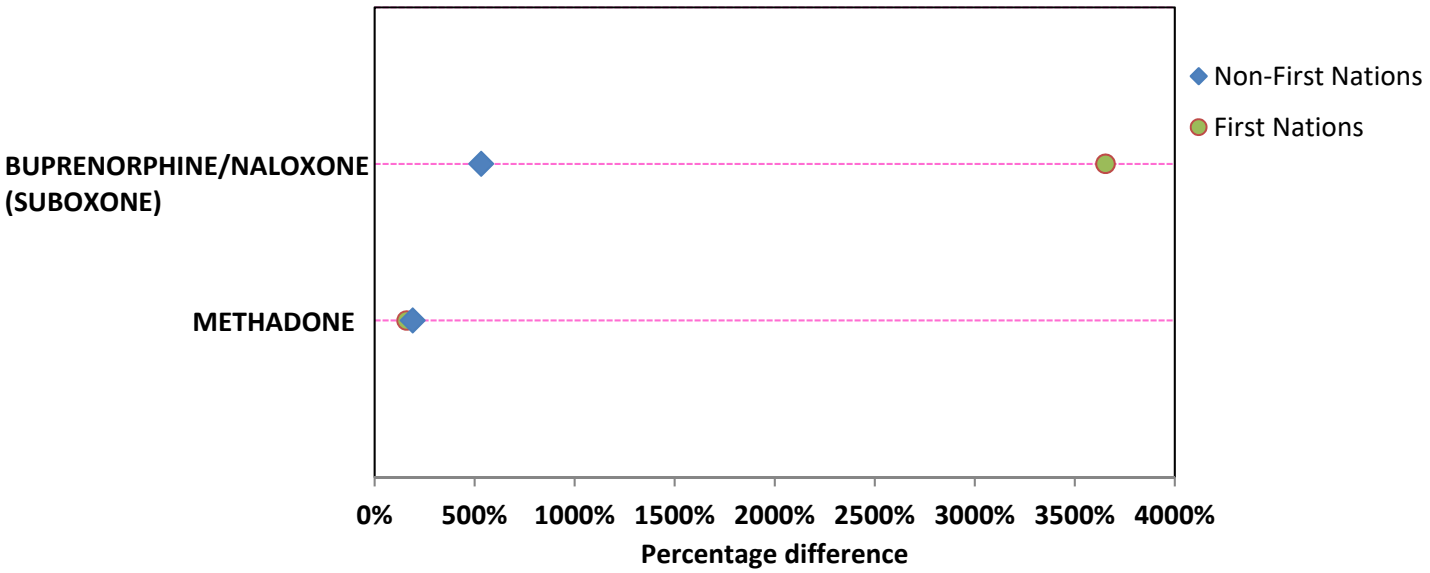
- Among First Nations people, the median age of individuals (both males and females) receiving an opioid dispensed from a community pharmacy was five years younger or more than their Non-First Nations counterparts.

Figure 13: Percentage difference in opioid dispensing (unique individuals with at least one dispensation) by First Nations status, Alberta, between 2013 and 2017.



- Among First Nations people and Non-First Nations people, hydromorphone saw the largest increase in dispensing rates from 2013 to 2017.
- Among First Nations people and Non-First Nations people, the only opioid type to see a decrease in the rate of dispensing from 2013 to 2017 was hydrocodone.

Figure 14: Percentage difference in opioid agonist therapy (OAT) drug dispensing rate (unique individuals with at least one dispensation) by First Nations status, Alberta, between 2013 and 2017.



- The increases in the rate of methadone for OAT dispensing among First Nations people and Non-First Nations people were similar (160 per cent, 190 per cent respectively).
- The increase in the rate of buprenorphine/naloxone for OAT dispensing among First Nations people was significantly higher when compared to Non-First Nations people (3,654 per cent increase vs. 532 per cent).[1]

Table 5: OAT drug product dispensing and median age, by First Nations status and sex. January 1, 2014 to June 30, 2017.

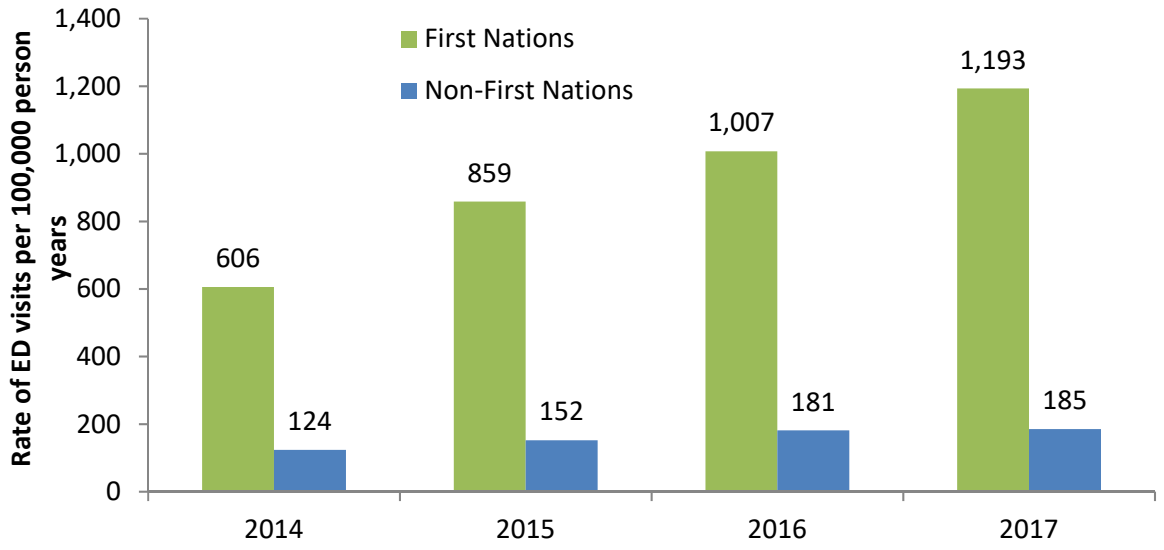
	First Nations		Non-First Nations	
	Proportion of individuals dispensed OAT product	Median age	Proportion of individuals dispensed OAT product	Median age
Females	57%	35	39%	34
Males	43%	39	61%	37

- Females represented a higher proportion of individuals dispensed a drug product for OAT dispensing from community pharmacies among First Nations people. Among Non-First Nations people, males represented a much higher proportion.

[1] Among First Nations people, the rate of buprenorphine/naloxone for OAT dispensing increased from 16.8 per 100,000 in 2013 to 630.5 per 100,000 for the first half of 2017. Among Non-First Nations people, the rate increased from 16.1 per 100,000 in 2013 to 101.5 per 100,000 in 2017.

Emergency Department visits

Figure 15: Rate of emergency department (ED) visits related to opioid use and other substances of misuse per 100,000 person years, by First Nations status. January 1, 2014 to March 31, 2017.



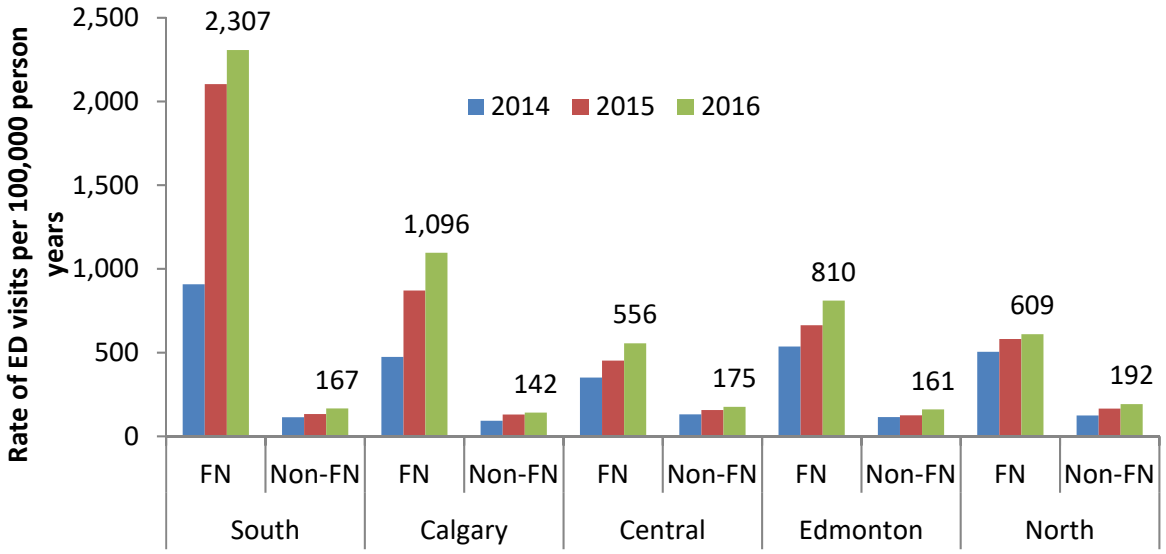
- On average, from 2014 to 2017, the rate of ED visits related to opioid use and other substances of misuse among First Nations people was almost six times higher than the rate among Non-First Nations people
- The rate of ED visits related to opioid use and other substances of misuse among First Nations people increased by approximately 100 per cent from 2014 to 2017, and by approximately 50 percent among Non-First Nations people.

Table 6: Emergency department (ED) visits related to opioid use and other substances of misuse and median age, by First Nations status and sex. January 1, 2014 to March 31, 2017.

	First Nations		Non-First Nations	
	Proportion of ED visits	Median age	Proportion of ED visits	Median age
Females	56%	34	40%	34
Males	44%	32	60%	32

- Among First Nations people, a higher proportion of ED visits related to opioid use and other substances of misuse occurred among females.
- Among Non-First Nations people, a higher proportion of ED visits related to opioid use and other substances of misuse occurred among males.

Figure 16: Rate of emergency department (ED) visits related to opioid use and other substances of misuse per 100,000 person years, by First Nations (FN) status and Zone. 2014 to 2016.



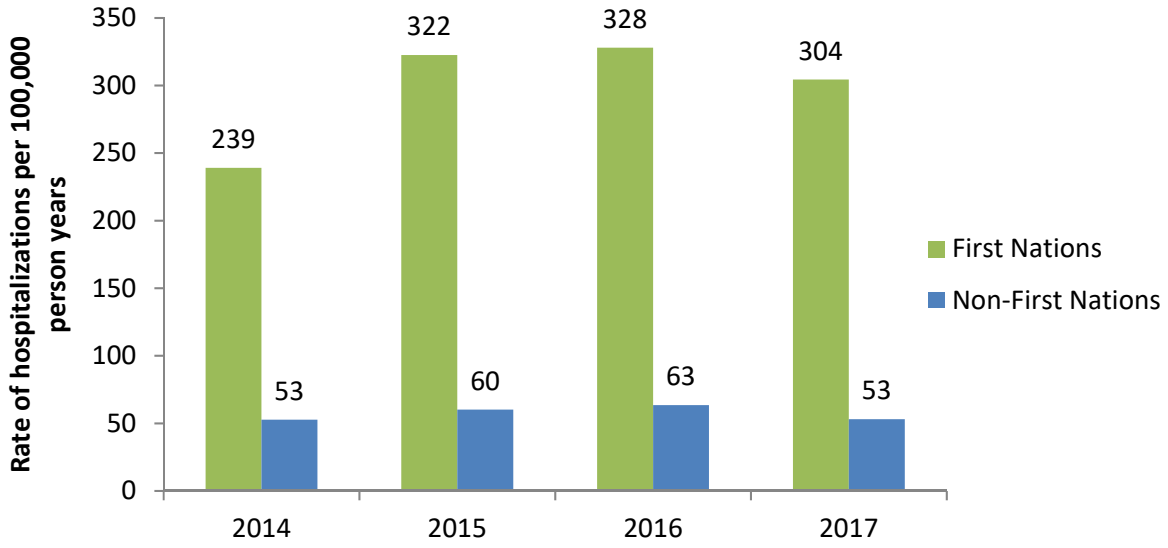
- From 2014 to 2016, the rate of ED visits related to opioid use and other substances of misuse was significantly higher among First Nations people residing in the South Zone compared to all other Zones. The South Zone also saw the fastest growing rate of ED visits related to opioid use and other substances of misuse among First Nations people.
- From 2014 to 2016, the North Zone saw the fastest growing rate of ED visits related to opioid use and other substances of misuse among Non-First Nations people, and in 2016, was also the Zone with the highest rate.

Table 7: Top 10 ED facilities utilized for emergency visits related to opioid use and other substances of misuse, by First Nations status. January 1, 2013 to March 31, 2017.

First Nations				Non-First Nations		
Rank	**Facility**	**Count**	**Percent**	**Facility**	**Count**	**Percent**
1	Royal Alexandra Hospital	880	16%	Royal Alexandra Hospital	2,811	11%
2	Cardston Health Centre	475	9%	Peter Lougheed Centre	2,485	10%
3	University Of Alberta Hospital	363	7%	Foothills Medical Centre	1,990	8%
4	Chinook Regional Hospital	358	7%	Rockyview General Hospital	1,856	8%
5	Peter Lougheed Centre	321	6%	University Of Alberta Hospital	1,645	7%
6	Foothills Medical Centre	298	6%	Red Deer Regional Hospital Ctr	1,211	5%
7	Rockyview General Hospital	247	5%	Grey Nuns Community Hospital	1,094	4%
8	Misericordia Community Hosp	163	3%	South Health Campus	1,086	4%
9	Queen Elizabeth II Hospital	151	3%	Queen Elizabeth II Hospital	884	4%
10	Wetaskiwin Hospital & Care Ctr	126	2%	Sheldon M Chumir Center	760	3%

Hospitalizations

Figure 17: Rate of hospitalizations related to opioid use and other substances of misuse per 100,000 person years, by First Nations status. January 1, 2014 to March 31, 2017.



- The rate of hospitalizations related to opioid use and other substances of misuse among First Nations people increased by approximately 30 per cent from 2014 to 2017, with no change observed in the rate among Non-First Nations people.

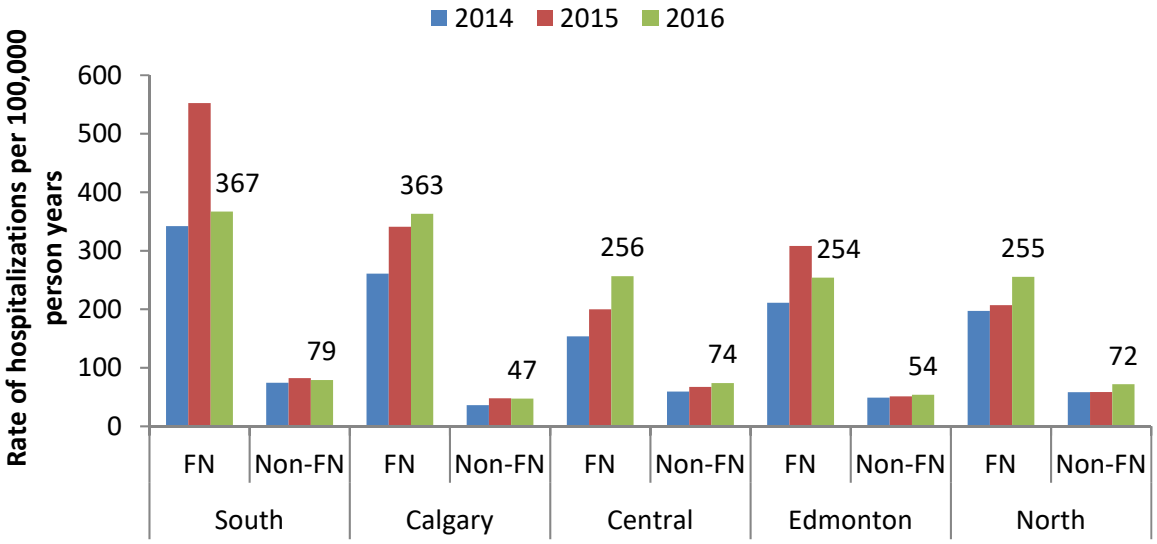
- On average, from 2014 to 2017, the rate of hospitalizations related to opioid use and other substances of misuse among First Nations people was just over five times higher than the rate among Non-First Nations people

Table 8: Hospitalizations related to opioid use and other substances of misuse and median age, by First Nations status and sex. January 1, 2014 to March 31, 2017.

	First Nations		Non-First Nations	
	Proportion of hospitalizations	Median age	Proportion of hospitalizations	Median age
Females	58%	34	49%	34
Males	42%	32	51%	32

- Among First Nations people, a higher proportion of hospitalizations related to opioid use and other substances of misuse occurred among females.
- Among Non-First Nations people, hospitalizations related to opioid use and other substances of misuse were nearly evenly split between males and females.

Figure 18: Rate of hospitalizations related to opioid use and other substances of misuse per 100,000 person years, by First Nations status and Zone. 2014 to 2016.



- From 2014 to 2016, the rate of hospitalizations related to opioid use and other substances of misuse was highest among First Nations people residing in the South Zone and Calgary Zone. The Central Zone saw the fastest growing rate of hospitalizations related to opioid use and other substances of misuse among First Nations people.
- From 2014 to 2016, the North Zone and Central Zone saw the fastest growing rate of hospitalizations related to opioid use and other substances of misuse among Non-First Nations people, and in 2016 the Zone with the highest rate was the South Zone.

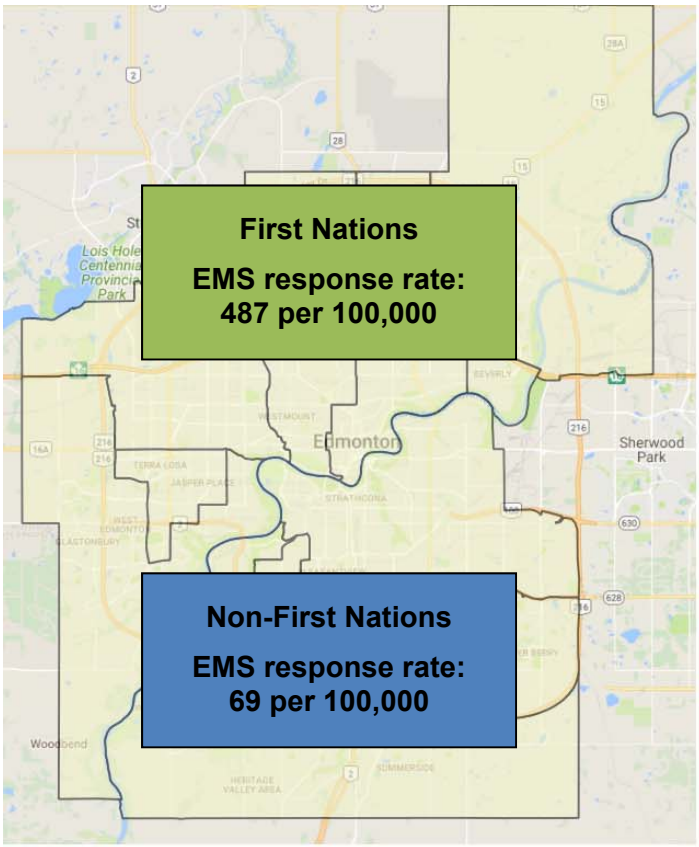
Table 9: Top 10 facilities utilized for hospitalizations related to opioid use and other substances of misuse, by First Nations status. January 1, 2013 to March 31, 2017.

First Nations				Non-First Nations		
Rank	**Facility**	**Count**	**Percent**	**Facility**	**Count**	**Percent**
1	Royal Alexandra Hospital	134	17%	Royal Alexandra Hospital	542	16%
2	Foothills Medical Centre	69	9%	University Of Alberta Hospital	333	10%
3	University Of Alberta Hospital	66	8%	Foothills Medical Centre	307	9%
4	Peter Lougheed Centre	50	6%	Peter Lougheed Centre	264	8%
5	Chinook Regional Hospital	49	6%	Rockyview General Hospital	248	7%
6	Misericordia Community Hosp	38	5%	Red Deer Regional Hospital Ctr	166	5%
7	South Health Campus	33	4%	South Health Campus	160	5%
8	Rockyview General Hospital	31	4%	Chinook Regional Hospital	157	5%
9	Cardston Health Centre	28	3%	Medicine Hat Regional Hospital	146	4%
10	Queen Elizabeth II Hospital	26	3%	Grey Nuns Community Hospital	144	4%

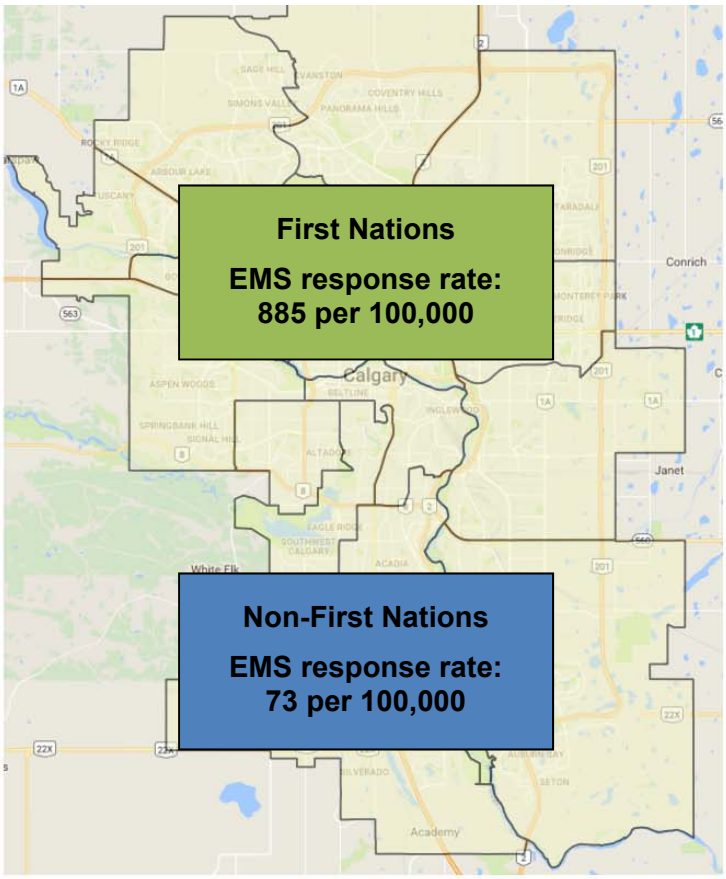
Emergency Medical Response data

Figure 19: Rate of EMS responses to opioid related events per 100,000 person years in the cities of Edmonton and Calgary, by First Nations status. January 1, 2016 to March 31, 2017.

Edmonton



Calgary



- From January 1, 2016 to March 31, 2017, the rate of EMS responses to opioid-related events in Edmonton was over seven times higher among First Nations people compared to Non-First Nations people, and over 12 times higher in Calgary.

Table 10: EMS responses to opioid related events and median age, by First Nations status and sex in the cities of Edmonton and Calgary. January 1, 2014 to March 31, 2017.

	First Nations		Non-First Nations	
	Proportion of EMS response to opioid related events	Median age	Proportion of EMS response to opioid related events	Median age
Females	45%	37	27%	38
Males	55%	36	73%	36

Data notes

Data source(s) for report

1. National Ambulatory Care Reporting System (NACRS)
2. Discharge Abstract Database (DAD)
3. Alberta Health Care Insurance Plan (AHCIP) Quarterly Population Registry Files
4. Alberta Health and Wellness Postal Code Translation File (PCTF)
5. Pharmaceutical Information Network (PIN)
6. OCME MEDIC data
7. AHS EMS Direct delivery-ground ambulance services data

Mortality data

The following substances are included in the drug overdose categories.

- **Fentanyl:** fentanyl, 3-methylfentanyl, acetylfentanyl, furanylfentanyl, or carfentanil
- **Opioids:** non-specified opiate, heroin, oxycodone, hydromorphone, morphine, codeine, tramadol, U-47700, tapentadol, or methadone
- **Other drugs:** includes, but not limited to ethanol (alcohol), benzodiazepines, antidepressants, antipsychotics, acetaminophen, cocaine or methamphetamine.

*Certification of more complex drug toxicity deaths involving less potent opioids and drugs may take longer than fentanyl related deaths to certify, and therefore, non-fentanyl drug related deaths are potentially underreported in 2016. Confirmed deaths include deaths due to acute poisoning or toxicity by an exogenous substance where the manner was intentional (suicide) or unintentional (accidental). Deaths as a result of chronic substance use were excluded. Deaths as a result of poisoning or toxic effects due to carbon monoxide and household chemicals were excluded. “Other” refers to alcohol, prescription drugs (i.e. antidepressants, benzodiazepines), illicit drugs such as cocaine, methamphetamine and MDMA, and unspecified substances.

Emergency Medical Services data

Emergency Medical Services (EMS) data comes from AHS EMS Direct delivery – ground ambulance services. Air ambulance and Contractors are not included. AHS direct delivery does 97.7 per cent of the operational responses in the City of Edmonton, 99.9 per cent in the City of Calgary, and approximately 82 per cent in the entire province of Alberta.

EMS opioid related events refer to any EMS response where the Medical Control Protocol of Opiate Overdose was documented and/or naloxone was administered.

Emergency visits

Emergency Department (ED) visits are defined by the Alberta MIS chart of accounts. Specifically, the three Functional Centre Accounts used to define any ACCS (Alberta Care Classification System) visits into an emergency visit could be:

1. 71310 – Ambulatory care services described as emergency
2. 71513 – Community Urgent Care Centre (UCC). As of 2014, the UCCs in Alberta are listed below:
    - Airdrie Regional Health Centre, Cochrane Community Health Centre, North East Edmonton Health Centre, Health First Strathcona, Okotoks Health and Wellness Centre, Sheldon M Chumir Centre, South Calgary Health Centre

3. 71514 – Community Advanced Ambulatory Care Centre (AACC). As of 2014, the only AACC in Alberta is La Crete Health Centre

Community pharmacy drug dispensing

1. The Pharmaceutical Information Network (PIN) Database is used to estimate dispensation events for the province **only from community pharmacies**. Variability can be dependent on the way the drug is prescribed.
2. The PIN database is up-to-date; to date, the PIN database has records up to June 30, 2017. PIN records can change due to data reconciliations, which may affect results. Results are more stable with older data.

Opioids types are defined by ATC Code, as given in the table below.

ATC CODE	DRUG NAME	ATC NAME
N02AA59, N02AA79, R05DA04, R05DA20[1], R05FA02[2], M03BA53, and M03BB53	CODEINE	CODEINE
R05DA03, R05DA20[1], R05FA02[2]	HYDROCODONE	HYDROCODONE
N02AB03, N01AH01	FENTANYL	FENTANYL
N02AA03	HYDROMORPHONE	HYDROMORPHONE
N02AA01	MORPHINE	MORPHINE
N02AA05, N02AA55	OXYCODONE	OXYCODONE
N02AX02, N02AX52	TRAMADOL	TRAMADOL
N07BC02	METHADONE	METHADONE
N02AA	NATURAL OPIUM ALKALOIDS	OTHER
N02AA02	OPIUM	OTHER
N02AB02	PETHIDINE	OTHER
N02AC04,N02AC54	DEXTROPROPOXYPHENE	OTHER
N01AH03	SUFENTANIL	OTHER
N01AH06	REMIFENTANIL	OTHER
N01AX03	KETAMINE	OTHER
R05DA20	NORMETHADONE	OTHER
N02AD01	PENTAZOCINE	OTHER
N02AE01,N07BC51	BUPRENORPHINE	OTHER
N02AF01	BUTORPHANOL	OTHER
N02AF02	NALBUFINE	OTHER
N02AX06	TAPENTADOL	OTHER

[1] The ATC name for R05DA20 is “combinations” which include drugs that contain codeine, hydrocodone, and normethadone hydrochloride. Classifications of codeine and hydrocodone were based on both drug identification number and ATC code.

[2] The ATC name for R05FA02 is “opium derivatives and expectorants” which include drugs that contain codeine and hydrocodone. Classifications of these drugs were based on both drug identification number and ATC code.

Opioid agonist therapy drugs are defined by the ATC code (Anatomical Therapeutic Chemical), as given in the table below.

ATC Code	Drug Name	ATC Grouping
N07BC51	Buprenorphine, combinations	Drugs used in opioid dependence
N07BC02	Methadone	Drugs used in opioid dependence

The following DINs were excluded since they are indicated for pain relief by Health Canada.

02247701, 02247700, 02241377, 02247699, 02247698, 02247694