SURVEILLANCE OF OPIOID USE AND OVERDOSE IN MANITOBA:

OCTOBER 1 – DECEMBER 31, 2018

Manitoba

TO MEET THE HEALTH NEEDS OF INDIVIDUALS, FAMILIES AND THEIR COMMUNITIES BY LEADING A SUSTAINABLE, PUBLICLY ADMINISTERED HEALTH SYSTEM THAT PROMOTES WELL-BEING AND PROVIDES THE RIGHT CARE, IN THE RIGHT PLACE, AT THE RIGHT TIME.
MANITOBA HEALTH, SENIORS AND ACTIVE LIVING

Epidemiology & Surveillance
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Health, Seniors & Active Living

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HIGHLIGHTS:

Given the increasing concerns of harm associated with opioid use and overdose in Manitoba, a surveillance system was established at the beginning of 2017 by collaborating with a range of stakeholders. This report summarizes the patterns and trends identified through the system and is based on available data as of the fourth quarter of 2018.

Patterns of opioids use in Manitoba (see pages 6 – 11)

- In 2018, 46 individuals reported overdosing on opioids through the **provincial take-home naloxone kit program** – this accounts for approximately 8% of the distributed kits. In 2017, there were 108 individuals reported – this was approximately 11% of the distributed kits.
- In 2018, 592 individuals in Winnipeg were suspected to have overdosed on opioids and as a result, naloxone was administered by **Winnipeg Fire and Paramedic Service**. In 2017, 736 individuals were suspected to have overdosed and administered naloxone.
- In 2018, 21 individuals in **northern and rural Manitoba** who were suspected of an opioid overdose were administered naloxone – the number has ranged between one and nine individuals per quarter.
- In 2018, there were 172 calls made to the **Manitoba Poison Centre** related to opioids – in 2017, there were 225 calls.
- In 2018, 35,871 Manitobans (26 per 1,000) were dispensed a **prescription opioid from a community pharmacy** – this is slightly lower compared to 2016 and 2017 (the rate for both years was 27 per 1,000).

Health-related harms from opioid use and/or overdose (see pages 11 to 17)

- In 2018, 1,610 individuals (118 per 100,000) **suspected of an overdose arrived at an emergency department or urgent care facility** in Manitoba. In 2017, there were 1,735 suspected overdose cases (128 per 100,000), and in 2016, there were 1,506 suspected overdose cases (112 per 100,000).
- In 2018, 97 **opioid poisoning hospitalizations** were reported. The number of hospitalizations per week ranged between 1 and 6 admissions. In 2017, there were 152 opioid poisoning hospitalizations reported.
- At this time, 62[1] **apparent opioid-related deaths** (6 per 100, 000) have been reported in 2018 and majority continue to be unintentional/accidental deaths (69%). There have been more apparent opioid-related deaths in 2017 (n=106; rate: 8 per 100,000), compared to 2014, 2015, and 2016; 2018 numbers are still preliminary and cannot be accurately compared to previous years.
    - Fentanyl and fentanyl analogues were reported in 35% (n=22) of apparent opioid-related deaths.
    - Benzodiazepines, cocaine, gabapentin, alcohol and meth continue to be detected in toxicology results of individuals who died from an opioid-overdose intoxication since 2016.

Current efforts to respond to opioid use and overdose (see pages 17 to 18)

- In 2018, 1,070 **naloxone kits were shipped** from Manitoba's Materials Distribution Agency (MDA) to distribution sites. In comparison, 1,595 naloxone kits were shipped in 2017.
- In 2018, 546 take-home **naloxone kits were distributed to individuals** in the community – in 2017, there were 955 kits distributed.
- In 2018, 3,652 exhibits of **suspected illegal drugs seized by law enforcement** were submitted for analysis in Manitoba – this represents a 10% increase over last year – 300 opioids were identified and 42% were fentanyl or fentanyl analogues.

[1] Deaths that occurred in 2018 are still under review and therefore cannot be accurately compared to 2017 numbers to comment on trends in apparent opioid-related deaths. These are preliminary numbers and are subject to change as toxicology results become available, and additional assessments are conducted. The reported summary is based on available data at the time of report preparation.

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SURVEILLANCE OF OPIOID USE AND OVERDOSE IN MANITOBA

OCTOBER 1 – DECEMBER 31, 2018

The quarterly *Surveillance of Opioid Use and Overdose in Manitoba* report describes provincial patterns of opioid use, overdose, related harms, and current response efforts. Manitoba Health, Seniors and Active Living works closely with partners to collect, analyse and share data to monitor the situation.

Patterns of opioid use and overdose in Manitoba

Opioid overdoses in the community

Source: Take Home Naloxone Kit Program

In 2018, 46 individuals reported overdosing on opioids through the provincial take-home naloxone kit program (sites report back using an overdose form[2]) – this accounts for approximately 8% of the distributed kits. In 2017, there were 108 individuals reported – this was approximately 11% of the distributed kits (Figure 1). This is a 57% decrease in reporting[3] of overdoses in 2018, compared to 2017.

In 2018 (see Tables A.1 and A.2 in Appendix A for additional data):

- Most of the individuals (54%) were between 19 and 30 years.
- There were more males (63%) than females – sex is unknown for 2% of cases.
- Majority of the overdoses occurred within a private residence (85%).
- All of the individuals who reported using the naloxone kit survived the overdose (four individuals did not respond to this question).
- Fentanyl continues to be the most commonly reported drug (n= 16) used by the person who overdosed.
- Poly-drug use was reported by 22% of individuals (there was a range of two to three drugs reported per individual).
- There were reports of crystal meth (n= 2), benzodiazepines (n= 1), and alcohol (n= 1) use.
- In most situations (76%), the owner of the kit gave the naloxone to someone else (this is a continuing trend). In 81 % of events (no response received from four events), the person who gave the naloxone knew the person who overdosed. In two events, the owner of the kit gave the naloxone to themselves.
- In only 37% of overdoses, 911 or local emergency response was called. Reasons for not calling emergency response included having no phone, worried the police would come, and thought that the person who overdosed would get better on their own, among other reasons.

Source: Winnipeg Fire and Paramedic Services

In 2018, 592 individuals (Figure 2) were suspected to have overdosed on opioids and as a result, naloxone was administered – a 20% decrease since 2017 (n=736) – see Table A.3 in Appendix A for additional data.

- The highest proportion of suspected opioid overdoses in 2018 were among individuals 20 and 29 years (29%) and 30 and 39 years (28%); and 52% were males.
- As of the third quarter of 2018, majority of the EMS response events occurred in the Downtown or Point Douglas community areas. This is a similar trend seen in 2017.

[2] The form can be accessed online: https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6836_20171115.pdf

[3] Distribution sites voluntarily report back on overdoses if the information is available. The Epidemiology and Surveillance Unit will follow up with the remaining 92% of sites for forms not yet submitted.

Source: Medical Transportation Coordination Centre (MTCC)

- In 2018, 21 individuals in northern and rural Manitoba were suspected of an opioid overdose and administered[4] naloxone – there has been between one and nine individuals per quarter (median = 5).
    - The highest proportion was among individuals between the ages of 25 and 29 (24%); and 62% were female – see Table A.4 in Appendix A for breakdown by Regional Health Authority.
- In 2017, 23 individuals were reported receiving naloxone – the MTCC began to track naloxone administration for suspected overdose events as of May 21, 2017.
- From the fourth quarter of 2017 to the third quarter of 2018, the number of individuals administered naloxone decreased from 12 to 1. In the fourth quarter of 2018, there was a slight increase (n=6) – Figure 3.

Source: Northern Regional Health Authority Patient Care Reports

- In 2018, as per emergency medical services (EMS) in Northern RHA data[5], there were 33 cases (Q1: n=7, Q2: n=12 Q3 n=8 Q4: n=6) in which EMS reported administering naloxone and/or that they arrived on scene and naloxone was already given by another first responder.
    - 64% were females (see Figure A.1 in Appendix A for a breakdown by age and sex).
    - 67% of these events occurred in a private residence.
    - 53% of the incidents occurred within communities that were not the individual's home community of residence (where community of residence was known).
- In 2017, there were 31 cases, and half of these events (52%) occurred in private residences; 41% occurred within communities that were not the individual's community of residence.

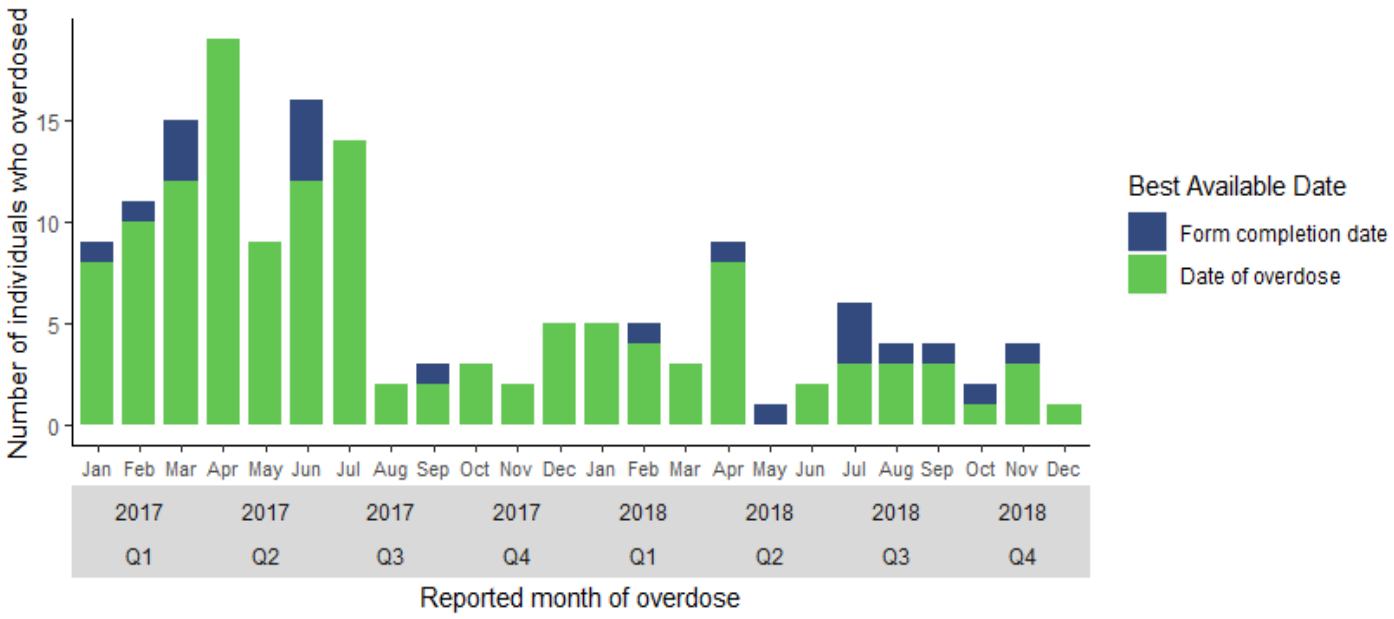

Figure 1: Number of overdose events where a take-home naloxone kit was used, by reported month of overdose*, Manitoba Provincial Take-Home Naloxone Program (January 1, 2017 – December 31, 2018)
**In 20 reports the date of overdose was not available. For these, the date the form was completed has been used (indicated in dark blue).*

[4] Case definition: The number of suspected overdose cases in northern and rural Manitoba receiving naloxone from EMS dispatched through the Medical Transportation Coordination Centre (MTCC) or a bystander on scene.
[5] Includes all cases where the Northern Emergency Medical Services responded. This may include Saskatchewan residents where events occurred in the Northern Health Region (NHR), or NHR residents where events occurred in bordering Saskatchewan communities that NHR EMS serves.

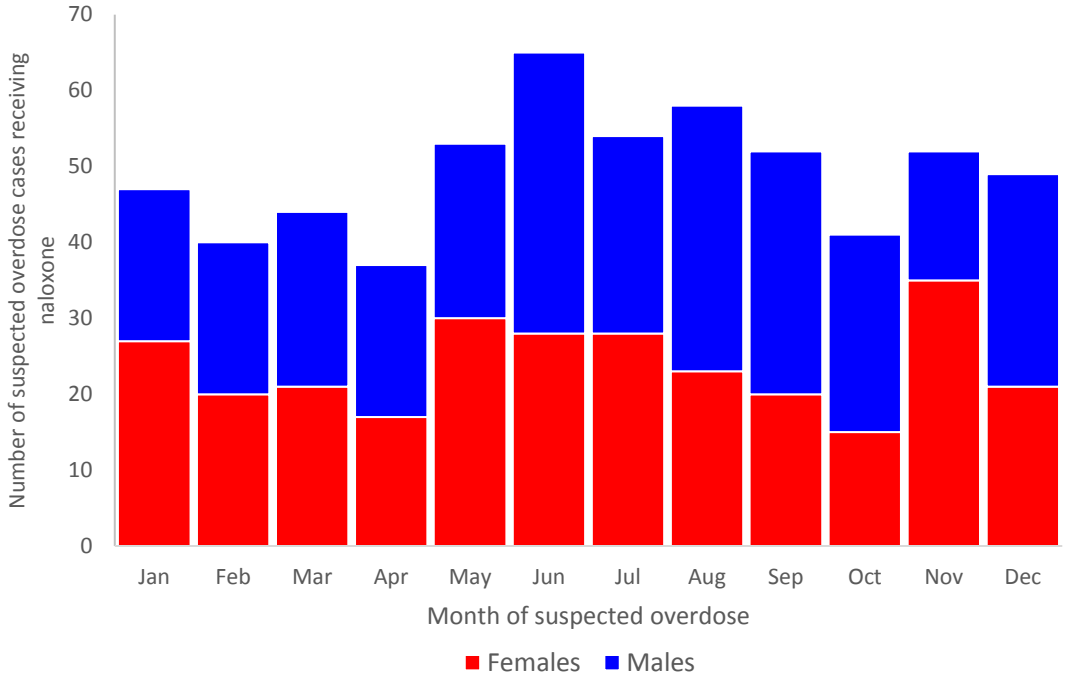

Figure 2: Number of suspected overdose cases receiving naloxone, Winnipeg Fire and Paramedic Service (January 1, 2018 – December 31, 2018)

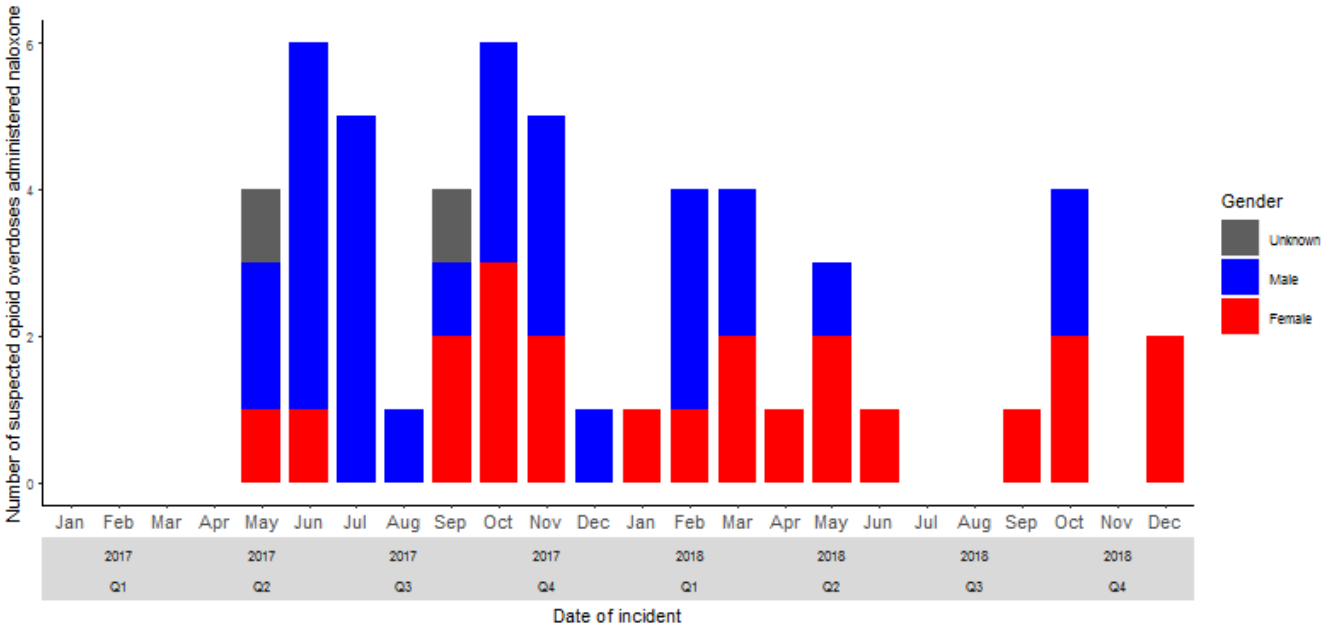

Figure 3: The number of suspected overdose cases in northern and rural Manitoba receiving naloxone from EMS dispatched through the Medical Transportation Coordination Centre (MTCC) or a bystander on scene, by sex, Medical Transportation Coordination Centre (December 1, 2016 – December 31, 2018)

Opioid poisonings

Source: Calls to Manitoba Poison Centre

The Manitoba Poison Centre (MPC) is a telephone toxicology consultation service that provides expert poison advice 24 hours a day to the public and healthcare professionals throughout Manitoba.

- In 2018, there have been 172 calls made to the Manitoba Poison Centre related to opioids (a 24% decrease since the previous year – in 2017, there were 225 calls) – see Figure 4.
    - Majority of the calls (79%) were among adults (20 years or older), followed by 6 to 19 year old (24%).

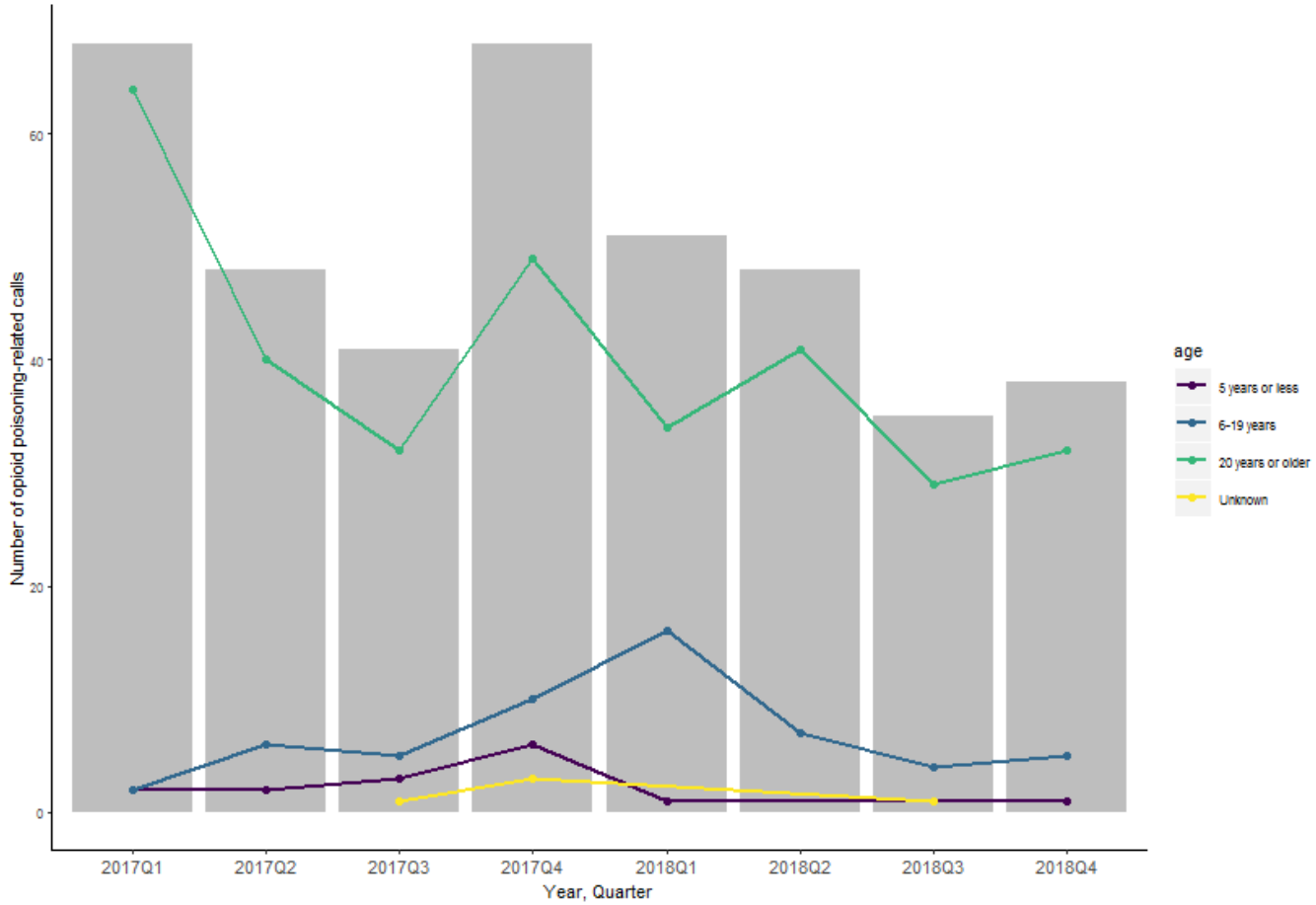

Figure 4: Number of opioid poisoning-related calls by age group, Manitoba Poison Centre (January 1, 2017 – December 31, 2018)

Prescription opioids dispensed through community pharmacies

Source: Drug Program Information Network Data

In 2018, 35,871 Manitobans (26 per 1,000) were dispensed a prescription opioid from a community pharmacy – this is slightly lower compared to 2016 and 2017 (the rate for both years was 27 per 1,000).

- Since 2012, the proportion of females dispensed a prescription opioid has been consistently greater than males, this trend is seen into 2018.
- The highest proportion of individuals that were dispensed prescription opioids from a community pharmacy in 2018 were between 45 and 64.9 years (45%), followed by 65 years and older (39%), this has been a trend since 2012 (Figure 5).

By Morphine Milligram Equivalent (MME) per day, the number of individuals that were dispensed prescription opioids from a community pharmacy in the fourth quarter of 2018 (October 1 to December 31) are as follows:

- 000 – 049 MME/day: n=4,211 (3% increase from the third quarter)
- 050 – 089 MME/day: n=2,190 (1% increase from the third quarter)
- 090 – 199 MME/day: n=1,803 (1% decrease from the third quarter)
- Greater than 200 MME/day: n = 694 (2% decrease from the third quarter)

Overall, a decrease in the number of Manitobans prescribed Fentanyl (5% decrease), Meperidine (7% decrease), Morphine (3% decrease), and Oxyneo (1% decrease) is noted since the last quarter, while the prescription of Generic Oxycontin (8% increase), and Hydromorphone (4% increase) increased since the previous quarter (Figure 6).

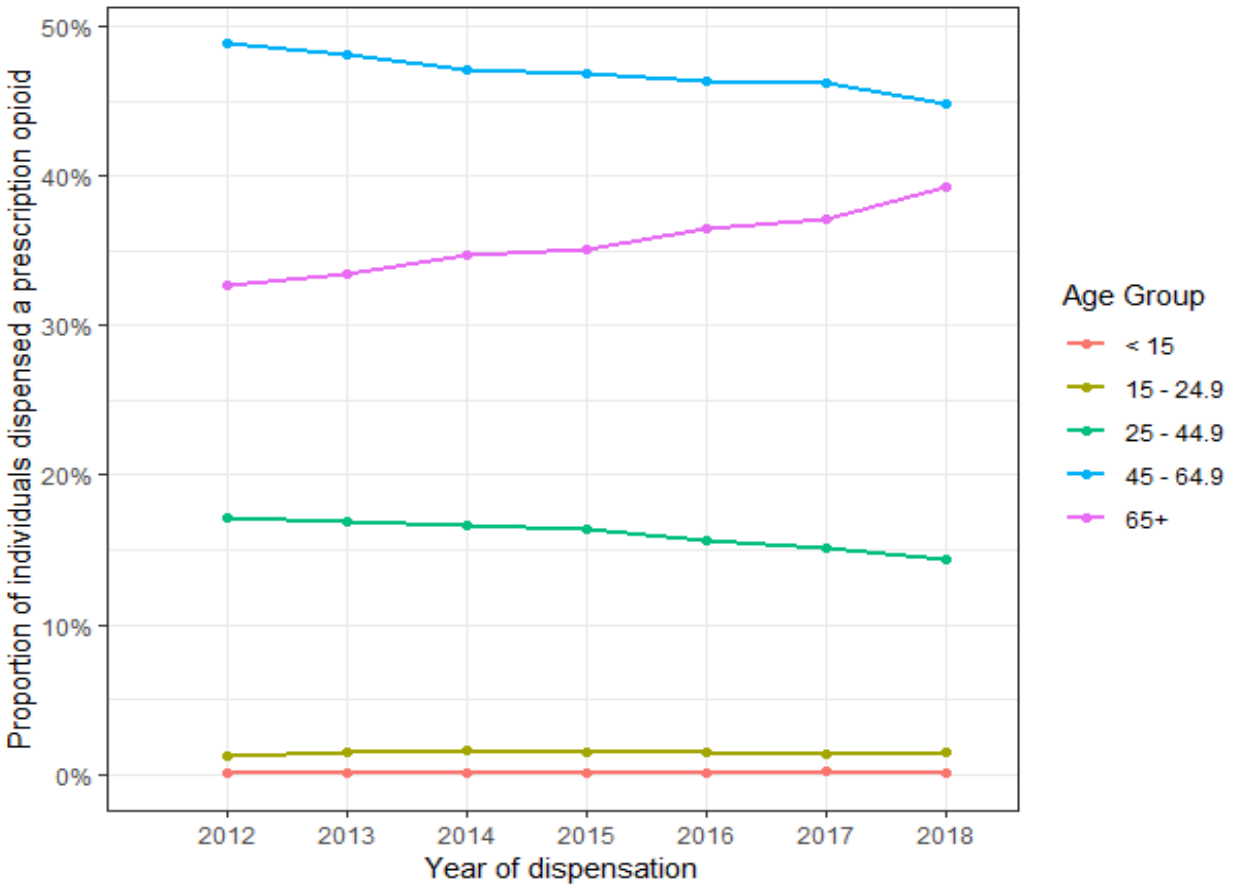

Figure 5: Proportion of Manitobans, by age group, dispensed a prescription opioid from a community pharmacy, Drug Program Information Network (January 1, 2012 – December 31, 2018)

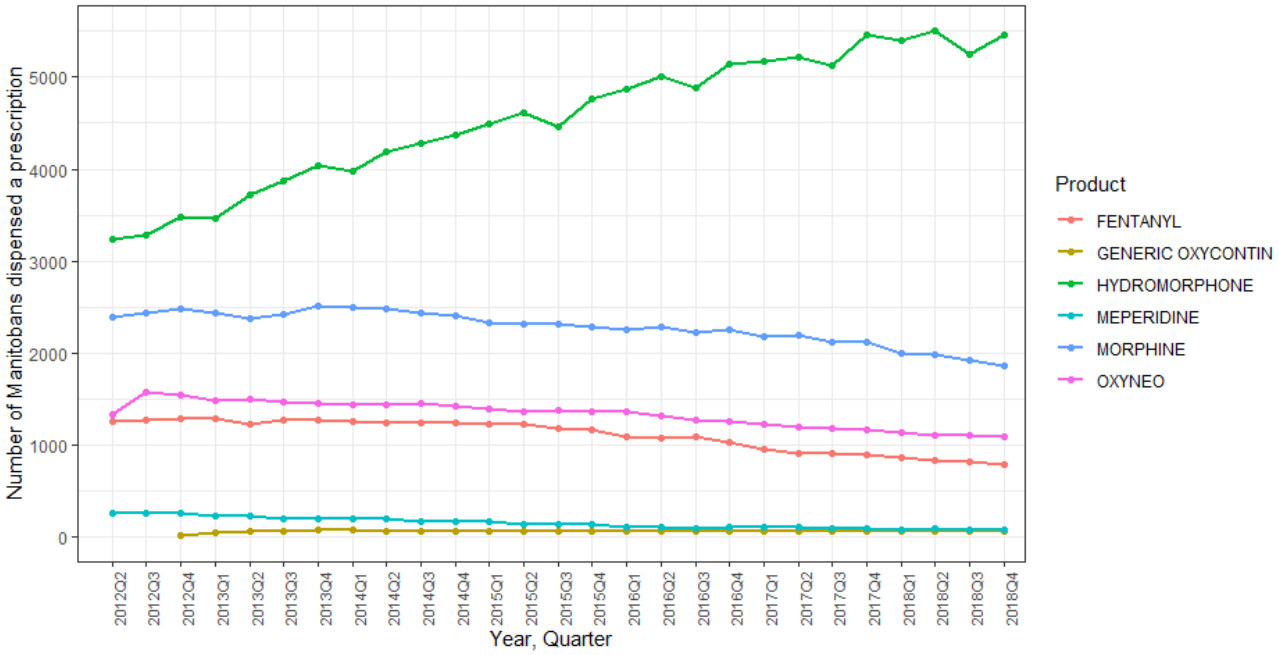

Figure 6: Number of Manitobans dispensed a prescription opioid from a community pharmacy, by product, Drug Program Information Network (April 1, 2012 – December 31, 2018)

Health-related harms from opioid use and/or overdose

The health-related harms section attempts to describe the morbidity and mortality among opioid users based on available data.

Overdoses presenting to Emergency Department and Urgent Care Facilities

Source: Emergency Department Information System

In 2018, 1,610 individuals (118 per 100,000) suspected of an overdose arrived at an emergency department or urgent care facility in Manitoba (Figure 7):

- 68% were female and 23% were between 15 and 19 years (see Table A.5 in Appendix A for additional data).
- By regional health authority (RHA) of facility, the proportion of visits are as follows: Winnipeg RHA (71%), Prairie Mountain RHA (11%), Northern RHA (8%), Southern Health – Santé Sud (6%) and Interlake Eastern RHA (4%).
- The rate (crude) of ED visits by RHA are as follows (see Table A.5 in Appendix A for additional data):
    - Winnipeg RHA: 148 per 100,000
    - Prairie Mountain RHA: 108 per 100,000
    - Interlake Eastern RHA: 45 per 100,000
    - Northern RHA: 168 per 100,000
    - Southern Health-Santé Sud: 44 per 100,000.
- Majority (75 – 90%, depending on the RHA) visited an ED facility within their region of residence – Southern Health – Santé Sud facilities had the highest proportion of admissions of individuals who were Southern Health – Santé Sud residents (90%) and Winnipeg RHA facilities had the lowest proportion of admissions of individuals who were WRHA residents (75%).

In 2017, there were 1,735 suspected overdose cases (128 per 100,000), and in 2016, there were 1,506 suspected overdose cases (112 per 100,000).

- In 2017 and 2018, the number of admissions for a suspected overdose for females continues to be approximately double the number of admissions for males.

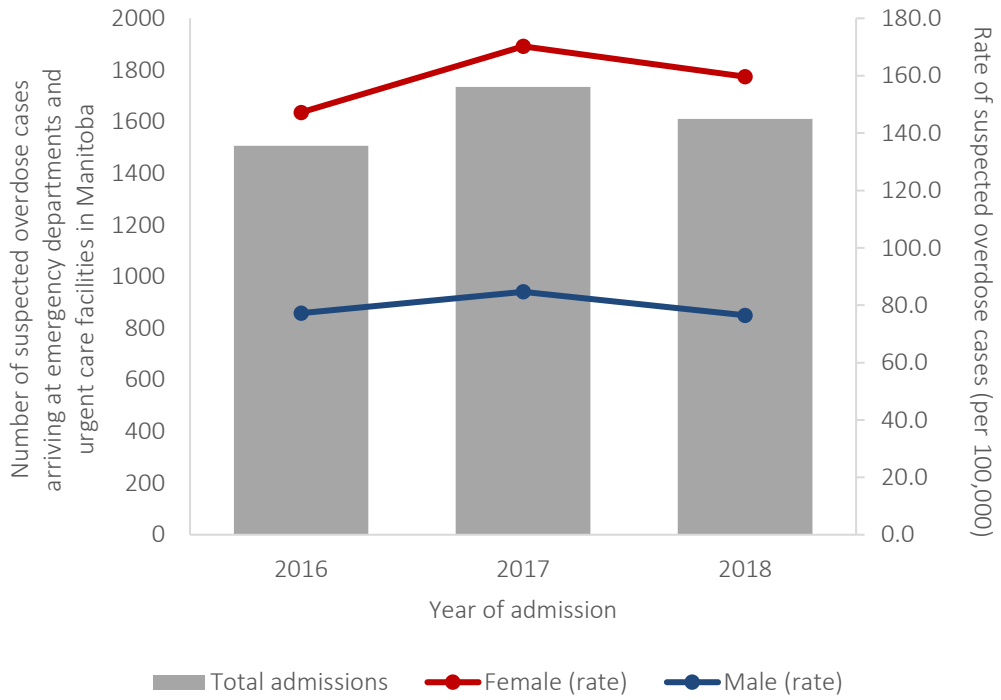

Figure 7: Count and crude rate (per 100,000 population) of suspected overdose cases arriving at emergency departments and urgent care facilities in Manitoba by sex, Emergency Department Information System (January 1, 2016 – December 31, 2018)

Opioid Poisoning Hospitalizations

Source: Hospital Separation Abstracts

- In 2018, 97 opioid poisoning hospitalizations (7 per 100,000) were reported – a 36% decrease since 2017 (n=152, rate: (11 per 100,000). The number of hospitalizations per week in 2018 ranged between 1 and 6 admissions (Figure 8).
    - A slightly higher proportion of females (53%) were hospitalized due to an opioid poisoning.
    - The highest rate of hospitalizations was among residents of the Prairie Mountain RHA (13 per 100,000), followed by Winnipeg RHA (8 per 100,000), Interlake-Eastern RHA (5 per 100,000), Southern Health – Santé Sud (2 per 100,000), and Northern RHA (1 per 100,000)
    - Individuals between 45 and 64 years had the largest proportion of hospitalizations (37%) – in 2017, the largest proportion of hospitalizations was among individuals between 25 and 44 years.
    - There were ten hospitalizations associated with synthetic opioid poisoning (which includes fentanyl), and ten hospitalizations for “unspecified opioids”.
        - In 2017, the number of synthetic opioid poisoning hospitalization (including fentanyl) had increased to 23 hospitalizations (2 per 100,000 population), from 4 hospitalizations in 2014 (0.3 per 100,000 population).
    - See Tables A.6 to A.9 in Appendix A for additional data.

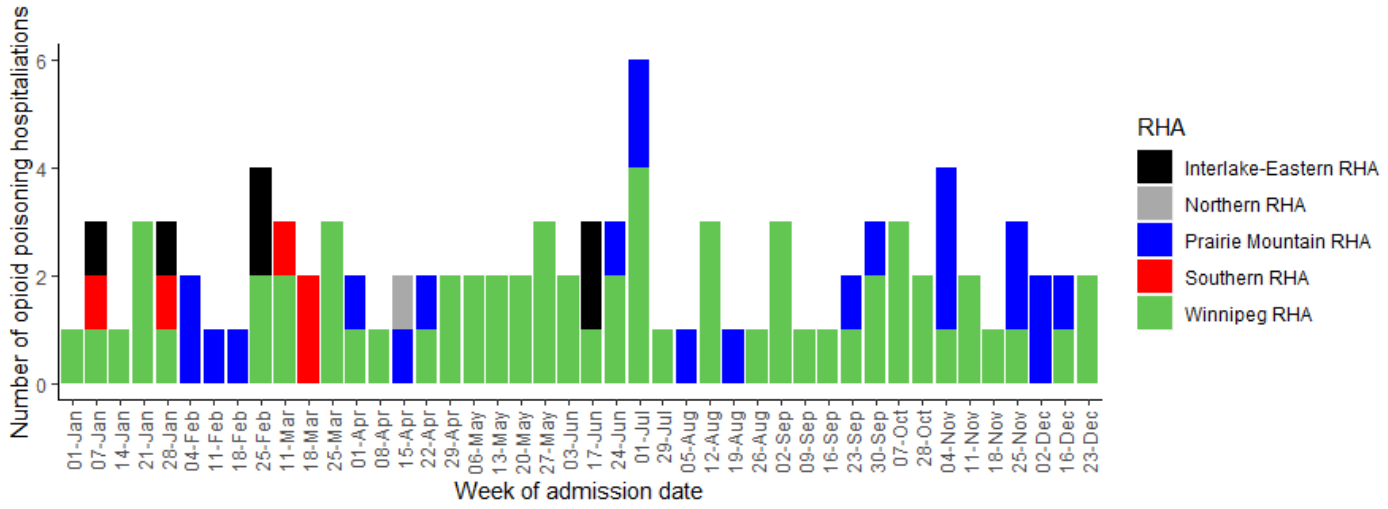

Figure 8: Number of opioid poisoning hospitalizations in Manitoba by week of admission and Regional Health Authority (RHA), Manitoba Health, Seniors and Active Living (January 1 – December 31, 2018)

Fatal overdoses (mortality)

Source: Office of the Chief Medical Examiner (OCME)

***** *Deaths that occurred in 2018 are still under review and therefore cannot be accurately compared to 2017 numbers to comment on trends in apparent opioid-related deaths. These are preliminary numbers and are subject to change as toxicology results become available, and additional assessments are conducted. The reported summary is based on available data at the time of report preparation.*

NOTE: Preliminary determinations made at the outset of a death investigation often differs from those made once the investigation is complete. As a result, data related to apparent opioid-related deaths may differ from previous and future reports.

At this time, 62* apparent opioid-related deaths (6 per 100, 000) have been reported in 2018 (Figure 8) and majority continue to be unintentional/accidental deaths (69%) – see Table A.10 in Appendix A.

- There have been more apparent opioid-related deaths in 2017 (n=106; rate: 8 per 100,000), compared to 2014, 2015, and 2016; 2018 numbers are preliminary and cannot be accurately compared to previous years.
- In 2018, a slightly higher proportion of deaths among males was reported (55%).
    - Since 2016, there has been a higher proportion of deaths in males compared to females.
- In 2018, the home setting continues to be the most common place of death (77%) and overdose (79%).
- The median age of individuals who died of an apparent opioid-related overdose in 2018 is 44 years (range: 20 to 69 years). By age group, the highest rate of death is amongst individuals 45 to 64 years old, followed by 25 to 44 years (Figure 9).
    - The median age in 2017 was 38 years (range: 20 to 71 years).
    - The median age in 2016 was 37 years (range: 17 to 84 years).
- The death rates in 2018 by RHA* are as follows (Figure 10):
    - Northern RHA = 7 deaths per 100,000 persons
    - Winnipeg RHA = 5 deaths per 100,000 persons
    - Prairie Mountain Health = 5 deaths per 100,000 persons
    - Southern Health - Santé Sud = 3 deaths per 100,000 persons

- Interlake Eastern = 1 death per 100,000 persons

- Fentanyl and fentanyl analogues were reported in 35% (22 of 62) apparent opioid-related deaths (this includes deaths where there was only fentanyl detected in the toxicology, as well as where both fentanyl and other opioid mixes were detected in the toxicology) – Figure 11.
  - Of the 22 deaths where fentanyl and fentanyl analogues was detected, 5 (23%) included carfentanil (data not shown).
    - In 2017, fentanyl and fentanyl analogues were reported in 45 deaths – carfentanil was detected in 33% of these deaths.
- Hydromorphone (23%) and oxycodone (21%) were also detected in more than 20% of the individuals' toxicology results (data not shown).
- Benzodiazepines, cocaine, gabapentin, alcohol and meth continue to be detected in toxicology results of individuals who died from an opioid-overdose intoxication since 2016 (Figure 12).
  - In 2018, these drugs were detected in 58% (benzodiazepine), 35% (cocaine), 34% (gabapentin), 31% (alcohol) and 13% (meth) of all apparent-opioid related deaths – not mutually exclusive.
    - Between 2014 and 2017, methamphetamine detected in toxicology results of individuals who died from an apparent-opioid overdose increased from 4% (n=3) to 25% (n=26).
- In 2018, 52 of the 62 apparent-opioid related deaths had one or more opioid prescriptions recorded 6 months prior to death – 45% of individuals had a prescription for codeine, 19% for oxycodone, 11% for hydromorphone, 11% for morphine, 5% for methadone, and 5% for fentanyl, among a few others (these are not mutually exclusive) – data not shown.
  - Following opioids, benzodiazepines (56%) were the next most-commonly prescribed drug (data not shown).

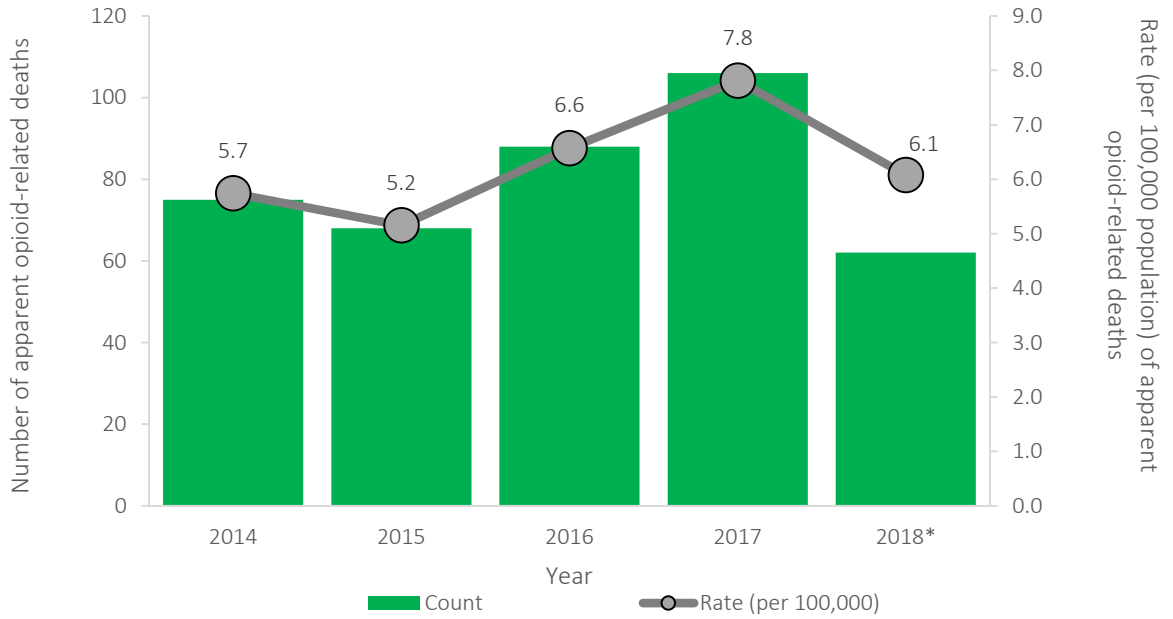

Figure 8: Number and crude rate (per 100,000 population) of apparent opioid-related deaths in Manitoba, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018*)
*Note: These are preliminary numbers and are subject to change as toxicology results become available, and additional assessments are conducted.

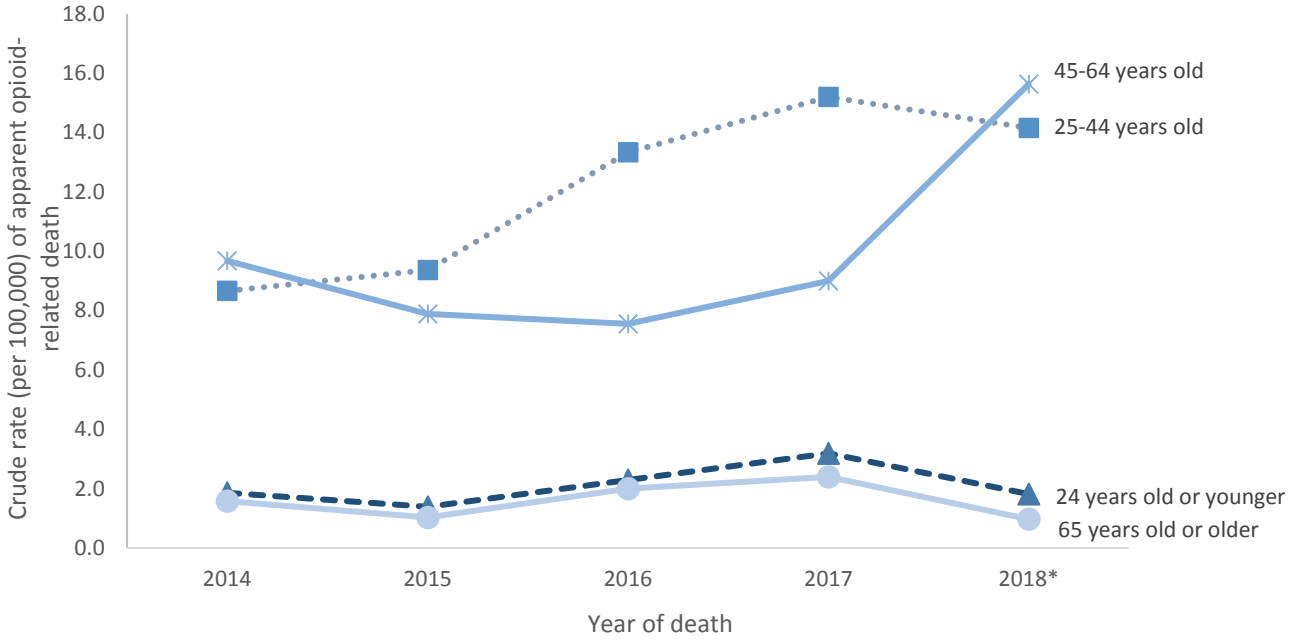

Figure 9: Crude rate (per 100,000 population) of apparent opioid-related deaths in Manitoba by age group, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018*)
*Note: 2018 data is incomplete.

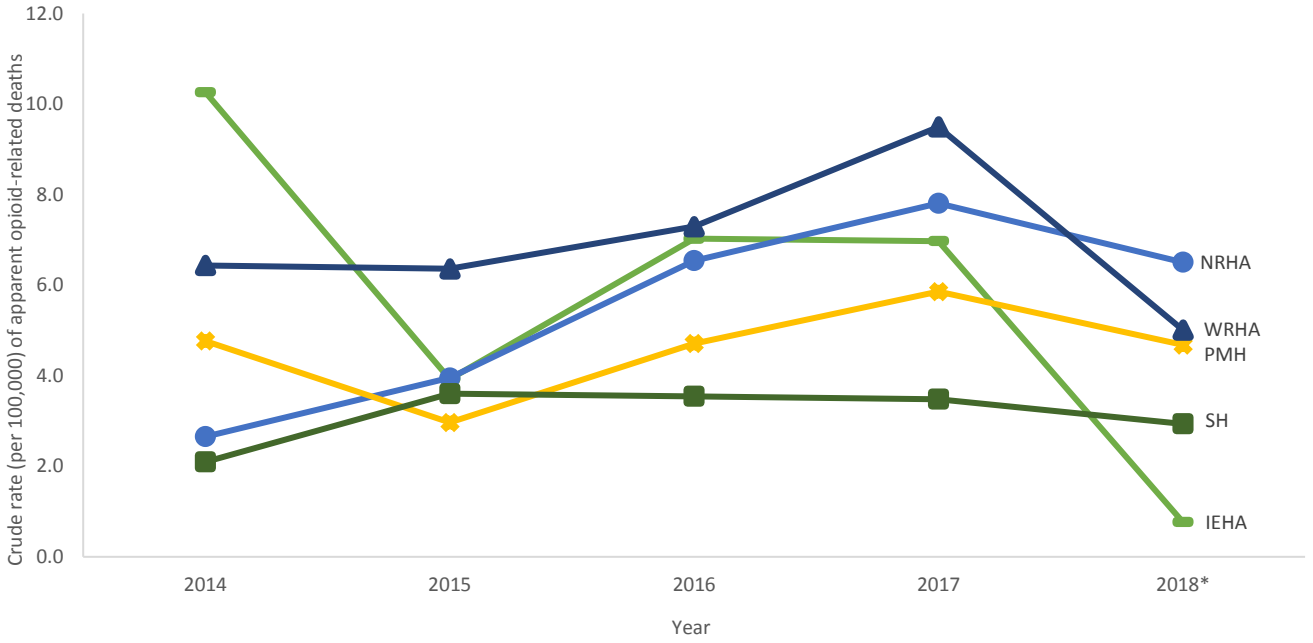

Figure 10: Crude rate (per 100,000) of apparent opioid-related deaths in Manitoba by Regional Health Authority, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018*)
NRHA – Northern Regional Health Authority; WRHA – Winnipeg Regional Health Authority; PMH – Prairie Mountain Health; SH – Southern Health – Santé Sud; IEHA – Interlake Eastern Health Authority
*Note: 2018 data is incomplete

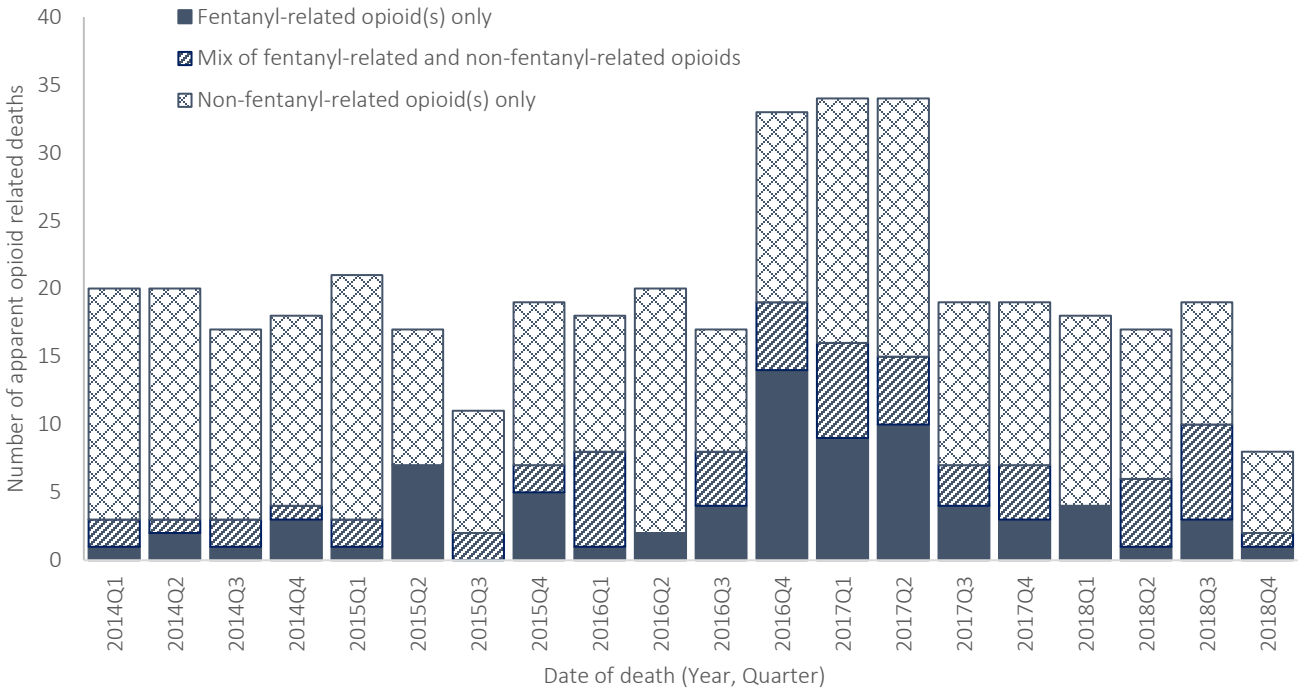

Figure 11: Presence of fentanyl analogs in apparent opioid-related deaths in Manitoba by suspected opioid type, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018*)
*Note: 2018 data is incomplete

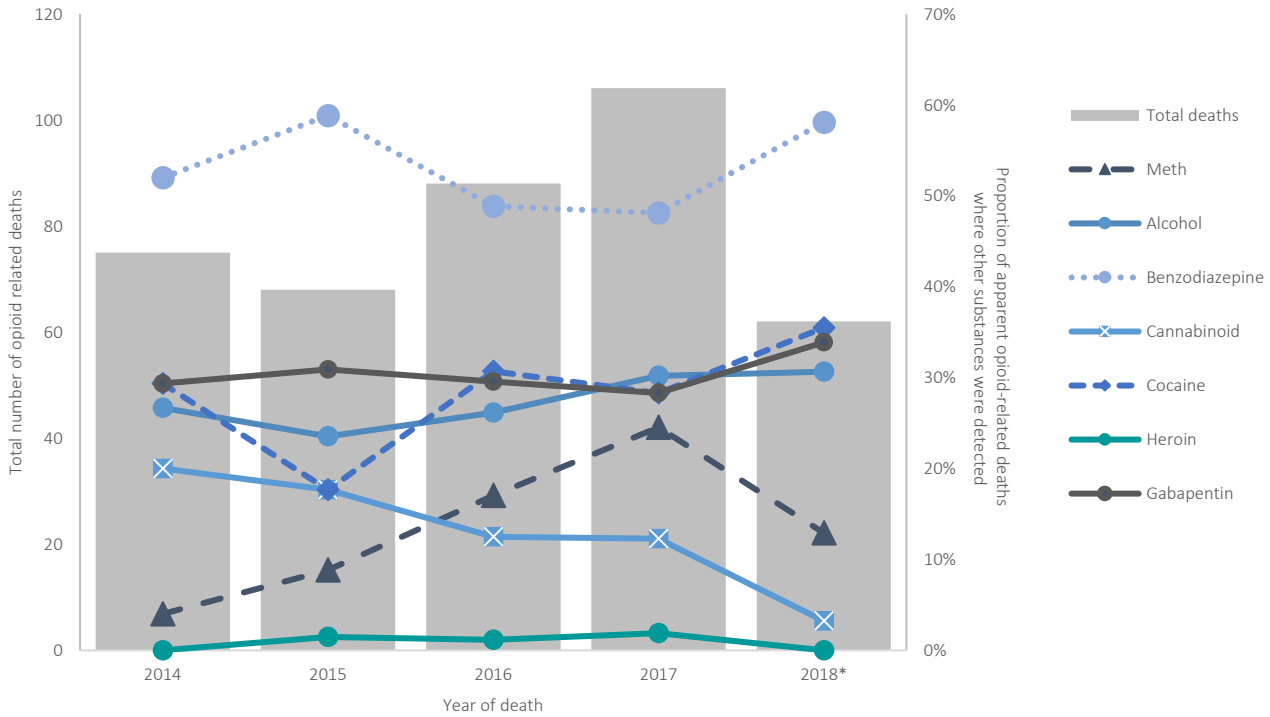

Figure 12: Total number of opioid related deaths AND annual proportion of apparent opioid-related deaths in Manitoba where other drugs (methamphetamine, alcohol, benzodiazepine, cannabinoid, and cocaine) were detected in the toxicology results, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018*)
*Note: Data for 2018 is incomplete.

Current efforts to respond to opioid use and overdose

This section provides a high-level overview of activities to address opioids use and overdose in Manitoba.

Naloxone kit orders by distribution sites

Source: Materials Distribution Agency

- In 2018, 1,070 naloxone kits were shipped from Manitoba's Materials Distribution Agency (MDA).
    - In comparison, 1,595 naloxone kits were shipped in 2017 – see Figure A.2 in Appendix A.
- Since the initiation of the program, the median number of units shipped per month is 10 units.
    - Shipments have ranged from zero[6] (in December of 2017) to 270 (in January of 2017) units per month.

Distribution of Naloxone kits to individuals

Source: Take Home Naloxone Program

- In 2018, 546 take-home naloxone kits were distributed to individuals in the community.
    - In comparison, 955 kits were distributed in 2017 – see Table A.11 in Appendix A.
- There are currently 90 distribution sites in Manitoba.
    - Thirteen sites (14%) have reported the number of kits they have distributed.

Disrupting drug supply in the province

Source: Drug Analysis Canada, Health Canada

The Drug Analysis Service (DAS) of Health Canada operates laboratories across Canada to analyze suspected illegal drugs seized by Canadian police forces and the Canada Border Services Agency. The laboratories receive over 110,000 samples per year, confirming the identity and in some cases the purity of the controlled substances seized by police.

- In 2018, 3,652 exhibits were submitted for analysis in Manitoba – this represents a 10% increase over last year – cocaine (n=1084) was the top controlled substance identified in 2018, followed by cannabis (n=910) and methamphetamine (n=834) – see Figure 13.
- This year, 300 opioids were identified (this is comparable to 2017, where 301 illegal opioids were identified or tracked in Manitoba) and 42% were fentanyl or fentanyl analogues (Figure 14).
    - From all samples containing heroin, 22% also contained fentanyl.
- There was an increase in 2018, compared to last year for the following substances: Methamphetamine, Cocaine, Fentanyl, Oxycodone, Morphine, Meoc Fentanyl, Cyclopropyl fentanyl, and other analogues.
- There was a decrease in 2018, compared to last year for the following substances: Heroin, Carfentanil, Acetyl Fentanyl, Furanyl Fentanyl, and Codeine.
- The following were newly identified substances: Methoxyacetyl fentanyl, P-methylacetyl fentanyl, and 25c-nboh.

[6] No orders were placed for naloxone kits in the month of December (2017).

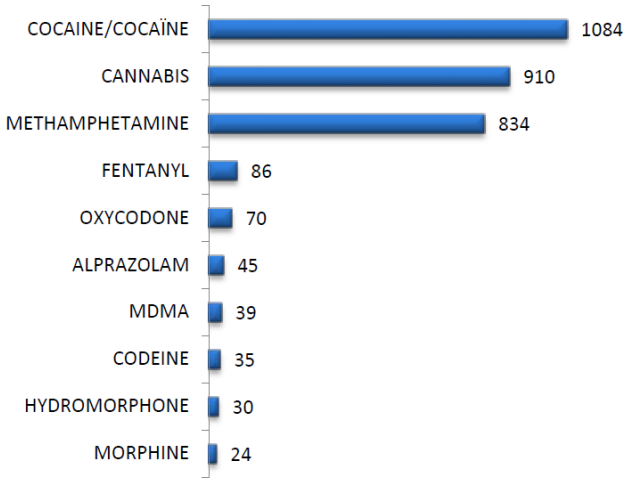

Figure 13: Number of controlled substances identified or tracked in Manitoba, Drug Analysis Service, Health Canada (January 1 – December 31, 2018)

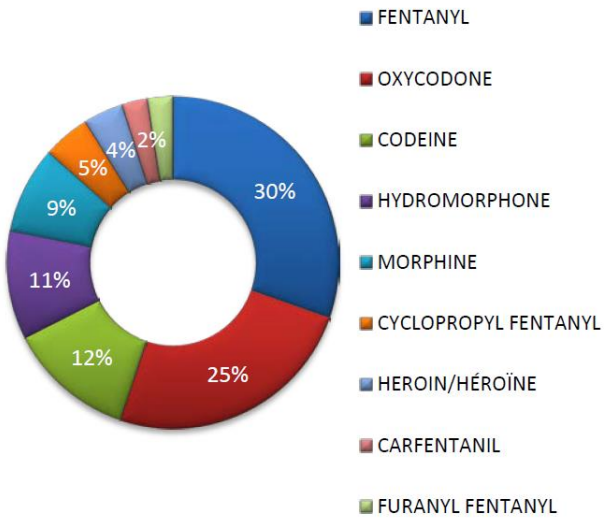

Figure 14: Proportion of opioids identified or tracked in Manitoba, Drug Analysis Service, Health Canada (January 1, 2017 – December 31, 2018)

Conclusion

Across the country, harms related to opioid use and overdose continues to have devastating effects on families and communities. Manitoba Health, Seniors and Active Living has been working closely with partners to collect and share data with stakeholders, to monitor trends related to opioid use, overdose, related- harms and response efforts.

As of the third quarter of 2018, the following **changes in trends** were identified:

- Patterns of opioid use and overdose in Manitoba:
  - In northern and rural Manitoba, from the fourth quarter of 2017 (October to December) to the third quarter of 2018 (July to September), the number of individuals administered naloxone by a bystander or **Emergency Medical Services** after a suspected opioid overdose decreased from 12 individuals to 1 individual. In the fourth quarter of 2018 (October to December) however, this number increased to 6 individuals.
  - A change in the drugs of choice is noted among individuals who overdosed on opioids and reported the overdose through the **Take Home Naloxone Kit Program**. The number of individuals who reported using crystal meth has decreased from 2017 to 2018, while those who reported using heroin and cocaine/crack has increased:
    - crystal meth: 4% in 2018 versus 14% in 2017
    - heroin: 20% in 2018 versus 4% in 2017
    - cocaine/crack: 9% in 2018 versus 5% in 2017
  - There was a decrease in the number of **Manitobans prescribed** Fentanyl, Meperidine, Morphine, and Oxyneo since the last quarter, while the prescription of Generic Oxycontin, and Hydromorphone increased since the last quarter.

- Health-related harms from opioid use and/or overdose
  - In 2018, the rate and number of individuals suspected of an overdose arriving at an **emergency department or urgent care facility** in Manitoba was lower compared to 2017, but slightly higher than in 2016.

  - In 2018, the rate and number of **opioid poisoning hospitalizations** was lower compared to 2017.
    - In 2018, individuals between 45 and 64 years made up the largest proportion of opioid poisoning hospitalizations, while in 2017, individuals between 25 and 44 years made up the highest proportion of all hospitalizations
  - The median age of individuals who **died of an apparent opioid-related overdose** in 2018 is slightly higher than in previous years: 44 years in 2018, 38 years in 2017, and 37 years in 2016.
    - Between 2014 and 2017, methamphetamine detected in toxicology results of individuals who died from an apparent-opioid overdose increased (from 4% to 25%). In 2018, this is 13% - note that 2018 deaths are still under investigation

- <u>Current efforts to respond to opioid use and overdose</u>
  - In 2018, 525 less take-home **naloxone kits were shipped** from Manitoba's Materials Distribution Agency to distribution sites, in comparison to 2017.
  - In 2018, 409 less **take-home naloxone kits were distributed to individuals** in the community, in comparison to 2017.
  - In 2018, there was a 10% increase in the number of exhibits (**suspected illegal drugs seized** by Canadian police forces and the Canada Border Services Agency) submitted for analysis in Manitoba.
    - There was an increase for the following substances since last year: Methamphetamine, Cocaine, Fentanyl, Oxycodone, Morphine, Meoc Fentanyl, Cyclopropyl fentanyl, and other analogues.
    - There was a decrease in 2018, compared to last year for the following substances: Heroin, Carfentanil, Acetyl Fentanyl, Furanyl Fentanyl, and Codeine.

The following are **trends we continue to see into the fourth quarter** of 2018:

- The highest proportion of suspected opioid overdoses where naloxone was administered by the Winnipeg Fire and Paramedic Services continues to be among individuals 20 and 29 years and 30 and 39 years in 2018 and 2017.
- Fentanyl continues to be the most commonly reported drug used by the person who overdosed and reported through the take home naloxone kit program.
- Since 2012, the proportion of females dispensed a prescription opioid has been consistently greater than males, this trend is seen into 2018.
- The highest proportion of individuals that were dispensed prescription opioids from a community pharmacy in 2018 were between 45 and 64 years, followed by 65 years and older, this has been a trend since 2012.
- Since 2016, there has been a higher proportion of deaths in males compared to females.
- Benzodiazepines, cocaine, gabapentin, alcohol and meth continue to be detected in toxicology results of individuals who died from an opioid-overdose intoxication since 2016.

Epidemiology and Surveillance of Manitoba Health, Seniors and Active Living, Government of Manitoba, will continue to monitor these trends and continue to work closely with regional, provincial, and national stakeholders.

APPENDIX A: ADDITIONAL TABLES AND FIGURES

Patterns of opioid use and overdose in Manitoba

Opioid overdoses in the community

Source: Take Home Naloxone Kit Program

Table A.1: Characteristics of individuals and overdose event where a take-home naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1 – December 31, 2018)

Characteristics	Categories	Female (n=16)	Male (n=29)	Unknown (n=1)	Total (N=46)
Age group (years)	12-18	1	0	0	1
	19-30	10	14	1	25
	31-40	3	7	0	10
	41-50	2	5	0	7
	51-60	0	2	0	2
	Unknown	0	1	0	1
Location where the overdose event occurred	Private Residence	13	25	1	39
	Street/Alley/Park	1	3	0	4
	Other or Prefer not to say	2	1	0	3
Region in which the overdose event took place	Winnipeg RHA	10	14	1	25
	Prairie Mountain Health	2	4	0	6
	Interlake-Eastern RHA	0	2	0	2
	Northern RHA	2	1	0	3
	Southern Health – Santé Sud	0	1	0	1
	Unknown/Prefer not to say/Out of province	2	7	0	9
Substance type reported *(self reported; not mutually exclusively; no testing was done to confirm the drug)*	Fentanyl				16
	Heroin[a]				9
	Cocaine/crack				4
	Morphine				5
	Oxycodone				4
	Carfentanil				3
	Dilaudid				3
	Blotters				3
	Other substances[b]				8

[a] Includes a report of “Heroin cut with fentanyl” and “Maybe Heroin”

[b] Other substances include: Crystal Meth, Methadone, Alcohol, Benzodiazepine, Hydromorphone, and “Some sort of opiate”

Table A.2: Characteristics of emergency response to overdose events where a take-home naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1 – December 31, 2018)

Variable	Description	Female (n=16)	Male (n=29)	Unknown (n=1)	Total (N=46)
Was 911 called?	Yes	6	11	0	17
	No	8	15	1	24
	Unknown	2	3	0	5
Reason(s) for not calling 911[a]	No phone	1	2	0	3
	Worried police would come	2	3	1	6
	Thought the person would get better on their own	3	5	0	8
	Other [b]	2	4	0	6
Actions taken during overdose[a]	Stimulate (sternal rub/yelling)	6	12	0	18
	Rescue breathing	7	10	0	17
	Chest compressions	4	9	1	14
	Unknown	2	5	0	7
Number of naloxone doses given	One	6	11	1	18
	Two	6	10	0	16
	Three	1	6	0	7

[a] Results are not mutually exclusive.

[b] Other reasons included: "felt they didn't need to, seasoned with naloxone", "girlfriend of person OD'ing did not want her to call out of fear of police", "I knew what I was doing", "nurse was present at overdose", "pt. refused to go to ER", "so far away. No point in calling, minimum of 45 min wait"

Source: Winnipeg Fire and Paramedic Services

Table A. 3: Number of suspected opioid overdose cases receiving naloxone by year*, Winnipeg Fire and Paramedic Service (January 1, 2012 – December 31, 2018)

Year	Female		Male		Total	
	n	%	n	%	N	%
2012	171	47.9	186	52.1	357	100.0
2013	144	46.9	163	53.1	307	100.0
2014	153	44.3	192	55.7	345	100.0
2015	198	47.3	221	52.7	419	100.0
2016	313	43.8	402	56.2	715	100.0
2017	299	40.6	437	59.4	736	100.0
2018	285	48.1	307	51.9	592	100.0
Total	*1,563*	*45.0*	*1,908*	*55.0*	*3,471*	*100.0*

*Includes only those greater than 9 years of age.

Source: Medical Transportation Coordination Centre

Table A.4: Number of suspected opioid overdose cases administered naloxone in rural and northern Manitoba by Regional Health Authority (RHA), Medical Transportation Coordination Centre (December 1, 2016 – December 31, 2018)

	2016 *(Only Dec)*	2017	2018	Total
Interlake-Eastern RHA	0	8	9	17
Northern RHA	0	3	2	5
Prairie Mountain Health	0	17	7	24
Southern Health-Santé Sud	0	4	3	7
Winnipeg RHA*	0	0	0	0

**This includes the Churchill area only. Overdoses reported within the City of Winnipeg is included in the WFPS data*

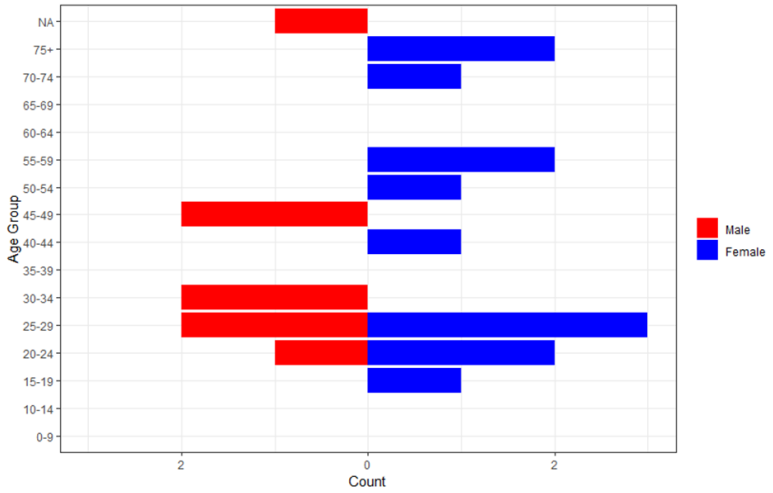

Figure A.1: Age pyramid of suspected opioid overdose cases administered naloxone in rural and northern Manitoba by sex, Medical Transportation Coordination Centre (January 1 – December 31, 2018)

Health-related harms from opioid use

Overdoses presenting to Emergency Department and Urgent Care Facilities

Source: Emergency Department Information System

Table A.5: Characteristics of suspected overdose cases arriving at emergency departments and urgent care facilities in Manitoba, Emergency Department Information System (January 1 – December 31, 2018)

	Female		Male		Total	
	n	%	n	%	N	%
Total	1093	68	517	32	1610	100%
Age group (years)						
10-14	118	10.8%	25	4.8%	143	8.9%
15-19	288	26.3%	89	17.2%	377	23.4%
20-24	150	13.7%	80	15.5%	230	14.3%
25-29	164	15.0%	61	11.8%	225	14.0%
30-34	86	7.9%	65	12.6%	151	9.4%
35-39	79	7.2%	48	9.3%	127	7.9%
40-44	52	4.8%	50	9.7%	102	6.3%
45-49	41	3.8%	27	5.2%	68	4.2%
50-54	50	4.6%	17	3.3%	67	4.2%
55-59	31	2.8%	21	4.1%	52	3.2%
60-64	13	1.2%	15	2.9%	28	1.7%
65 and older	21	1.9%	19	3.7%	40	2.5%
RHA of Service						
Winnipeg RHA	777	71.1%	371	71.8%	1148	71.3%
Prairie Mountain Health	119	10.9%	66	12.8%	185	11.5%
Northern RHA	91	8.3%	38	7.4%	129	8.0%
Southern Health – Santé Sud	67	6.1%	23	4.4%	90	5.6%
Interlake-Eastern RHA	39	3.6%	19	3.7%	58	3.6%

*Data includes Canadian Triage and Acuity Scale (CTAS) 1 & 2 and those greater than 9 years of age only.

Opioid Poisoning Hospitalizations

Source: Hospital Separation Abstracts

Table A.6: Number and crude rate (per 100,000 population) of opioid poisoning hospitalizations in Manitoba by sex, Manitoba Health, Seniors and Active Living (January 1, 2008 – December 31, 2018)

Year	Female		Male		Total	
	n	Crude rate	n	Crude rate	N	Crude rate
2008	62	10.2	38	6.4	100	8.3
2009	61	9.9	39	6.5	100	8.2
2010	65	10.4	37	6.1	102	8.3
2011	80	12.7	71	11.5	151	12.1
2012	85	13.2	40	6.4	125	9.8
2013	65	10.0	51	8.0	116	9.0
2014	75	11.4	59	9.1	134	10.3
2015	70	10.5	51	7.8	121	9.2
2016	65	9.6	58	8.7	123	9.2
2017	82	12.0	70	10.4	152	11.2
2018	51	7.4	46	6.8	97	7.1

Table A.7: Number of opioid poisoning hospitalizations in Manitoba by age group, Manitoba Health, Seniors and Active Living (January 1, 2008 – December 31, 2018)

Year	24 years old or younger	25 - 44 years old	45 - 64 years old	65 years old or older	Total
2008	14	27	37	22	100
2009	11	34	31	24	100
2010	13	27	37	25	102
2011	25	59	35	32	151
2012	20	38	43	24	125
2013	18	44	34	20	116
2014	16	47	51	20	134
2015	15	42	49	15	121
2016	16	32	48	27	123
2017	28	53	43	28	152
2018	20	26	36	15	97

Table A.8: Number of opioid poisoning hospitalizations in Manitoba by opioid type, Manitoba Health, Seniors and Active Living (January 1, 2008 – December 31, 2018)

Year	Poisoning by heroin	Poisoning by methadone	Poisoning by opium	Poisoning by other opioids	Poisoning by synthetic opioids	Poisoning by unspecified/other narcotics	Total
2008	0	5	0	66	7	22	100
2009	1	7	1	69	4	18	100
2010	0	2	1	67	7	25	102
2011	0	13	0	102	12	24	151
2012	1	6	0	91	6	21	125
2013	1	7	0	87	9	12	116
2014	1	6	1	99	4	23	134
2015	0	8	0	81	12	20	121
2016	0	9	0	76	17	21	123
2017	0	13	0	91	23	25	152
2018	1	4	0	72	10	10	97

Table A.9: Number and crude rate (per 100,000 population) of opioid poisoning hospitalizations in Manitoba by Regional Health Authority, Manitoba Health, Seniors and Active Living (January 1, 2008 – December 31, 2018)

Year	Interlake-Eastern RHA		Northern RHA		Prairie Mountain Health		Southern Health-Santé Sud		Winnipeg RHA		Manitoba	
	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	N	Rate
2008	12	10.1	5	7.1	33	20.6	6	3.5	44	6.5	100	8.3
2009	15	12.5	12	16.7	22	13.7	10	5.8	41	6.0	100	8.2
2010	14	11.6	10	13.8	29	17.8	17	9.7	32	4.6	102	8.3
2011	14	11.5	15	20.4	40	24.4	22	12.2	60	8.4	151	12.1
2012	15	12.0	17	22.9	27	16.3	14	7.6	52	7.2	125	9.8
2013	12	9.5	22	29.4	32	19.1	15	8.0	35	4.8	116	9.0
2014	15	11.8	11	14.6	42	25.0	17	8.9	49	6.6	134	10.3
2015	21	16.5	11	14.5	36	21.4	2	1.0	51	6.8	121	9.2
2016	16	12.5	10	13.1	35	20.6	10	5.1	52	6.8	123	9.2
2017	25	19.4	16	20.8	32	18.7	11	5.5	68	8.7	152	11.2
2018	6	4.6	1	1.3	22	12.9	5	2.4	63	8.1	97	7.1

Fatal overdoses (mortality)

Source: Office of the Chief Medical Examiner (OCME)

Table A.10: Characteristics of individuals who died from an apparent opioid-related overdose in Manitoba, Office of the Chief Medical Examiner (January 1 – December 31, 2018*)

	Male		Female		Total	
	n	%	n	%	N	%
Total	*34*	*55%*	*28*	*45%*	*62*	*100%*
Place of death						
Home	27	79%	21	75%	48	77%
Health care facility	3	9%	7	25%	10	16%
Public setting	2	6%	0	0%	2	3%
Other	2	6%	0	0%	2	3%
Place of overdose						
Home	26	76%	23	82%	49	79%
Public Setting	4	12%	2	7%	6	10%
Health care facility	1	3%	2	7%	3	5%
Other	2	6%	0	0%	2	3%
Unknown	1	3%	1	4%	2	3%
Manner of death						
Unintentional (accident)	24	71%	19	68%	43	69%
Undetermined	9	26%	7	25%	16	26%
Intentional (suicide)	1	3%	2	7%	3	5%

*Deaths that occurred in 2018 are still under review.

Current efforts to respond to opioid use and overdose

Naloxone kit orders by distribution sites

Source: Materials Distribution Agency

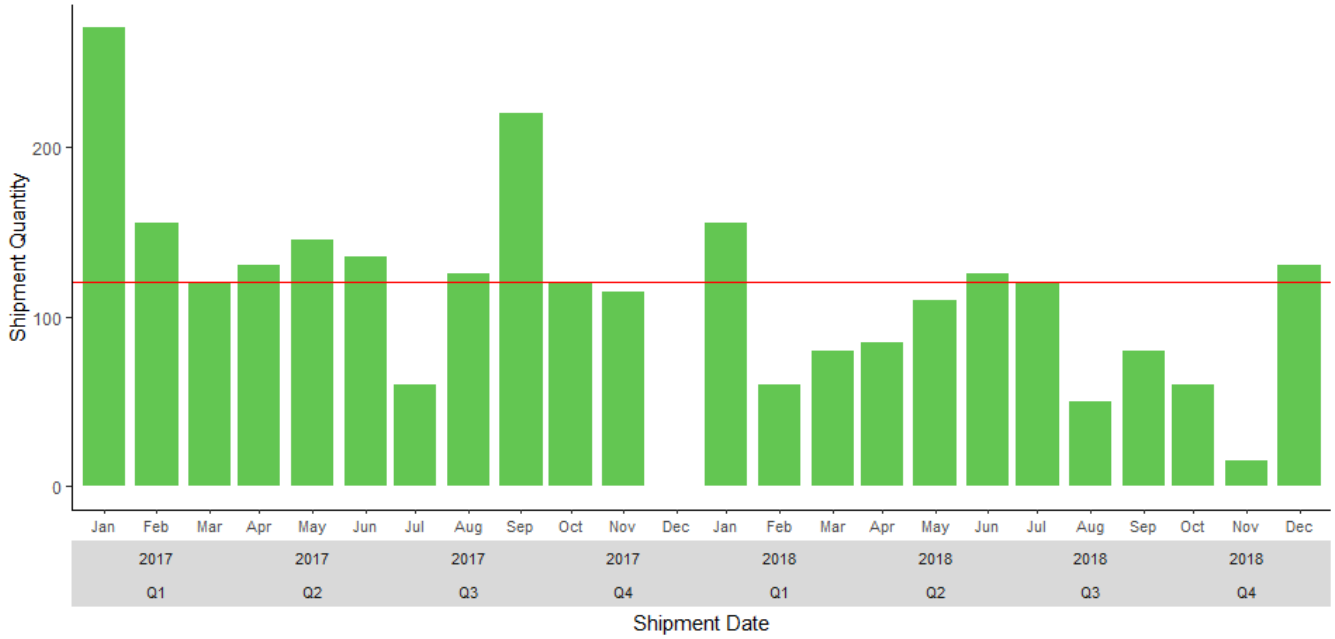

Figure A.2: Number of naloxone kits shipped to distribution sites by the Materials Distribution Agency (MDA), Public Health Information Management System, PHIMS (formerly known as Panorama) (January 1, 2017 – December 31, 2018)

Distribution of Naloxone kits to individuals

Source: Take Home Naloxone Program

Table A.11: Number of take-home naloxone kits distributed to individuals in the community, Manitoba Health, Seniors and Active Living (January 1, 2017 – December 31, 2018)

	Total kits distributed	First kits[7] (new recipients)
2017 Q1 (January 1 – March 31, 2017)	259	209
2017 Q2 (April 1 – June 30, 2017)	227	160
2017 Q3 (July 1 – September 30, 2017)	274	191
2017 Q4 (October 1 – December 31, 2017)	195	150
2017 Total	955	710
2018 Q1 (January 1 – March 31, 2018)	138	100
2018 Q2 (April 1 – June 30, 2018)	234	185
2018 Q3 (July 1 – September 30, 2018)	98	58
2018 Q4 (October 1 – December 31, 2018)	76	37
2018 Total	546	380

APPENDIX B: DATA SOURCE BACKGROUND AND INTERPRETATION NOTES

Provincial Take-Home Naloxone Program data

The Healthy Sexuality and Harm Reduction program in Winnipeg RHA launched a Take-Home Naloxone program in January 2016 in order to increase access to opioid overdose prevention and response resources among people with a high risk of opioid overdose. It was later extended to the entire province in January 2017. A summary of take-home naloxone kit components, distribution site criteria, and training manual are available online at www.gov.mb.ca/fentanyl. An up-to-date list of take-home naloxone distribution sites in Manitoba is available at www.streetconnections.ca. More information regarding the program can also be found at: www.gov.mb.ca/fentanyl/opioid-overdose

Box B.1 - Interpretation notes regarding the *Provincial Take-Home Naloxone Program data*

When a take-home naloxone kit dispensed from a distribution site is used by a lay responder in an overdose event, an overdose response form is completed by the staff replacing the kit (available online). It is possible that more kits were used in overdose events than were reported. Clients often return to a distribution site and report the event months after it occurred, thus retrospective reporting tends to cause temporal gaps in data. The data presented in this report are drawn from these overdose events for which data was collected.

Winnipeg Fire & Paramedic Service data (available for Winnipeg RHA only)

Winnipeg Fire and Paramedic Services (WFPS) will administer naloxone when it is suspected (by objective clinical assessment of patient vital signs and presentation) that an opioid overdose has occurred. The analysis of the WFPS is completed by the Winnipeg RHA for the quarterly report. Winnipeg RHA works closely with WFPS to continually explore mechanisms that provide data to inform public health programming in the region.

Box B.2 - Interpretation notes regarding Winnipeg Fire and Paramedic Service data

No drug or laboratory testing is undertaken by WFPS to confirm whether ingestion of an opioid has actually occurred. As a result, it is likely that a number of reported naloxone related calls for service are not opioid-related.

Medical Transportation Coordination Centre data (available for rural and northern Manitoba)

The Medical Transportation Coordination Centre (MTCC) is a command and control centre for the dispatch of emergency medical services in rural and northern Manitoba. MTCC began collecting data relating to suspected opioid events in December 2016 to assist with the provincial opioid misuse and overdose surveillance system.

Box B.3 - Interpretation notes regarding the Medical Transportation Coordination Centre data

MTCC Data is collected at the moment of the 911 call, where information is solicited from the caller (1st or 2nd party). It is important to note that callers may not be forthright or knowledgeable with the information provided, and therefore the data may be subject to error and inaccuracy.

A suspected overdose call is defined by the International Academy of Emergency Dispatch (medical priority dispatch overdose problem type/determinate).

MTCC naloxone administration data is gathered from field paramedics that respond to the dispatched 911 call. If naloxone is administered, paramedics/first responders report back to MTCC to be recorded. Situations where paramedics are dispatched to an opioid-related call will be recorded as an opioid-related call, regardless of actual outcome upon arrival.

In the case where a paramedic is responding to a non-opioid related call and naloxone is administered, this would not be recorded in the opioid-related call count. However, it will be recorded that naloxone was administered. Therefore, the number of naloxone administered is not contained within the count of opioid-related calls.

Northern RHA

Emergency Medical Services within the Northern RHA consists of both regionally and privately run EMS. It should be noted that many remote communities do not have access to land EMS.

Surveillance Definition:

All cases within the Northern RHA from January 1, 2017 onward where Emergency Medical Services (EMS) administer naloxone and/or cases where EMS arrive on scene and are informed that another first responder administered naloxone. This includes all cases where Northern Emergency Medical Services responded to: may include Saskatchewan residents where events occurred in the NHR, or NHR residents where events occurred in bordering Saskatchewan communities that NHR EMS serves.

Box B.4 - Interpretation notes regarding the EMS data in the Northern RHA

Emergency Medical Services within the Northern RHA consists of both regionally and privately run EMS. It should be noted that many remote communities do not have access to land EMS.

EMS data in Northern RHA include reporting from 12 of the 15 EMS services in this region. Between January 1 and July 1, 2017: Only cases from NHR run EMS and Thompson Fire services are included. From July onward non-Northern RHA run EMS services have been included but reporting has not been complete. EMS does not have electronic patient care reporting capabilities and so identification of those cases in which Naloxone was administered is initially done through manual review of forms.

Calls to Manitoba Poison Centre

The Manitoba Poison Centre (MPC) is a telephone toxicology consultation service that provides expert poison advice 24 hours a day to the public and healthcare professionals throughout Manitoba. MPC data is used in this report to describe the opioid-related calls received.

Box B.5 – Interpretation notes for Manitoba Poison Centre data

It is important to note that since overdose poisoning are not reportable diseases in Manitoba, there is no obligation for a patient or health care provider to call MPC to help manage an exposure. In fact, emergency room doctors are generally more comfortable with management and the use of naloxone. Therefore, MPC numbers may be an undercount and should not be relied on to provide a complete picture of the extent of the problem.

The substance about which the caller inquired may not have been verified. Certainly, what was purchased on the streets may not be what is advertised. It is entirely possible that number of calls recorded by MPC can be double counted from the same patient, as each call represents a single opioid type taken. Opioid-related calls recorded by MPC are not all necessarily due to the misuse of opioids; it is possible that intentional suicide may be the reason for the opioid exposure and call to MPC.

Drug Program Information Network data

Drug Program Information Network (DPIN) database was used to measure the prescription opioid dispensation from community pharmacies in Manitoba. DPIN is an electronic, on-line, point-of-sale prescription drug database that has connected Manitoba Health, Seniors and Active Living to all pharmacies in Manitoba since 1995. The DPIN system generates complete drug profiles for all out-of-hospital transactions at the point of distribution.

Box B.6 – Interpretation notes regarding Drug Program Information Network data
Prescription opioids included in the analysis are fentanyl, oxyneo, generic oxycontin, hydromorphone, meperidine, and morphine. Opioids dispensed as part of long term care and palliative care programs are excluded from the analysis.

Morphine milligram equivalent (MME) per day are used to measure the quantity of prescription opioids dispensed. The MME is the strength of an opioid in comparison to the strength of morphine. The MME per day is calculated by taking total MME divided by day supply of opioid. Average MME per day is grouped as <50 MME/day, 50-89 MME/day, 90-199 MME/day, and ≥200 MME/day.

DPIN information excludes clients registered in palliative care program, home cancer drug program, and nursing homes. Analysis does not include drugs dispensed in acute care hospitals. Data reports drugs dispensed, not used.

To ensure that claims were new, we look back to month 0 or Jan 1, 2017. Using the Minimum Dispensed Date in Quarter 4, we would capture the earleast Rx for that patient

Emergency department information system data
The Emergency Department Information System (EDIS) contains information on a patient's experience as he or she progresses through an emergency department from the first point of entry at the triage desk through to discharge. Emergency department admissions due to overdose at CTAS 1 – Resuscitation and 2 - Emergent in all RHAs are described using EDIS data.

Outside of the Winnipeg Regional Health Authority, the following sites are captured in the EDIS system:
Selkirk (since 2016), Brandon (since 2016), Bethesda (Since March 2017), Boundary Trails (since March 2017), Dauphin (since Nov 2017), Flin Flon (since June 2017), Portage (since March 2017), St. Anthony's (The Pas) (since June 2017), and Thompson (since June 2017).

Box B.7 – Interpretation notes regarding Emergency Department Admissions data
EDIS data used in this report are not specific to opioid overdose, but are a reflection of overdose events of all types. At this point in time, EDIS does not collect information on the suspected substance involved in an overdose admission, nor is confirmatory drug testing routinely undertaken. The chief complaint/visit reason of overdose used to extract the data for this report is based upon the triage nurse's initial impression when the patient first arrives and overdoses may not always be initially recognized. The result is that the number of overdose admissions is likely to be undercounted in this report.

Hospital separation abstracts
Manitoba Health, Seniors and Active Living's (MHSAL) population-based hospital separation abstract database is used to measure opioid poisoning hospitalizations. The following ICD-10-CA (International Classification of Diseases) codes were used to identify opioid poisoning hospitalizations [6]: T40.0 - Poisoning by opium, T40.1- Poisoning by heroin, T40.2 -Poisoning by other opioids (includes morphine, oxycodone, hydrocodone, and codeine), T40.3 - Poisoning by methadone, T40.4 - Poisoning by synthetic opioids (includes fentanyl, propoxyphene, and meperidine), and T40.6 - Poisoning by unspecified/other narcotics. Codes with a prefix of Q, indicating a suspected diagnosis were excluded from the analysis.

Office of the Chief Medical Examiner's data
Office of the Chief Medical Examiner's (OCME) mortality data is used to describe the apparent opioid-related deaths in Manitoba. Data is gathered through chart reviews of the opioid-related deaths examined at OCME. This report

applies the definitions by the Public Health Agency of Canada to ensure consistency with other jurisdictions across Canada.

Box B.8 – Interpretation notes regarding data

An apparent opioid-related death is defined as an acute intoxication/toxicity death resulting from the direct effects of the administration of exogenous substance(s) where one or more of the substances is an opioid. The definition includes open (preliminary) and closed (certified) cases, both intentional and unintentional cases, and those with or without personal prescriptions.

Examples of fentanyl-related opioid(s) include the subtypes fentanyl, carfentanil, and furanyl-fentanyl. Examples of non-fentanyl-related opioid(s) include codeine, heroin, and morphine. Other substances include but are not limited to alcohol, benzodiazepines, and cocaine.

Manitoba's Materials Distribution Agency (MDA) - Panorama Inventory Management System data

Beginning in December 29, 2016, all eligible take-home naloxone kit distribution sites ordered naloxone kits directly from Manitoba's Materials Distribution Agency (MDA). The Inventory Management Module within Panorama (an electronic public health management system) was used by distribution sites to order naloxone kits.

Drug Analysis Service data, Health Canada

The Drug Analysis Service of Health Canada operates laboratories across Canada that are employed to analyze suspected illegal drugs seized by Canadian police forces and the Canada Border Services Agency. The laboratories receive over 110,000 samples per year, confirming the identity and in some cases the purity of the controlled substances seized by police.

Box B.9 – Interpretation notes regarding Drug Analysis Service data

The Drug Analysis Service of Health Canada aggregated data was used to summarize the illegal opioids identified or tracked in Manitoba. It should be noted that a single sample may contain more than one substance. For the purpose of this report, U-47700 and W-18 were counted as opioids.

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In the spirit of honour, respect, and reconciliation, Manitoba Health, Seniors and Active Living (MHSAL) would like to acknowledge these provincial lands. We are in Treaty territories One through Five on the homelands of the Anishinaabeg Oji-Cree and Ojibwe, the Cree, Dakota, and Dené peoples, and on the homeland of the Métis Nation.

The *Surveillance of Opioid Use and Overdose in Manitoba: October 1 – December 31, 2018* report is the result of the ongoing efforts of a dedicated team of individuals throughout the province of Manitoba. Their combined efforts and expertise in the management of opioid misuse and overdose was necessary to produce this valuable report.

We kindly acknowledge the collaboration of the following organizations for providing the data for the opioid surveillance system:

- Addictions Foundation of Manitoba
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- Emergency Medical Services in the Northern RHA
- First Nations and Inuit Health Branch
- Health Canada
- Health Links/Info Santé
- Manitoba Health, Seniors and Active Living
- Manitoba Justice
- Manitoba Poison Centre
- Northern Regional Health Authority
- Medical Transportation Coordination Centre
- Winnipeg Regional Health Authority
- Winnipeg Fire and Paramedic Service