

**SURVEILLANCE OF OPIOID MISUSE
AND OVERDOSE IN MANITOBA:
JANUARY 1 – MARCH 31, 2018**



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

Active Living, Population and Public Health Branch

Active Living, Indigenous Relations, Population and Public Health Division

Manitoba Health, Seniors and Active Living

Publication date: November 1, 2018

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Suggested citation: Government of Manitoba, Manitoba Health, Seniors and Active Living, Epidemiology and Surveillance. (2018). Surveillance of Opioid Misuse and Overdose in Manitoba: January 1 – March 31, 2018.

HIGHLIGHTS:

Given the increasing concerns of harm associated with opioid misuse and overdose in Manitoba, a surveillance system was established in the beginning of 2017 by collaborating with a range of stakeholders. This report is based on available data as of the first quarter of 2018.

Apparent opioid-related deaths

2018 (January to March)

Deaths that occurred in 2018 are still under review. The following summary is based on available data at the time of report preparation.

- Between January 1 and March 31, 2018, there were 18* apparent opioid-related deaths in Manitoba (Figure 12) – a 5% decrease* since the last quarter (October to December 2017) (*see page 19*).
 - Fifty-six percent (56%)* of the deaths were among females.
 - The median* age of the individuals was 48 years (range: 21 to 64).
 - There were 3* apparent fentanyl-related deaths and in 1* additional death, carfentanil was detected in the toxicology results (cause of death determination is pending)

*These are preliminary numbers and are subject to change as toxicology results become available, and additional assessments are conducted.

2017 (January – December)

Preliminary determinations made at the outset of a death investigation often differs from those made once the investigation is complete. As a result, all data related to apparent opioid-related deaths occurring in 2017 were reviewed and reanalysed for this quarterly report. Numbers that have changed since the last report are bolded.

- There have been more deaths in 2017 (N=106; crude rate: **7.8 per 100,000 persons**), compared to 2014, 2015 and 2016 (*see page 19*).
 - There were **45** apparent fentanyl-related deaths (this includes both fentanyl-related opioids *only* and mix of fentanyl-related and non-fentanyl-related opioids).
 - In 2017, **33 of the 45** apparent fentanyl-related deaths included carfentanil (**73%**), in comparison to 40% (n=15) in 2016. **However, there has been a decline in apparent fentanyl-related deaths including carfentanil since the first quarter of 2017** (*see page 19*).
 - The proportion of crystal meth contributing to these deaths increased from 4% (n=3) in 2014 to **25%** (n=26) in 2017 (*see page 20*).
 - **In 2017, there were 192 drug-related deaths in Manitoba, 55% of which were opioid related. This is consistent with previous years (2014 – 2016)** (*see page 19*).

While the volume of apparent opioid-related deaths in Manitoba appears to be stable since the 3rd quarter of 2017, the proportion of methamphetamine contributing to these deaths and harm associated with opioid overdose (e.g. EMS response) continues to rise.

Overdose events (using naloxone administration as a proxy for opioid overdose)

- There were 131 suspected overdose cases receiving naloxone in the City of Winnipeg by Winnipeg Fire and Paramedic Service during the first quarter of 2018 – a 5% increase since the last quarter. Geographic distributions noticed in 2017, continue into 2018 with over half of the suspected overdose cases occurring in Downtown or Point Douglas community areas of Winnipeg (*see page 7*).
- In northern and rural Manitoba, nine cases were reported receiving naloxone either by an emergency medical service (EMS) provider or a by-stander – a 25% decrease since the previous quarter (October to December 2017) (*see page 9*).
- In the first quarter of 2018, of the 138 take-home naloxone kits distributed, 11 (8%) were reported back as having been used in the community during overdose events (*see page 11 – 14*).
 - In only 2 of the 11 (18%) overdose events, 911 or local emergency was called. The top two reported reasons individuals are choosing to not call 911 continues to be (*see Table 4, page 14*):
 - “worried police would come”, and
 - “thought the person would get better on their own”.

Opioid prescription dispensing

- Between January 1 and March 31, 2018, 9,088 Manitobans (57% female) were dispensed a prescription opioid from a community pharmacy (*see page 26 - 27*):
 - Compared to the first quarter of 2016 and 2017, the number of Manitobans dispensed an opioid is lower in the first quarter of 2018 (Table 7) (*see page 27*).
 - By Morphine Milligram Equivalent (MME) per day, the number of individuals (unique PHINs) that were dispensed a prescription for an opioid from a community pharmacy was less compared to the previous quarter (*see Figure A.14 and Figure A.15 on page 49*).

Illegal drug activity

- During the first quarter of 2018, a total of 1,110 samples were submitted for analysis in Manitoba, which represents a 43% increase over the last quarter (*see page 30*).
 - The top five controlled substances identified this quarter include: cocaine (n=234), cannabis (n=229), methamphetamine (n=179; same as last quarter), codeine (n=11), and morphine (n=10).
- During the first quarter of 2018, 60 opioids (22% decrease over the last quarter) were identified (Figure 25 – *see page 31*).
 - Other drugs of interest identified this quarter include U-47700¹ (n=1) and W-18² (n=1). U-47700 was last reported in Manitoba during the January to June 2017 analysis.

¹ U-47700 is a synthetic opioid known to be misused recreationally (street names include: “U4”, “pink”, and “fake morphine”) ([Alberta Health Services, 2018](#)).

² “W-18 was initially developed as a potential analgesic drug, there are currently no clinical applications in which W-18 is used. Despite this, it has been found in illegal street drugs, and has also been found in fake oxycodone pills, and in other drug products containing fentanyl” ([Alberta Health Services, 2018](#)).

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Naloxone Distribution

See [Appendix B](#) for interpretation notes on the Provincial Take-Home Naloxone Program and the Manitoba Materials Distribution Agency (MDA) data.

Provincial Take-Home Naloxone Program

- In the first quarter of 2018, there were 138 take-home naloxone kits distributed by 11 sites in Manitoba. This is the lowest compared to previous periods in 2017 (Table 1).

Table 1: Number of take-home naloxone kit distributed in Manitoba, Manitoba Health, Seniors and Active Living (January 1 – March 31, 2018)

	Total kits distributed	First kits ³ (new recipients)
2018 Q1 (January – March 2018)	138	100
<i>January</i>	55	44
<i>February</i>	58	42
<i>March</i>	25	14
2017 Q1 (January – March 2018)	259	209
2017 Q2 (April – June 2018)	227	160
2017 Q3 (July – September 2018)	274	191
2017 Q4 (October – December 2018)	195	150

Manitoba's Materials Distribution Agency (MDA)

- In the first quarter of 2018, 295 naloxone kits were ordered and shipped from the Manitoba's Materials Distribution Agency. This is slightly higher in comparison to the last quarter (October to December, 2017), but lower than the first three quarters of 2017:
 - 2017 Q1 (January – March 2017): n=545
 - 2017 Q2 (April – June 2017): n=410
 - 2017 Q3 (July – September 2017): n=405
 - 2017 Q4 (October – December 2017): n=235
- Since the initiation of the program, the median number of units shipped per month is 130 units (average=135). Shipments have ranged from zero (December 2017) to 270 (January 2017) units per month – Figure 1.

³ Individuals who were receiving a naloxone kit for the first time (not a replacement kit).

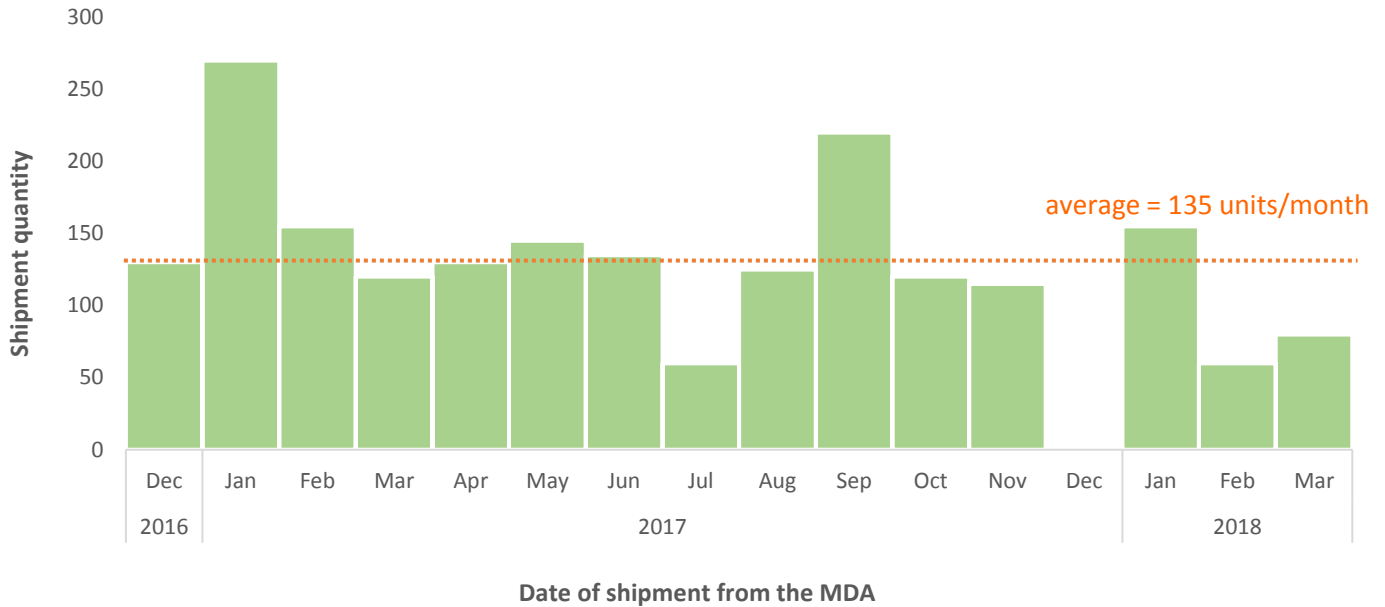


Figure 1: Number of naloxone kits shipped by the Materials Distribution Agency (MDA), Public Health Information Management System, PHIMS (formerly known as Panorama) (December 1, 2016 – March 31, 2018)

Naloxone Administration

See [Appendix B](#) for interpretation notes on Winnipeg Fire and Paramedic Service (WFPS), Medical Transportation Coordination Centre (MTCC), Northern regional health authority (RHA) and the provincial Take-Home Naloxone Program data.

Winnipeg Fire and Paramedic Service (WFPS)

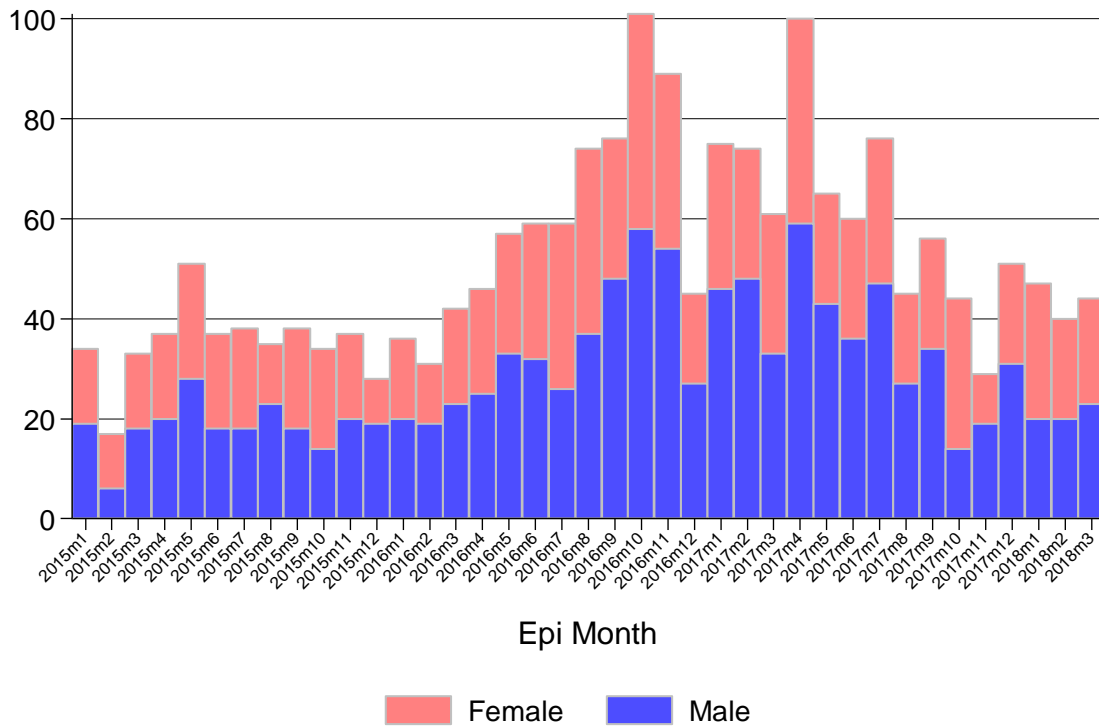
Demographics and Historical Trends

- Year to date (January 1 – March 31, 2018), there were 131 suspected overdose cases that were administered naloxone by the Winnipeg Fire and Paramedic Service (Figure 2); 52% (n=68) females, 48% (n=63) are within the 20-34 year age group (Figure 3).
 - In 2017, there were 736 suspected overdose cases (9.4 per 10,000) receiving naloxone. The number of cases reported in the fourth quarter of 2017 was less than the reports in any other quarter of 2017, and that of this quarter (January 1 – March 31, 2018):
 - 2017 Q1 (January – March 2017): n=210
 - 2017 Q2 (April – June 2017): n=225
 - 2017 Q3 (July – September 2017): n=177
 - 2017 Q4 (October – December 2017): n=124

Geographic Distribution

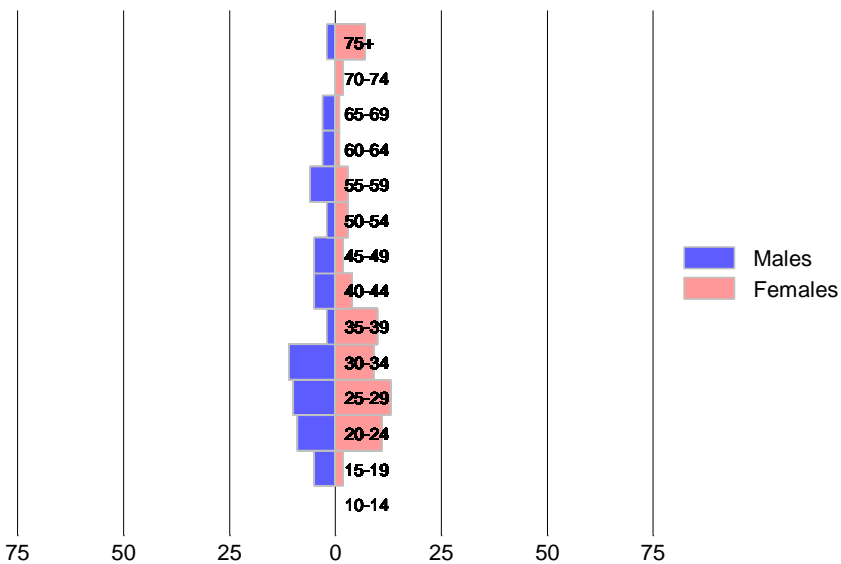
- Over half (57%) of the suspected overdose cases receiving naloxone in Winnipeg occurred in the Downtown or Point Douglas community areas. However, only 49% had residence postal codes in those communities ([Appendix A](#), Table A. 1).
 - In 2017, 57% of the suspected overdose cases receiving naloxone occurred in the Downtown or Point Douglas community areas and 43% had residence postal codes in those communities.

Additional supporting tables and figures can be found in [Appendix A](#) of this report.



*Data provided by WFPS; Includes only those greater than 9 years of age. Events up to 31mar2018

Figure 2: Number of suspected overdose cases receiving naloxone, Winnipeg Fire and Paramedic Service (January 1, 2015 - March 31, 2018)



*Data provided by WFPS; Includes only those greater than 9 years of age. Events up to 31mar2018

Figure 3: Age pyramid of suspected overdose cases receiving naloxone by sex, Winnipeg Fire and Paramedic Service (January 1 – March 31, 2018)*

Medical Transportation Coordination Centre (MTCC)

Suspected Overdose Calls in Northern and Rural Manitoba

- There were 54 suspected overdose events reported by MTCC in the first quarter of 2018 (January - March).
 - The number of suspected overdose events in the first quarter of 2018 was higher than the number of events in the third (n=43) and fourth quarter (n=38) of 2017 (Figure 4).
 - The median number of suspected overdose events reported per quarter has been 43 events.
- Similar to 2017 numbers, more than half of the events (Figure 5) in the first quarter of 2018 were among:
 - those in the 20 – 39 years age group (52%, n=28); and
 - females (61%, n=33).
- Since the fourth quarter of 2017, the number of suspected overdose events have almost doubled in all regional health authorities (RHAs), except in Prairie Mountain Health (Table 2).

Naloxone Administration⁴ in Northern and Rural Manitoba

Notes: The case definition was updated this quarter to collect bystander administration of naloxone, in addition to EMS administered naloxone – 2017 numbers are reflective of this. Naloxone administration counts are based on information either collected from the on scene caller or provided by the dispatched Emergency medical services (EMS) personnel to the MTCC during call back.

- In the first quarter of 2018, nine cases were reported⁵ receiving naloxone. The number of field administrations of naloxone has ranged between six and nine per quarter (median = 8.5):
 - 2017 Q2: n=10
 - 2017 Q3: n=10
 - 2017 Q4: n=12
 - 2018 Q1: n=9
- Between January 1 and March 31, 2018, as per EMS in Northern RHA data there were 7 cases in which EMS reported administering naloxone and/or that they arrived on scene and naloxone was already given by another first responder; 71% were females. More than half of these events (n=5) occurred in a private residence; 48% of the incidents occurred within communities that were not the individual's community of residence.
 - *In 2017*, as per EMS in Northern RHA data, there were 31 cases in which EMS reported administering naloxone and/or that they arrived on scene and naloxone was already given by another first responder; 52% were males. Half of these events (n=16) occurred in a private residence; 41% of the incidents occurred within communities that were not the individual's community of residence. This trend is consistent with other data sources (i.e. take-home naloxone overdose data and WFPS data).

⁴ MTCC began to track the naloxone administration for suspected overdose events as of May 21, 2017.

⁵ 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.

Surveillance of Opioid Misuse and Overdose in Manitoba: January 1 – March 31, 2018

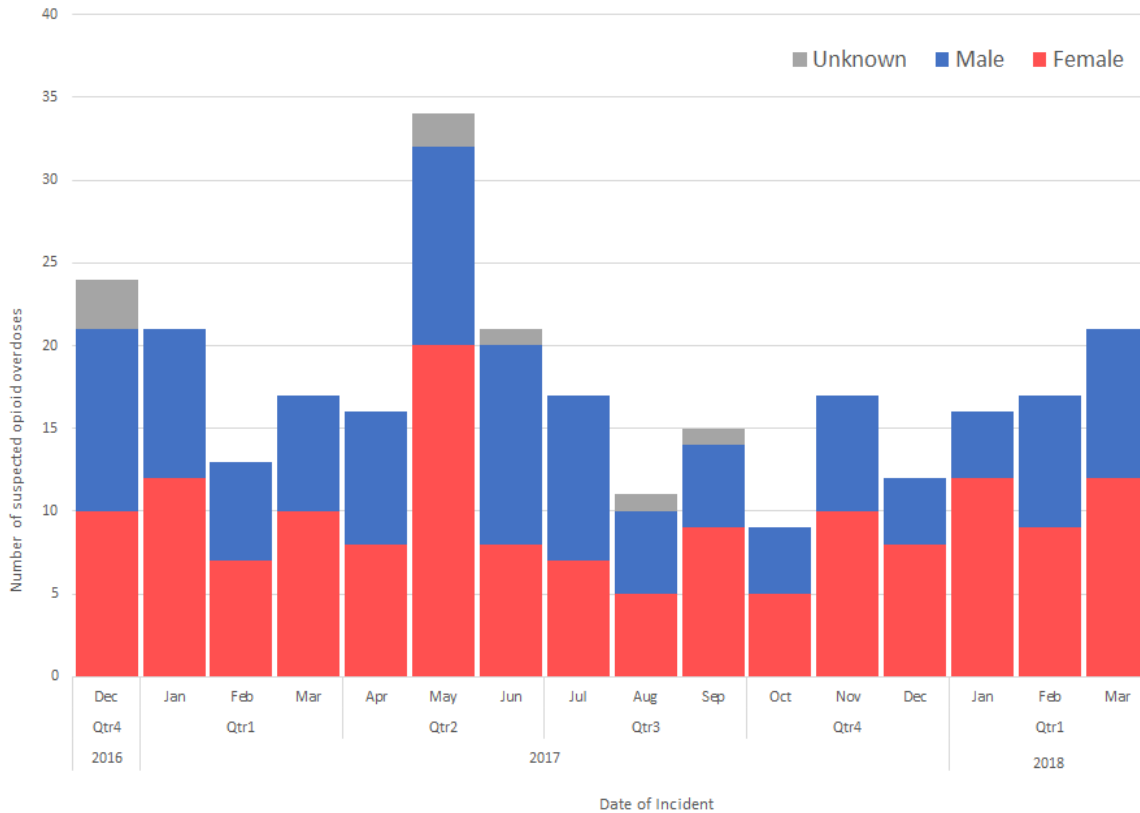


Figure 4: Number of suspected overdose events in rural and northern Manitoba by sex, Medical Transportation Coordination Centre (January 1 – March 31, 2018)

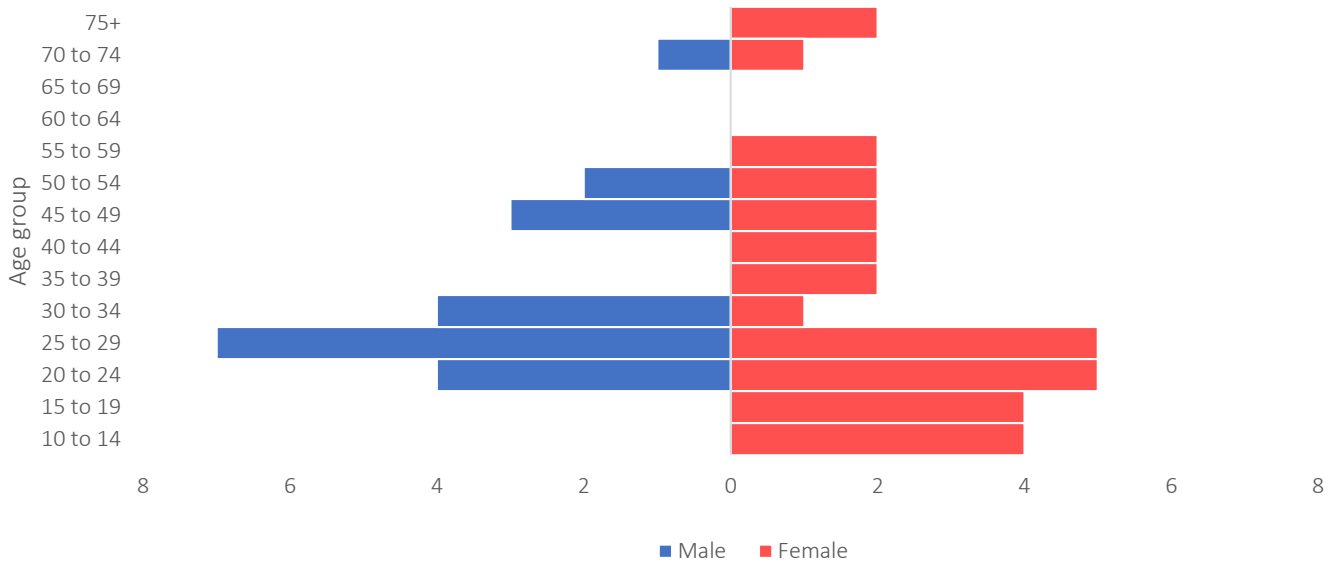


Figure 5: Age pyramid of suspected overdose events in rural and northern Manitoba by sex, Medical Transportation Coordination Centre (January 1 – March 31, 2018)

Table 2: Number of suspected overdose events in rural and northern Manitoba by Regional Health Authority (RHA), Medical Transportation Coordination Centre (October 1, 2016 – March 31, 2018)

	IERHA ^a	NRHA ^b	PMH ^c	SHSS ^d	WRHA* ^e	Total
2016						
Q4 (Oct – Dec)	5	3	8	8	0	24
2017						
Q1 (Jan – Mar)	13	8	11	19	0	51
Q2 (Apr – Jun)	26	5	31	9	0	71
Q3 (Jul – Sep)	14	3	13	13	0	43
Q4 (Oct – Dec)	7	5	19	7	0	38
2018						
Q1 (Jan – Mar)	14	8	17	14	1	54

*Includes the Churchill area only. The City of Winnipeg data is included in WFPS data.

^a IEHA: Interlake-Eastern RHA

^b NRHA: Northern RHA

^c PMH: Prairie Mountain Health

^d SHSS: Southern Health-Santé Sud

^e WRHA: Winnipeg RHA

Provincial Take-Home Naloxone Program

In 2018, 11 sites reported back on the take-home naloxone kits that were distributed in the community: 138 total kits (100 were first kits). There were 11 (8%) overdoses reported in the community for which we have information for through the take-home naloxone kit overdose response form⁶ (Figure 6).

- The majority of the naloxone kits were used by males (6 out of 10, 1 unknown, 60%) and occurred within a private residence (90%). Over half of the total take-home naloxone kits used were in the age group of 19 - 30 years (60%) (Table 3). This is comparable to 2017 numbers.
 - *In 2017:* The majority of the take-home naloxone kits were also used by males (n=60); overdose events mostly occurred within a private residence (70%); and approximately half of the total take-home naloxone kits used were in the age group of 19 - 30 years (47%) (Appendix A, Table A. 4 and Table A. 5 have updated 2017 data – 4 additional forms for overdoses that took place in 2017 were received).

Drugs involved (Table 4)

- Fentanyl was the most commonly reported drug during overdose (n=3).
- Carfentanil was reported on two occasions; blotters were reported in one additional overdose.
- There was one report of poly drug use in the first quarter of 2018, where methadone, oxycodone, and cocaine/crack was reported for a single overdose.
 - In 2017, 20% of overdoses (n=22) had reported poly drug use (there was a range of 2 to 4 drugs reported per individual).
- No reports of crystal meth, benzodiazepines, or alcohol were reported in these overdoses (11 of 11 responded “no”).

⁶ The form can be accessed online: https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6836_20171115.pdf

Overdose description

In most situations (n=9, 90%), the owner of the kit gave the naloxone to someone else. In one event, someone other than owner gave naloxone to the person who overdosed. In all 10 events, the person who gave the naloxone knew the person who overdosed (one preferred to not answer this question). In one event, the owner of the kit gave the naloxone to themselves.

Responding to the overdose

Four individuals who received the naloxone reported experiencing negative events: one mild withdrawal symptoms; two severe; one was aggressive. All 10 individuals reported that the person who received the naloxone survived the overdose (one individual did not complete this section).

Naloxone injection: answered by individuals only if they administered the naloxone injection

For 30% of individuals (n=3), it was their first time giving naloxone; for the remaining six people, it was not their first time. All individuals felt confident giving the naloxone and all felt that the kit content were easy to access and use. Most individuals received one (45%) or two doses (36%) of naloxone.

When asked what would prepare them better for responding to an overdose, the following responses were provided (verbatim):

- “Better to have naloxone ready in syringe”
- “Did like glass veils, prefer older ones”
- “Having naloxone kit at all times”
- “More naloxone in kits”
- “Remaining sober herself”

Emergency response to overdose event (Table 4)

In only two of the overdoses (18%), 911 or local emergency response was called. Reasons for not calling emergency response included having no phone (n=1), worried the police would come (n=3), and thought that the person who overdosed would get better on their own (n=3).

During the overdose, a number of actions were taken, including chest compressions (n=4), rescue breathing (n=3) and stimulation (chest/sternal rub) (n=3).

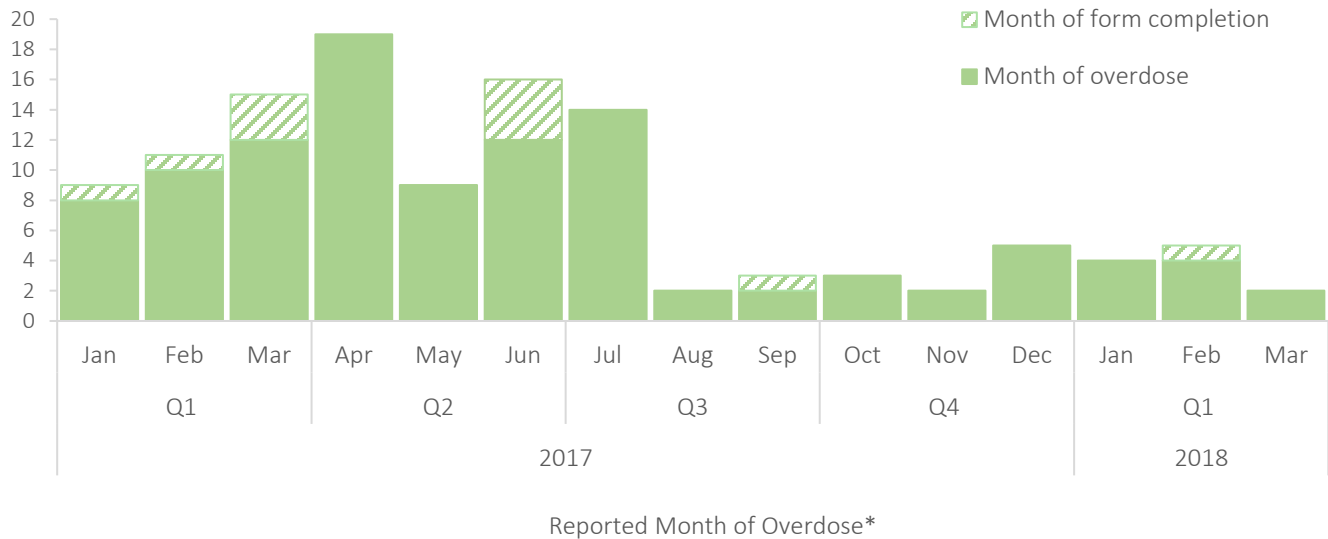


Figure 6: Number of overdose events where a take-home naloxone kit was used by reported month of overdose*, Manitoba Provincial Take-Home Naloxone Program (January 1, 2017 – March 31, 2018*)

* In 15 reports, the date of overdose was not completed. For these, the date the form was completed has been used (indicated using the cross-hatch pattern)

Table 3: Characteristics of overdose events where a take-home naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1, 2018 – March 31, 2018)

Characteristics	Categories	Female (n=4)	Male (n=6)	Unknown (n=1)	Total (N=11)
Age group (years)	12-18	0	0	0	0
	19-30	2	3	1	6
	31-40	1	0	0	1
	41-50	1	1	0	2
	51-60	0	1	0	1
	61 and older	0	0	0	0
	Unknown age	0	1	0	1
Location of overdose	Private residence ^a	2	5	1	8
	Street/Alley/Park	0	1	0	1
	Other ^a /prefer not to say	2	0	0	2
RHA where overdose occurred	Winnipeg RHA	4	3	1	8
	Prairie Mountain Health	0	1	0	1
	Interlake-Eastern RHA	0	1	0	1
	Unknown region	0	1*	0	1
Substance type ^b (self-reported)	Fentanyl	3	0	0	3
	Carfentanil	0	2	0	2
	Morphine	1	1	0	2
	Oxycodone	0	2	0	2
	Cocaine/crack	0	2	0	2
	Methadone	0	1	0	1
	Other substances ^c	0	0	1	1

* Overdose response form was completed at a Winnipeg site

^a Includes one individual reporting “rooming house”

^b Results are not mutually exclusive

^c Other substance includes a report of “blotters”

Table 4: Characteristics of emergency response to overdose events where a take-home naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1, 2018 – March 31, 2018)

Variable	Description	Female (n=4)	Male (n=6)	Unknown (n=1)	Total (n=11)
Was 911 called?	Yes	1	1	0	2
	<i>Which responders arrived first?</i>	<i>police</i>	<i>ambulance</i>		
	No	3	4	1	8
	Unknown	0	1	0	1
Reason(s) for not calling 911 ^a	No phone	1	0	0	1
	Worried police would come	0	2	1	3
	Thought the person would get better on their own	1	2	0	3
	Other*	1	0	0	1
Actions taken during overdose ^a	Stimulate (sternal rub/yelling)	2	1	0	3
	Chest compressions	2	1	1	4
	Rescue breathing	3	0	0	3
	Unknown	0	2	0	2
Number of naloxone doses given	One	2	2	1	5
	Two	1	3	0	4
	Three	1	1	0	2

^a Results are not mutually exclusive.

* Reported: "Performed CPR for 30 minutes/rescue breathing"

Severity

See [Appendix B](#) for interpretation notes on Hospital Admission, First Nations Inuit Health Branch (FNIHB), and Emergency Department Admissions data.

Hospital Admissions

- In the first quarter of 2018, 25 opioid poisoning hospitalizations were reported, a slight decrease from the previous quarter (n=29, 2017 Quarter 4). The number of hospitalizations per week ranged from 0 to 4 (Figure 7).
 - In 2017*, there were 38 opioid poisoning hospitalizations reported in the first quarter.
- Hospitalizations in the first quarter of 2018 were from individuals residing in three regions (Winnipeg RHA, Prairie Mountain Health, Interlake-Eastern RHA); the majority were Winnipeg residents (64%) (Figure 7).
 - As of 2017*, Prairie Mountain Health continued to have the highest rate of opioid poisoning hospitalizations since 2008. The Winnipeg RHA was showing an upward trend in opioid poisoning hospitalizations, while all other regions were showing a downward trend in opioid poisoning hospitalizations ([Appendix B](#), Figure A.10).
 - In 2017*⁷, The Northern RHA, including First Nations communities, had five opioid poisoning hospitalizations and 10 suspected opioid overdoses reported between April 5 and November 26, 2017 (*data not shown*). Nine out of ten cases (90%) were sent out by medical evacuation due to severe condition.
- The female population had a higher proportion (60%) of opioid poisoning hospitalizations compared to males (Figure 8); this is a continuing trend since 2008 ([Appendix B](#), Table A. 7).

⁷ Data is current as of December 5, 2017. Numbers are subject to change as additional information may be received.

- Over half of the hospitalizations in the first quarter of 2018 was amongst the 45 to 64 years old age group. All other age groups combined made up the other 48% of hospitalizations (Figure 8).
 - *In 2017*, this age group made up 31% of all hospitalizations, and the 25 to 44 years age-group made up 35% of the hospitalizations ([Appendix B](#), Figure A. 8).
- There was only one hospitalization associated with synthetic opioid poisoning (including fentanyl). The most number of hospitalizations was for “poisoning by other opioids”, which includes oxycodone, morphine, hydromorphone, and unspecified opioids (n=21).
 - *In 2017*, the number of synthetic opioid poisoning hospitalization (including fentanyl) has increased from 4 hospitalizations (rate: 0.3 per 100,000) in 2014 to 23 in 2017 (rate: 1.7 per 100,000) ([Appendix B](#), Figure A. 9).

Additional supporting tables and figures can be found in [Appendix A](#) of this report.

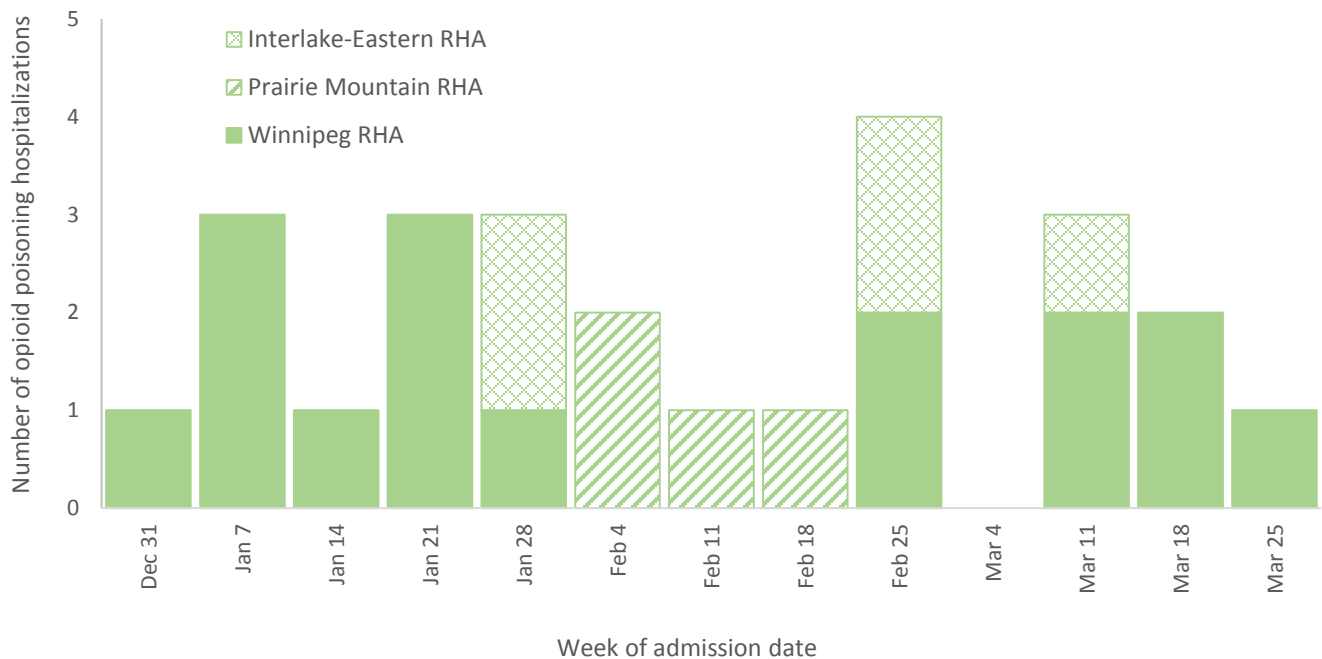


Figure 7: Number of opioid poisoning hospitalizations in Manitoba by week of admission and Regional Health Authority, Manitoba Health, Seniors and Active Living (January 1 – March 31, 2018)

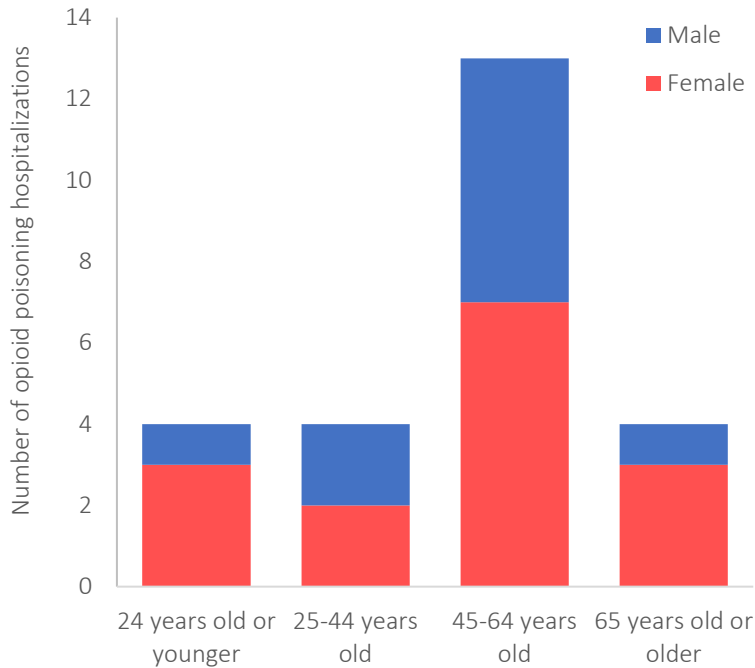


Figure 8: Number of opioid poisoning hospitalizations in Manitoba by age group and sex, Manitoba Health, Seniors and Active Living (January 1, 2017 – March 31, 2018)

Emergency Department Admissions

Winnipeg

- In the first quarter of 2018 (January 1 – March 31), there were 280 suspected overdose cases (Table 5) arriving at Winnipeg RHA emergency departments and urgent care facilities: 70% are female and 25% are in the 15 to 19 years age group.
 - Approximately 40% of the female cases are within the 15 - 24 years age group; the corresponding proportion of this age group among males was lower (28%) (Figure 10).
 - *In 2017*, approximately 44% of the female cases were within the age group of 15 - 24 years; the corresponding proportion of this age group among males was also lower (32%).
- Suspected overdose cases were the highest among those living in Downtown (n=43; 15%), River East (n=34; 12%), and Point Douglas (n=30; 11%) community areas (Figure 11). There is also a high proportion (n=43, 15%) of suspected overdoses reported by Manitoban residents with a non-Winnipeg postal code. There were an additional six cases who were non-Manitoban residents.
 - These numbers are comparable to 2017 overdoses, where suspected overdose cases were also the highest among those living in these three communities: Downtown (n=226; 16%), Point Douglas (n=191; 14%), and River East (n=135; 10%). Suspected overdoses reported by Manitoban residents with a non-Winnipeg postal code was 17% (n=238). There were also 46 non Manitoba residents reported.

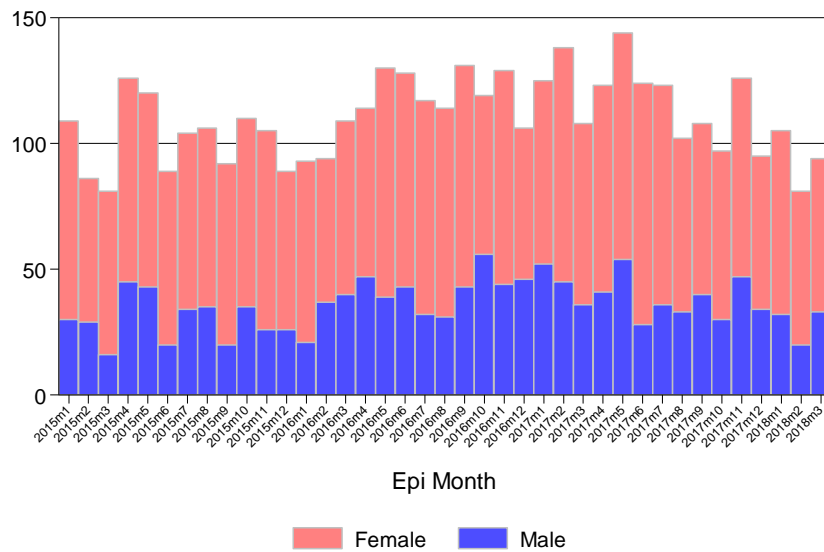
Additional supporting tables and figures can be found in [Appendix A](#) of this report.

Table 5: Number of suspected overdose cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities* by year, Emergency Department Information System (January 1 2012 - March 31, 2018)

Year	Female		Male		Total	
	n	%	n	%	N	%
2012	791	63.7	450	36.3	1,241	100.0
2013	745	65.0	401	35.0	1,146	100.0
2014	841	69.4	370	30.6	1,211	100.0
2015	858	70.5	359	29.5	1,217	100.0
2016	905	65.4	479	34.6	1,384	100.0
2017	937	66.3	476	33.7	1,413	100.0
2018**	195	69.6	85	30.4	280	100.0
Total	5,272	66.8	2,620	33.2	7,892	100.0

*Data from the emergency department information system (EDIS); Includes Canadian Triage & Acuity Scale (CTAS) 1 & 2 and those greater than 9 years of age only.

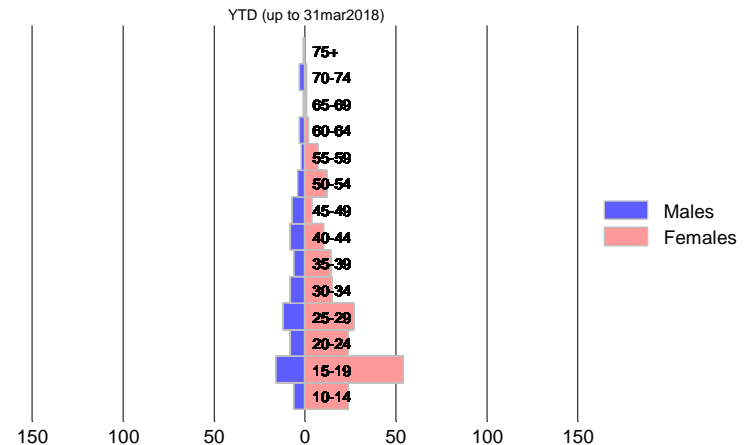
** Includes data from January to March



*Data from EDIS; Includes CTAS 1 & 2 and those greater than 9 years of age only. Visits up to 31mar2018

Figure 9: Number of suspected overdose cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities by month and year, Emergency Department Information System (January 1 2015 - March 31, 2018)

Fig. 6: Age pyramid, ED Overdose Cases*



*Data from EDIS; Includes CTAS 1 & 2 and those greater than 9 years of age only.

Figure 10: Age pyramid of suspected overdose cases* arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities, Emergency Department Information System (January 1 - March 31, 2018)

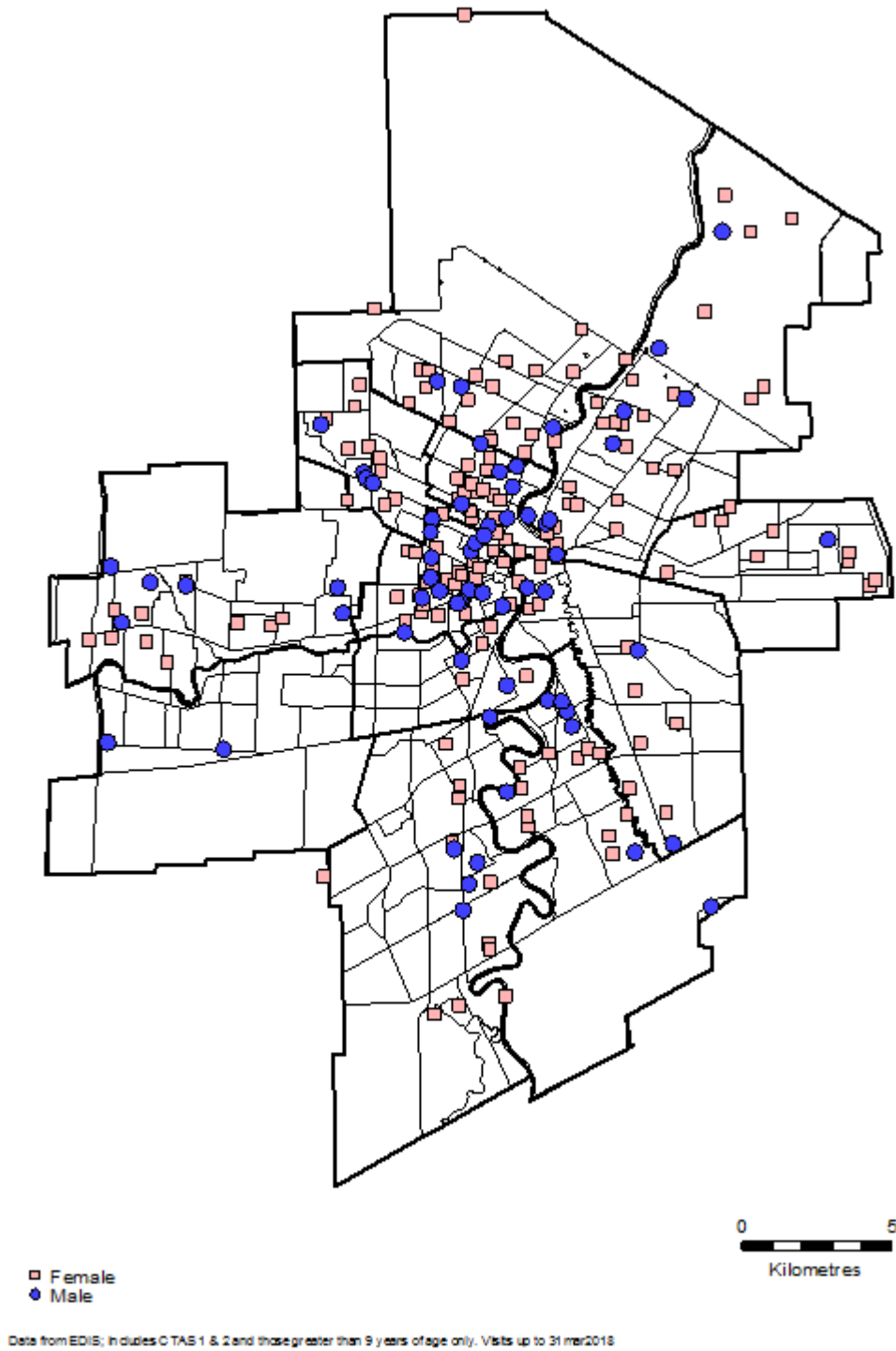


Figure 11: Dot map of residential location of suspected overdose cases* arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities, Emergency Department Information System (January 1 - March 31, 2018)

*Residential locations are not exact (randomized within neighborhoods)

Mortality

See [Appendix B](#) for interpretation notes on the Office of the Chief Medical Examiner’s and Toxicology data.

Office of the Chief Medical Examiner

2018: Apparent opioid-related deaths

Deaths that occurred in 2018 are still under review. The following summary is based on available data at the time of report preparation. Additional analysis will be available in the next quarterly report.

- Between January 1 and March 31, 2018, there were 18* apparent opioid-related deaths in Manitoba (Figure 12) – a 5% decrease* since the last quarter (October to December 2017).
 - Fifty-six percent (56%)* of the deaths were among females.
 - The median* age of the individuals was 48 years (range: 21 to 64).
 - There were 3* apparent fentanyl-related deaths, and in 1* additional death carfentanil was detected in the toxicology results (cause of death determination is pending)

*These are preliminary numbers and are subject to change as toxicology results become available, and additional assessments are conducted.

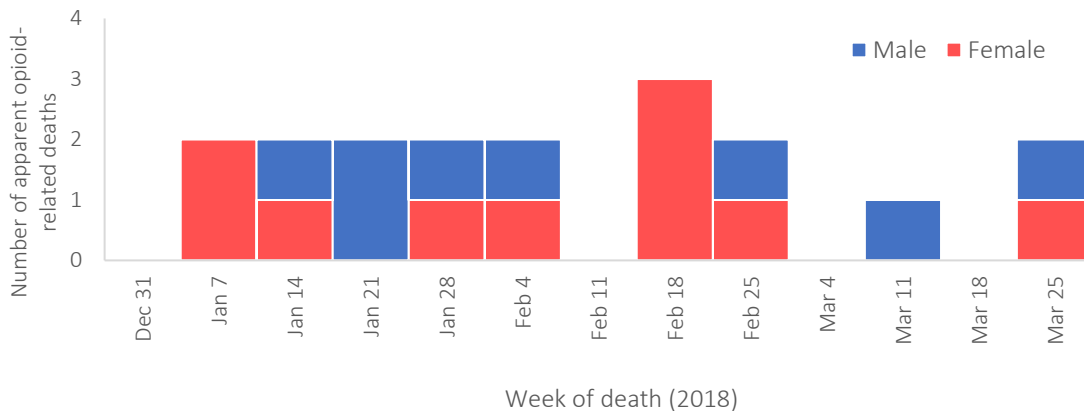


Figure 12: Number of apparent opioid-related deaths in Manitoba by sex, Office of the Chief Medical Examiner (January 1 - March 31, 2018)

2017: Apparent opioid-related deaths

*Preliminary determinations made at the outset of a death investigation often differs from those made once the investigation is complete. As a result, all data related to apparent opioid-related deaths occurring in 2017 were reviewed and reanalysed. Any numbers that have changed since the last report have been **bolded** below.*

In 2017, there were 192 drug-related deaths in Manitoba, 55% of which were opioid related. This is consistent with previous years (2014 – 2016).

Demographics

- There were more apparent opioid-related deaths in 2017 (**n=106**; rate: **7.8 per 100,000**), compared to 2014, 2015, and 2016 (Figure 13). In 2017, the most number of deaths was in the **first and second quarter**:
 - Quarter 1: **n=34**
 - Quarter 2: **n=34**
 - Quarter 3: **n=19**
 - Quarter 4: **n=19**

- In 2017, the most common place of death (**65%**) and place of overdose (**77%**) was in the home setting; the manner of death for **majority of cases (82%)** continues to be unintentional (accidental) (Table 6).
- **Since 2014, the highest rate (ranging between 8.7 and 15.2 per 100,000 population between 2014 and 2017)** of apparent opioid-related deaths has been among those aged 25 - 44 years **and is on the increase** (Figure 14).
- From the third quarter of 2016 and onwards, there has been a consistently higher proportion of deaths in males compared to females (Figure 16). The death rate in the male population has been on the rise from 4.7 per 100,000 population in 2015 to **9.9 per 100,000** population in 2017. **The rate has been relatively stable in females** (Figure 17).

Geographic trends

- In 2017, **70%** of the deaths were in the Winnipeg RHA (**n=74**, rate: **9.5 per 100,000**) (Figure 15). The death rate increased in all of the Regional Health Authorities except in the Interlake-Eastern RHA between 2016 and 2017. In Southern Health - Santé Sud, Prairie Mountain Health, and Winnipeg RHA, the increase has been occurring since 2015 (Table A. 11).
- Southern Health - Santé Sud has had the largest increase in death rates since 2015, from 2.6 to **7.0 per 100,000** (Table A. 11).

Drug trends

- In 2017, there were **45** apparent fentanyl-related deaths (includes both fentanyl-related opioids only and mix of fentanyl-related and non-fentanyl-related opioids):
 - The proportion of fentanyl-related opioids only in all 2017 apparent opioid-related deaths was **25% (n=26)**, **with a decrease in proportion since the second quarter** (Figure 18).
 - In 2017, **33 of the 45** apparent fentanyl-related deaths included carfentanil (**73%**), in comparison to 40% (n=15) in 2016 (Figure 19). **However, there has been a decline in apparent fentanyl-related deaths including carfentanil since the first quarter of 2017**
 - **2017 Q1: n=14**
 - **2017 Q2: n=13**
 - **2017 Q3: n=4**
 - **2017 Q4: n=2**
- Overall, the top two other substances contributing to deaths between 2014 and 2017 were benzodiazepines and antidepressants (Figure 20).
- The proportion of crystal meth contributing to opioid-related deaths increased from 4% (n=3) in 2014 to **25% (n=26)** in 2017 (**indicated by the red dots in Figure 20**).
- Between 2014 and 2017, opioids were the most frequently prescribed drugs within six months before an apparent opioid-related death occurred (with the exception of 2015, **where antidepressants were the most frequently prescribed drugs**). The proportion of opioid prescription dispensation increased from 56% in 2014 (**33 of 75 deaths**) to **66%** in 2017 (**70 of 106 deaths**). Following opioids, antidepressants and benzodiazepines were the most frequently prescribed drugs within six months of death (Figure 21).
 - Of those who were prescribed an opioid within six months before their death, codeine (**47%**), methadone (**29%**), and hydromorphone (**23%**) were the most commonly prescribed opioids (*data not shown*).

Additional supporting tables and figures can be found in [Appendix A](#) of this report.

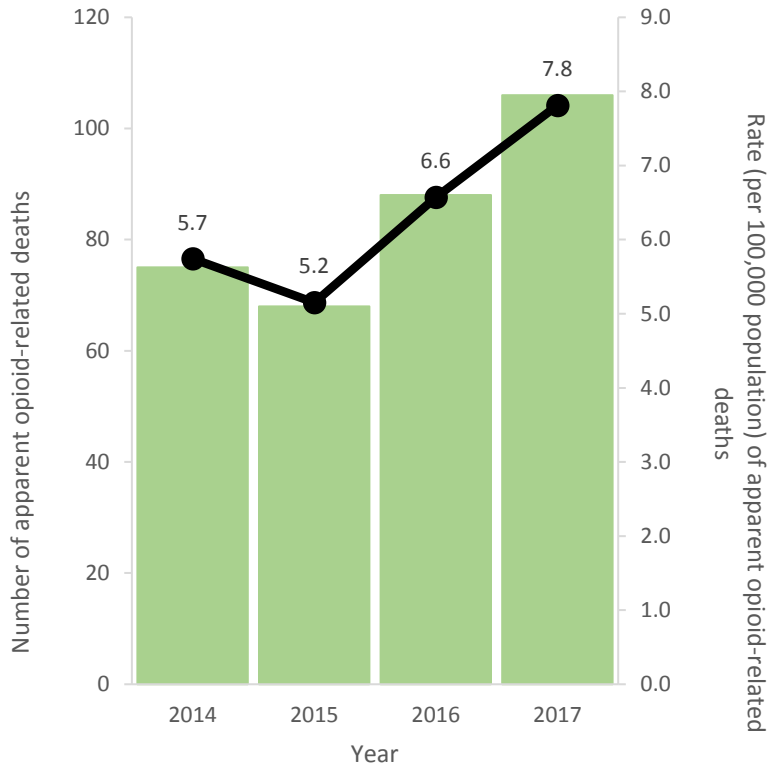


Figure 13: Number and crude rate (per 100,000 population) of apparent opioid-related deaths in Manitoba, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2017)

Table 6: Characteristics of apparent opioid-related deaths in Manitoba, Office of the Chief Medical Examiner (2017)

	Male		Female		Total	
	n	%	n	%	N	%
<i>Total</i>	67	<i>100</i>	39	<i>100</i>	106	<i>100</i>
Place of death						
Home	43	64.2	26	66.6	69	65.1
Health care facility	11	16.4	8	20.5	19	17.9
Public setting	1	1.5	2	5.0	3	2.8
Work	1	1.5	0	0.0	1	0.9
Other	11	16.4	3	7.7	14	13.0
Place of overdose						
Home	52	77.6	30	76.9	82	77.4
Work	1	1.5	0	0.0	1	0.9
Public Setting	3	4.4	3	7.7	6	5.7
Other	11	16.4	6	15.4	17	16.0
Manner of death						
Unintentional (accident)	58	86.6	29	74.4	87	82.1
Intentional (suicide)	3	4.5	5	12.8	8	7.5
Undetermined	6	9.0	5	12.8	11	10.4
Unknown (open file)	0	0.0	0	0.0	0	0.0

Surveillance of Opioid Misuse and Overdose in Manitoba: January 1 – March 31, 2018

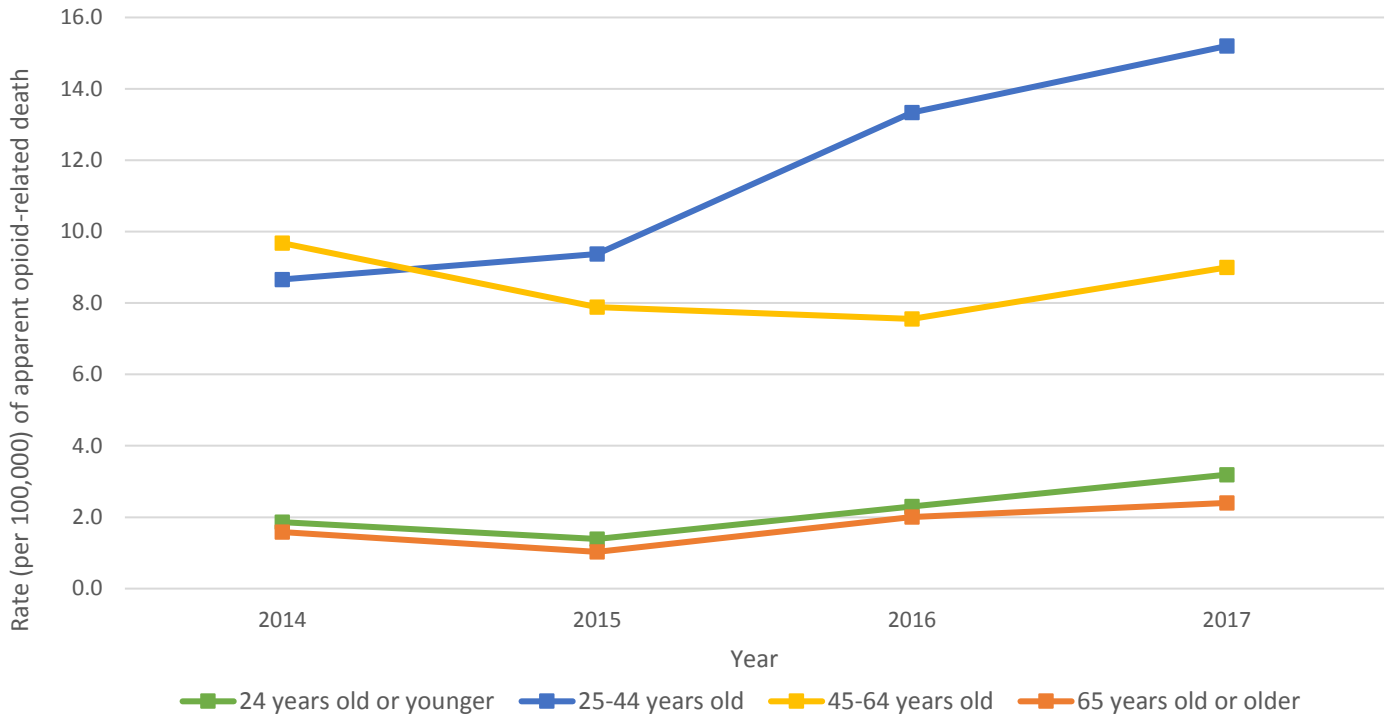


Figure 14: Crude rate (per 100,000 population) of apparent opioid-related deaths in Manitoba by age group, Office of the Chief Medical Examiner (2014 – 2017)

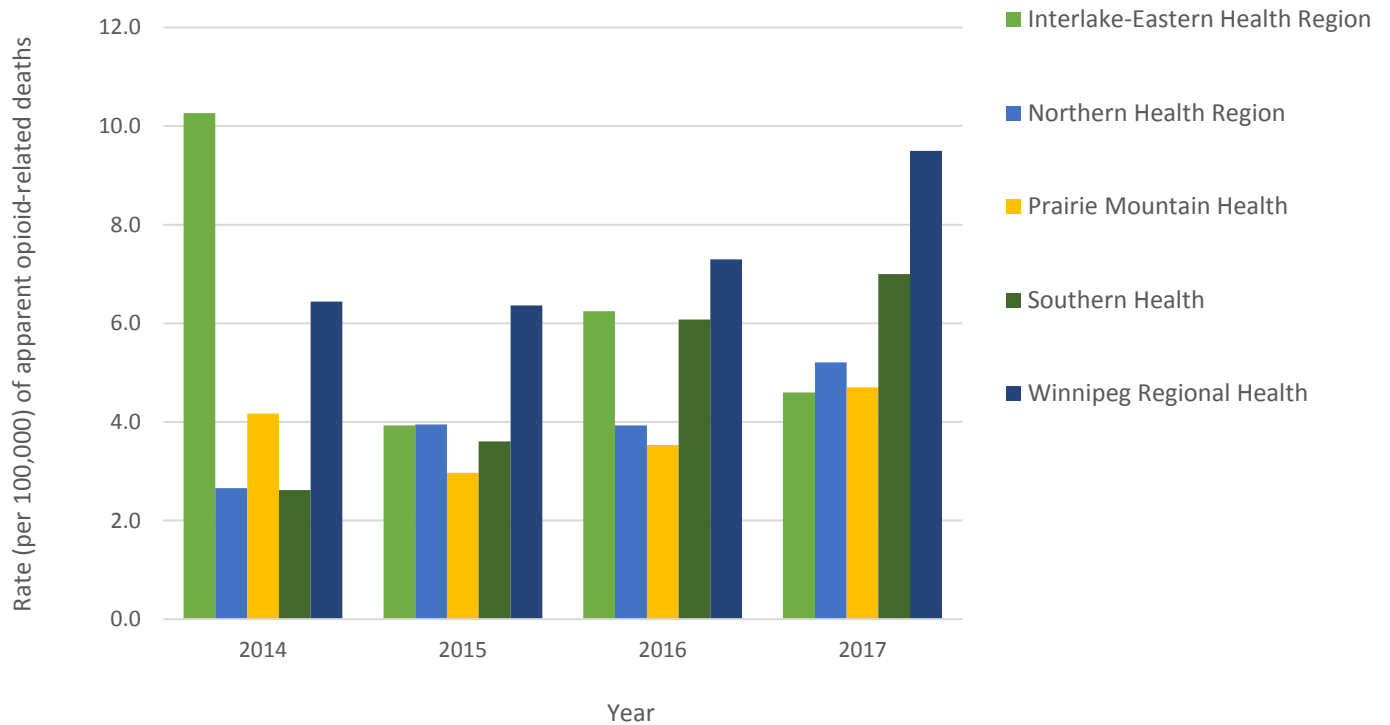


Figure 15: Crude rate (per 100,000) of apparent opioid-related deaths in Manitoba by Regional Health Authority, Office of the Chief Medical Examiner (2014 – 2017)

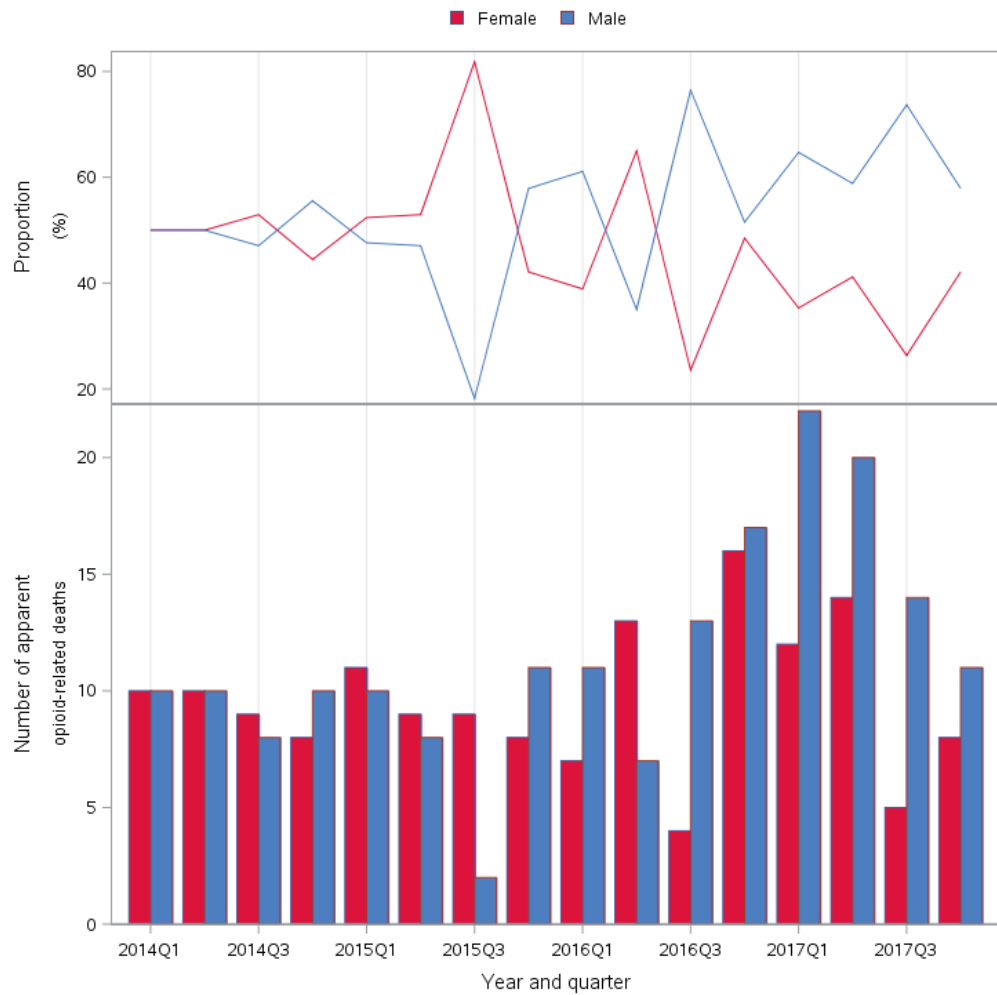


Figure 16: Number and proportion of apparent opioid-related deaths in Manitoba by sex, Office of the Chief Medical Examiner (2014 – 2017)

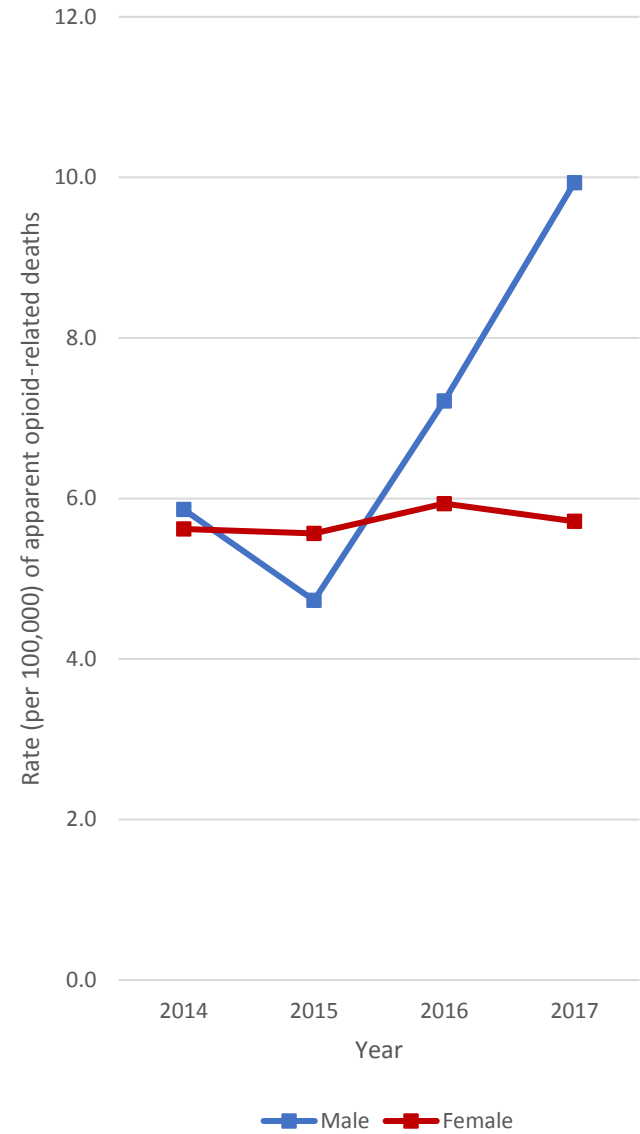


Figure 17: Crude rate (per 100,000) of apparent opioid-related deaths in Manitoba by sex, Office of the Chief Medical Examiner (2014 – 2017)

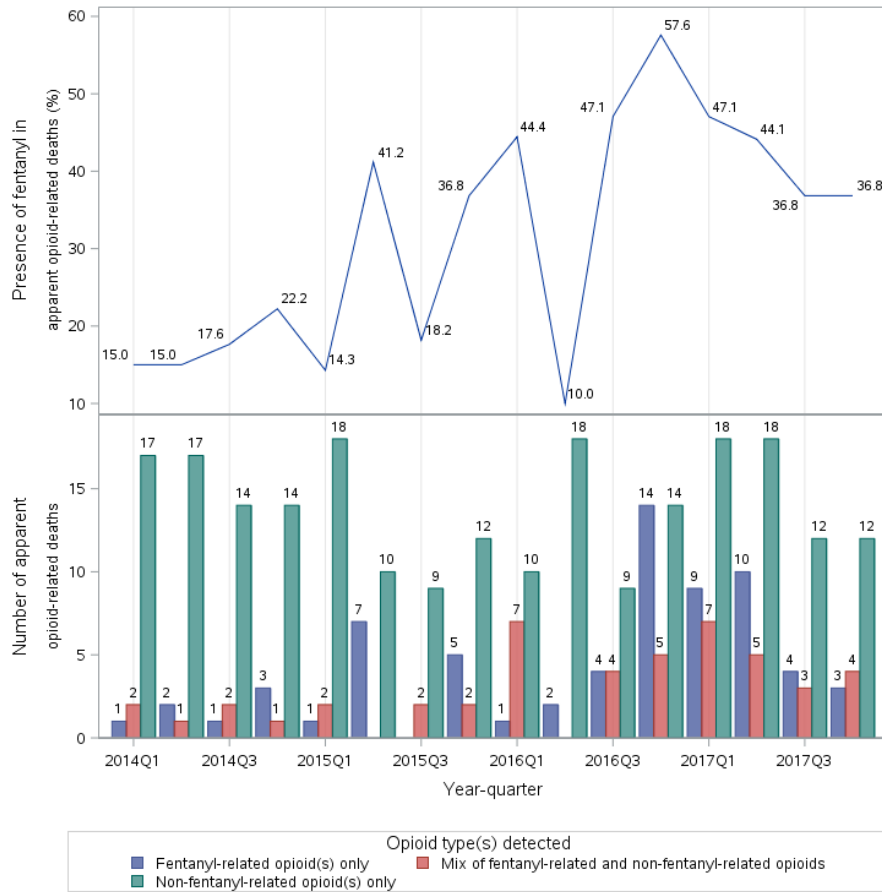


Figure 18: Presence of fentanyl analogs in apparent opioid-related deaths and number of apparent opioid-related deaths in Manitoba by suspected opioid type, Office of the Chief Medical Examiner (2014 – 2017)

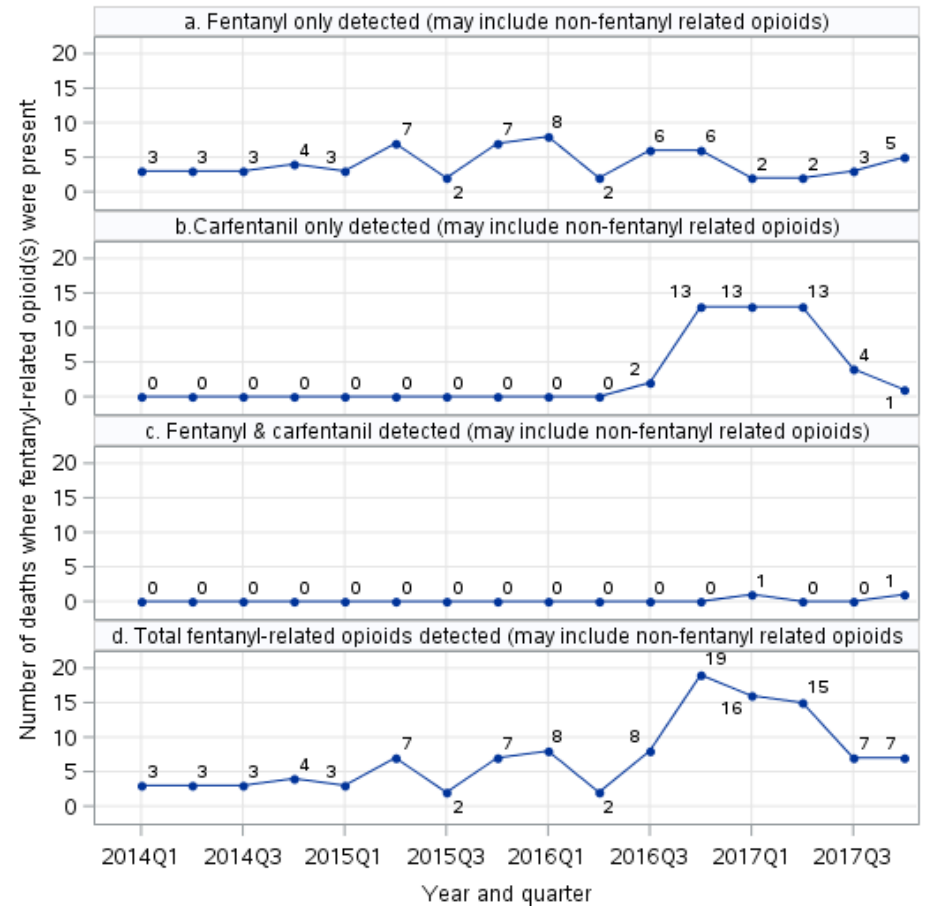


Figure 19: Number of apparent opioid-related deaths where fentanyl-related opioids were present, Office of the Chief Medical Examiner (2014 – 2017)

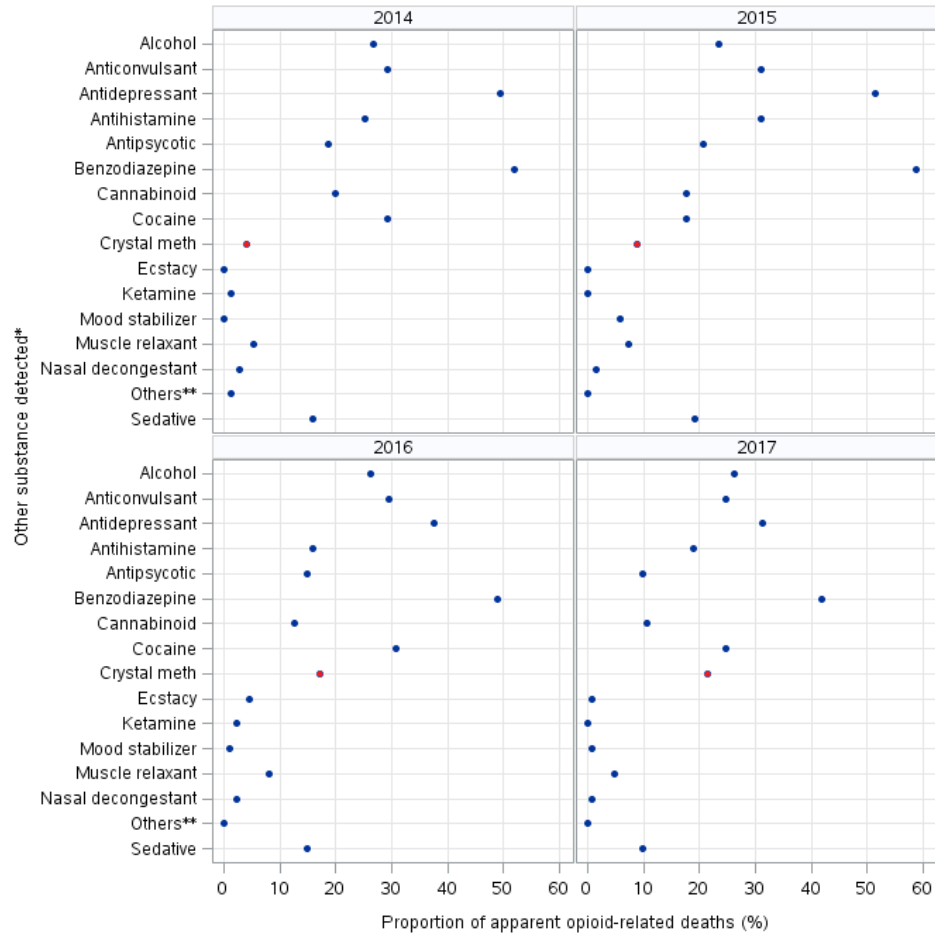


Figure 20: Proportion of other substances detected in case of apparent opioid-related deaths (crystal meth is indicated with a red dot), Office of the Chief Medical Examiner (2014 – 2017)

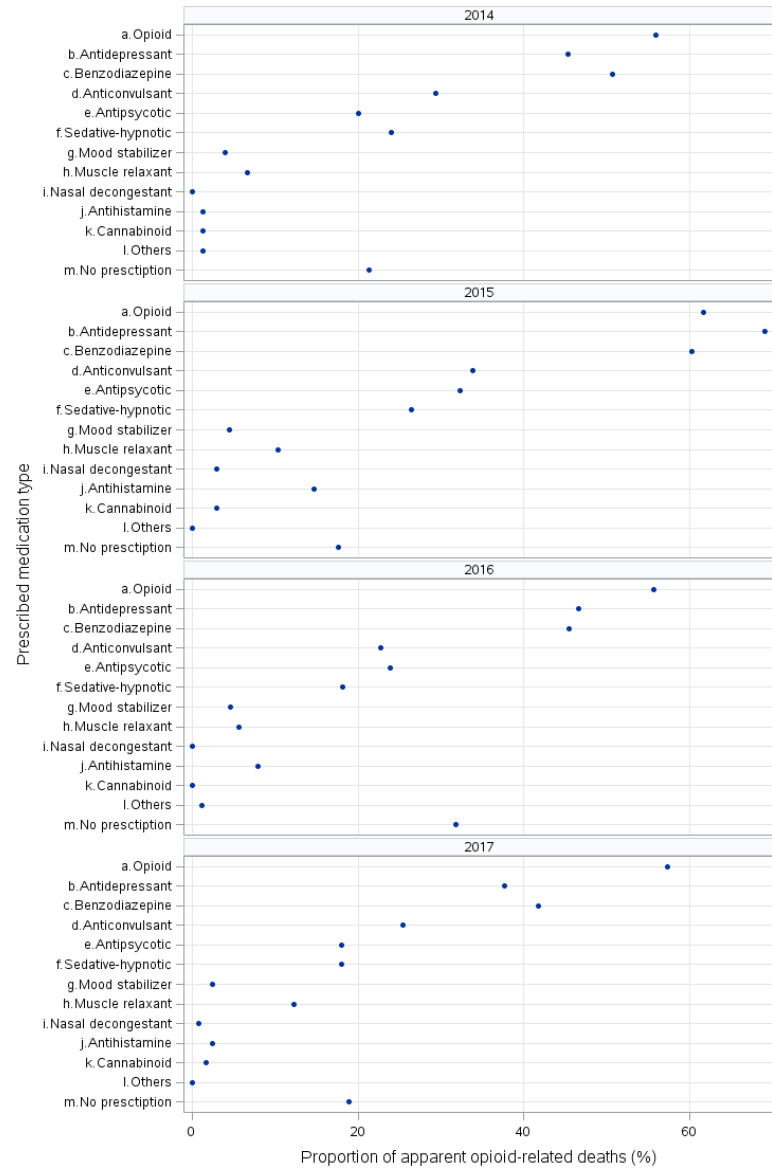


Figure 21: Proportion of prescription medication use within six months before an apparent opioid-related death occurred, Office of the Chief Medical Examiner (2014 – 2017)

Toxicology

- In the first quarter of 2018, only one positive screen for fentanyl analogs (carfentanil) was reported (Figure 22).
- A steady decline in positive screens for fentanyl analog is seen from the first quarter of 2017 and into the first quarter of 2018.

*Fentanyl analogs do not include fentanyl.

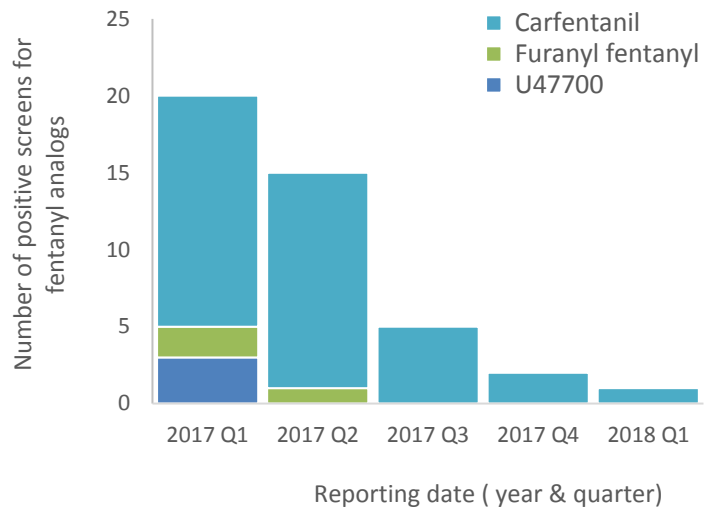


Figure 22: Number of positive toxicology screens by fentanyl analog*, Diagnostic Services Manitoba (January 1, 2017 – March 31, 2018)

Prescription Opioid Dispensation

See [Appendix B](#) for interpretation notes on Drug Program Information Network data.

Drug Program Information Network (DPIN)

- Between January 1 and March 31, 2018, 9,088 Manitobans (57% female) were dispensed a prescription opioid from a community pharmacy:
 - Since 2012, the proportion of females dispensed a prescription opioid has been consistently greater than males.
 - Compared to the first quarter of 2016 and 2017, the number of Manitobans dispensed an opioid was lower in the first quarter of 2018 (Table 7).
- By Morphine Milligram Equivalent (MME) per day, the number of individuals (unique PHINs) that were dispensed prescription opioid from a community pharmacy in the first quarter of 2018 was less compared to the previous quarter:
 - 000 – 050 MME/day: n=4,167 (1% decrease)
 - 050 – 090 MME/day: n=2,311 (2% decrease)
 - 090 – 200 MME/day: n=1,861 (5% decrease)
 - Greater than 200 MME/day: n=749 (2% decrease)
- Overall, a general increase in hydromorphone prescriptions are noted, while all other products had a decrease. In the first quarter of 2018, the number of Manitobans prescribed fentanyl, generic oxycontin, hydromorphone, meperidine, morphine and oxyneo decreased from the previous quarter (Figure 23).
 - In 2017, about 78% (n=2,087) of new/naïve⁸ opioid patients in the fourth quarter were dispensed hydromorphone, followed by morphine (n=508; 19%). *The relevant analysis for 2018 is not yet available.*

Additional figures can be found in [Appendix A](#) of this report.

⁸ Naïve with respect to DPIN data. Patients/client may have been discharged from hospital. Data excludes long term care and palliative care claims.

Table 7: Number of Manitobans dispensed a prescription opioid from a community pharmacy in the first quarter of each year by age group, Drug Program Information Network (January to March, 2013 – 2017)

Year	Total number of Manitobans dispensed a prescription opioid between Jan – Mar (Quarter 1)	Number of Manitobans dispensed a prescription opioid between Jan – Mar (Quarter 1) by age group				
		Less than 15 years old	15 to 24.9 years	25 to 44.9 years	45 to 64.9 years	65 years and older
2013	8,241	4	107	1,426	4,034	2,670
2014	8,770	13	134	1,499	4,168	2,956
2015	9,011	14	147	1,513	4,266	3,071
2016	9,144	9	135	1,441	4,320	3,239
2017	9,184	14	113	1,433	4,242	3,382
2018	9,088	9	114	1,336	4,159	3,470

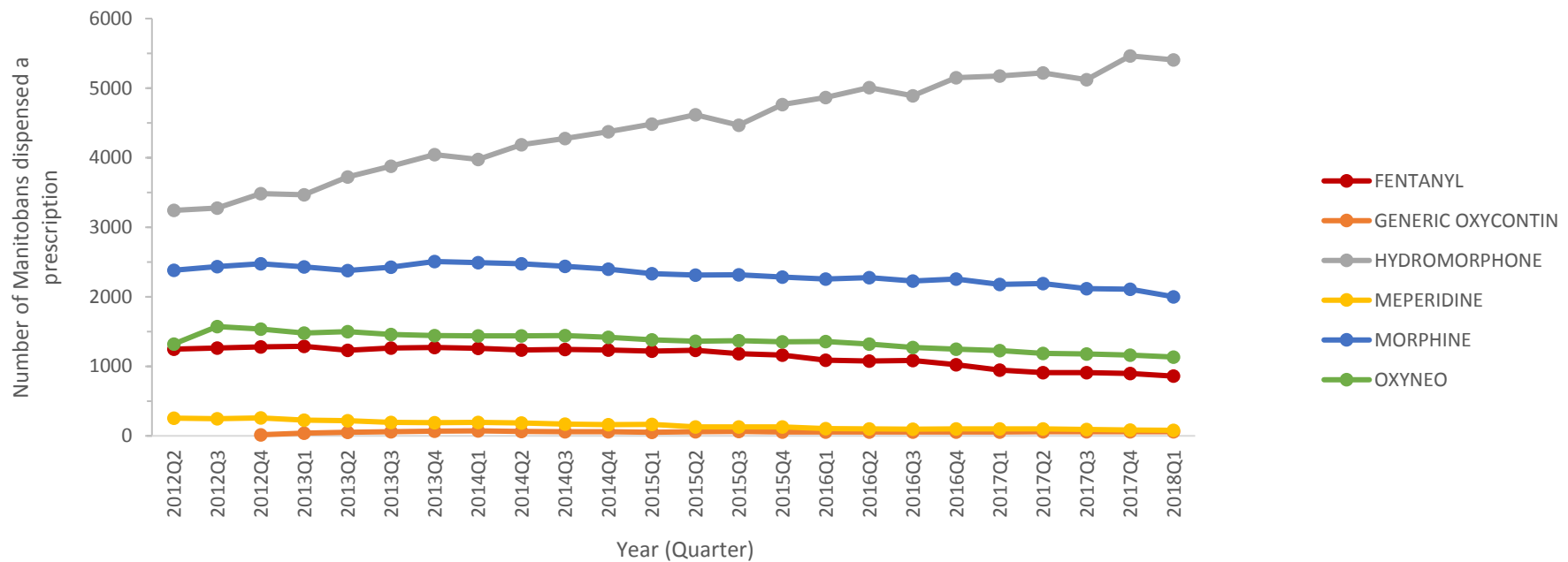


Figure 23: Number of Manitobans dispensed a prescription opioid from a community pharmacy by product, Drug Program Information Network (April 1, 2012 – March 31, 2018)

Call Centres

See [Appendix B](#) for interpretation notes on Health Links – Info Santé and Manitoba Poison Centre data.

Health Links – Info Santé

- In the first quarter of 2018, there were 30 substance-use related calls to Health Links – Info Santé, based on the Health Information Advisor (HIA) Title resource used by the registered nurses (Table 8); and 157 substance-use related calls based on the Guideline Title resources used (Table 9). These are not mutually exclusively, nor do the number of times the resource was used indicate the number of calls.
 - On average, the number of substance-use related calls indicated by the HIA title resource is 35 per quarter (median: 33.4); and by Guideline title is 130 per quarter (median: 123.6).
 - There was an increase in this quarter for the use of these resources.
- More specifically to opioids, there were two calls about “fentanyl” and one call about “naloxone program and kits” this quarter.

Table 8: Number of calls to Health Links – Info Santé by Health Information Advisor title, Health Links – Info Santé (January 1, 2017 – March 31, 2018)

Health Information Advisor (HIA) Title	2017 Q1 (Jan - Mar)	2017 Q2 (Apr - Jun)	2017 Q3 (Jul - Sep)	2017 Q4 (Oct - Dec)	2018 Q1 (Jan - Mar)
Withdrawal symptoms: drug and alcohol abuse	13	13	16	21	15
Drugs – what you should know and drug testing	2	3	5	3	5
Prescription drug abuse	2	1	2	0	2
Hallucinations	2	5	3	0	2
Drug, alcohol and tobacco use during pregnancy	7	3	4	0	2
Fentanyl*	1	2	1	1	2
Treating teens for substance abuse	0	0	0	0	1
Naloxone programs and kits*	4	0	0	0	1
Substance abuse	4	3	0	0	0
Recognizing drug abuse in kids	1	0	0	0	0
Street drugs and their slang names	0	0	0	0	0
Street connections launches a take-home naloxone program	0	0	1	0	0
Detoxification	4	5	5	0	0
Talking with your child about drinking and drugs	0	0	0	0	0
Total	40	35	37	25	30

* Based upon increasing caller and registered nurse demand, new/updated health education document title is added. Data is only available from 2017 onwards.

Table 9: Number of calls to Health Links – Info Santé by Guideline Title, Health Links – Info Santé (January 1, 2017 – March 31, 2018)

Guideline Title	2017 Q1 (Jan - Mar)	2017 Q2 (Apr - Jun)	2017 Q3 (Jul - Sep)	2017 Q4 (Oct - Dec)	2018 Q1 (Jan - Mar)
Withdrawal symptoms (adult)	42	33	50	0	44
Sleep disorders	28	22	20	30	40
Confusion / disorientation / agitation	23	22	19	28	30
Substance abuse: diagnosed / suspected (adult)	21	26	19	0	18
Alcoholism: known / suspected	8	17	9	10	15
Substance abuse (pediatric)	4	4	1	2	7
Stress response	6	6	3	8	3
Total	132	130	121	78	157

Manitoba Poison Centre (MPC)

- In the first quarter of 2018, there were 51 opioid-related calls received by the Manitoba Poison Centre (Table 10).
- The number of calls decreased since the fourth quarter of 2017 (Figure 24) – the median number of calls per quarter is 51 (average: 55.2).
 - The number of calls amongst the “5 years and younger” and “20 years and older” age groups has decreased since the last quarter; whereas the number of calls amongst the “6 to 19 years” age group has increased since the third quarter of 2017 (from 5 calls to 16 calls) – see Figure 24.

Table 10: Number of opioid poisoning-related calls by opioid-type, Manitoba Poison Centre (January 1 – March 31, 2018)

	5 years and younger	6 to 19 years	20 years and older	Total
<i>Opioids in combination with non-opioid analgesics</i>	1	12	27	40
Acetaminaphone with codeine	1	8	18	27
Acetaminaphone with oxycodone	0	3	9	12
Acetaminophen with other opioids	0	1	0	1
<i>Opioids</i>	0	4	7	11
Hydromorphone	0	0	1	1
Methadone/Buprenorphine	0	0	2	2
Morphine	0	3	1	4
Oxycodone	0	0	1	1
Tramadol	0	1	2	3
Total opioid related calls received	1	16	34	51

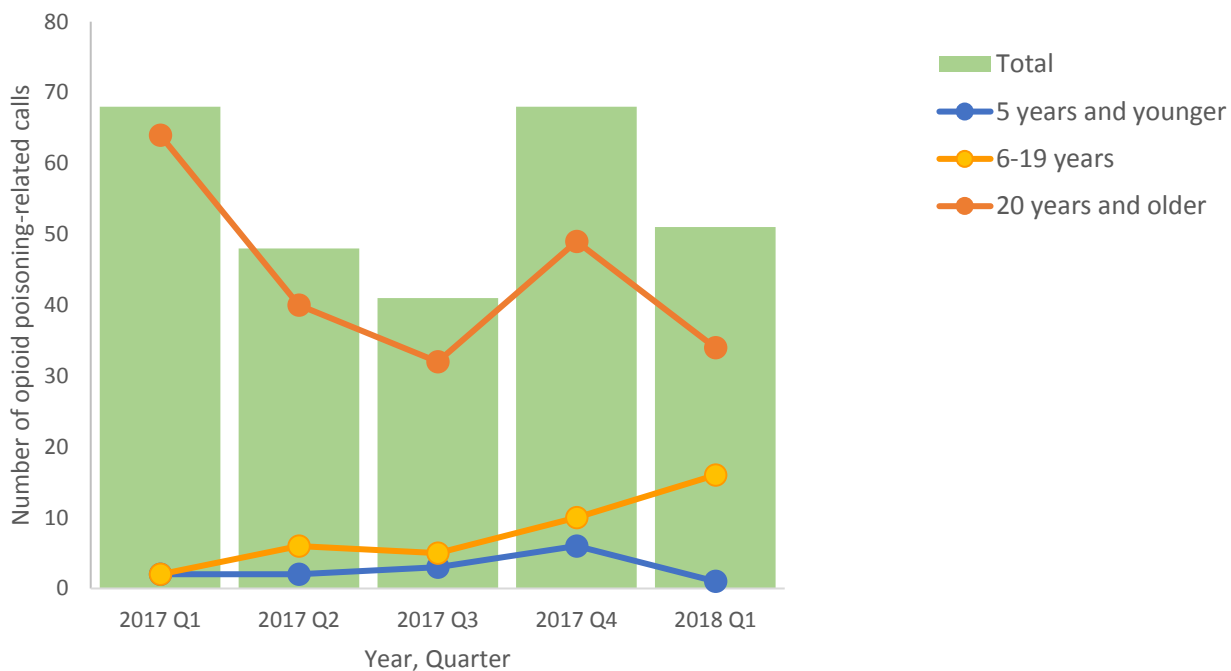


Figure 24: Number of opioid poisoning-related calls by quarter of the year, Manitoba Poison Centre (January 1, 2017 – March 31, 2018)

Illegal Opioids Identified or Tracked

See [Appendix B](#) for interpretation notes on Drug Analysis Service data.

Drug Analysis Services⁹, Health Canada

- During the first quarter of 2018, a total of 1,110 samples were submitted for analysis in Manitoba, which represents a 43% increase over the last quarter.
 - The top five controlled substances identified this quarter include: cocaine (n=234), cannabis (n=229), methamphetamine (n=179; same as last quarter), codeine (n=11), and morphine (n=10) (*data not shown*).
 - Fentanyl dropped to 7th place (n=9; from n=22 in the last quarter).
- During the first quarter of 2018, 60 opioids (22% decrease over the last quarter) were identified (Figure 25).
 - Fentanyl and its analogues represented 27% (n=16) of these opioids (Figure 26) – compared to 29% in the last quarter. Two carfentanil samples were identified. For the first time since January 2017, buprenorphine was identified this quarter.
 - Fentanyl numbers (not including analogues), and carfentanil numbers (in parentheses) are provided below (Figure 25):
 - 2017 Q2: n=19 (n=22)
 - 2017 Q3: n=19 (n=13)
 - 2017 Q4: n=22 (n=8)
 - 2018 Q1: n=9 (n=2)
 - Other drugs of interest identified this quarter include U-47700¹⁰ (n=1) and W-18¹¹ (n=1). U-47700 was last reported in Manitoba during the January to June 2017 analysis.

⁹ The Drug Analysis Service (DAS) analyzes suspected illegal drugs seized by Canadian law enforcement agencies. These statistics provide some information about the substances identified in samples.

They do not represent the total number of substances seized by law enforcement. They should not be used to estimate the number or types of drugs that may be available on the street. As well, a single sample may contain more than one substance.

¹⁰ U-47700 is a synthetic opioid known to be misused recreationally (street names include: “U4”, “pink”, and “fake morphine”) ([Alberta Health Services, 2018](#)).

¹¹ “W-18 was initially developed as a potential analgesic drug, there are currently no clinical applications in which W-18 is used. Despite this, it has been found in illegal street drugs, and has also been found in fake oxycodone pills, and in other drug products containing fentanyl” ([Alberta Health Services, 2018](#)).

Surveillance of Opioid Misuse and Overdose in Manitoba: January 1 – March 31, 2018

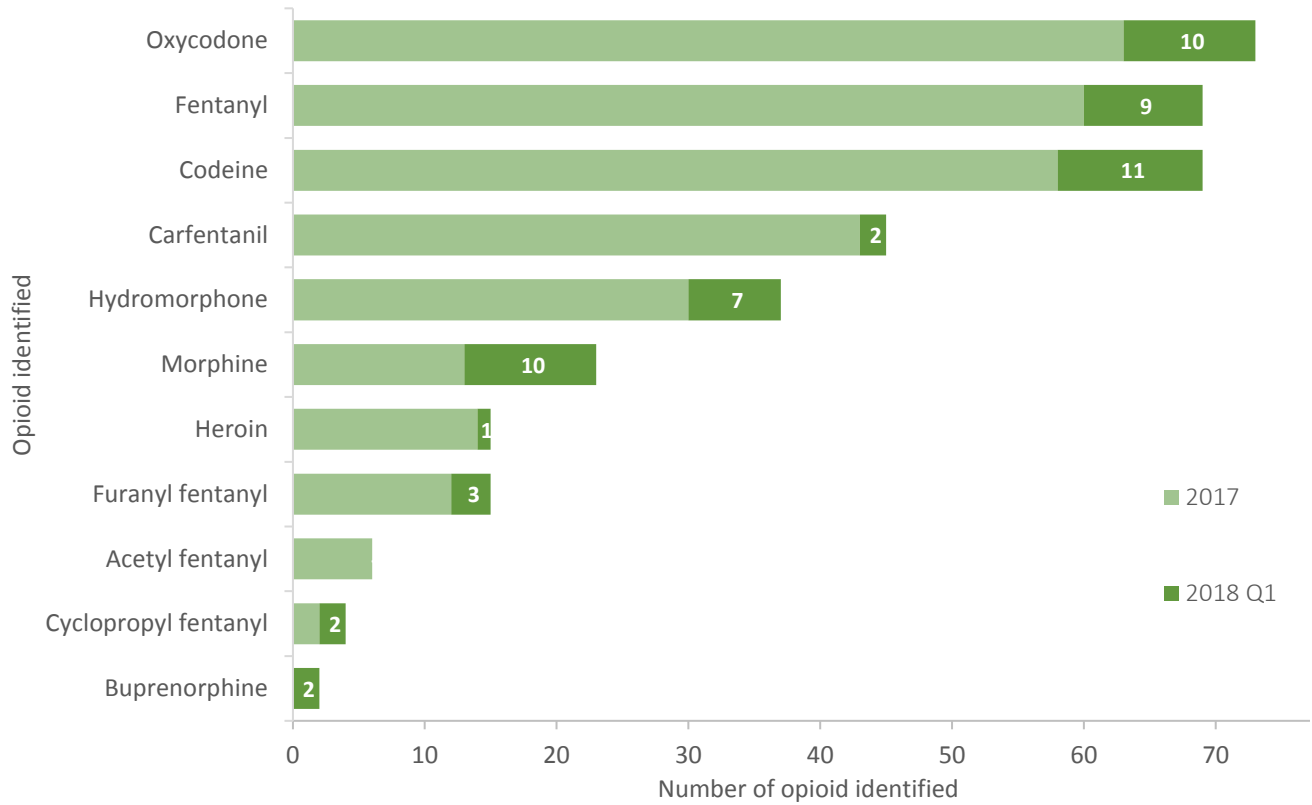


Figure 25: Number of top illegal opioids identified or tracked in Manitoba in 2017 (light green) and in the first quarter of 2018 (dark green), Drug Analysis Service, Health Canada (January 1, 2017 - March 31, 2018)

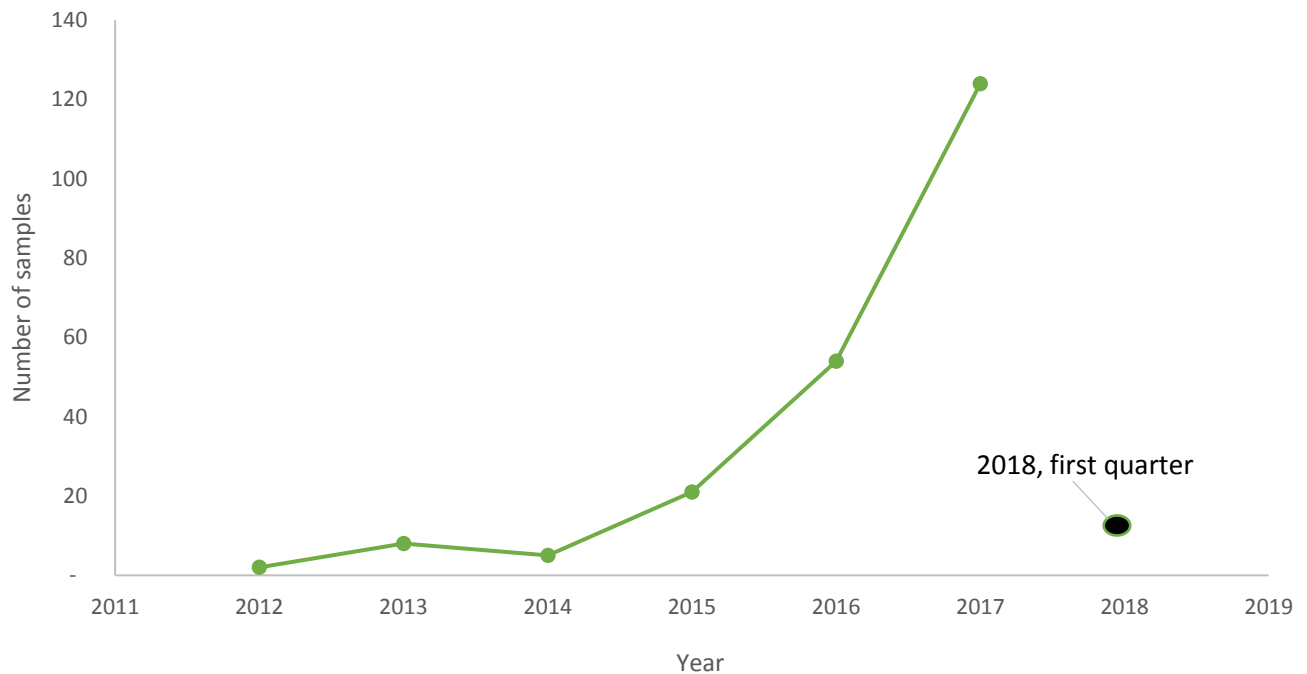


Figure 26: Number of illegal fentanyl-related opioids identified or tracked in Manitoba by year, Drug Analysis of Health Canada (January 1, 2012 – March 31, 2018)

Appendix A: Additional Figures and Tables

Naloxone Administration: Winnipeg Fire and Paramedic Service (WFPS)

Table A. 1: Characteristics of suspected overdose cases receiving naloxone, Winnipeg Fire and Paramedic Service (January 1 - Mar 31, 2018)

	Female		Male		Total	
	n	%	n	%	N	%
Age group (years)						
15-19	2	2.9	5	7.9	7	5.3
20-24	11	16.2	9	14.3	20	15.3
25-29	13	19.1	10	15.9	23	17.6
30-34	9	13.2	11	17.5	20	15.3
35-39	10	14.7	2	3.2	12	9.2
40-44	4	5.9	5	7.9	9	6.9
45-49	2	2.9	5	7.9	7	5.3
50+	17	25.0	16	25.4	33	25.2
<i>Total</i>	<i>68</i>	<i>100.0</i>	<i>63</i>	<i>100.0</i>	<i>131</i>	<i>100.0</i>
Community area of event location						
St. James	4	5.9	2	3.2	6	4.6
Assiniboine South	2	2.9	1	1.6	3	2.3
Fort Garry	1	1.5	6	9.5	7	5.3
St. Vital	3	4.4	0	0.0	3	2.3
St. Boniface	4	5.9	3	4.8	7	5.3
Transcona	4	5.9	4	6.3	8	6.1
River East	4	5.9	4	6.3	8	6.1
Seven Oaks	3	4.4	3	4.8	6	4.6
Inkster	2	2.9	1	1.6	3	2.3
Point Douglas	12	17.6	16	25.4	28	21.4
Downtown	26	38.2	20	31.7	46	35.1
River Heights	3	4.4	3	4.8	6	4.6
<i>Total</i>	<i>68</i>	<i>100.0</i>	<i>63</i>	<i>100.0</i>	<i>131</i>	<i>100.0</i>
Community area of residency						
St. James	2	3.3	4	8.7	6	5.7
Assiniboine South	2	3.3	1	2.2	3	2.8
Fort Garry	1	1.7	2	4.3	3	2.8
St. Vital	3	5.0	2	4.3	5	4.7
St. Boniface	3	5.0	2	4.3	5	4.7
Transcona	4	6.7	1	2.2	5	4.7
River East	5	8.3	3	6.5	8	7.5
Seven Oaks	5	8.3	4	8.7	9	8.5
Inkster	2	3.3	2	4.3	4	3.8
Point Douglas	16	26.7	13	28.3	29	27.4
Downtown	13	21.7	10	21.7	23	21.7
River Heights	4	6.7	2	4.3	6	5.7
<i>Total</i>	<i>60</i>	<i>100.0</i>	<i>46</i>	<i>100.0</i>	<i>106</i>	<i>100.0</i>

*Data provided by WFPS; Includes only those greater than 9 years of age.

Table A. 2: Number of suspected overdose cases receiving naloxone by year, Winnipeg Fire and Paramedic Service (January 1, 2012 - March. 31, 2018)

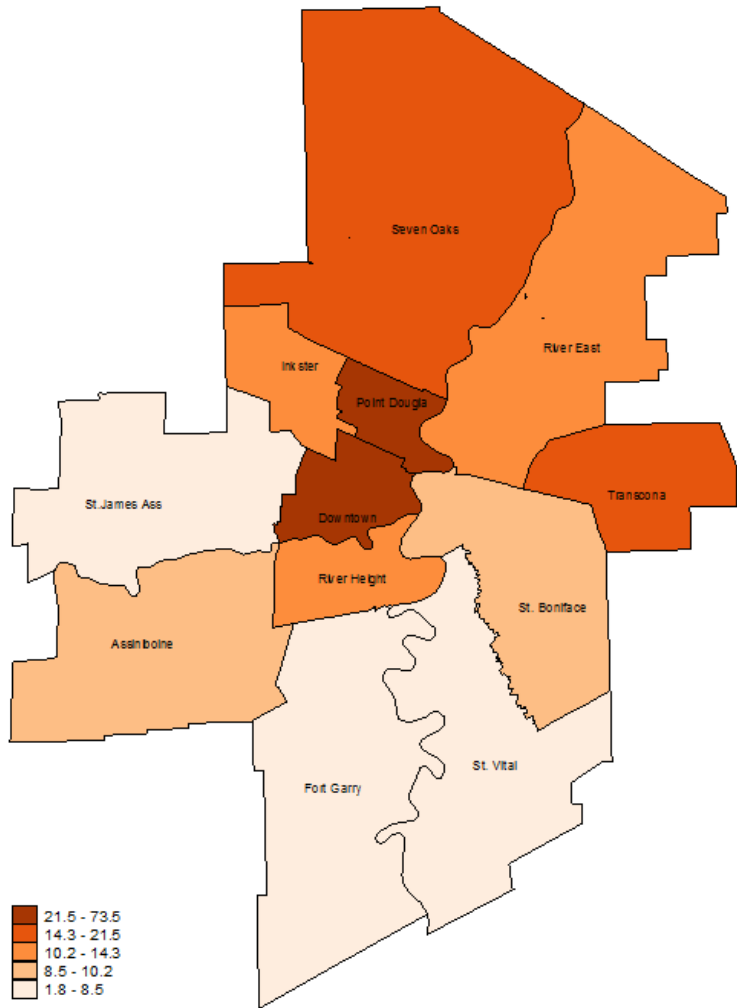
Year	Female		Male		Total	
	n.	%	n	%	N	%
2012	171	47.9	186	52.1	357	100.0
2013	144	46.9	163	53.1	307	100.0
2014	153	44.3	192	55.7	345	100.0
2015	198	47.3	221	52.7	419	100.0
2016	313	43.8	402	56.2	715	100.0
2017	299	40.6	437	59.4	736	100.0
2018	68	51.9	63	48.1	131	100.0
<i>Total</i>	<i>1,346</i>	<i>44.7</i>	<i>1,664</i>	<i>55.3</i>	<i>3,010</i>	<i>100.0</i>

Data provided by WFPS; Includes only those greater than 9 years of age.

Table A. 3: Crude and age-standardized rates (per 100,000) of suspected overdose events where naloxone was administered by community area of residence, Winnipeg Fire and Paramedic Service (January 1 - March 31, 2018)

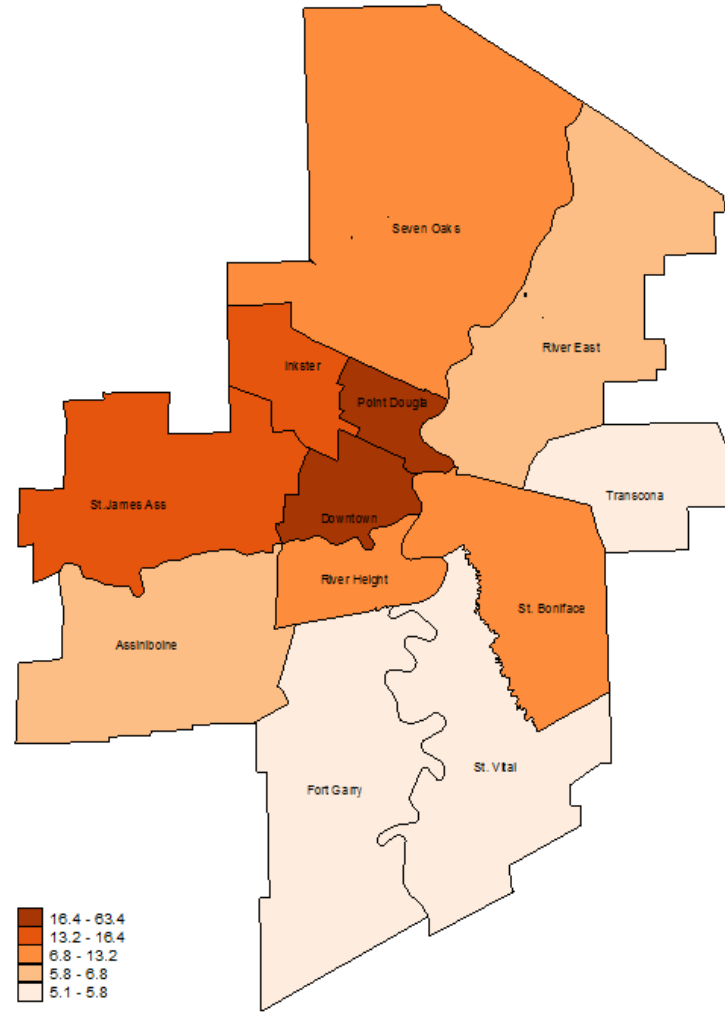
FEMALE				
Community Area of Residency	Number	Crude Rate	Age-Standardized Rate	95%CI
St. James	2	7.0	8.5	1.0 - 30.4
Assiniboine South	2	12.0	8.9	1.1 - 39.2
Fort Garry	1	2.5	1.8	0.0 - 12.4
St. Vital	3	9.2	8.1	1.7 - 25.1
St. Boniface	3	11.1	10.2	2.1 - 31.1
Transcona	4	23.1	21.5	5.8 - 56.0
River East	5	11.1	10.6	3.3 - 25.5
Seven Oaks	5	14.6	14.3	4.6 - 33.9
Inkster	2	13.3	14.3	1.7 - 49.9
Point Douglas	16	80.6	73.5	41.8 - 120.1
Downtown	13	37.1	31.5	16.5 - 54.9
River Heights	4	14.7	12.2	3.3 - 34.3
<i>Total</i>	<i>60</i>	<i>17.8</i>	<i>16.9</i>	<i>12.9 - 21.8</i>
MALE				
Community Area of Residency	Number	Crude Rate	Age-Standardized Rate	95%CI
St. James	4	15.4	16.4	4.4 - 42.2
Assiniboine South	1	6.5	6.7	0.2 - 38.6
Fort Garry	2	5.2	5.5	0.7 - 19.5
St. Vital	2	6.6	5.8	0.7 - 22.1
St. Boniface	2	7.8	7.5	0.9 - 27.6
Transcona	1	6.0	5.1	0.1 - 30.7
River East	3	7.1	6.8	1.4 - 20.2
Seven Oaks	4	12.3	13.2	3.6 - 33.2
Inkster	2	13.4	13.8	1.6 - 48.6
Point Douglas	13	64.5	63.4	33.4 - 108.5
Downtown	10	27.2	27.1	12.8 - 50.1
River Heights	2	8.1	7.7	0.9 - 29.3
<i>Total</i>	<i>46</i>	<i>14.2</i>	<i>13.7</i>	<i>10.0 - 18.4</i>

*Data provided by WFPS; Includes only those greater than 9 years of age; CI- Confidence Interval.



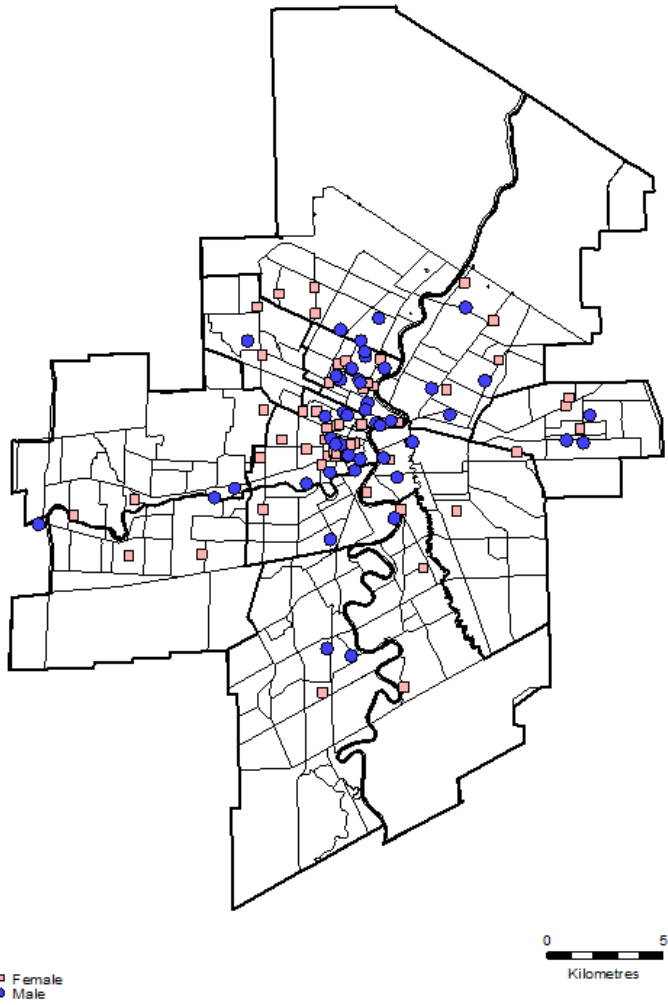
Female Events up to 31mar2018. Total annual population (> 9years) used in rate calculations.

Figure A. 1: Age standardized rate (per 100,000) map of suspected overdose events among **females** where naloxone was administered by community area of residence, Winnipeg Fire and Paramedic Service (January 1 - March 31, 2018)



Male Events up to 31mar2018. Total annual population (> 9years) used in rate calculations.

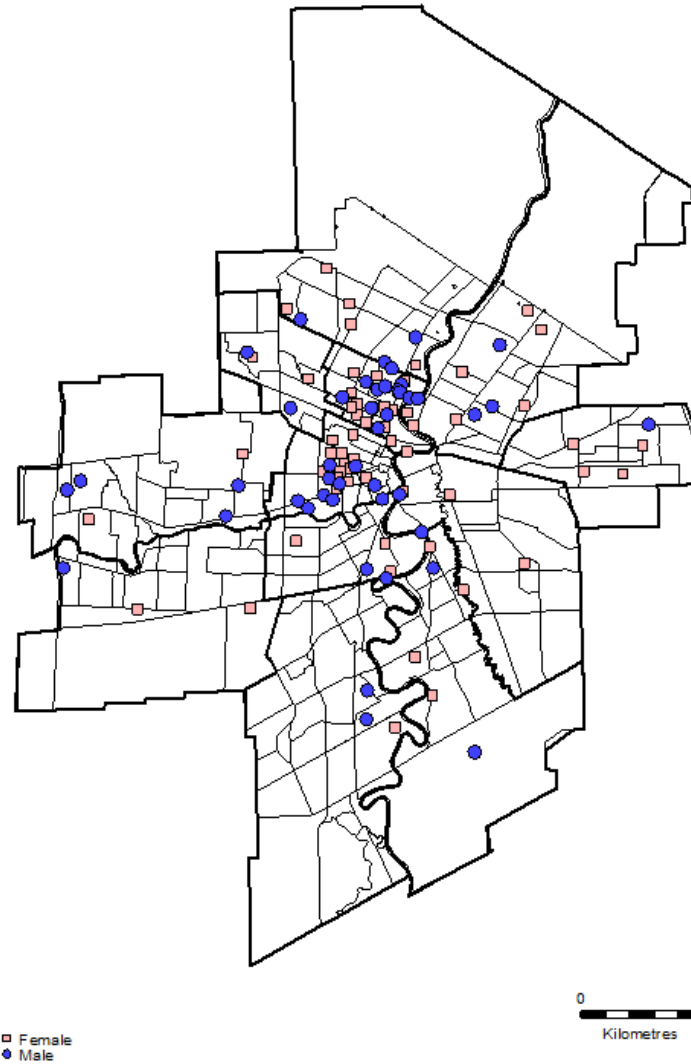
Figure A. 2: Age standardized rate (per 100,000) of suspected overdose events among **males** where naloxone was administered by community area of residence, Winnipeg Fire and Paramedic Service (January 1 - March 31, 2018)



Event, Data provided by WFPS; Includes only those greater than 9 years of age. Events up to 31mar2018

The event locations (where the WFPS call for service occurred) illustrated on the map are not exact (randomized within neighborhoods).

Figure A. 3: Dot map of suspected overdose cases receiving naloxone by **event locations**, Winnipeg Fire and Paramedic Service (January 1 - March 31, 2018)



Residence, Data provided by WFPS; Includes only those greater than 9 years of age. Events up to 31mar2018

Residential locations are not exact (randomized within neighborhoods).

Figure A. 4: Dot map of suspected overdose cases receiving naloxone by **residential locations**, Winnipeg Fire and Paramedic Service (January 1 - March 31, 2018)

Naloxone Take-Home Program – Updated 2017 Data

Table A. 4: Characteristics of overdose events where a takehome naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1, 2017 – December 31, 2017)

Characteristics	Categories	Female (n=38)	Male (n=62)	Unknown (n=8)	Total (N=108)
Age group (years)	12-18	1	1	0	2
	19-30	21	29	1	51
	31-40	12	13	1	26
	41-50	3	7	0	10
	51-60	0	3	0	3
	61 and older	0	3	0	3
	Unknown age	1	6	6	13
Location of overdose	Private residence	31	43	3	77
	Street/Alley/Park	4	4	1	9
	Other ^a	2	6	0	8
	Prefer not to say	1	6	3	10
	Unknown	0	3	1	4
RHA where overdose occurred	Winnipeg RHA	31	45	7	83
	Prairie Mountain Health	5	6	1	12
	Interlake-Eastern RHA	0	5	0	5
	Southern Health - Santé Sud	0	2	0	2
	Unknown region in Manitoba	1	1	0	2
	Out of province	0	1	0	1
	Prefer not to say	1	2	0	3
Substance type ^b (self-reported)	Fentanyl	13	25*	1	38
	Carfentanil	7	14	1	22
	Crystal meth	3	12	0	15
	Morphine	5	7	0	12
	Alcohol	2	3	0	5
	Other substances ^c	16	15	3**	34
	Unknown	7	7	2	16
	Prefer not to disclose	0	2	1	3

* 1 case reported suspected fentanyl”

** 1 case reported “opioids in general”

Notes:

a Other locations: public washroom, hotel/motel, shelter, in vehicle, public stairwell, apartment building lobby, and outdoor (near river)

b Not mutually exclusive

c Other substances include: benzodiazepine, cocaine/crack, alcohol, codeine, methadone, heroin, dilaudid, known drugs from Ontario, suspected adulterated

Table A. 5: Characteristics of emergency response to overdose events where a take-home naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1, 2017 – December 31, 2017)

Variable	Description	Female (n=38)	Male (n=62)	Unknown (n=8)	Total (N=108)
Was 911 called?	Yes	0	2	0	2
	<i>Which responders arrived first?</i>		<i>ambulance*</i>		
	No	25	31	3	59
	Unknown/no response	13	29	5	47
Reason(s) for not calling 911 ^a	No phone	2	5	1	8
	Worried police would come	5	7	0	12
	Thought the person would get better on their own	8	7	0	15
	Unknown	4	2	1	7
	Prefer not to say	3	6	1	10
	Other**	4	4	1	9
Actions taken during overdose ^a	Stimulate (sternal rub/yelling)	21	34	3	58
	Chest compressions	7	13	0	20
	Rescue breathing	12	27	2	41
	Unknown/prefer not to say	8	8	2	18
Number of naloxone doses given	One	18	15	4	37
	Two	11	33	2	46
	Three	5	9	0	14
	Prefer not to say	4	5	2	11

* Ambulance was reported by one case.

** Other includes: “ambulance first”; “brought person to urgent care”; “came back naloxone didn’t want to go to hospital”, “did not want to”; “drove them to hospital”; “person recovered quickly”; “person requested no 911 called”; “responder is hiding from people”, “took person to ER themselves”

Notes:

^a Results are not mutually exclusive.

Suspected Overdose Cases Arriving at Emergency Departments and Urgent Care Facilities in Winnipeg RHA

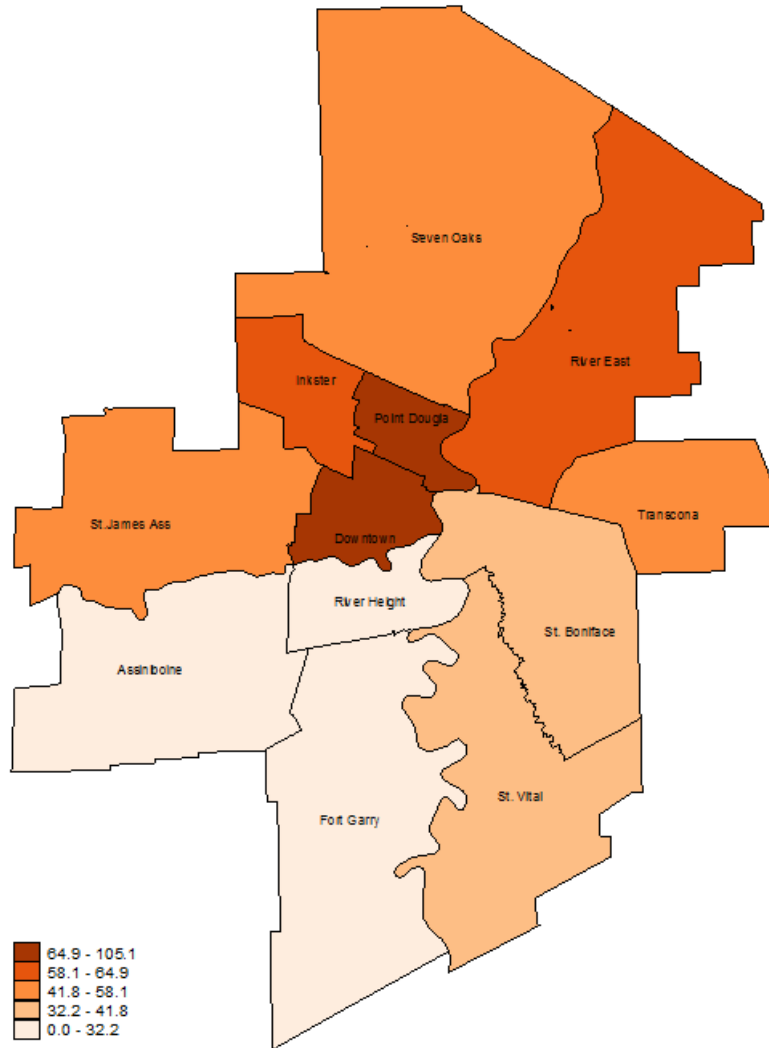
Table A. 6: Characteristics of suspected overdose cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities, Emergency Department Information System (January 1 - March 31, 2018)

	Female		Male		Total	
	n	%	n	%	N	%
Age group (years)						
10-14	24	12.3	6	7.1	30	10.7
15-19	54	27.7	16	18.8	70	25.0
20-24	24	12.3	8	9.4	32	11.4
25-29	27	13.8	12	14.1	39	13.9
30-34	15	7.7	8	9.4	23	8.2
35-39	14	7.2	6	7.1	20	7.1
40-44	10	5.1	8	9.4	18	6.4
45-49	4	2.1	7	8.2	11	3.9
50 and older	23	11.8	14	16.5	37	13.2
<i>Total</i>	<i>195</i>	<i>100.0</i>	<i>85</i>	<i>100.0</i>	<i>280</i>	<i>100.0</i>
Community Area						
St. James	10	5.1	6	7.1	16	5.7
Assiniboine South	0	0.0	2	2.4	2	0.7
Fort Garry	12	6.2	5	5.9	17	6.1
St. Vital	10	5.1	7	8.2	17	6.1
St. Boniface	11	5.6	4	4.7	15	5.4
Transcona	9	4.6	1	1.2	10	3.6
River East	26	13.3	8	9.4	34	12.1
Seven Oaks	19	9.7	4	4.7	23	8.2
Inkster	10	5.1	4	4.7	14	5.0
Point Douglas	23	11.8	7	8.2	30	10.7
Downtown	28	14.4	15	17.6	43	15.4
River Heights	3	1.5	2	2.4	5	1.8
Missing - no postal code	3	1.5	2	2.4	5	1.8
Non-Winnipeg postal code, Manitoba resident	27	13.8	16	18.8	43	15.4
Non-Winnipeg postal code, Non-Manitoba resident	4	2.1	2	2.4	6	2.1
<i>Total</i>	<i>195</i>	<i>100.0</i>	<i>85</i>	<i>100.0</i>	<i>280</i>	<i>100.0</i>

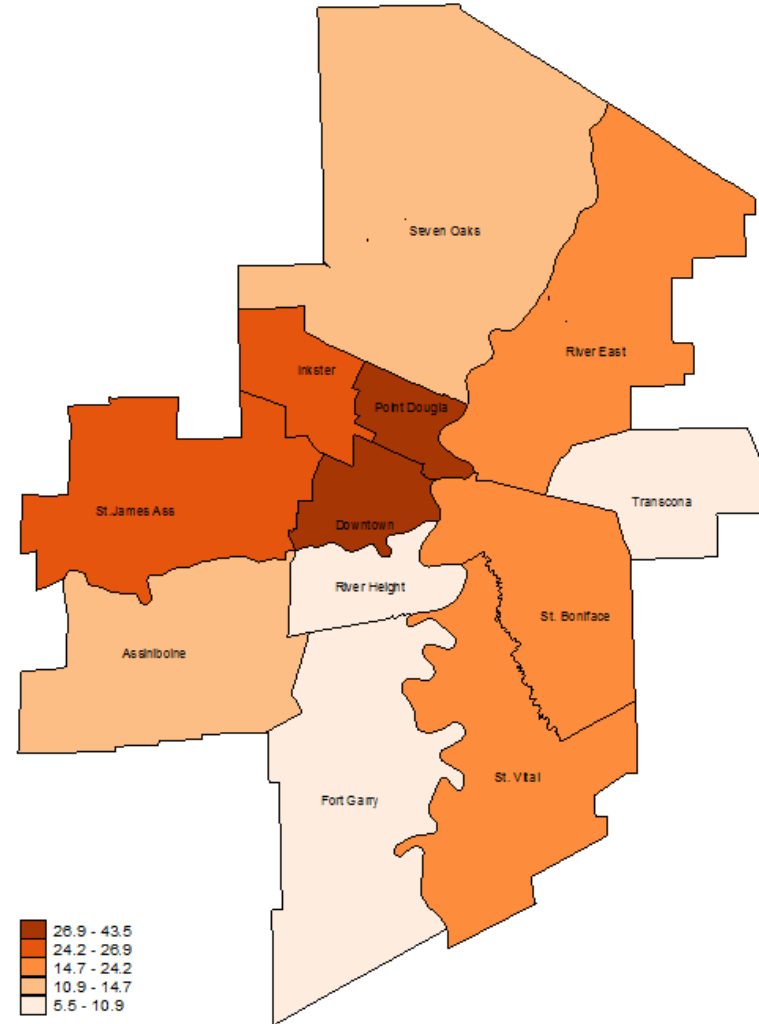
*Data includes Canadian Triage and Acuity Scale (CTAS) 1 & 2 and those greater than 9 years of age only.

Table A. 7: Crude and age standardized rates (per 100,000) of suspected overdose cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities by community area, Emergency Department Information System (January 1 - March 31, 2018)

Female				
Community Area	Number	Crude Rate	Age-Standardized Rate	95%CI
St. James	10	35.2	46.2	21.8 - 84.8
Assiniboine South	0	0.0	0.0	0.0 - 26.2
Fort Garry	12	30.4	32.2	16.5 - 56.2
St. Vital	10	30.7	32.5	15.4 - 60.2
St. Boniface	11	40.8	41.8	20.8 - 75.2
Transcona	9	51.9	54.5	24.9 - 103.2
River East	26	57.9	62.5	40.6 - 91.8
Seven Oaks	19	55.6	58.1	34.9 - 90.7
Inkster	10	66.6	64.9	30.9 - 119.7
Point Douglas	23	115.9	105.1	66.4 - 158.4
Downtown	28	80.0	76.1	50.1 - 110.7
River Heights	3	11.0	10.6	2.0 - 33.6
<i>Total</i>	<i>161</i>	<i>47.7</i>	<i>49.5</i>	<i>42.1 - 57.9</i>
Male				
Community Area	Number	Crude Rate	Age-Standardized Rate	95%CI
St. James	6	23.1	25.9	9.4 - 56.2
Assiniboine South	2	13.1	14.7	1.6 - 53.4
Fort Garry	5	13.1	10.9	3.4 - 26.6
St. Vital	7	23.2	24.2	9.6 - 49.9
St. Boniface	4	15.7	15.5	4.2 - 40.1
Transcona	1	6.0	5.5	0.1 - 31.6
River East	8	19.0	19.4	8.3 - 38.2
Seven Oaks	4	12.3	11.7	3.2 - 30.1
Inkster	4	26.8	26.9	7.2 - 68.4
Point Douglas	7	34.7	32.8	13.1 - 67.8
Downtown	15	40.9	43.5	24.2 - 71.6
River Heights	2	8.1	6.5	0.8 - 26.6
<i>Total</i>	<i>65</i>	<i>20.1</i>	<i>20.0</i>	<i>15.4 - 25.5</i>



Female Visits up to 31mar2018. Total annual population (> 9years) used in rate calculations. Figure A. 5: Age standardized rate (per 100,000) map of suspected overdose female cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities by community area of residence, Emergency Department Information System (January 1 - March 31, 2018)



Male Visits up to 31mar2018. Total annual population (> 9years) used in rate calculations. Figure A. 6: Age standardized rate (per 100,000) map of suspected overdose male cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities by community area of residence, Emergency Department Information System, (January 1 - March 31, 2018)

Severity: Hospital Admissions

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

Year	24 years old or younger	25 - 44 years old	45 - 64 years old	65 years old or older	Total
2008	14	28	37	22	101
2009	11	34	32	24	101
2010	13	27	37	25	102
2011	25	60	35	32	152
2012	21	38	43	24	126
2013	18	44	34	20	116
2014	16	48	51	21	136
2015	16	42	49	15	122
2016	16	32	49	27	124
2017	25	48	43	23	139
2018*	4	4	13	4	25
<i>Total</i>	179	405	423	237	1244

*includes data for January 1 to March 31 only.

Table A. 9: Number of opioid poisoning hospitalizations in Manitoba by opioid type, Manitoba Health, Seniors and Active Living (January 1, 2008 – March 31, 2018)

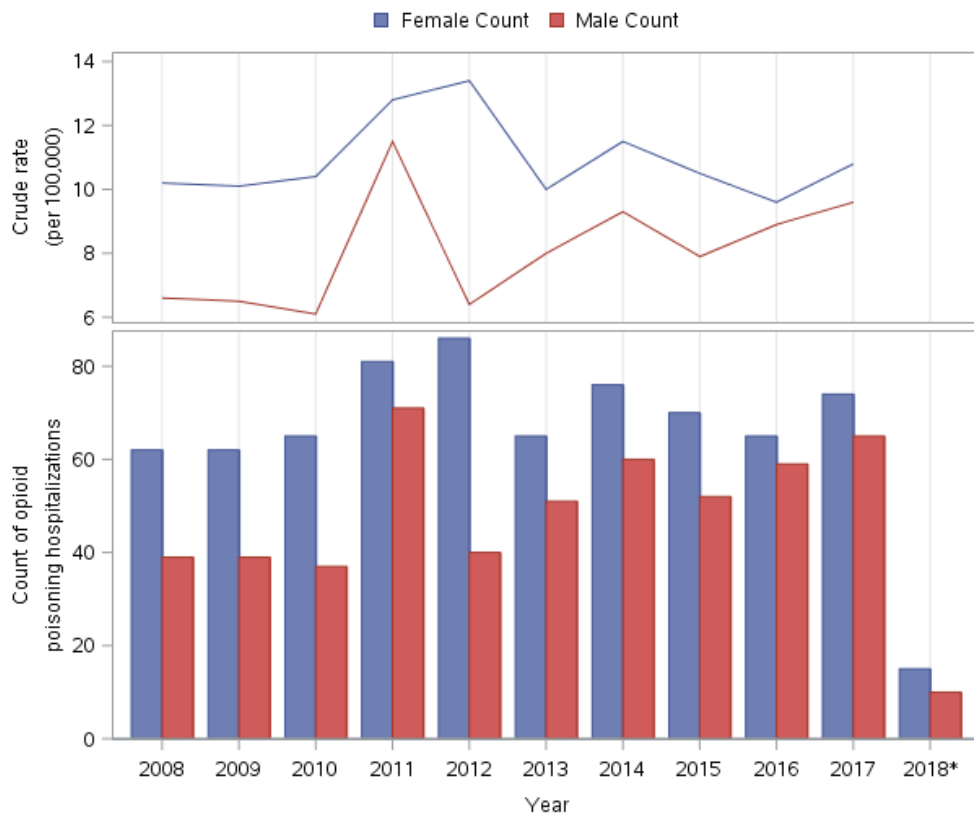
Year	Poisoning by heroin	Poisoning by methadone	Poisoning by opium	Poisoning by other opioids **	Poisoning by synthetic opioids	Poisoning by unspecified/other narcotics	Total
2008	0	5	0	67	7	22	101
2009	1	7	1	69	4	19	101
2010	0	2	1	67	7	25	102
2011	0	13	0	102	12	25	152
2012	1	6	0	92	6	21	126
2013	1	7	0	87	9	12	116
2014	1	7	1	100	4	23	136
2015	0	8	0	82	12	20	122
2016	0	9	0	77	17	21	124
2017	0	12	0	85	23	19	139
2018*	0	1	0	21	1	2	25
<i>Total</i>	4	77	3	849	102	209	1244

*includes data for January 1 to March 31 only.

Table A. 10: Number of opioid poisoning hospitalizations in Manitoba by Regional Health Authority, Manitoba Health, Seniors and Active Living (January 1, 2008 – March 31, 2018)

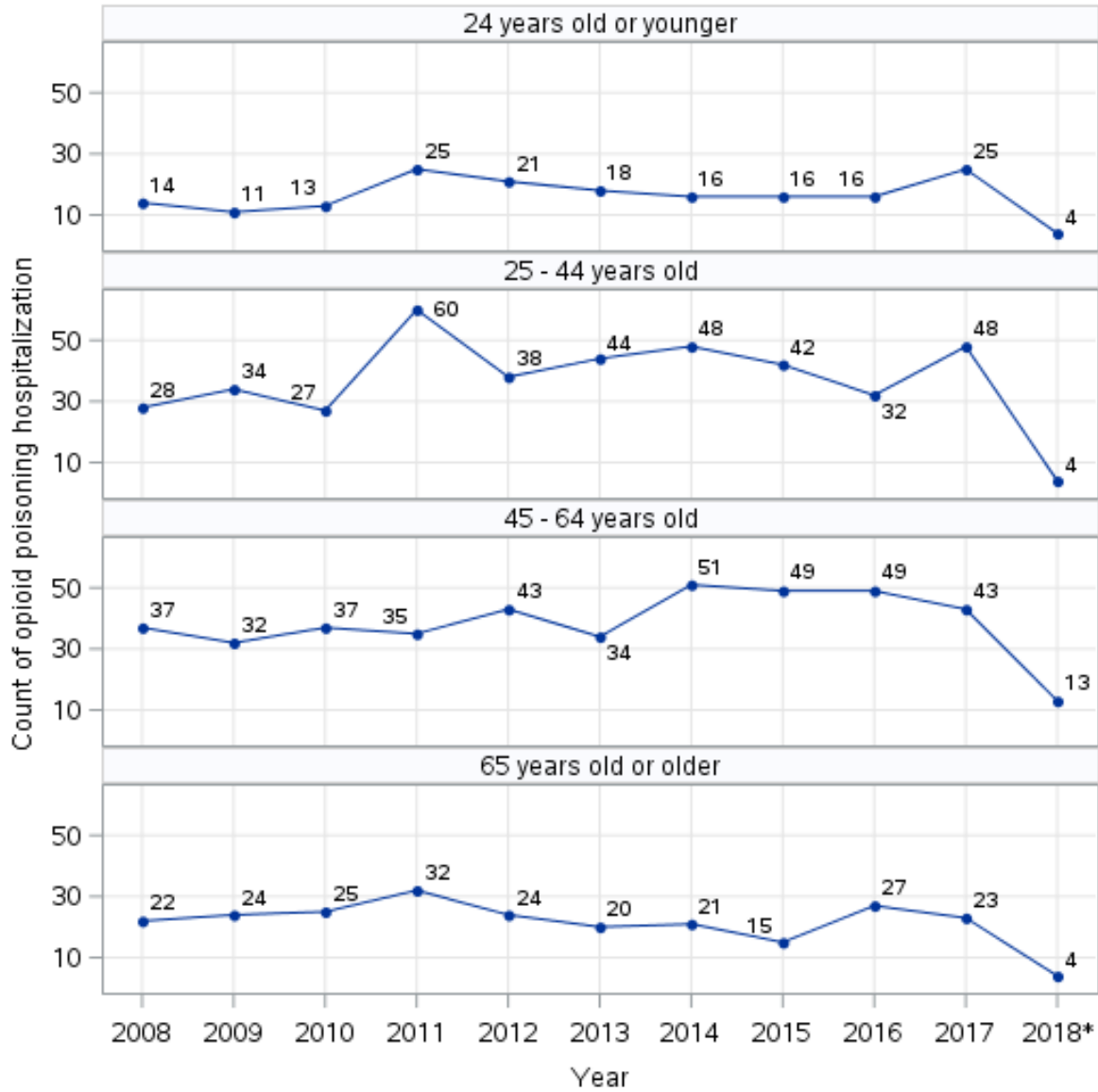
Year	Interlake-Eastern RHA	Northern RHA	Prairie Mountain Health	Southern Health-Santé Sud	Winnipeg RHA	Total
2008	12	5	34	6	44	101
2009	15	12	22	10	42	101
2010	14	10	29	17	32	102
2011	14	15	40	22	61	152
2012	16	17	27	14	52	126
2013	12	22	32	15	35	116
2014	15	11	42	18	50	136
2015	21	11	36	2	52	122
2016	16	10	35	10	53	124
2017	13	5	27	2	92	139
2018*	5	0	4	0	16	25
<i>Total</i>	<i>153</i>	<i>118</i>	<i>328</i>	<i>116</i>	<i>529</i>	<i>1244</i>

*includes data for January 1 to March 31 only.



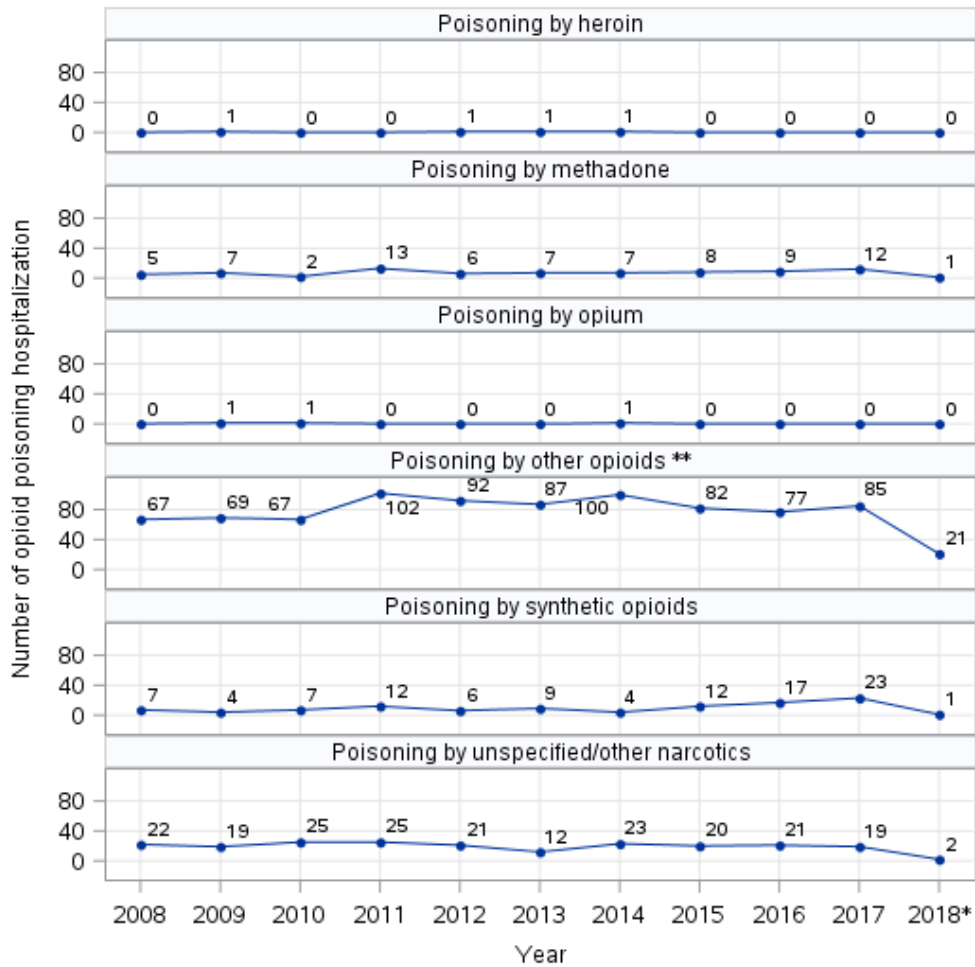
*includes data for January 1 to March 31 only.

Figure A. 7: Number and crude rate (per 100,000) of opioid poisoning hospitalizations in Manitoba by sex, Manitoba Health, Seniors and Active Living (January 1, 2008 – March 31, 2018)



*includes data for January 1 to March 31 only.

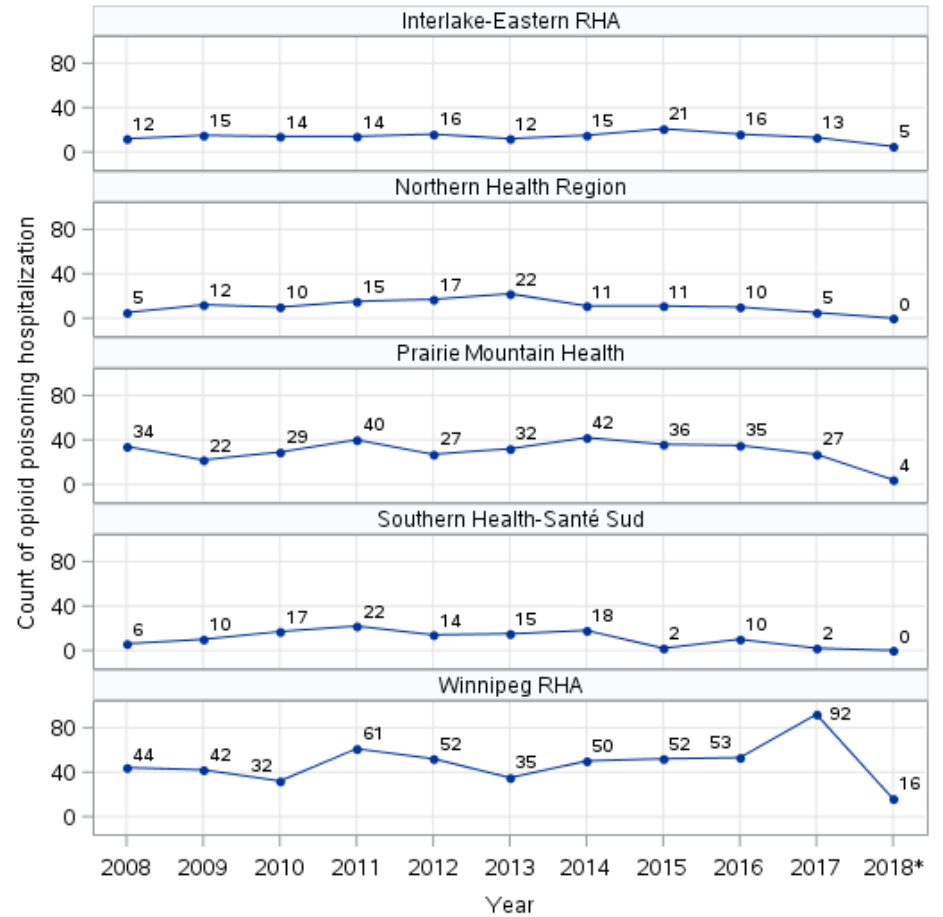
Figure A. 8: Number of hospitalizations in Manitoba by age group, Manitoba Health, Seniors and Active Living (January 1, 2008 – March 31, 2018)



*includes data for January 1 to March 31 only.

** Other opioids include oxycodone, morphine, hydromorphone, and unspecified opioids.

Figure A. 9: Number of opioid poisoning hospitalizations in Manitoba by opioid type, Manitoba Health, Seniors and Active Living (January 1, 2008 – March 31, 2018)



*includes data for January 1 to March 31 only.

Figure A. 10: Count of opioid poisoning hospitalizations in Manitoba by regional health authority, Manitoba Health, Seniors and Active Living (January 1, 2008 – March 31, 2018)

Mortality: Office of the Chief Medical Examiner

Table A. 11: Number and crude rate (per 100,000) of apparent opioid-related deaths in Manitoba by RHA and year Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018)

Year	Number of deaths	Crude Rate
Interlake-Eastern RHA		
2014	13	10.3
2015	5	3.9
2016	8	6.2
2017	6	4.6
Northern RHA		
2014	2	2.7
2015	3	4.0
2016	3	3.9
2017	4	5.2
Prairie Mountain Health		
2014	7	4.2
2015	5	3.0
2016	6	3.5
2017	8	4.7
Southern Health - Santé Sud		
2014	5	2.6
2015	7	3.6
2016	12	6.1
2017	14	7.0
Winnipeg RHA		
2014	48	6.4
2015	48	6.4
2016	56	7.3
2017	74	9.5
Out of Province		
2016	3	n/a

Table A. 12: Number and crude rate (per 100,000) of apparent opioid-related deaths by age group, Office of the Chief Medical Examiner (January 1, 2014 – December 31, 2018)

Year	Number of deaths	Crude Rate
24 years old or younger		
2014	8	1.9
2015	6	1.4
2016	10	2.3
2017	14	3.2
25-44 years old		
2014	30	8.7
2015	33	9.4
2016	48	13.3
2017	56	15.2
45-64 years old		
2014	33	9.7
2015	27	7.9
2016	26	7.6
2017	31	9.0
65 years old or older		
2014	3	1.6
2015	2	1.0
2016	4	2.0
2017	5	2.4

Prescription Opioid Dispensation: Drug Program Information Network (DPIN)

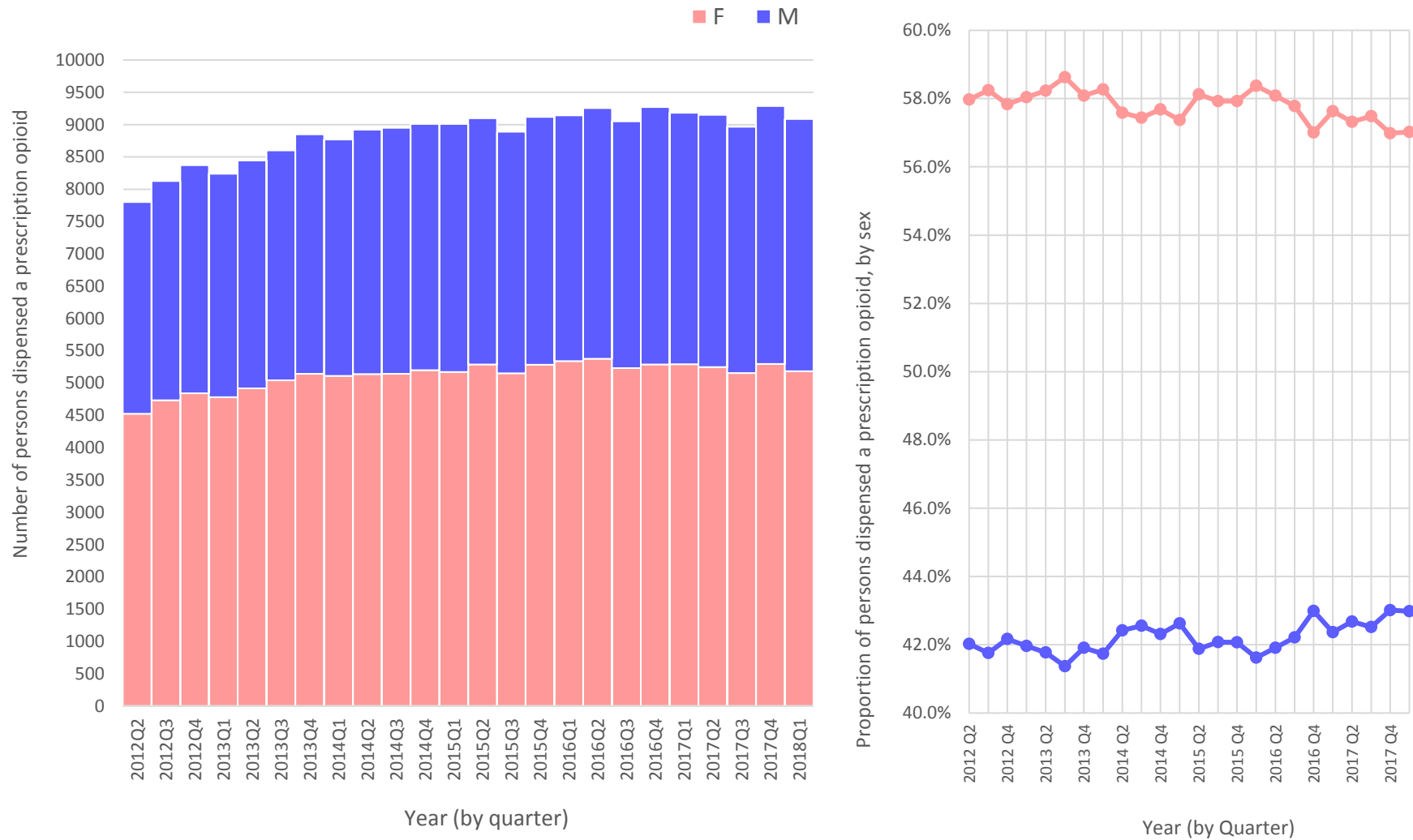


Figure A. 11: Number and proportion of Manitobans dispensed a prescription opioid from a community pharmacy by sex, Drug Program Information Network (April 1, 2012 – March 31, 2018)

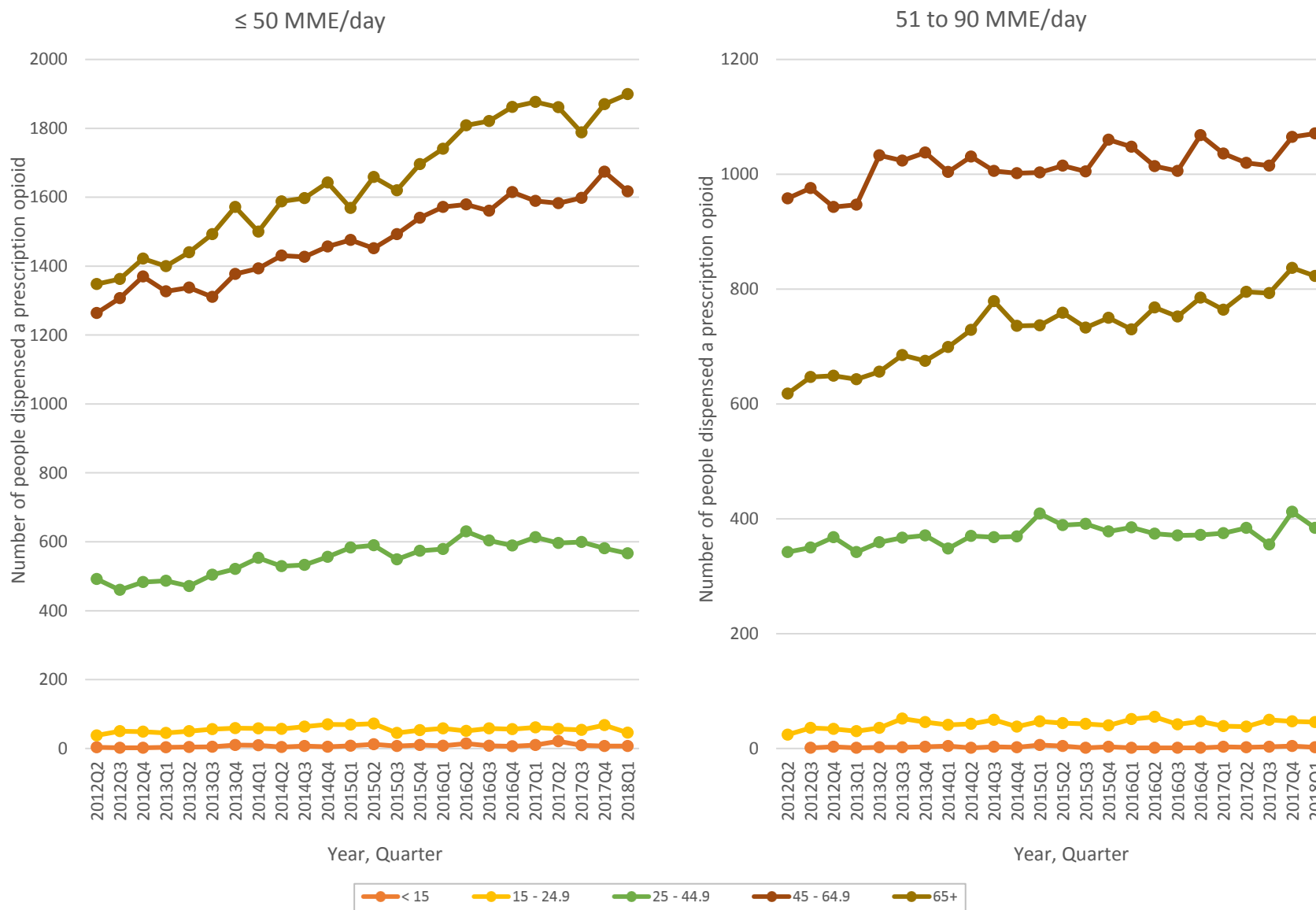


Figure A. 12: Number of Manitobans dispensed a prescription opioid from a community pharmacy by morphine milligram equivalent (MME) per day, ≤50 MME/day and 51 to 90 MME/day, and age group, Drug Program Information Network (April 1, 2012 – March 31, 2018)

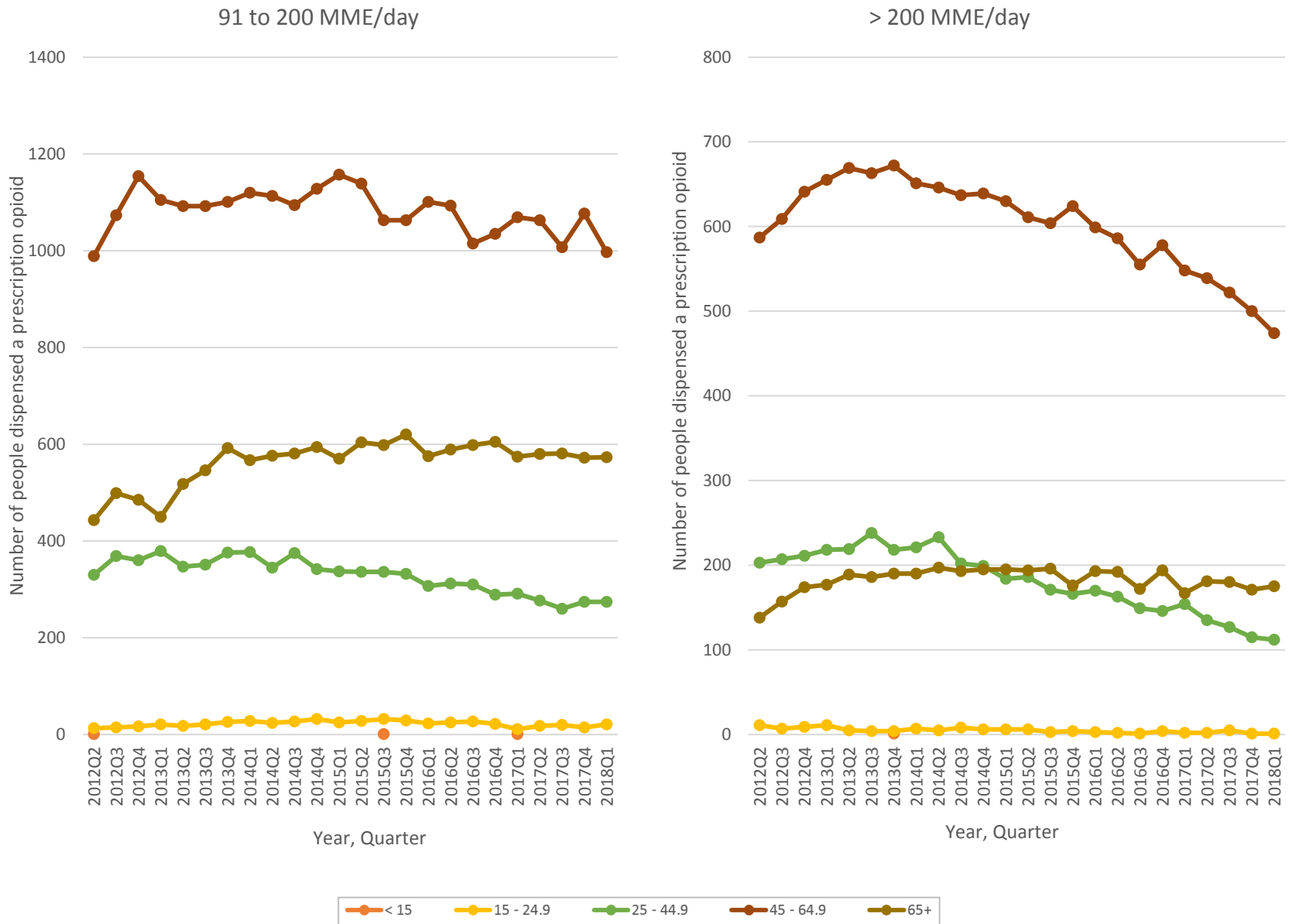


Figure A. 13: Number of Manitobans dispensed a prescription opioid from a community pharmacy by morphine milligram equivalent (MME) per day, 91 to 200 MME/day and >200 MME/day, and age group, Drug Program Information Network (April 1, 2012 – March 31, 2018)

Surveillance of Opioid Misuse and Overdose in Manitoba: January 1 – March 31, 2018

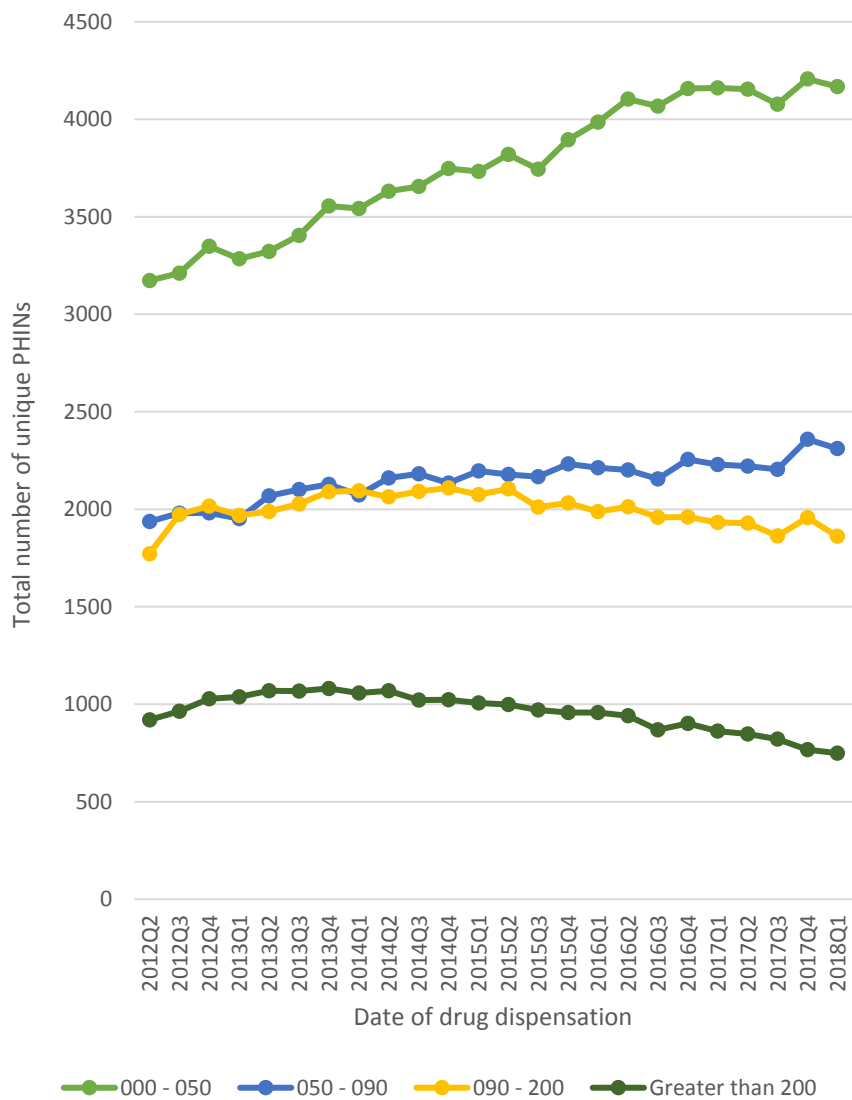


Figure A. 14: Number of Manitobans dispensed a prescription opioid from a community pharmacy by morphine milligram equivalent (MME) per day, Drug Program Information Network (April 1, 2013 – March 31, 2018)

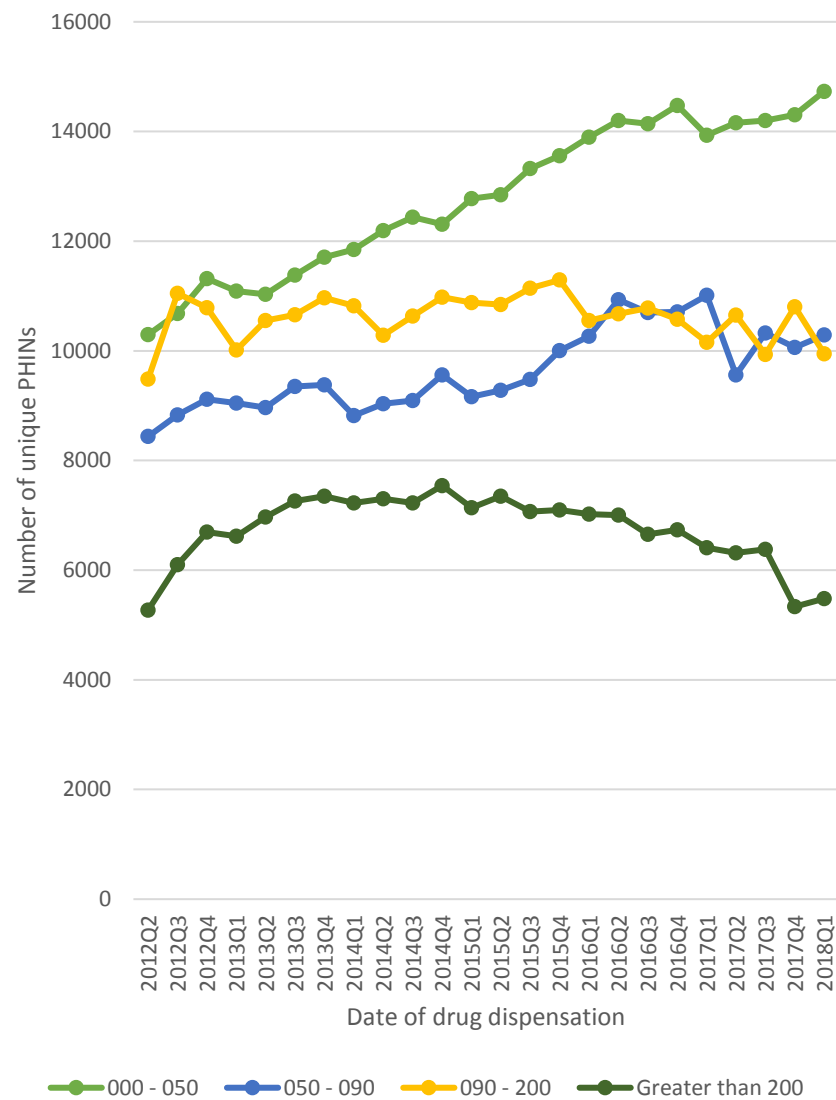


Figure A. 15: Number of total number of prescriptions dispensed for opioid from a community pharmacy in Manitoba by morphine milligram equivalent (MME) per day, Drug Program Information Network (April 1, 2013 – March 31, 2018)

Appendix B: Data Source Background and Interpretation Notes

Naloxone Distribution and Administration

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: <http://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.

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.

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.

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.

Severity

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.

Emergency department information system data (available for Winnipeg Regional Health Authority [RHA] only)

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 Winnipeg RHA are described using EDIS data.

Box B.5 – 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.

First Nations and Inuit Health Branch

On April 5, 2017 Nursing Stations were asked to start completing an enhanced suspected opioid overdose form for all suspected opioid overdoses. There are 22 Nursing Stations from which Enhanced Opioid Overdose Surveillance Forms are expected if a suspected opioid overdose occurs.

Box B.6 – Interpretation notes regarding First Nations and Inuit Health Branch data

Suspected Opioid Overdose is defined as: A life-threatening event requiring emergency medical assistance that is suspected or confirmed to be caused by opioid overdose, which is typically characterized by respiratory depression, coma or decreased level of consciousness, and sometimes accompanied by pupillary constriction. Cases include presentations where it is suspected or confirmed that opioids were mixed with other chemical agents.

Mortality

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.7 – 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.

Diagnostic Services Manitoba data

The Office of the Chief Medical Examiner (OCME) can request Diagnostic Services Manitoba (DSM) to provide further evidence to support an investigation. As part of that process, DSM will screen samples for fentanyl analogs including carfentanil and furanyl fentanyl. The source of the screening results is blood and tissue samples received from physicians (clinicians and pathologists).

Box B.8 – Interpretation notes regarding Toxicology data

It cannot be presumed that the presence of a fentanyl analog is related to the cause of death. This requires the review by the Office of the Chief Medical Examiner, as toxicological findings must be consolidated with all cases and autopsy information in order to ascertain cause of death. Thus, there can be no implied correlation between the number of positive test results and the number of overdose-related deaths.

Prescription Opioid Dispensation

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.9 – Interpretation notes regarding Drug Program Information Network data

Prescription opioids included in the analysis are fentanyl, oxyneon, 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, 51-90 MME/day, 91-200 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 earliest Rx for that patient

Call Centres

Calls to Health Links - Info Santé

Health Links – Info Santé is a provincial telenursing service that offers the following confidential services free-of-charge: (1) health assessment, care advice, and triage to the most appropriate level of care (e.g. “the Right Care at the Right Time”), (2) general health information and education, and (3) assistance in finding and accessing health resources in local communities to all residents in Manitoba.

Box B.10 – Interpretation notes regarding Health Links – Info Sante data

Calls that utilize health education documents are only topics discussed during calls – it is not known if callers are directly involved in the topic matter (opioid/drug use). Therefore, interpretation of the data presented in this section should be continued with caution.

Health Links – Info Santé registered nurses use evidence-based guidelines and/or health education documents (e.g. “Health Information Advisor” (HIA) documents) to assist clients. Although guidelines and health education documents are a core asset in providing health information, professional nursing judgment is also used in providing information and triaging symptoms for clients.

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.11 – 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.

Illegal Opioids Identified or Tracked

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.12 – 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.

ACKNOWLEDGEMENTS

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 Misuse and Overdose in Manitoba* 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
- Diagnostic Services Manitoba
- Emergency Medical Services in the Northern RHA
- First Nations and Inuit Health Branch
- Health Canada
- Health Links/Info Santé
- Manitoba Justice
- Manitoba Poison Centre
- Northern Regional Health Authority
- Medical Transportation Coordination Centre
- Winnipeg Regional Health Authority
- Winnipeg Fire and Paramedic Service