SURVEILLANCE OF OPIOID USE AND OVERDOSE IN MANITOBA:

JULY 1 – SEPTEMBER 30, 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
Information Management & Analytics
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 third quarter of 2018.

Apparent opioid-related deaths

Between January 1 and September 30, 2018, 40* apparent opioid-related deaths have been reported in Manitoba: 19* in the first quarter (January 1 – March 31), 14* in the second quarter (April 1 – June 30), and 7* in the third quarter (July 1 – September 30). During the same period in 2017 (January 1 to September 30), 87 apparent opioid-related deaths were reported – see *page 22.*

***** Deaths that occurred in 2018 are still under review. These are preliminary numbers and are subject to change.

Hospitalization due to opioid poisoning

Between January 1 and September 30, 2018, 70 opioid poisoning hospitalizations were reported, with 16 of these occurring in the third quarter. This is a decline since the previous two quarters (27 hospitalizations in the first quarter, and 27 hospitalizations in the second quarter). In 2017, there were 110 opioid poisoning hospitalizations reported between the same period (January 1 and September 30, 2017) – *see page 15.*

Emergency department admissions

Between January 1 and September 30 2018, 1,258 suspected overdose cases (this is not specific to an opioid overdose) arrived at emergency departments and urgent care facilities: 881 cases to sites in the Winnipeg Regional Health Authority and 377 cases to sites in the other Regional Health Authorities (RHAs) – *see page 15.*

Opioid overdose events in the community – using naloxone administration as a proxy

In Winnipeg, between January 1 and September 30, 2018, 450 individuals were suspected to have overdosed on opioids and as a result, naloxone was administered by an EMS personnel. In Northern and Rural Manitoba, between January 1 and September 30, 2018, 15 individuals were suspected of an overdose and administered naloxone by an EMS personnel or a by-stander – *see pages 7 and 8*.

Additionally, between January 1 and September 30, 2018, 36 individuals were reported through the take-home naloxone kit (THNK) overdose response form to have overdosed on opioids. Half of these individuals were between 19 and 30 years; Fentanyl was the top drug reported to be used. All of the individuals who were administered naloxone survived the overdose - *see page 9.*

Opioid prescription dispensing

In 2018 (between January 1 and September 30, 2018), 26,973 Manitobans were dispensed a prescription opioid from a community pharmacy – this is lower compared the same time period in 2016 and 2017. Overall, a decrease in the number of Manitobans prescribed Fentanyl, Hydromorphone, Meperidine, Morphine, and Oxyneo is noted since the last quarter, while the prescription of Generic Oxycontin increased – *see page 28.*

Illegal drug activity

During the six month period of April 1 – September 30 2018, a total of 1,790 samples of suspected illegal drugs seized by law enforcement was submitted for analysis in Manitoba; this represents a 7% increase over the same period last year. During this period, 175 opioids were identified. Fentanyl and its analogues represented half of these opioids; five carfentanil samples were identified – *see page 33.*

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SURVEILLANCE OF OPIOID USE AND OVERDOSE IN MANITOBA

JULY 1 – SEPTEMBER 30, 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.

Current response efforts: Naloxone Distribution

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

Distribution of Naloxone to individuals through the Provincial Take-Home Naloxone Program

Year to date (January 1 – September 30), 464 take-home naloxone kits were distributed to individuals in the community (Table 1). In comparison, 760 kits were distributed during the same period in 2017.

In the third quarter of 2018, there were 92 take-home naloxone kits distributed by 12[1] sites in Manitoba.

- This is the lowest reported distribution per quarter since 2017.
- It is also important to note that Naloxone kit distribution forms are submitted bi-annually (in June and December), and as a result, quarter three numbers could be incomplete
- There are currently 90 distribution sites in Manitoba.

Naloxone Kit orders through the Manitoba Materials Distribution Agency (MDA)

Year to date (January 1 – September 30), 865 naloxone kits were shipped from Manitoba's Materials Distribution Agency (MDA). In the third quarter of 2018, 250 naloxone kits were shipped out – this is slightly lower in comparison to the first two quarters of 2018 (Figure 1).

Since the initiation of the program, the median number of units shipped per month is 120 units.

- Shipments have ranged from zero[2] (in December of 2017) to 270 (in January of 2017) units per month.

[1] The number of naloxone kits that were distributed by the sites is only available (and reported) when sites complete and submit the kit-tracking form available on the Government of Manitoba website: https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6259_20171115.pdf

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

Table 1: Number of take-home naloxone kits distributed to individuals in the community, Manitoba Health, Seniors and Active Living (January 1, 2017 – September 30, 2018)

	Total kits distributed	First kits[3] (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
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)	**92**	**58**
July	22	9
August	44	31
September	26	18

*Note: Naloxone kit distribution forms are submitted bi-annually (in June and December), therefore quarter 3 numbers are most likely incomplete.

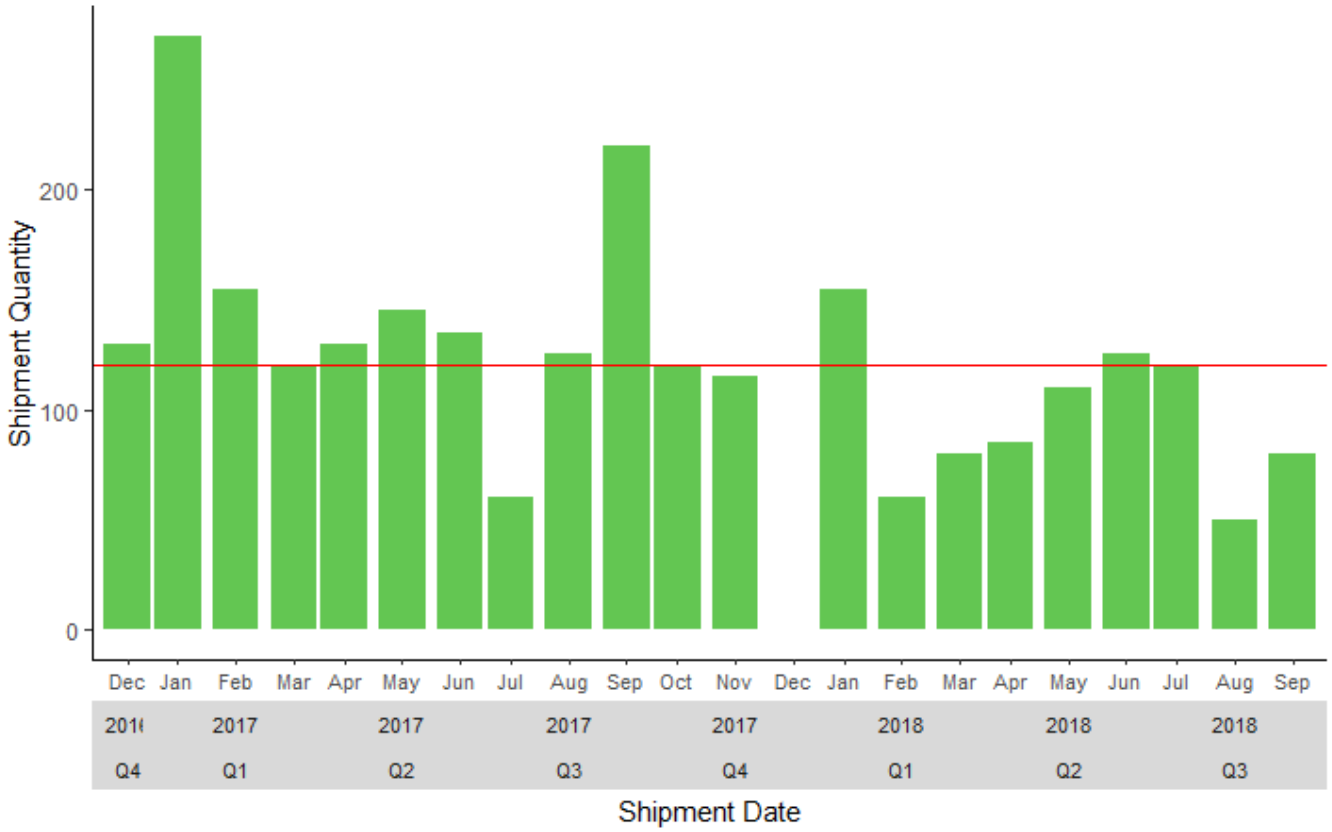


Figure 1: Number of naloxone kits shipped to distribution sites by the Materials Distribution Agency (MDA), Public Health Information Management System, PHIMS (formerly known as Panorama) (December 1, 2016 – September 30, 2018)

Opioid overdose in the community: *Emergency Medical Service calls and 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)

Age and sex trends of individuals administered naloxone by WFPS

Between January 1 and September 30, 2018, 450 individuals (52% males) were suspected to have overdosed on opioids and as a result, naloxone was administered (Figure 2). In 2017, during the same period, 612 individuals were suspected to have overdosed and administered naloxone.

The lowest number of individuals suspected to have overdosed was during the fourth quarter of 2017. Since then, the number of individuals reported to have been administered naloxone by the WFPS for a suspected overdose has been increasing:

- 2018 (n=450)
    - Q1 (January 1 – March 31, 2018): n=131
    - Q2 (April 1 – June 30, 2018): n=155
    - Q3 (July 1 – September 30, 2018): n=164
- 2017 (N=736)
    - Q1 (January 1 – March 31, 2017): n=210
    - Q2 (April 1 – June 30, 2017): n=225
    - Q3 (July 1 – September 30, 2017): n=177
    - Q4 (October 1 – December 31, 2017): n=124

Year to date (January 1 – September 30, 2018), the largest proportion of individuals suspected to have overdosed on opioids and administered naloxone were 50 years and over (20%) (Figure 3). The proportion of individuals within the other age groups were as follows: 15% between 30 to 34 years; 14% between 25 to 29 years; 14% between 35 to 39 years, 13% between 40 to 44 years, and 12% between 20 to 24 years.

Geographic trends of individuals administered naloxone by WFPS

Between January 1 and September 30, 2018, over half (62%) of the EMS response events occurred in the Downtown (40%) or Point Douglas (22%) community areas; 52% of these individuals had residential postal codes in those communities.

- This is a similar trend to events that occurred in 2017: 57% of individuals received naloxone from the WFPS in the Downtown or Point Douglas community areas, and 43% had residential postal codes in those communities.

Additional supporting tables and figures can be found in Appendix A of this report.

Medical Transportation Coordination Centre (MTCC)

Suspected overdose calls in Northern and Rural Manitoba

Between January 1 and September 30, 2018, 193 individuals were suspected to have overdosed in Northern and Rural Manitoba regions. The median number of individuals suspected of an overdose and reported by MTCC is 51 per quarter. The number of individuals suspected of an overdose in the third quarter (n=96) was higher than the first (n=54) and second quarter of 2018 (n=43) (Figure 4). Further exploration of the data is required to determine if the increase in the third quarter was a true increase – the increase can be partially attributed to a change in the criteria used for extracting events related to overdoses. This is currently being investigated.

- Similar to previous quarters, slightly more than half of the events (57%) in the third quarter of 2018 were among females (Figure 5).
- Similar to the first and second quarter, about half of the events (51%) in the third quarter of 2018 continues to be among individuals between the ages of 20 and 39 years (Figure 5).
- Unlike the previous quarter, in the third quarter of 2018, the number of suspected overdose events increased in all regional health authorities (RHAs) (Table 2).

Naloxone Administration[4] in Northern and Rural Manitoba

Note: The case definition includes bystander administration of naloxone, in addition to EMS administered naloxone. 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 (this is voluntary).

Between January 1 and September 30, 2018, 15 individuals who were suspected of an opioid overdose were administered[5] naloxone. The number of field administrations of naloxone has ranged between one and twelve per quarter (median = ~10). Since the fourth quarter of 2017, the number of individuals administered naloxone has decreased:

- 2017 Q2 (April 1 – June 30, 2017): n=10
- 2017 Q3 (July 1 – September 30, 2017): n=10
- 2017 Q4 (October 1 – December 31, 2017): n=12
- 2018 Q1 (January 1 – March 31, 2018): n=9
- 2018 Q2 (April 1 – June 30, 2018): n=5
- 2018 Q3 (July 1 – September 30, 2018): n=1

Year to date (January 1 – September 30), as per EMS in Northern RHA data[6], there were 27 cases (Q1: n=7, Q2: n=12 Q3: n=8) in which EMS reported administering naloxone and/or that they arrived on scene and naloxone was already given by another first responder; 70% were females. More than half of these events (67%) of these events occurred in a private residence; for those cases where community of residence was known, 58% of the incidents occurred within communities that were not the individual's home community of residence.

- 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.

[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.
[6] Includes all cases where the Northern Emergency Medical Services responded. This may include Saskatchewan residents where events occurred in the NHR, or NHR residents where events occurred in bordering Saskatchewan communities that NHR EMS serves.

Provincial Take-Home Naloxone Program

Between January 1 and September 30, 2018, information on 36 individuals who overdosed on opioids (12 in each quarter – quarter 1, 2, and 3) was collected through the take-home naloxone kit (THNK) overdose response form[7] (Figure 6).

- This is approximately 8% of the distributed kits (36 of the 464 kits reported to be distributed during this period).

Year to date, more males (64%) than females reported an opioid overdose through the THNK program – sex is unknown for 3% of cases. Most of the individuals (51%) were between 19 and 30 years – this proportion has decreased since the last quarter where this age group made up 83% of the overdoses.

Majority of the overdoses were reported to have occurred within a private residence (83%). All of the individuals who reported using the naloxone kit survived the overdose (two individuals did not respond to this question).

Drugs reported used by the person who overdosed

In 2018 (January 1 to September 30), fentanyl continues to be the most commonly reported drug (n=11) used by the person who overdosed: three in the first quarter, six in the second quarter, and two in the third quarter (Table 3).

- Carfentanil was reported on three occasions (twice in the first quarter, once in the second quarter, and none in the third quarter).
- "Blotters" were also reported on three occasions, once each in the first, second, and third quarter.
- In the third quarter of 2018, we continue to see reports of multiple drugs used by the individual who overdosed – 28% indicated poly drug-use. In the third quarter, various drug combinations were reported unlike the second quarter where drug combinations included fentanyl and one other drug:
    - In the first quarter (January 1 – March 31, 2018), there was one report of poly-drug use, where the individual reported using the following drugs:
        - methadone, oxycodone, and cocaine/crack
    - In the second quarter (April 1 – June 30, 2018), there were five reports of poly drug use where the drug combinations included fentanyl, and one other drug:
        - fentanyl and blotters (individual stated that they thought it was acid)
        - fentanyl and cocaine/crack
        - fentanyl and carfentanil
        - fentanyl and dilaudid
        - fentanyl and heroin
    - In the third quarter of 2018 (July 1 – September 30, 2018), there were four reports of poly-drug use. The drug combinations included:
        - Heroin and blotters
        - Methadone and benzos
        - Crystal meth and "maybe Heroin"
        - Morphine, Oxycodone and alcohol
    - In 2017, 20% of overdoses (n=22) reported poly-drug use (there was a range of two to four drugs reported per individual).

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

- In the third quarter, there were reports of crystal meth (n=1), benzodiazepines (n=1), and alcohol (n=1) use. None were reported in the first and second quarters.

Overdose description

Year to date (January 1 – September 30, 2018), in most situations (75%), the owner of the kit gave the naloxone to someone else (this is a continuing trend). In two events, someone other than the owner gave naloxone to the person who overdosed. 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 (Table 4).

Emergency response to overdose event

In only 31% of overdoses between January 1 – September 30, 2018, 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 (Table 4).

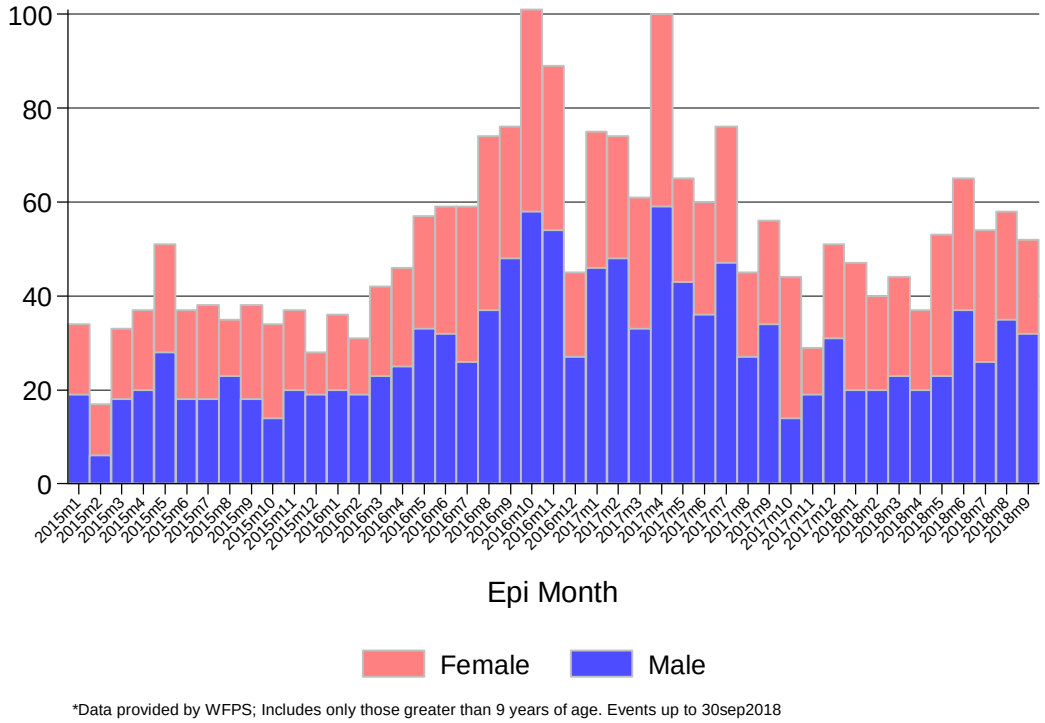


Figure 2: Number of suspected overdose cases receiving naloxone, Winnipeg Fire and Paramedic Service (January 1, 2015 - September 30, 2018)

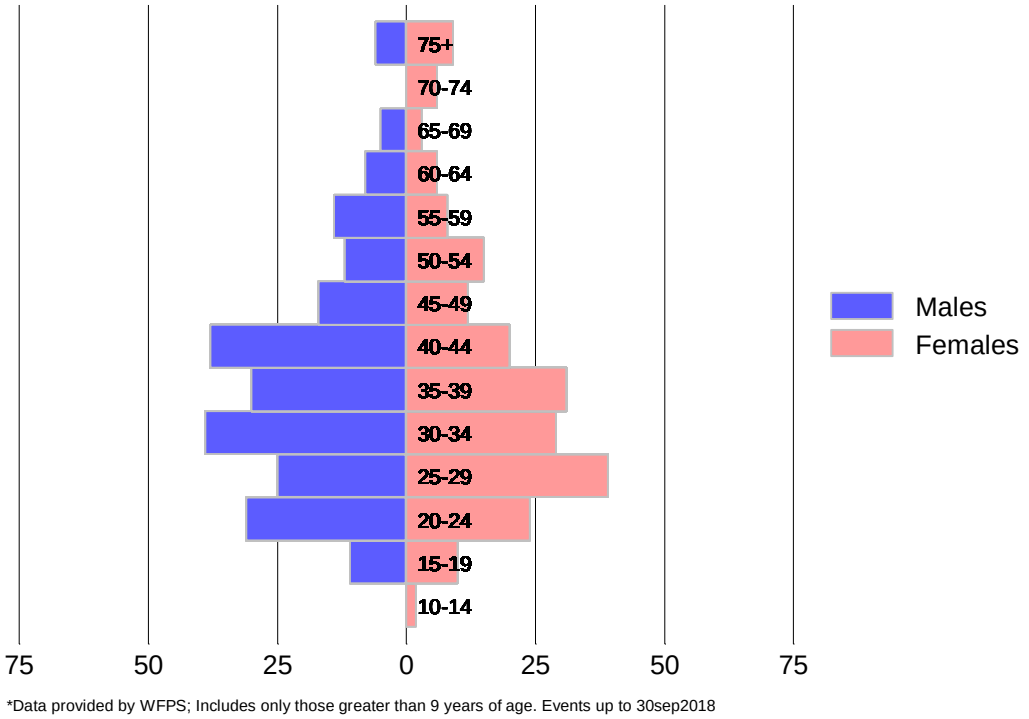


Figure 3: Age pyramid of suspected overdose cases receiving naloxone by sex, Winnipeg Fire and Paramedic Service (January 1, 2018 – September 30, 2018)

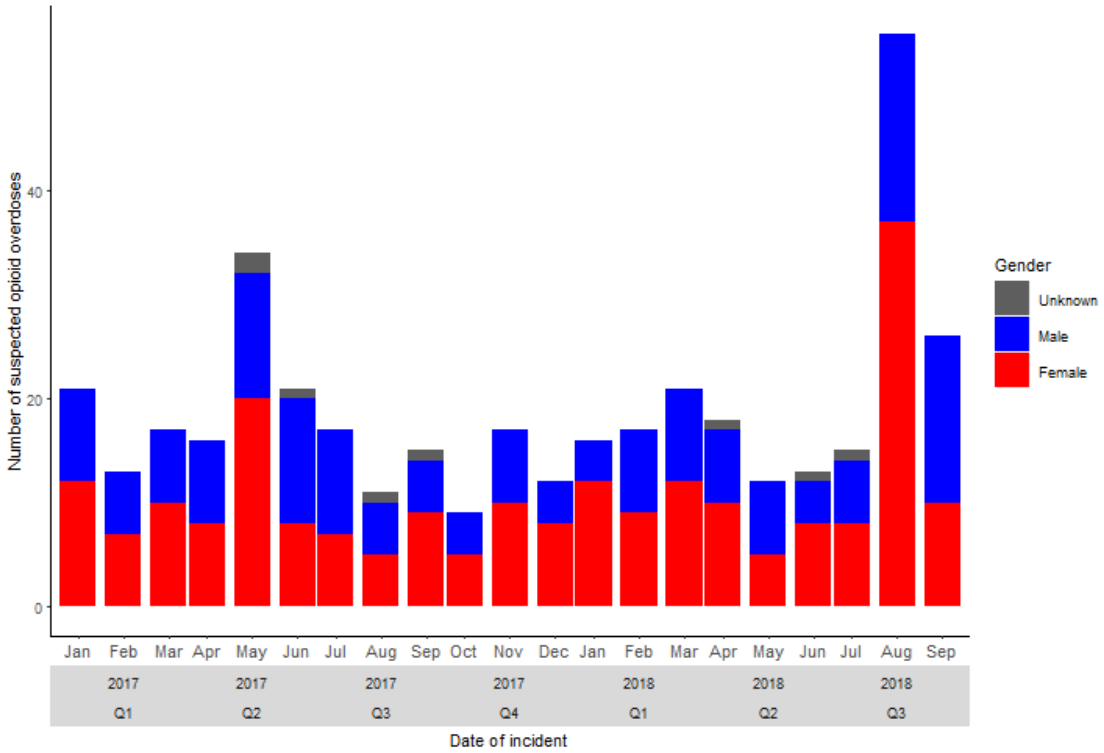


Figure 4: Number of suspected overdose events in rural and northern Manitoba by sex, Medical Transportation Coordination Centre (December 1, 2016 – September 30, 2018)

Note: Further exploration of the data is required to determine if the increase in the third quarter (August 2018) was a true increase – the increase can be partially attributed to a change in the criteria used for extracting events related to overdoses.

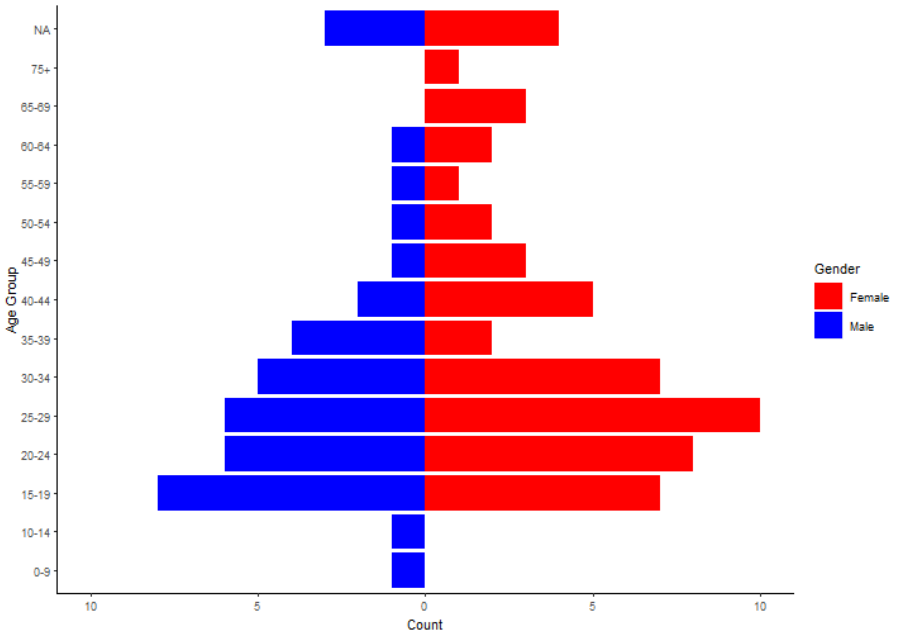


Figure 5: Age pyramid of suspected overdose events in rural and northern Manitoba by sex, Medical Transportation Coordination Centre (January 1, 2018 – September 30, 2018)

Table 2: Number of suspected overdose events in rural and northern Manitoba by Regional Health Authority (RHA), Medical Transportation Coordination Centre (December 1, 2016 – September 30, 2018)

	IERHA[+]	NRHA[+]	PMH[+]	SHSS[+]	WRHA*[+]	Total
2016						
Q4 (Dec only)	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
Q2 (Apr – Jun)	10	4	16	12	1	43
Q3 (Jul – Sep)	23	16	32	24	1	96[×]

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

[+] IEHA: Interlake-Eastern RHA; NRHA: Northern RHA; PMH: Prairie Mountain Health; SHSS: Southern Health-Santé Sud; WRHA: Winnipeg RHA

[×] Further exploration of the data is required to determine if the increase in the third quarter was a true increase – the increase can be partially attributed to a change in the criteria used for extracting events related to overdoses.

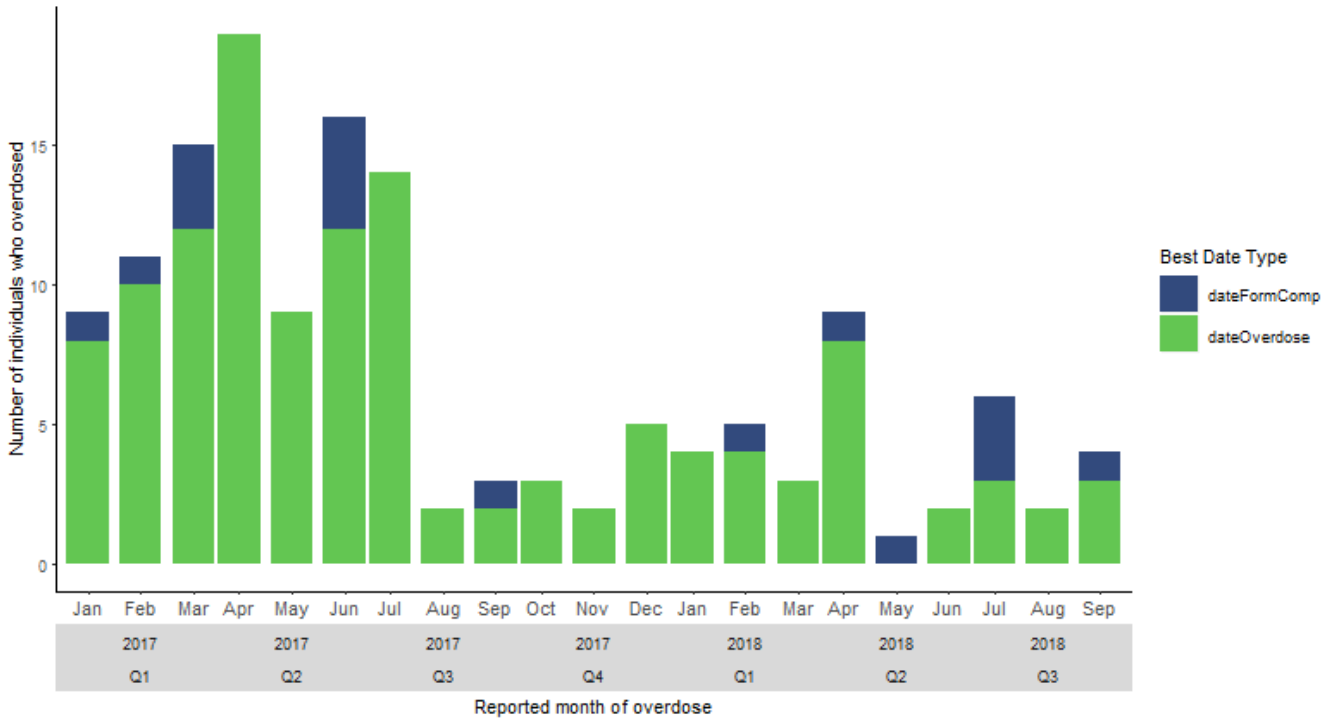


Figure 6: Number of overdose events where a take-home naloxone kit was used, by reported month of overdose*, Manitoba Provincial Take-Home Naloxone Program (January 1, 2017 – September 30, 2018*)

**In 17 reports (7 in 2018 and 10 in 2017), the date of overdose was not available. For these, the date the form was completed has been used (indicated in dark blue).*

Table 3: Characteristics of individuals and overdose event where a take-home naloxone kit was used, Manitoba Provincial Take-Home Naloxone Program (January 1 – September 30, 2018)

Characteristics	Categories	Female (n=12)	Male (n=23)	Unknown (n=1)	Total (N=36)
Age group	12-18 years	1	0	0	1
	19-30 years	7	10	1	18
	31-40 years	3	5	0	8
	41-50 years	1	5	0	6
	51-60 years	0	2	0	2
	Unknown	0	1	0	1
Location where the overdose event occurred	Private Residence	9	20	1	30
	Street/Alley/Park	1	2	0	3
	Other or Prefer not to say	2	1	0	3
Region in which the overdose event took place	Winnipeg RHA	7	11	1	19
	Prairie Mountain Health	1	3	0	4
	Interlake-Eastern RHA	0	1	0	1
	Northern RHA	2	1	0	3
	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				11
	Heroin[a]				8
	Cocaine/crack				4
	Morphine				5
	Blotters				3
	Carfentanil				3
	Oxycodone				3
	Dilaudid				3
	Other substances[b]				7

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

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

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 – September 30, 2018)

Variable	Description	Female (n=12)	Male (n=23)	Unknown (n=1)	Total (N=36)
Was 911 called?	Yes	3	8	0	11
	No	8	14	1	23
	Unknown	1	1	0	2
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	4	0	7
	Other [b]	2	4	0	6
Actions taken during overdose[a]	Stimulate (sternal rub/yelling)	4	10	0	14
	Rescue breathing	6	8	0	14
	Chest compressions	3	5	1	9
	Unknown	2	5	0	7
Number of naloxone doses given	One	5	8	1	14
	Two	4	7	0	11
	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"

Severity

Additional figures and tables can be found in Appendix A of this report. See Appendix B for interpretation notes on Hospital Admission, First Nations Inuit Health Branch (FNIHB), and Emergency Department Admissions data.

Hospitalization due to Opioid Poisoning

Between January 1 and September 30, 2018, 70 opioid poisoning hospitalizations were reported, with 16 of these occurring in the third quarter – this is a decline since the previous two quarters (27 hospitalizations in the first quarter, and 27 hospitalizations in the second quarter). The number of hospitalizations per week continues to range between one and six admissions (Figure 7).

- In 2017, there were 110 opioid poisoning hospitalizations reported between the same period (January 1 and September 30)

The majority of individuals who were hospitalized in the third quarter of 2018 continue to be residents of the Winnipeg RHA (81%) (Figure 7).

Between January 1 and September 30, 2018, the proportion of males and females hospitalized due to an opioid poisoning was the same (Figure 8). Individuals between 45 and 64 years had the largest proportion of hospitalizations (40%); individuals between 25 and 44 years, and those 24 years old or younger each made up 24% and 21% of all opioid poisoning hospitalizations, respectively (Figure 8).

- In 2017, 45 to 64 years age group made up 31% of all hospitalizations, while the 25 to 44 years age-group made up 35% of the hospitalizations.

Year to date (January 1 – September 30, 2018), there were six hospitalizations associated with synthetic opioid poisoning (including fentanyl), and seven for "unspecified opioids".

- In 2017, the number of synthetic opioid poisoning hospitalization (including fentanyl) had increased to 23 hospitalizations (1.7 per 100,000 population), from 4 hospitalizations in 2014 (0.3 per 100,000 population).

Emergency Department Admissions

The analysis was conducted independently for sites within WRHA and the rest of the health regions in Manitoba. The results were then combined to be reported here.

Note: EDIS data used in this report are not specific to opioid overdoses, but are a reflection of overdose events of all types. See Appendix B – Box B.5 (page 45) for interpretation notes on Emergency Department Admissions data.

Between January 1 and September 30, 2018, 1,258 suspected overdose cases arrived at emergency departments and urgent care facilities (herein, referred to as ED facilities) across Manitoba. These cases have been further described below.

Emergency Departments and Urgent Care Facilities in the Winnipeg Regional Health Authority

Between January 1 and September 30, 2018, 881 suspected overdose cases arrived at ED facilities in the WRHA: 280 in the first quarter, 331 in the second quarter, and 270 in the third quarter (Table 5, Figure 9). Most of the cases were females (69%) and between the ages of 15 and 29 years (51%) – individuals between 15 and 19 years made up 23% of the cases (Figure 10 and Appendix Table A.4).

- Year to date (January 1 – September 30, 2018), approximately 55% of female cases were between 15 and 29 years, while for males, the proportion is slightly lower (42%).

Suspected overdose cases arriving at ED facilities between January 1 and September 30, 2018 are highest among those living in Downtown (17%), Point Douglas (12%), and River East (10%) community areas (Figure 11 and Appendix Table A.4).

- These numbers are comparable to 2017: 16% from Downtown, 14% from Point Douglas, and 10% from River East

There is also a high proportion (17%) of suspected overdoses reported by Manitoban residents with a non-Winnipeg postal code.

- In 2017, 17% of WRHA ED facility visits for an overdose were Manitoban residents with a non-Winnipeg postal code; additionally there were 46 non-Manitoban residents reported.

Emergency Departments and Urgent Care Facilities in Northern and Rural[8] Manitoba

Between January 1 and September 30, 2018, 377 individuals suspected of an overdose arrived at an ED facility in Manitoba, outside of the WRHA (Table 6): 70% were female and 22% were between 15 and 19 years. The largest proportion of ED visits were made to facilities within the Prairie Mountain RHA (39%), followed by Northern RHA (29%), Southern Health – Sante Sud (20%) and Interlake Eastern RHA (13%).

- In 2017, between January 1 and September 30, there were 243 suspected overdose cases, and in 2016, there were 130 suspected overdose cases during the same time period.
- Of the individuals with a suspected overdose who arrived at an ED facility between January 1, 2016 and September 30, 2018, majority (82 – 96%, depending on region and year) visited an ED facility within their region of residence (Table 7).

Since the first quarter of 2016, females are contributing to a higher proportion of admissions, compared to males (Figure 12). Between 2017 and 2018, the rate of admission for a suspected overdose for females continues to be more than double the rate for males (Figure 13).

- In 2018 (January 1 – September 30), approximately 26% of females were between 15 and 19 years. The corresponding proportion of this age group for males is lower (13%) – the highest proportion of ED admissions amongst males is for ages 20 to 24 years (18%).
    - This is comparable to 2017 numbers, where 30% of females were between 15 and 19 years, while 17% of males were within this age group. The highest proportion of ED admissions amongst males is for ages 20 to 24 years (20%).

Federal Nursing Stations in Manitoba

Enhanced opioid overdose surveillance forms are completed in 22 Federal Nursing Stations when a suspected opioid overdose occurs.

There were 30 suspected opioid overdoses reported between April 5, 2017 and October 31, 2018:

- Overdoses occurred primarily in adults.
- Slightly more females than males continue to be reported to have had a suspected opioid overdose – the discrepancy between the two however is appearing to be decreasing over time.
- Seven communities reported multiple suspected opioid overdoses within the last 18 months.
- Majority of suspected overdoses occurred in a private residence, highlighting the need for Take Home Naloxone Kits (THNK). THNK are available in all nursing stations.

[8] "Northern and rural Manitoba" includes ED facilities in the Northern Regional Health Authority, Southern Health – Santé Sud, Prairie Mountain Health, and Interlake-Eastern Health Authority.

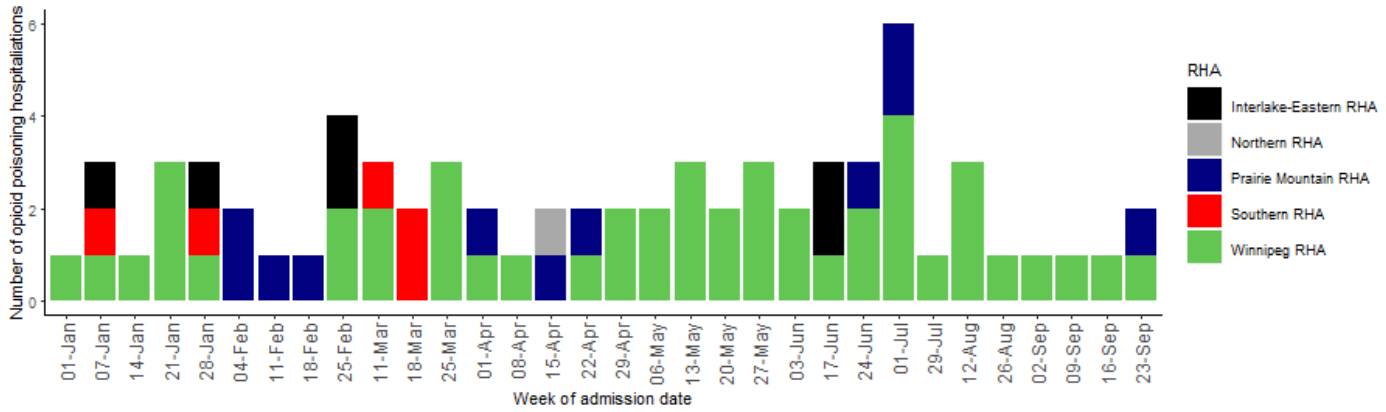


Figure 7: Number of opioid poisoning hospitalizations in Manitoba by week of admission and Regional Health Authority, Manitoba Health, Seniors and Active Living (January 1 – September 30, 2018)

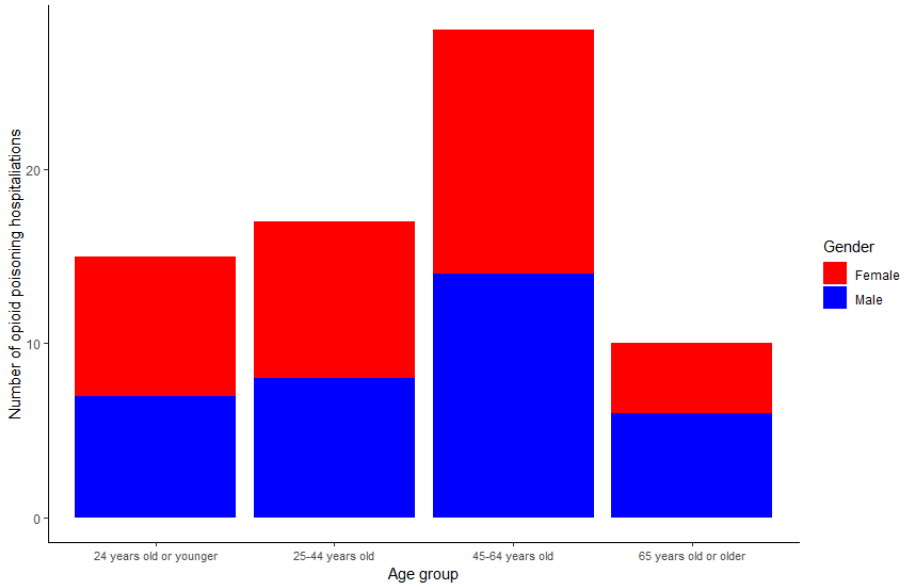


Figure 8: Number of opioid poisoning hospitalizations in Manitoba by age group and sex, Manitoba Health, Seniors and Active Living (January 1 – September 30, 2018)

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 - September 30, 2018)

	Female		Male		Total	
	No.	%	No.	%	No.	%
Year						
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	609	69.1	272	30.9	881	100.0
Total	5,686	66.9	2,807	33.1	8,493	100.0

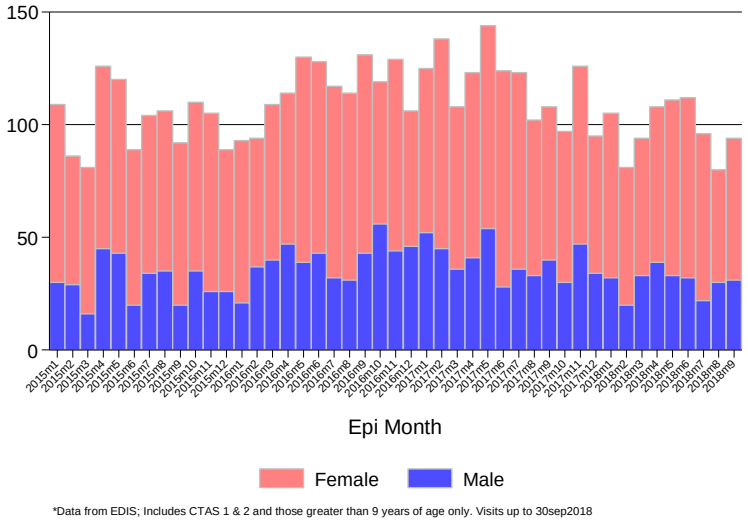


Figure 9: Number of suspected overdose cases arriving at Winnipeg RHA emergency departments and urgent care facilities by month and year, Emergency Department Information System (January 1, 2015 - September 30, 2018)

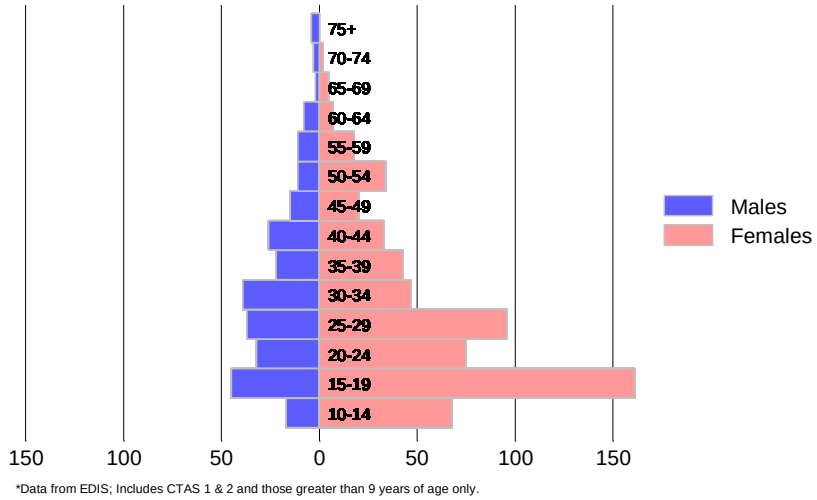


Figure 10: Age pyramid of suspected overdose cases* arriving at Winnipeg RHA emergency departments and urgent care facilities, Emergency Department Information System (January 1 – September 30, 2018)

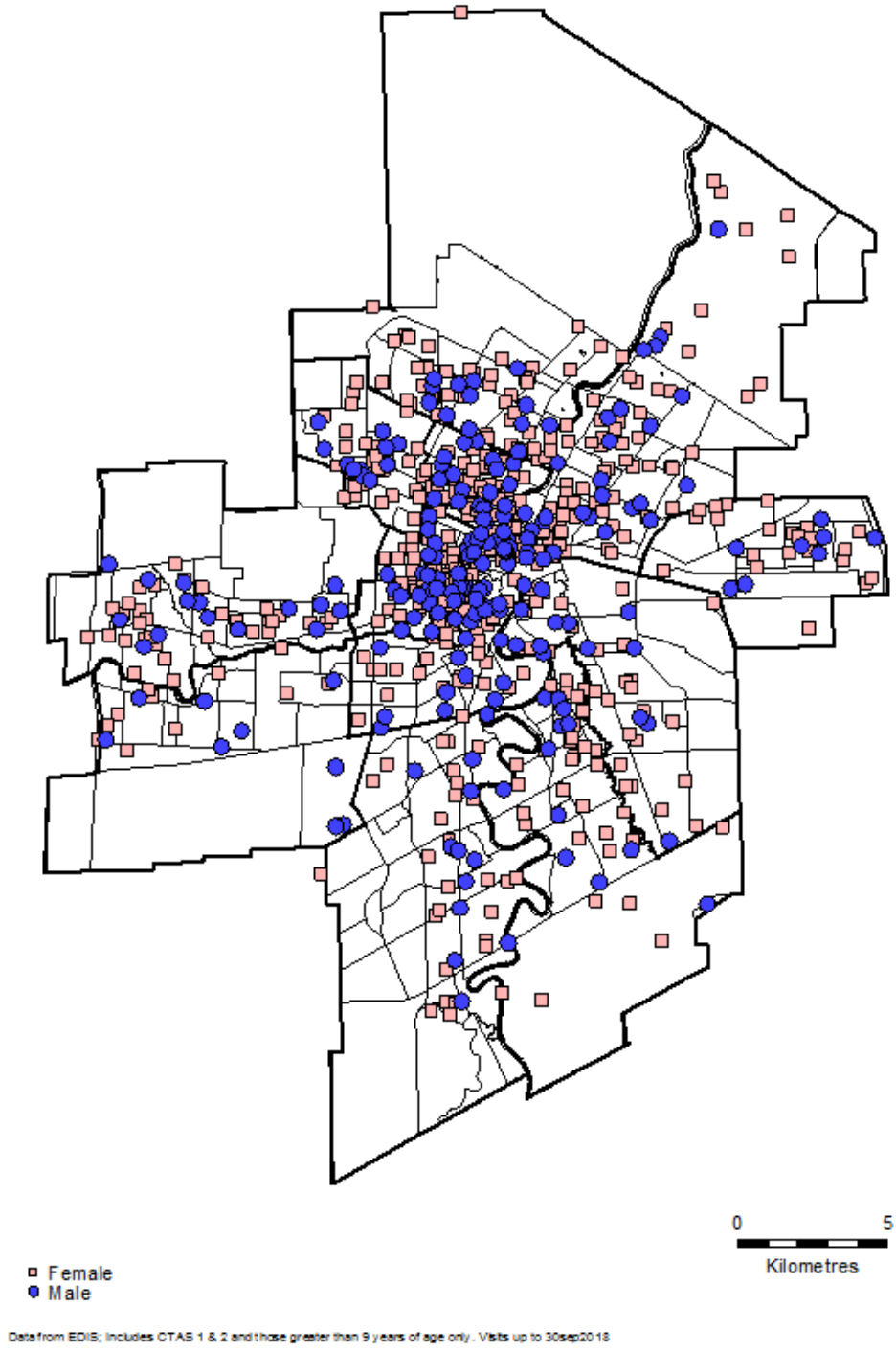


Figure 11: Dot map of residential location of suspected overdose cases* arriving at Winnipeg RHA emergency departments and urgent care facilities, Emergency Department Information System (January 1 - September 30, 2018)

*Residential locations are not exact (randomized within neighborhoods)

Table 6: Characteristics of suspected overdose cases arriving at emergency departments and urgent care facilities in Manitoba (outside of the Winnipeg RHA), Emergency Department Information System (January 1 - September 30, 2018)

	Female		Male		Total	
	n	%	n	%	N	%
Total	263	69.8	114	30.2	377	100.0
Age group (years)						
10-14	29	11.0	3	2.6	32	8.5
15-19	68	25.9	15	13.2	83	22.0
20-24	47	17.9	21	18.4	68	18.0
25-29	31	11.8	12	10.5	43	11.4
30-34	22	8.4	13	11.4	35	9.3
35-39	21	8.0	16	14.0	37	9.8
40-44	10	3.8	12	10.5	22	5.8
45-49	15	5.7	5	4.4	20	5.3
50-54	7	2.7	3	2.6	10	2.7
55-59	4	1.5	5	4.4	9	2.4
60-64	3	1.1	5	4.4	8	2.1
65 and older	6	2.3	4	3.5	10	2.7
RHA of Service						
Prairie Mountain Health	97	36.9	50	43.9	147	39.0
Northern RHA	76	28.9	29	25.4	105	27.9
Southern Health – Santé Sud	56	21.3	19	16.7	75	19.9
Interlake-Eastern RHA	34	12.9	16	14.0	50	13.3

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

Table 7: Proportion of suspected overdose cases arriving at emergency departments and urgent care facilities in Manitoba (outside of the Winnipeg RHA) by Regional Health Authority of residence and year of admission, Emergency Department Information System (January 1, 2016 – September 2018)

		RHA of Patient's Residence						
	Year of Admission	Prairie Mountain Health	Northern RHA	Southern Health-Santé Sud	Interlake-Eastern RHA	Winnipeg RHA*	Non Manitoban	Manitoba No Postal Code
Location (RHA) of facility	**Prairie Mountain Health**							
	2016	91.6%	0.0%	1.7%	0.0%	2.5%	2.5%	1.7%
	2017	93.6%	0.0%	1.4%	0.0%	0.7%	1.4%	2.8%
	2018±	87.8%	0.7%	2.0%	0.7%	1.4%	1.4%	6.1%
	Northern RHA							
	2017	0.0%	89.7%	0.0%	0.0%	3.4%	6.9%	0.0%
	2018±	0.0%	82.9%	0.0%	0.0%	6.7%	9.5%	1.0%
	Interlake-Eastern RHA							
	2016	0.0%	0.0%	0.0%	83.3%	10.4%	2.1%	4.2%
	2017	1.5%	3.0%	0.0%	82.1%	11.9%	1.5%	0.0%
	2018±	2.0%	0.0%	0.0%	82.0%	10.0%	4.0%	2.0%
	Southern Health-Santé Sud							
	2017	0.0%	0.0%	96.2%	1.3%	1.3%	1.3%	0.0%
	2018±	0.0%	0.0%	90.7%	0.0%	6.7%	1.3%	1.3%

± Includes data from January 1, 2018 to September 30, 2018

* Includes facilities in Churchill

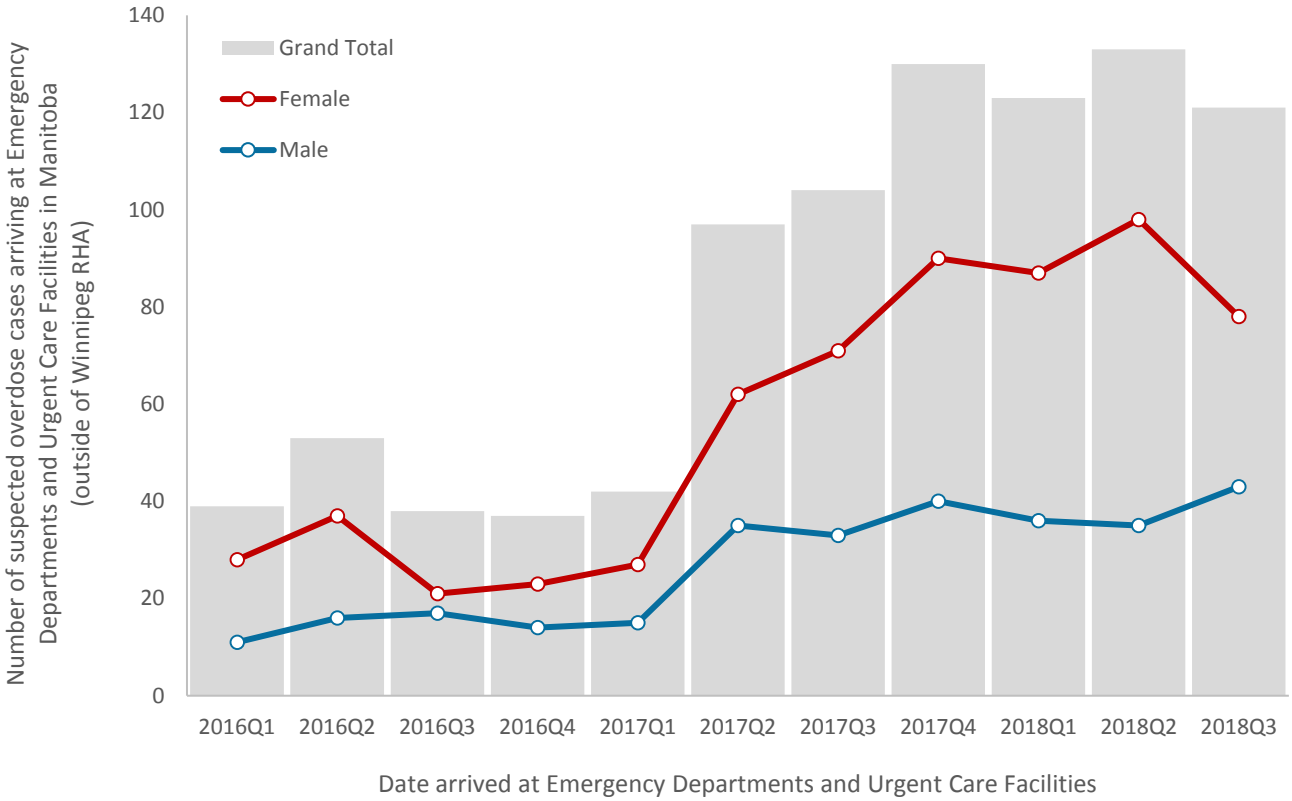


Figure 12: Number of suspected overdose cases arriving at emergency departments and urgent care facilities (outside of the Winnipeg RHA) in Manitoba by Sex, Emergency Department Information System (January 1, 2016 - September 30, 2018)

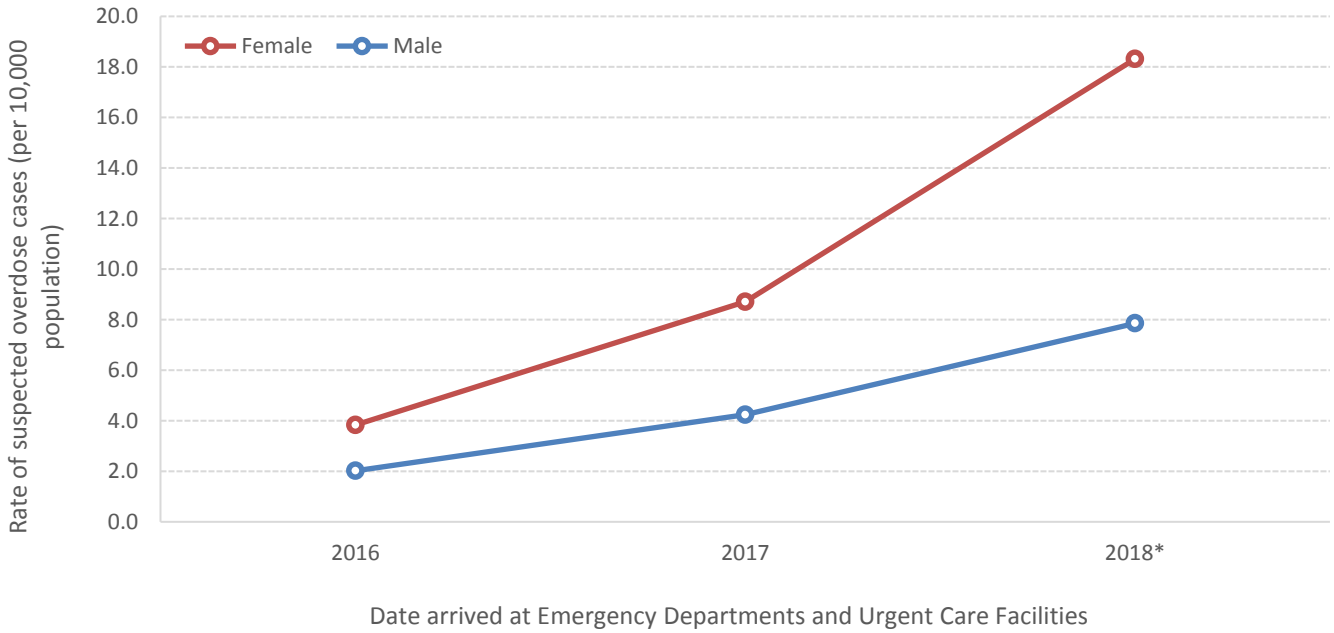


Figure 13: Crude rate** (per 10,000 population) of suspected overdose cases arriving at emergency departments and urgent care facilities (outside of the Winnipeg RHA) in Manitoba by sex, Emergency Department Information System (January 1, 2016 - September 30, 2018*)

*Includes data between January 1, 2018 and September 30, 2018

**Rate was calculated based on the population of Manitoba, not including the Winnipeg RHA

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

At this time, between January 1 and September 30, 2018, 40* apparent opioid-related deaths have been reported in Manitoba: 19* in the first quarter (January 1 and March 31), 14* in the second quarter (April 1 and June 30), and 7* in the third quarter (July 1 and September 30, 2018).

During the same period in 2017 (January 1 to September 30), 87 apparent opioid-related deaths were reported (34 in the first and second quarters and 19 in the third quarter).

There have been more apparent opioid-related deaths in 2017 (n=106; rate: 7.8 per 100,000), compared to 2014, 2015, and 2016 (Figure 14).

** 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 the previous and future reports.

Age, sex, and geographic trends (n=40)

Between January 1 and September 30, 2018, a slightly higher proportion of deaths among males was reported (55%) (Table 8, Figure 15).

- From the third quarter of 2016 (July – September) to the fourth quarter of 2017 (October – December), there was a consistently higher proportion of deaths in males compared to females.

To date, in 2018, the home setting continues to be the most common place of death (80%) and place of overdose (83%). The manner of death for majority of cases (73%) continues to be unintentional (accidental) (Table 8).

Year to date, the highest rate of apparent opioid related deaths was among individuals between 45 and 64 years and between 25 and 44 years. The median age of individuals who died of an apparent opioid-related overdose in 2018 is 44 years (range: 21 to 69 years).

- Between 2015 and 2017, the highest rate of apparent opioid-related deaths was among individuals between 25 and 44 years (Figure 16).

With available data, the Northern Health Region continues to report the highest apparent opioid-related death rates in 2018 (6.9 per 100,000 persons), followed by Winnipeg RHA (4.3 per 100,000 persons) and Southern Health - Santé Sud (4.0 per 100,000 persons).

- Between 2015 and 2017, the Winnipeg RHA had the highest rate of apparent opioid-related deaths in Manitoba (Figure 17).

Drug trends (n=40)

Between January 1 and September 30, 2018, fentanyl and fentanyl analogues were reported in thirteen apparent opioid-related deaths in Manitoba (this includes deaths where both "fentanyl-related opioids only" AND "fentanyl and non-fentanyl-related opioid mixes" were detected in the toxicology) (Figure 18). Two of the thirteen deaths (15%) where fentanyl and fentanyl analogues was detected included carfentanil (Figure 19).

- In 2017, between January 1 and September 30, fentanyl and fentanyl analogues were reported in 39 apparent opioid-related deaths in Manitoba – carfentanil was detected in 82% of these deaths.

Benzodiazepines, cocaine, and alcohol continue to be detected in toxicology results of an individual who died from an opioid-overdose intoxication since 2016; in 2018, these three drugs were detected in 55%, 38%, and 33% of all apparent-opioid related deaths (Figure 20), respectively. This trend will be monitored as additional data becomes available for 2018.

Methamphetamine was detected in four individuals who died of an opioid-overdose intoxication between January 1 and September 30, 2018 (10% of deaths). Between 2014 and 2017, methamphetamine detected in toxicology results of individuals who died from an apparent-opioid related death increased from 4% (n=3) to 25% (n=26) (Figure 21). This trend will be monitored as additional data becomes available for 2018.

Between January 1, 2016 and September 30, 2018, 75% of apparent-opioid related deaths had an opioid prescription – codeine (40%), oxycodone (20%), hydromorphone (15%), methadone (8%), morphine (8%) and fentanyl (5%). Following opioids, benzodiazepines (53%) were the next most-commonly prescribed drug (data not shown).

Since deaths that occurred in 2018 are still under review, we will continue to monitor these trends. Currently available data does not show the complete picture.

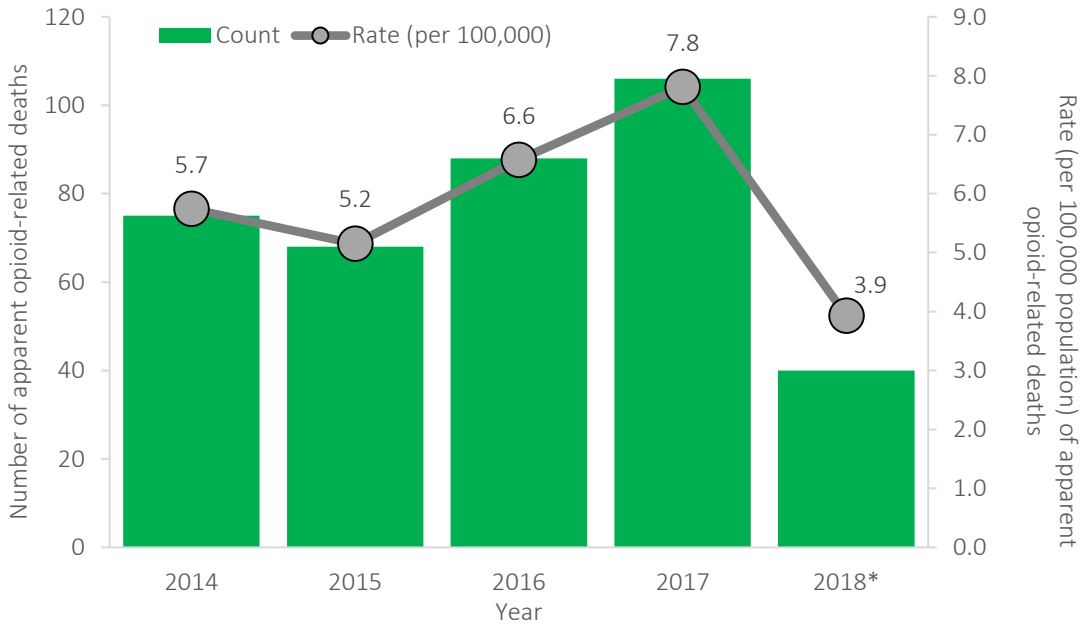


Figure 14: Number and crude rate (per 100,000 population) of apparent opioid-related deaths in Manitoba, Office of the Chief Medical Examiner (January 1, 2014 – September 30, 2018*)

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

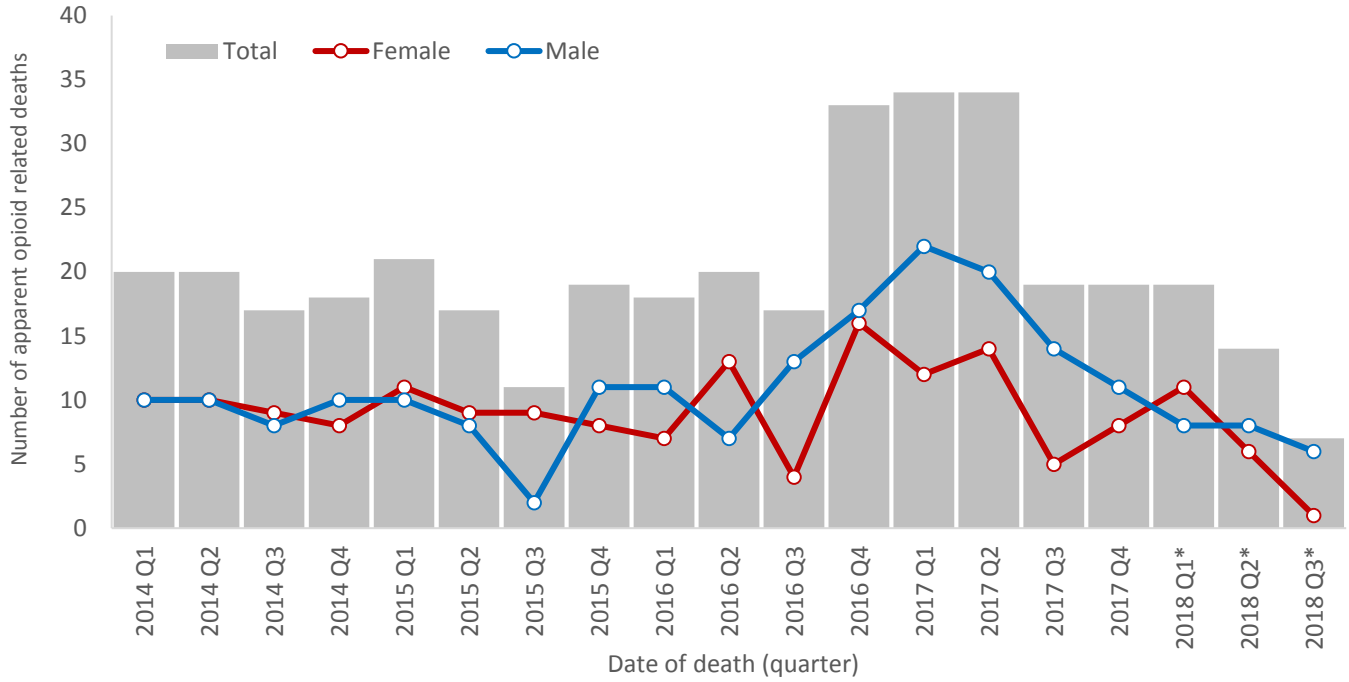


Figure 15: Number of apparent opioid-related deaths in Manitoba by sex, Office of the Chief Medical Examiner (January 1, 2014 – September 30, 2018*)
*Note: 2018 data is incomplete

Table 8: Characteristics of apparent opioid-related deaths in Manitoba, Office of the Chief Medical Examiner (January 1 - September 30, 2018)

	Male		Female		Total	
	n	%	n	%	N	%
Total	*22*	*55%*	*18*	*45%*	*40*	*100%*
Place of death						
Home	17	77%	15	83%	32	80%
Health care facility	2	9%	3	17%	5	13%
Public setting	3	14%	0	0%	3	8%
Place of overdose						
Home	17	77%	16	89%	33	83%
Public Setting	4	18%	1	6%	5	13%
Health care facility	1	5%	1	6%	2	5%
Manner of death						
Unintentional (accident)	16	73%	13	72%	29	73%
Undetermined	5	23%	3	17%	8	20%
Intentional (suicide)	1	5%	2	11%	3	8%

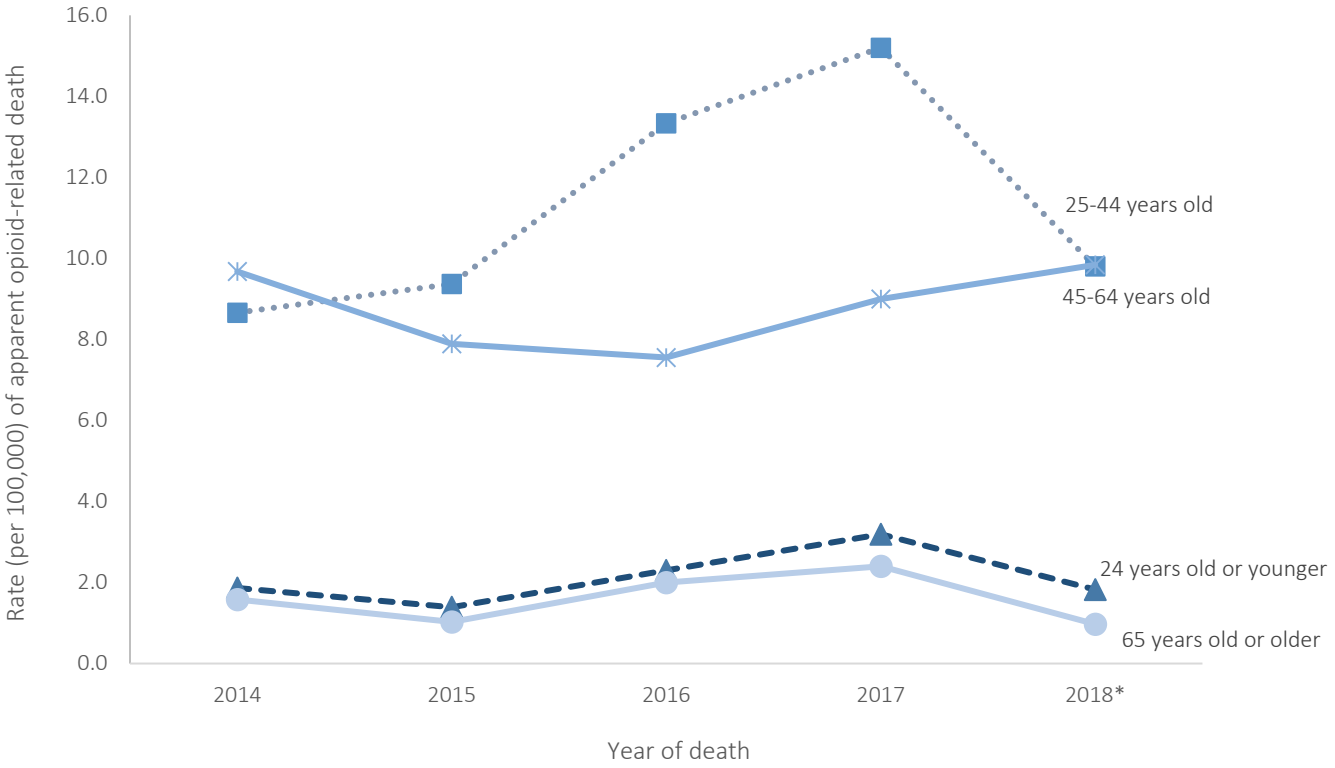


Figure 16: Crude rate (per 100,000 population) of apparent opioid-related deaths in Manitoba by age group, Office of the Chief Medical Examiner (January 1, 2014 – September 30, 2018)
*Note: 2018 data is incomplete

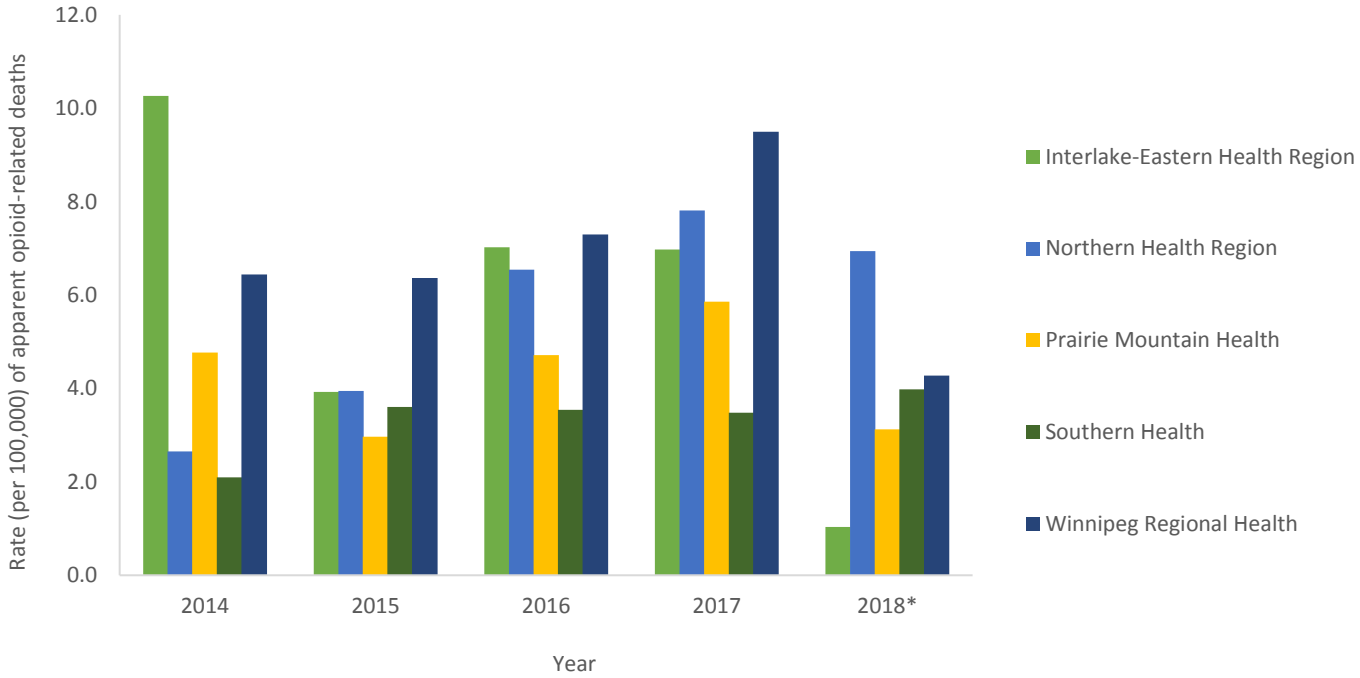


Figure 17: Crude rate (per 100,000) of apparent opioid-related deaths in Manitoba by Regional Health Authority, Office of the Chief Medical Examiner (January 1, 2014 – September 30, 2018*)

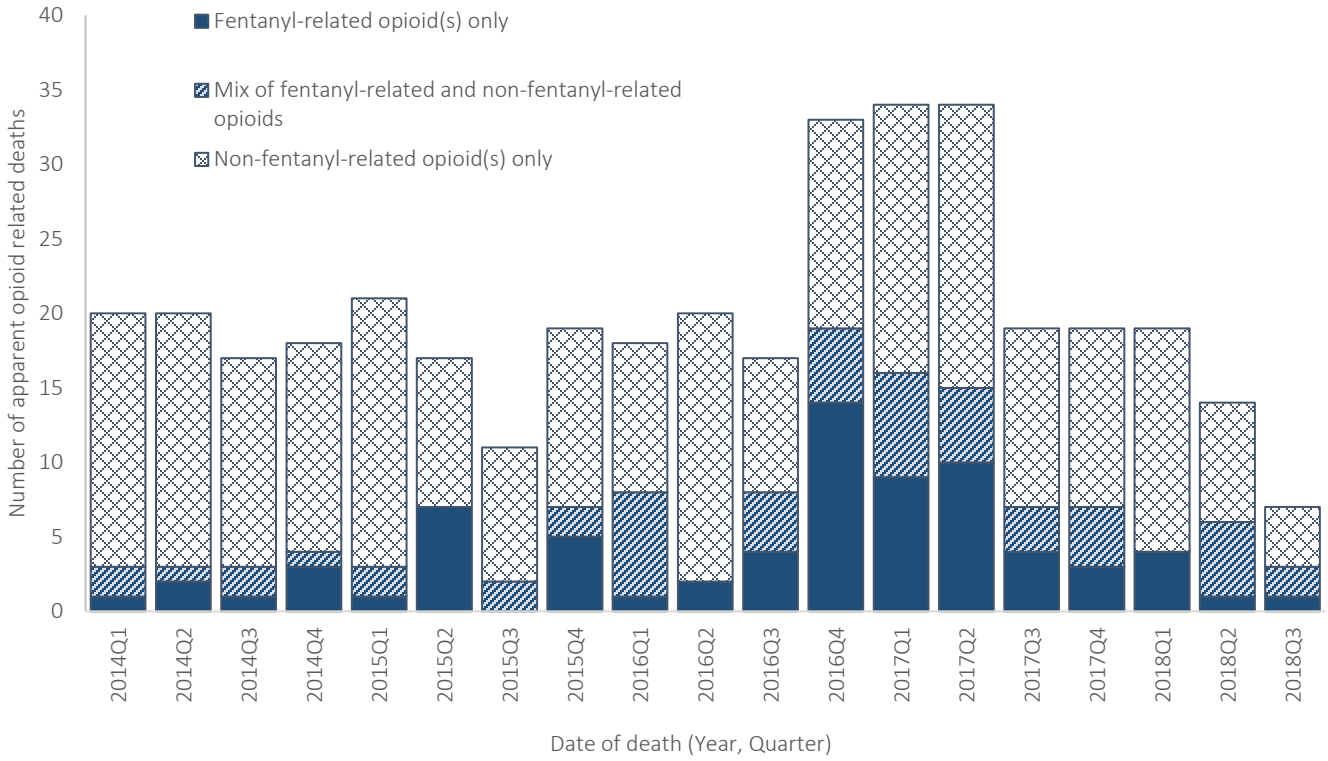


Figure 18: Presence of fentanyl analogs in apparent opioid-related deaths in Manitoba by suspected opioid type, Office of the Chief Medical Examiner (January 1, 2014 – September 30, 2018)

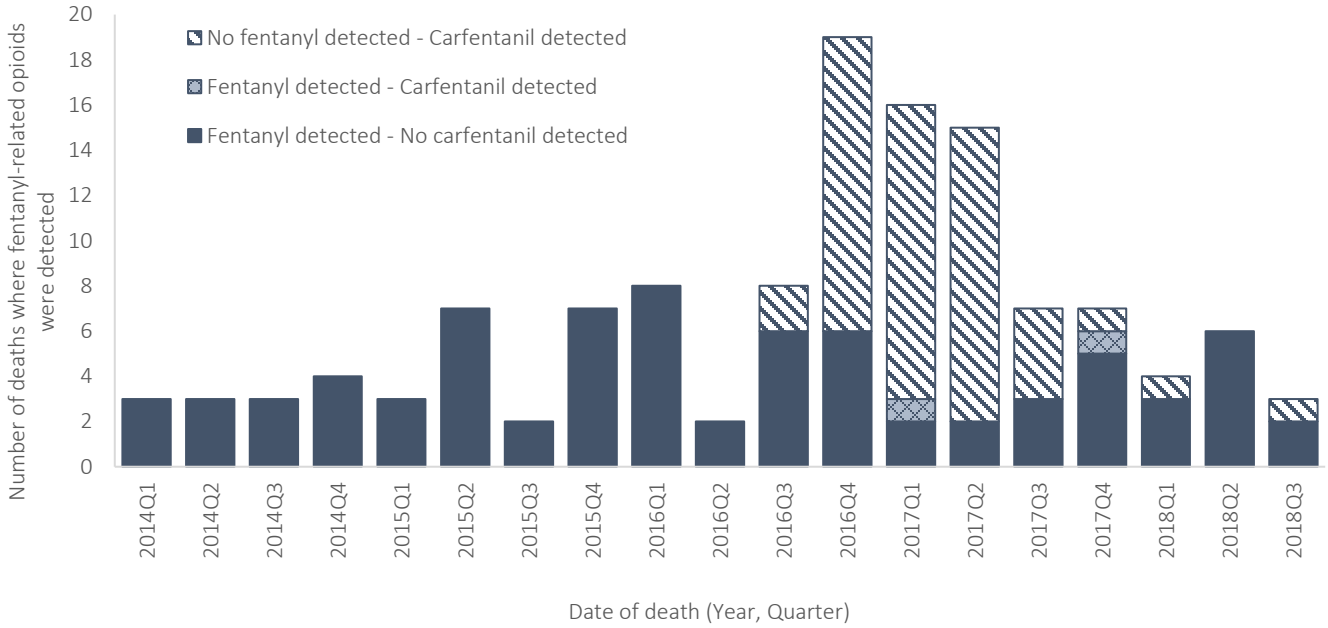


Figure 19: Number of apparent opioid-related deaths where fentanyl-related opioids were present, Office of the Chief Medical Examiner (January 1, 2014 – September 30, 2018)

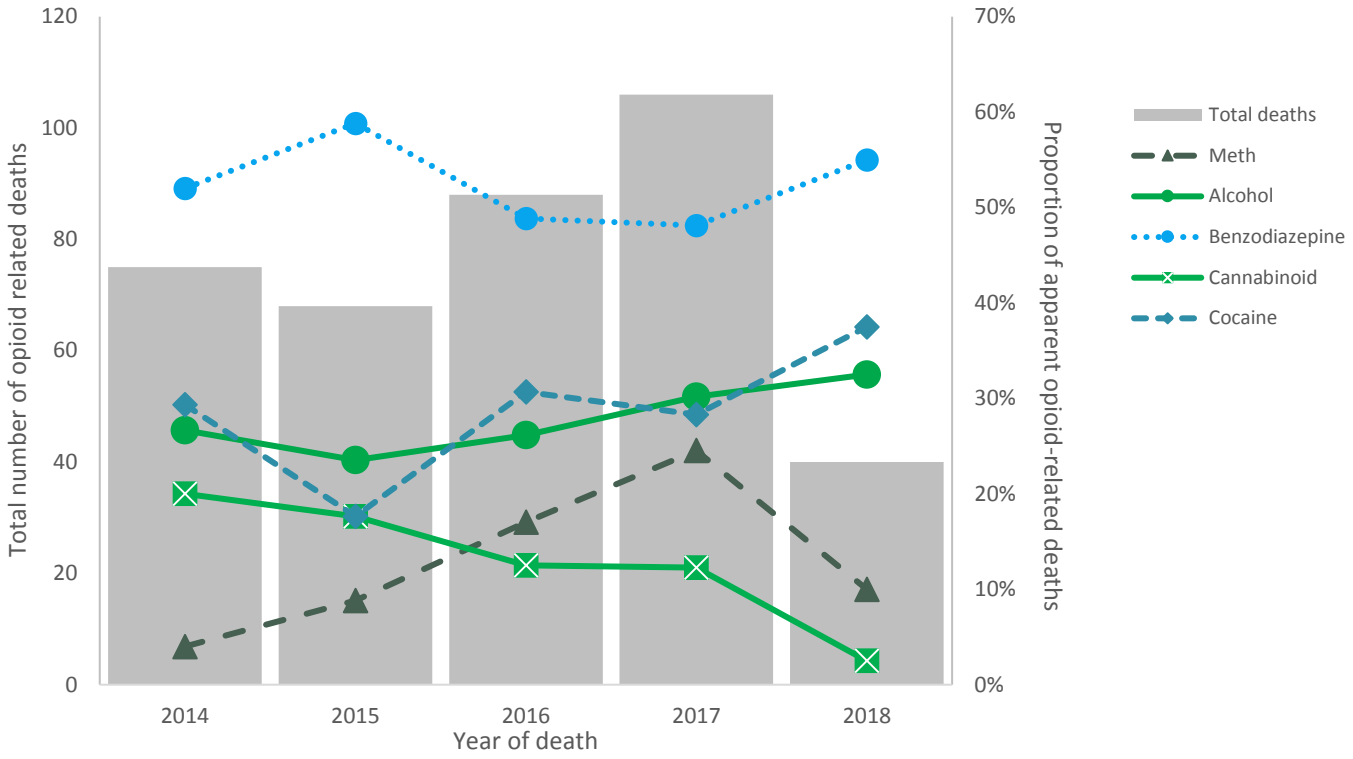


Figure 20: Total number of opioid related deaths AND annual proportion of apparent opioid-related deaths in Manitoba where other drugs (methamphetamine, alcohol, benzodiazepine, cannabinoid, and cocaine) were detected in the toxicology results, Office of the Chief Medical Examiner (January 1, 2014 – August 31, 2018)
Note: Data for 2018 is incomplete.

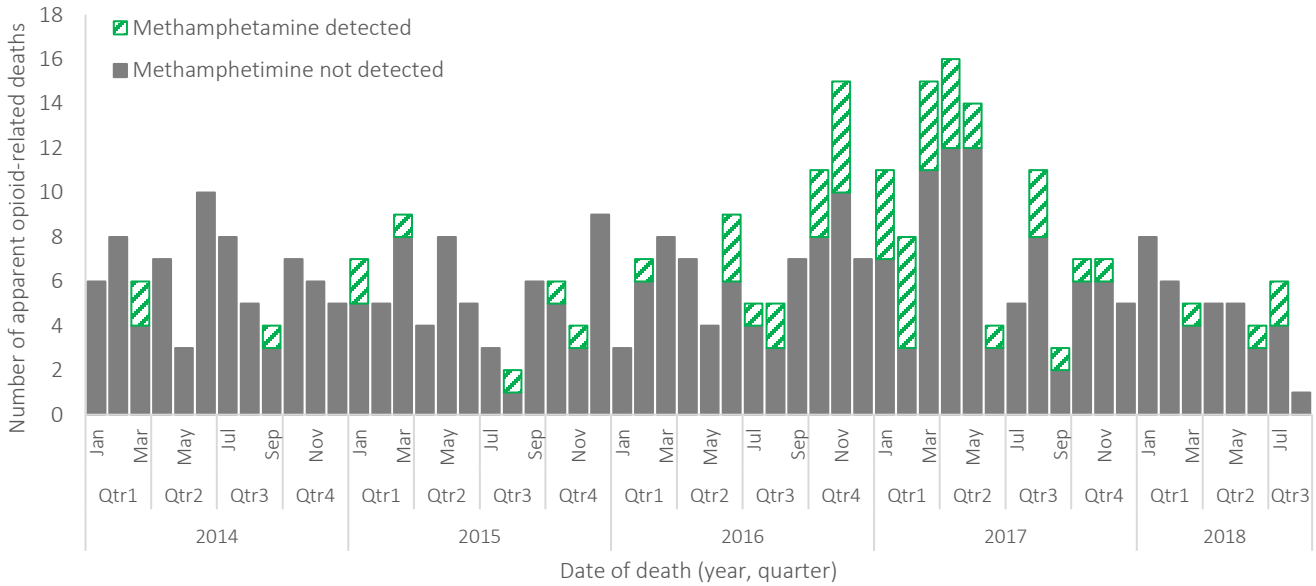


Figure 21: Number of apparent opioid-related deaths in Manitoba where methamphetamine was detected in the toxicology results by month of death, Office of the Chief Medical Examiner (January 1, 2014 – August 31, 2018)
Note: Data for 2018 is incomplete.

Toxicology

Year to date (January 1 - September 30, 2018) four positive screens for fentanyl analogs (i.e. carfentanil) was reported** – three of these were in the third quarter (based on autopsy date) (Figure 22).

Although a steady decline in positive screens for fentanyl analogs was seen from the first quarter of 2017 and into the first quarter of 2018, carfentanil was reported in the third quarter within the period of late July and mid-August (based on autopsy date).

**Note, this is for information only and should not be concluded as cause of death information. Further toxicology testing is still required to make this determination.

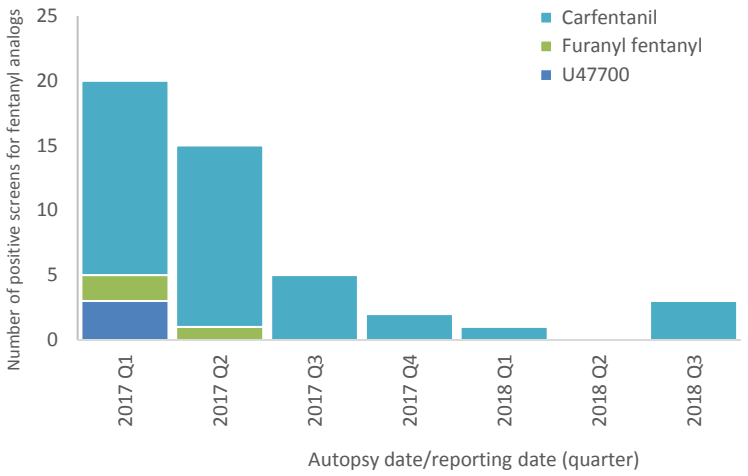


Figure 22: Number of positive toxicology screens by fentanyl analog*, Diagnostic Services Manitoba (January 1, 2017 – September 30, 2018)
*Fentanyl analogs do not include fentanyl.

Prescription Opioid Dispensation

See Appendix B for interpretation notes on Drug Program Information Network data.

Drug Program Information Network (DPIN)

Year to date (January 1 – September 30), 26,973 Manitobans were dispensed a prescription opioid from a community pharmacy – this is lower compared the same time period in 2016 and 2017. Additionally, since 2012, the proportion of females dispensed a prescription opioids has been consistently greater than males, this trend is seen into 2018 (Appendix Figure A.7).

- Quarter 1 (January 1 – March 31): n = 9,088 (57% female)
- Quarter 2 (April 1 – June 30): n = 9,108 (57% female)
- Quarter 3 (July 1 – September 30): n=8,777 (57% female)

Year to date, by age group, the highest proportion of individuals that were dispensed prescription opioids from a community pharmacy were between 45 and 64.9 years (45%), followed by 65 years and older (39%) (Figure 23).

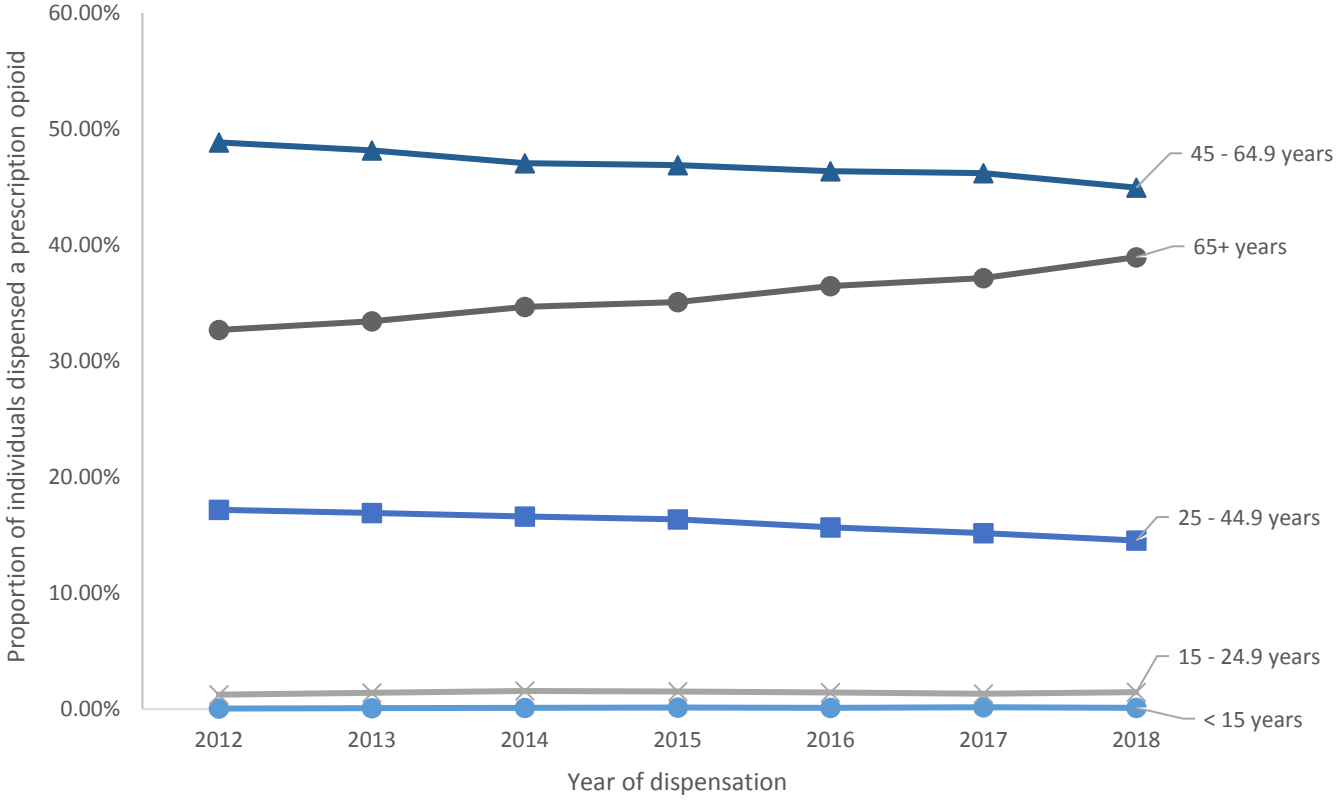
By Morphine Milligram Equivalent (MME) per day, the number of individuals that were dispensed prescription opioids from a community pharmacy in the third quarter (July 1 to September 30, 2018) was lower compared to the previous quarter:

- 000 – 49 MME/day: n=4,073 (3% decrease from the second quarter)
- 050 – 089 MME/day: n=2,175 (7% decrease from the second quarter)
- 090 – 199 MME/day: n=1,816 (1% decrease from the second quarter)
- Greater than 200 MME/day: n=713 (5% decrease from the second quarter)

Overall, a decrease in the number of Manitobans prescribed Fentanyl (2.5% decrease), Hydromorphone (4.8% decrease), Meperidine (15.3% decrease), Morphine (2.9% decrease), and Oxyneo (0.4% decrease) is noted since the last quarter, while the prescription of Generic Oxycontin increased (6.8%) since the previous quarter (Figure 24).

Additional figures can be found in Appendix A of this report.

Figure 23: Proportion of Manitobans, by age group, dispensed a prescription opioid from a community pharmacy, Drug Program Information Network (January 1, 2012 – September 30, 2018)



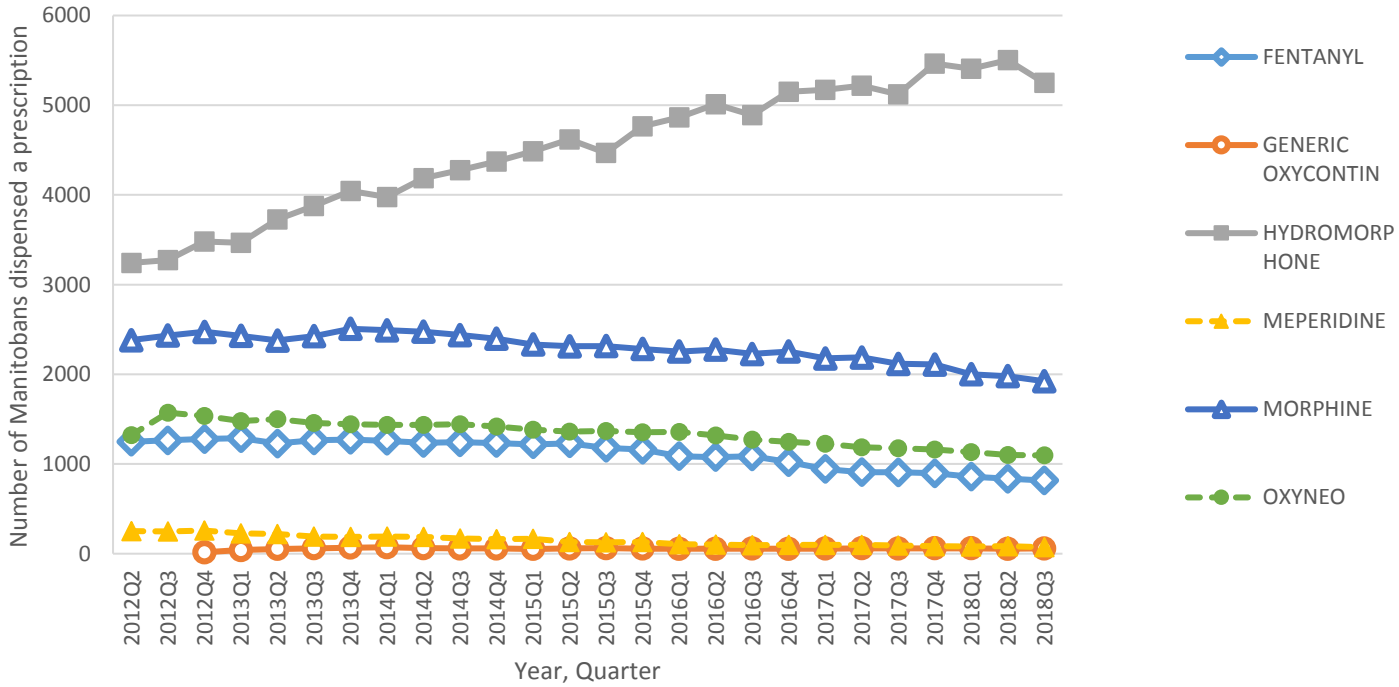


Figure 24: Number of Manitobans dispensed a prescription opioid from a community pharmacy, by product, Drug Program Information Network (April 1, 2012 – September 30, 2018)

Call Centres

See Appendix B for interpretation notes on Health Links – Info Santé and Manitoba Poison Centre data.

Health Links – Info Santé

Note: A substantial change was made in 2018 to the Health Links-Info Santé materials and as a result, variables used in past reports will not match the variables reported after March 31, 2018. The numbers from previous reports cannot be compared to numbers reported after March 31, 2018.

Between April 1 and September 30, 2018, there were 24 calls for substance-use and/or related symptoms and response[9] to Health Links – Info Santé, based on the "Health Information Advisor (HIA) Title" resource used by the registered nurses (RNs) (Table 9).

Between January 1 and September 30, 2018, there were 450 calls for substance-use and/or related symptoms and response calls to Health Links – Info Santé, based on the "Guideline Title" resource used by RNs (Figure 25).

Between April 1, 2018 and September 30, 2018, no calls were recorded for the following reasons:

- "opioid misuse and/or opioid overdose-related"
- "naloxone-related" (e.g. Narcan)

Note: These categories are not mutually exclusively, nor do the number of times the resource was used indicate the number of calls.

Manitoba Poison Centre (MPC)

Year to date (January 1 to September 30, 2018), there have been 133 calls made to the Manitoba Poison Centre related to opioids. In the third quarter of 2018, there were 34 opioid-related calls received by the Manitoba Poison Centre (Table 10); this is a slight decrease since the first and second quarter of 2018 (51 and 48 calls, respectively) (Figure 24) – the average number of calls per quarter is 51.

In the third quarter (July 1 to September 30, 2018), the number of calls amongst all age groups decreased since the last quarter (Figure 26).

[9] This includes the following: "Alcohol withdrawal delirium"; "Narcotic (opioid) use disorder"; "Hallucinations"; "Withdrawal Symptoms: Drug and Alcohol Abuse"; "Fentanyl"; "Street Connections Launches a Take-Home Naloxone Program"; "Drug, Alcohol and Tobacco Use During Pregnancy"

Table 9: Number of calls to Health Links – Info Santé by "Health Information Advisor Title" (an evidence-based guideline/health education document used during the call by registered nurses to assist clients), Health Links – Info Santé (April 1 – September 30, 2018)

Health Information Advisor (HIA) Title	2018-Q2 (Apr – Jun)	2018-Q3 (Jul – Sep)	Total Calls
Alcohol withdrawal delirium	2	5	**7**
Narcotic (opioid) use disorder	1	5	**6**
Hallucinations	2	2	**4**
Withdrawal Symptoms: Drug and Alcohol Abuse	3	0	**3**
Fentanyl	1	1	**2**
Street Connections Launches a Take-Home Naloxone Program	0	1	**1**
Drug, Alcohol and Tobacco Use During Pregnancy	1	0	**1**
Prescription drug use disorder	0	0	**0**
PCP use disorder	0	0	**0**
Substance - Induced Anxiety disorder	0	0	**0**
Naloxone Programs and Kits	0	0	**0**

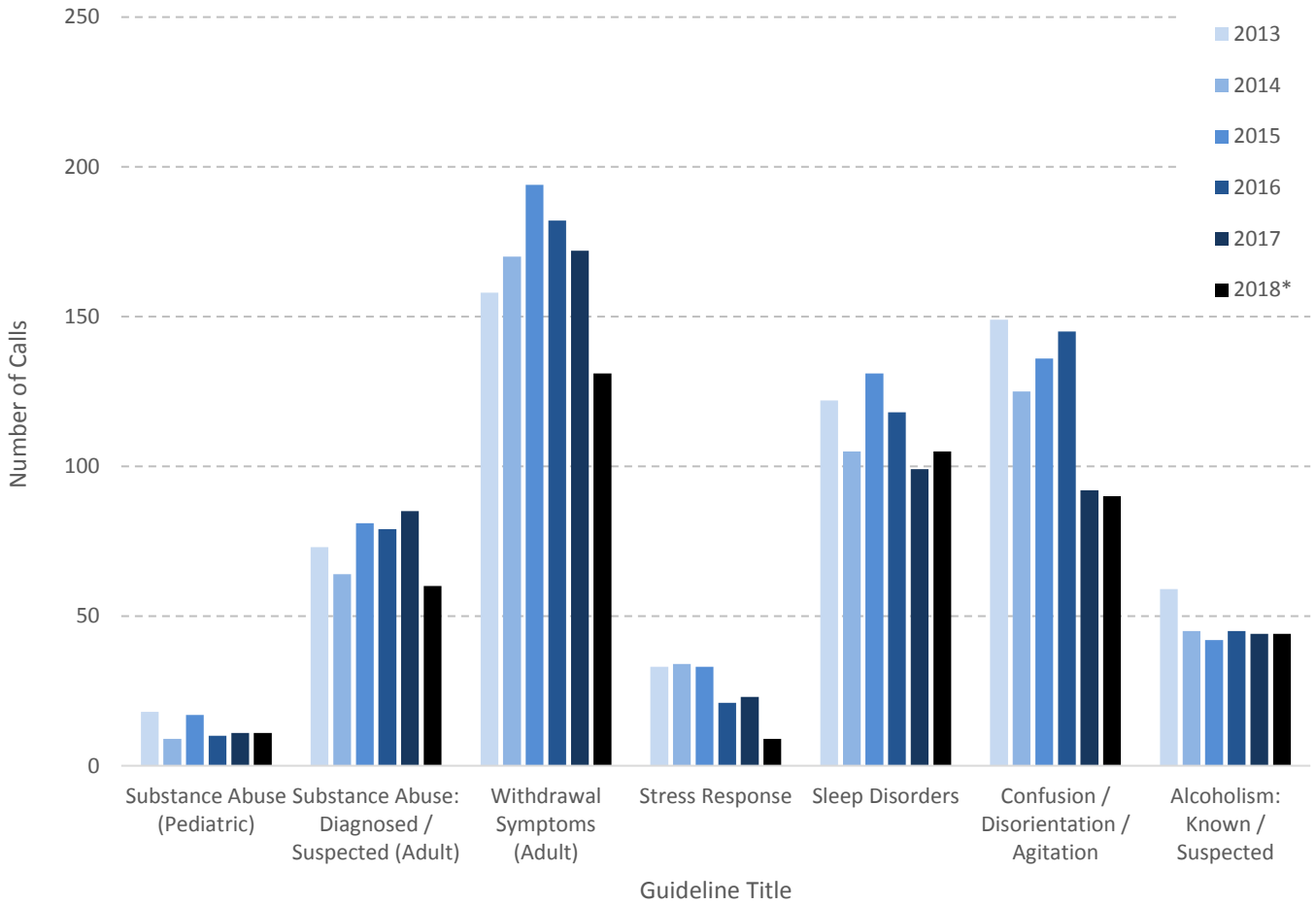


Figure 25: Number of calls per year to Health Links – Info Santé by "Guideline Titles" (an evidence-based guideline/health education document) used by registered nurses to assist clients during the call, Health Links – Info Santé (January 1, 2013 – September 30, 2018)

Table 10: Number of opioid poisoning-related calls by opioid-type, Manitoba Poison Centre (July 1 – September 30, 2018)

	5 years and younger	6 to 19 years	20 years and older	Total
Opioids in combination with non-opioid analgesics	**1**	**4**	**17**	**22**
Acetaminophen with codeine	1	1	13	**15**
Acetaminophen with oxycodone	0	2	4	**6**
Acetaminophen with other opioids	0	1	0	**1**
Opioids	**0**	**0**	**12**	**12**
Codeine	0	0	0	**0**
Heroin	0	0	0	**0**
Hydromorphone	0	0	2	**2**
Methadone/Buprenorphine	0	0	3	**3**
Morphine	0	0	2	**2**
Oxycodone	0	0	1	**1**
Tramadol	0	0	3	**3**
Other/unknown opioids	0	0	1	**1**
Total opioid related calls received	**1**	**4**	**29**	**34**

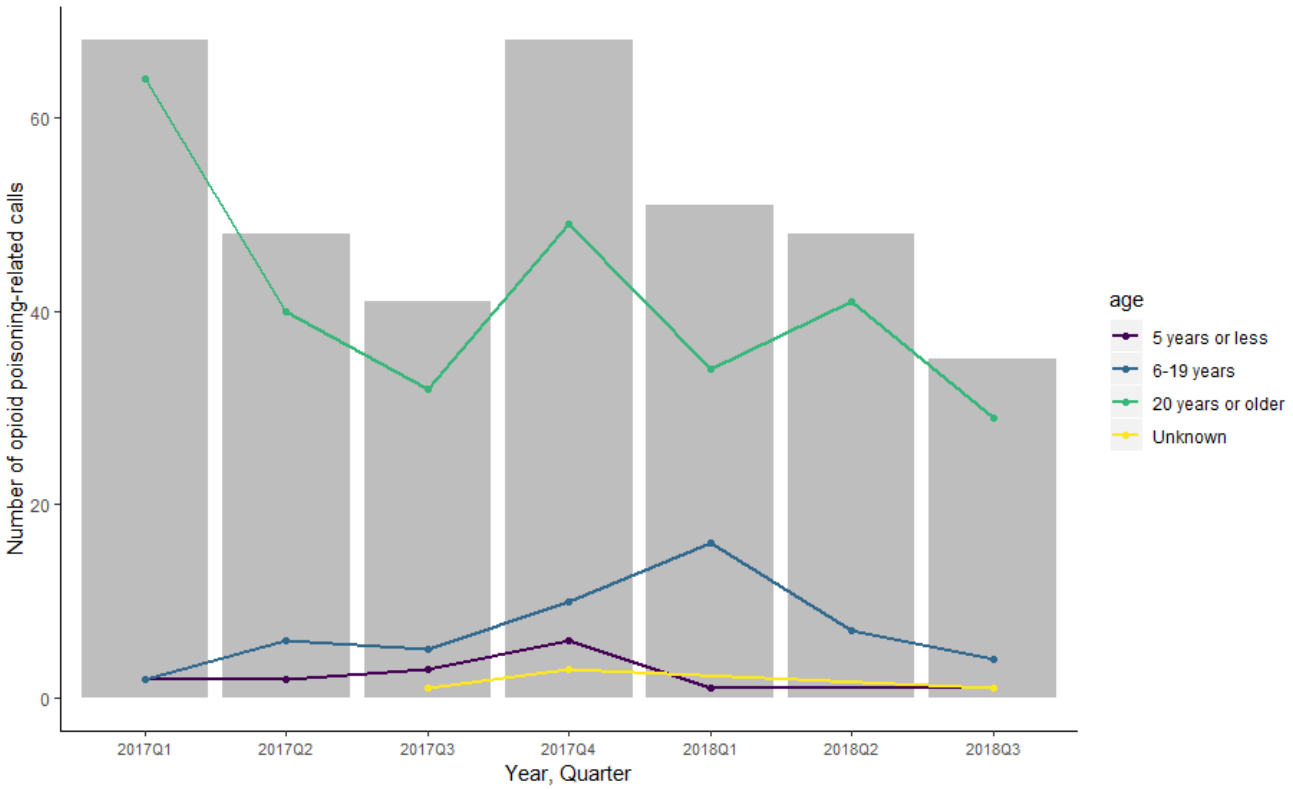


Figure 26: Number of opioid poisoning-related calls by age group, Manitoba Poison Centre (January 1, 2017 – September 30, 2018)

Illegal Opioids Identified or Tracked

See Appendix B for interpretation notes on Drug Analysis Service data.

Drug Analysis Services[10], Health Canada

Due to availability of data and the method of analysis used, a summary up to the end of the third quarter (September 30, 2018) was already reported in the second quarter report – it has been included again in this report.

Between January 1 and September 30, 2018, a total of 2,900 samples of suspected illegal drugs seized by law enforcement were submitted for analysis in Manitoba.

During the six month period of April 1 – September 30 2018, a total of 1,790 samples were submitted for analysis, which represents a 7% increase over the same period last year.

- The top five controlled substances identified this period include: cocaine (n=537), cannabis (n=490), methamphetamine (n=436), fentanyl (n=54) and oxycodone (n=43).
- During this period, 175 opioids were identified.
    - Fentanyl and its analogues represented 49% of these opioids (Figure 27); and five carfentanil samples were identified.
    - Fentanyl numbers (not including analogues), and carfentanil numbers (in parentheses) are provided below (Figure 28):
        - 2017 Q2: n=19 (n=22)
        - 2017 Q3: n=19 (n=13)
        - 2017 Q4: n=22 (n=8)
        - 2018 Q1: n=9 (n=2)
        - 2018 Q2 & Q3 : n=54 (n=5)
    - Other drugs of interest identified during this 6-month period include:
        - Psilocybin a.k.a Magic Mushrooms (n=10), and
        - Ketamine, an anesthetic typically used in medical or veterinary surgery (n=6).

[10] 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.

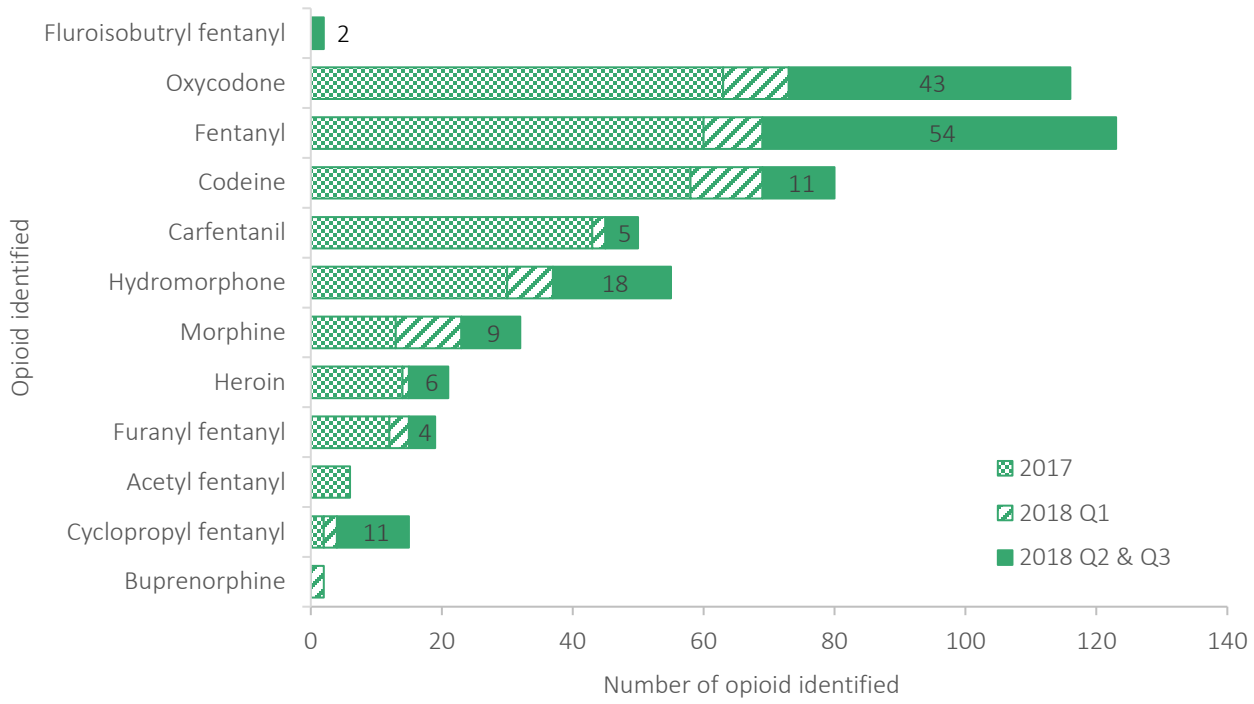


Figure 27: Number of top illegal opioids identified or tracked in Manitoba, Drug Analysis Service, Health Canada (January 1, 2017 – September 30, 2018)

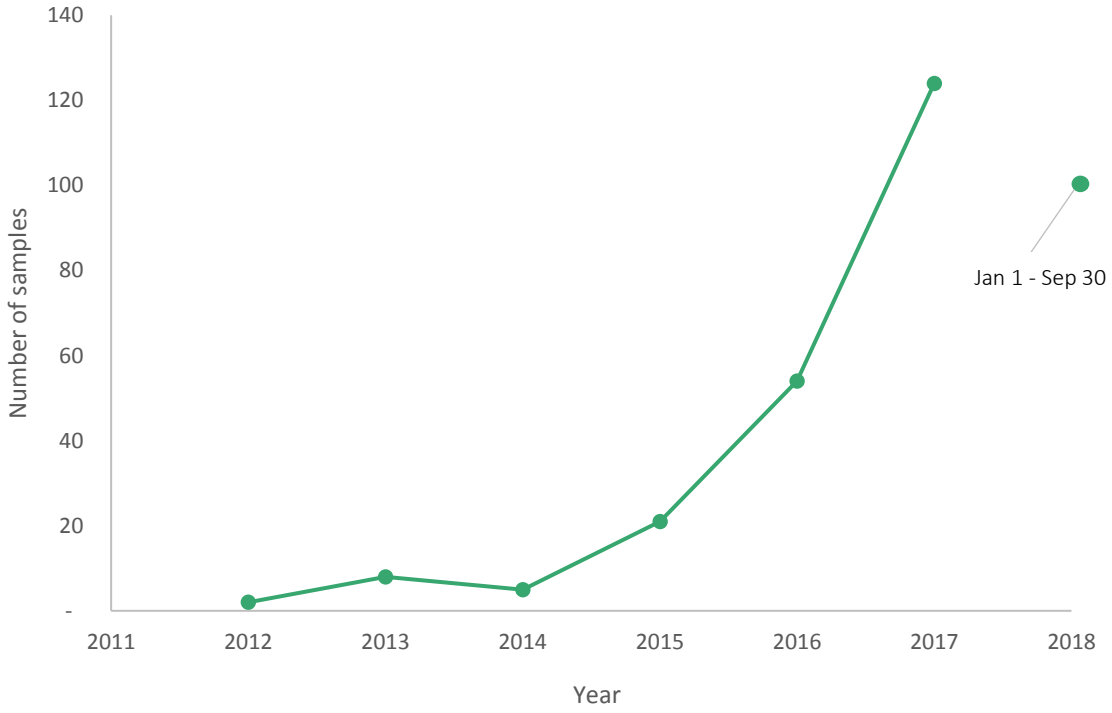


Figure 28: Number of illegal fentanyl-related opioids identified or tracked in Manitoba by year, Drug Analysis of Health Canada (January 1, 2012 – September 30, 2018)

Conclusion

Across the country, 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:

- **Naloxone Kit orders through the Manitoba Materials Distribution Agency (MDA):** The number of kits ordered and shipped to sites in the third quarter is lower in comparison to the first two quarters of 2018.
- **Distribution of Naloxone to individuals through the Provincial Take-Home Naloxone Program:** There were 92 take-home naloxone kits distributed by 12 sites in Manitoba this quarter. This is the lowest reported distribution per quarter since 2017. Note: The low number of reports could be as a result of delayed reporting (forms are submitted bi-annually – in June and December).
- **Prescription opioid dispensation:** By Morphine Milligram Equivalent (MME) per day, the number of individuals that were dispensed a prescription opioid from a community pharmacy in the third quarter was 1 – 7% less compared to the second quarter. A decrease in the number of Manitobans prescribed Fentanyl, Hydromorphone, Meperidine, Morphine, and Oxyneo was also seen, while the prescription of Generic Oxycontin increased since the previous quarter.
- **Calls to Manitoba Poison Centre:** In the third quarter, the number of calls for all age groups decreased since the last quarter.
- **Hospitalization:** Between January 1 and September 30, 2018, 70 opioid poisoning hospitalizations were reported, with 16 of these occurring in the third quarter. This is a decline since the previous two quarters (27 hospitalizations in the first quarter, and 27 hospitalizations in the second quarter).
- **Toxicology:** Four positive screens for fentanyl analogs (i.e. carfentanil) were reported this year (not to be concluded as the cause of death) – three of these were in the third quarter, based on autopsy date.
- **Opioid overdoses reported through the Provincial Take-Home Naloxone Program:** In the third quarter, there was one report each of crystal meth, benzodiazepines, and alcohol by individuals who had overdosed on opioids – none of these three substances were reported in the first and second quarters of 2018.

The following are **trends we continue to see in the third quarter, from the second quarter** of 2018:

- **Winnipeg Fire and Paramedic Service (WFPS):** The number of individuals suspected to have overdosed on opioids was the lowest in the fourth quarter of 2017. Since then, the number of individuals reported to have been administered naloxone for a suspected overdose has been increasing.
- **Emergency Departments and Urgent Care Facilities:** Between January 1 and September 30, 2018, individuals with a suspected overdose arriving at ED facilities were mostly females, and between 15 and 19 years.
- **Opioid overdoses reported through the Provincial Take-Home Naloxone Program:** We continue to see reports of multiple drugs being used by the individual who overdosed – 28% of reported overdoses to-date indicate poly drug use. In the second quarter, drug combinations included fentanyl and one other drug, in the third quarter however, various combinations were reported.

Epidemiology and Surveillance will continue to monitor these trends and continue to work closely with regional, provincial, and national stakeholders.

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 - September 30, 2018)

	Female		Male		Total	
	No.	%	No.	%	No.	%
Age group (years)						
10-14	2	0.9	0	0.0	2	0.4
15-19	10	4.7	11	4.7	21	4.7
20-24	24	11.2	31	13.1	55	12.2
25-29	39	18.2	25	10.6	64	14.2
30-34	29	13.6	39	16.5	68	15.1
35-39	31	14.5	30	12.7	61	13.6
40-44	20	9.3	38	16.1	58	12.9
45-49	12	5.6	17	7.2	29	6.4
50+	47	22.0	45	19.1	92	20.4
Total	*214*	*100.0*	*236*	*100.0*	*450*	*100.0*
Community Area of Event Location						
St. James	12	5.6	12	5.1	24	5.3
Assiniboine South	5	2.3	3	1.3	8	1.8
Fort Garry	6	2.8	16	6.8	22	4.9
St. Vital	11	5.1	3	1.3	14	3.1
St. Boniface	5	2.3	12	5.1	17	3.8
Transcona	9	4.2	7	3.0	16	3.6
River East	13	6.1	11	4.7	24	5.3
Seven Oaks	10	4.7	7	3.0	17	3.8
Inkster	2	0.9	3	1.3	5	1.1
Point Douglas	50	23.4	48	20.3	98	21.8
Downtown	80	37.4	102	43.2	182	40.4
River Heights	11	5.1	12	5.1	23	5.1
Total	*214*	*100.0*	*236*	*100.0*	*450*	*100.0*
Community Area of Residency						
St. James	9	5.0	11	7.0	20	5.9
Assiniboine South	5	2.8	6	3.8	11	3.2
Fort Garry	7	3.9	9	5.7	16	4.7
St. Vital	12	6.6	4	2.5	16	4.7
St. Boniface	8	4.4	7	4.4	15	4.4
Transcona	8	4.4	2	1.3	10	2.9
River East	13	7.2	11	7.0	24	7.1
Seven Oaks	11	6.1	11	7.0	22	6.5
Inkster	3	1.7	6	3.8	9	2.7
Point Douglas	44	24.3	34	21.5	78	23.0
Downtown	51	28.2	48	30.4	99	29.2
River Heights	10	5.5	9	5.7	19	5.6
Total	*181*	*100.0*	*158*	*100.0*	*339*	*100.0*

*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 - September 30, 2018)

Year	Female		Male		Total	
	No.	%	No.	%	No.	%
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	214	47.6	236	52.4	450	100.0
Total	1,492	44.8	1,837	55.2	3,329	100.0

*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 - September 30, 2018)

	Number	Crude Rate	Age-Standardized Rate	95%CI
FEMALE				
Community Area of Residency				
St. James	9	31.7	37.3	16.8 - 71.3
Assiniboine South	5	30.0	24.8	7.8 - 62.8
Fort Garry	7	17.7	15.7	6.2 - 33.0
St. Vital	12	36.9	35.3	18.1 - 62.7
St. Boniface	8	29.7	27.4	11.8 - 54.9
Transcona	8	46.2	46.1	19.7 - 91.2
River East	13	28.9	27.8	14.6 - 48.4
Seven Oaks	11	32.2	32.1	15.9 - 57.9
Inkster	3	20.0	19.8	4.0 - 57.7
Point Douglas	44	221.7	206.7	149.6 - 278.2
Downtown	51	145.6	139.6	103.1 - 184.7
River Heights	10	36.7	33.6	15.9 - 63.9
Total	*181*	*53.6*	*52.8*	*45.4 - 61.2*
MALE				
Community Area of Residency				
St. James	11	42.4	45.8	22.7 - 82.3
Assiniboine South	6	39.2	39.5	14.1 - 87.8
Fort Garry	9	23.6	22.6	10.2 - 43.2
St. Vital	4	13.3	13.3	3.6 - 34.4
St. Boniface	7	27.5	27.9	11.2 - 57.7
Transcona	2	11.9	10.3	1.3 - 39.1
River East	11	26.1	25.7	12.7 - 46.3
Seven Oaks	11	33.8	35.4	17.6 - 63.2
Inkster	6	40.2	37.5	13.7 - 82.0
Point Douglas	34	168.7	171.8	118.5 - 240.1
Downtown	48	130.7	121.7	89.1 - 162.2
River Heights	9	36.5	38.4	17.4 - 73.5
Total	*158*	*48.9*	*48.3*	*41.0 - 56.5*

CI – Confidence Interval

*Includes only those greater than 9 years of age.

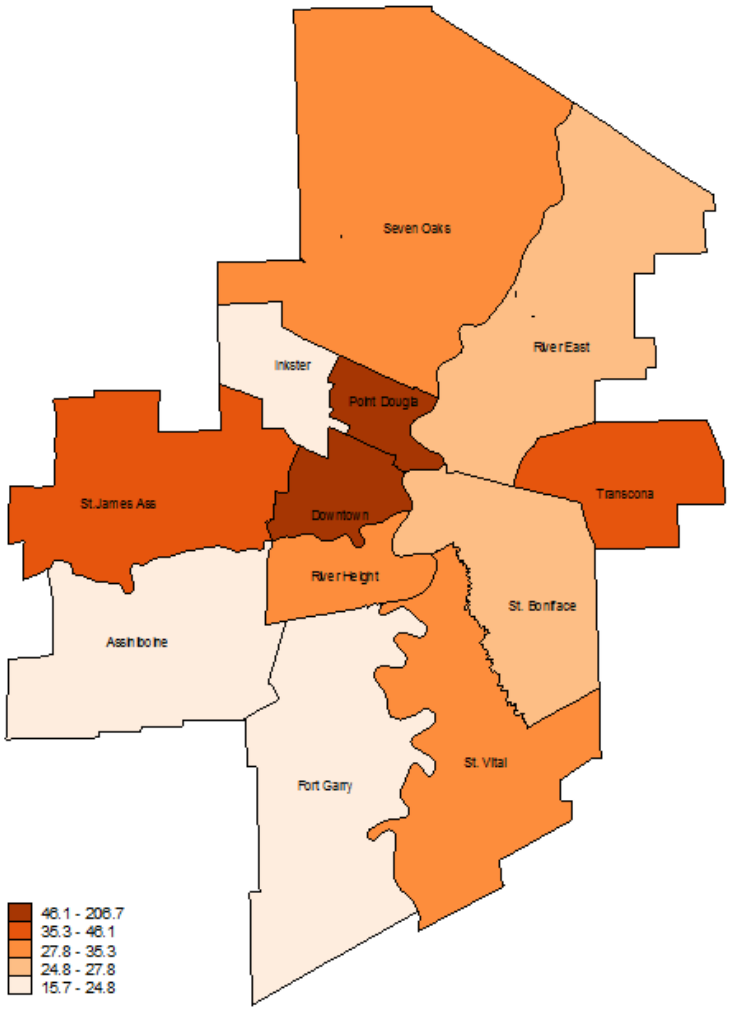


Figure A. 1: Age standardized rate (per 100,000) of suspected overdose events among **females** where naloxone was administered by community area of residence, Winnipeg Fire and Paramedic Service (January 1 - September 30, 2018)

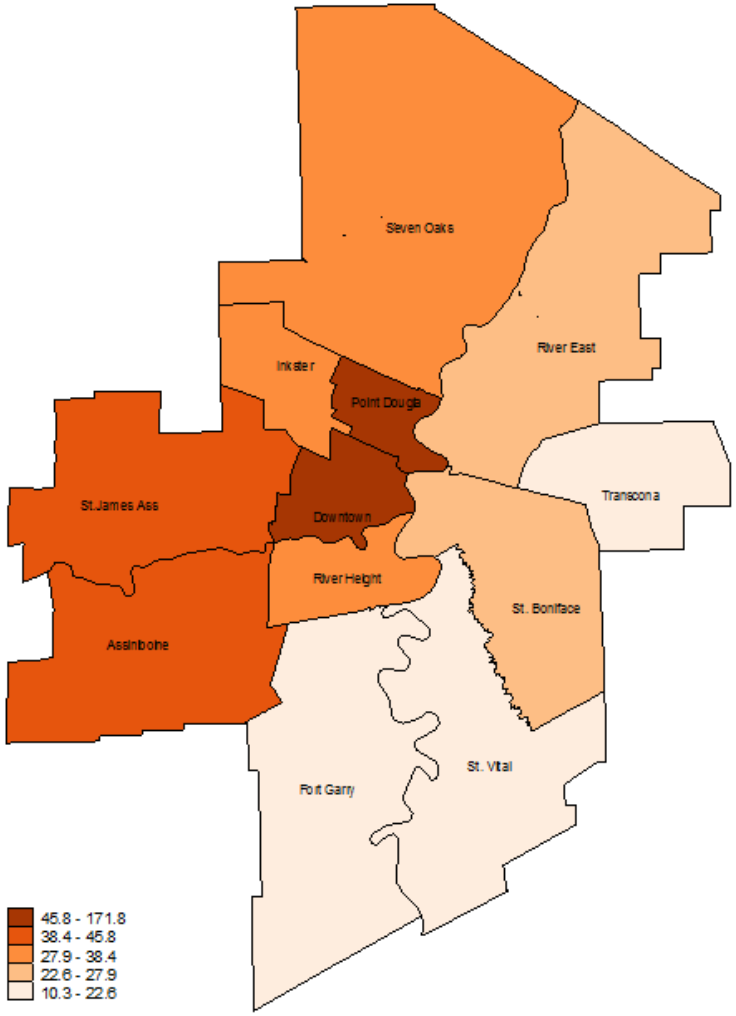
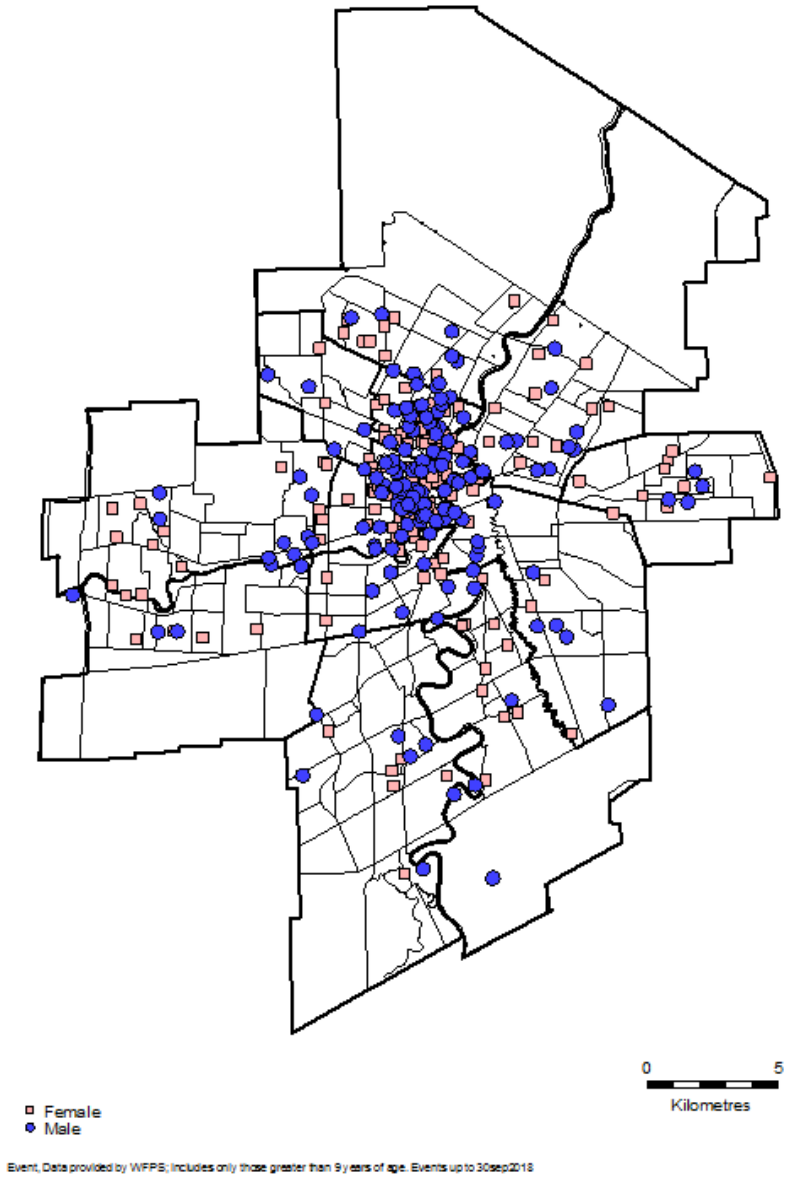
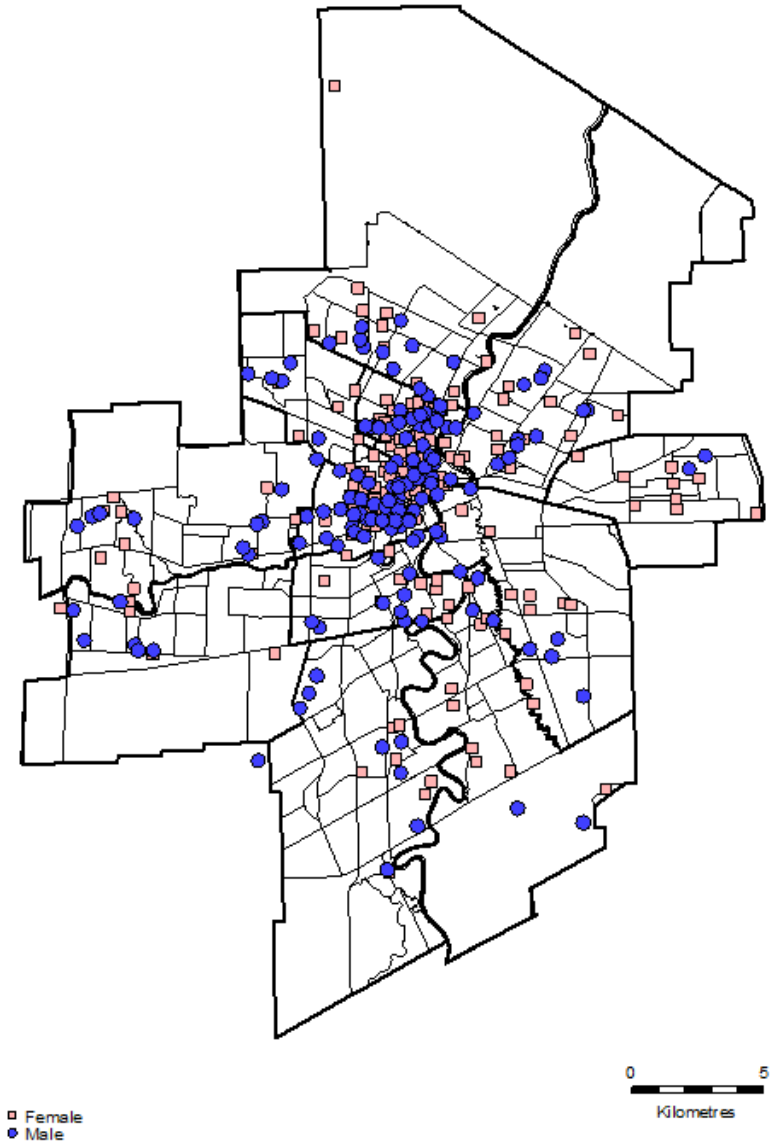


Figure A. 2: Age standardized rate (per 100,000) of suspected overdose events among **males** where naloxone was administered by community area of residence, Winnipeg Fire and Paramedic Service (January 1 - September 30, 2018)



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 – September 30, 2018)



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 – September 30, 2018)

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

Table A. 4: Characteristics of suspected overdose cases arriving at Winnipeg RHA Emergency Departments and Urgent Care Facilities*, Emergency Department Information System (January 1 – September 30, 2018)

	Female		Male		Total	
	No.	%	No.	%	No.	%
Age group						
10-14	68	11.2	17	6.3	85	9.6
15-19	161	26.4	45	16.5	206	23.4
20-24	75	12.3	32	11.8	107	12.1
25-29	96	15.8	37	13.6	133	15.1
30-34	47	7.7	39	14.3	86	9.8
35-39	43	7.1	22	8.1	65	7.4
40-44	33	5.4	26	9.6	59	6.7
45-49	20	3.3	15	5.5	35	4.0
50+	66	10.8	39	14.3	105	11.9
Community Area						
St. James	32	5.3	15	5.5	47	5.3
Assiniboine South	11	1.8	7	2.6	18	2.0
Fort Garry	30	4.9	13	4.8	43	4.9
St. Vital	30	4.9	13	4.8	43	4.9
St. Boniface	28	4.6	14	5.1	42	4.8
Transcona	23	3.8	8	2.9	31	3.5
River East	67	11.0	21	7.7	88	10.0
Seven Oaks	47	7.7	14	5.1	61	6.9
Inkster	27	4.4	11	4.0	38	4.3
Point Douglas	75	12.3	32	11.8	107	12.1
Downtown	98	16.1	47	17.3	145	16.5
River Heights	24	3.9	12	4.4	36	4.1
Missing - no postal code	13	2.1	7	2.6	20	2.3
Non-Winnipeg postal code, Manitoba resident	95	15.6	50	18.4	145	16.5
Non-Winnipeg postal code, Non-Manitoba resident	9	1.5	8	2.9	17	1.9
Total	*609*	*100.0*	*272*	*100.0*	*881*	*100.0*

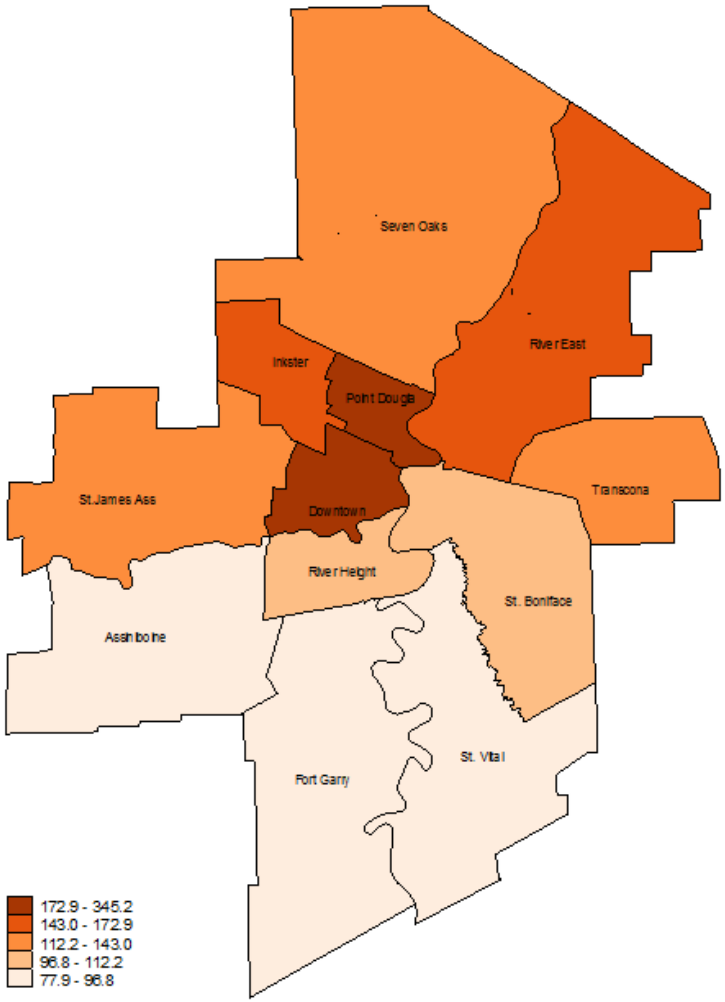
* Includes CTAS 1 & 2 and those greater than 9 years of age only.

Table A. 5: 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 – September 30, 2018)

	Number	Crude Rate	Age-Standardized Rate	95%CI
FEMALES				
Community Area				
St. James	32	112.7	138.8	94.4 - 196.5
Assiniboine South	11	65.9	78.7	38.7 - 141.7
Fort Garry	30	76.0	77.9	52.3 - 111.5
St. Vital	30	92.2	96.8	65.0 - 138.9
St. Boniface	28	104.0	107.0	70.9 - 155.1
Transcona	23	132.8	136.3	86.2 - 204.6
River East	67	149.2	157.0	121.2 - 200.0
Seven Oaks	47	137.4	143.0	104.9 - 190.3
Inkster	27	179.9	172.9	113.6 - 252.1
Point Douglas	75	378.0	345.2	270.9 - 433.6
Downtown	98	279.9	259.0	209.3 - 317.1
River Heights	24	88.1	112.2	70.3 - 168.9
Total	*492*	*145.8*	*150.4*	*137.3 - 164.4*
MALES				
Community Area				
St. James	15	57.8	59.3	32.9 - 98.5
Assiniboine South	7	45.8	52.4	20.7 - 108.0
Fort Garry	13	34.0	27.8	14.6 - 48.5
St. Vital	13	43.1	44.3	23.4 - 75.9
St. Boniface	14	54.9	54.2	29.6 - 91.3
Transcona	8	47.7	44.3	19.1 - 87.9
River East	21	49.9	51.3	31.6 - 78.5
Seven Oaks	14	43.0	41.6	22.7 - 70.0
Inkster	11	73.7	72.0	35.6 - 129.0
Point Douglas	32	158.7	150.3	102.4 - 212.6
Downtown	47	128.0	124.1	90.6 - 165.7
River Heights	12	48.7	46.5	23.7 - 82.6
Total	*207*	*64.1*	*62.8*	*54.5 - 72.0*

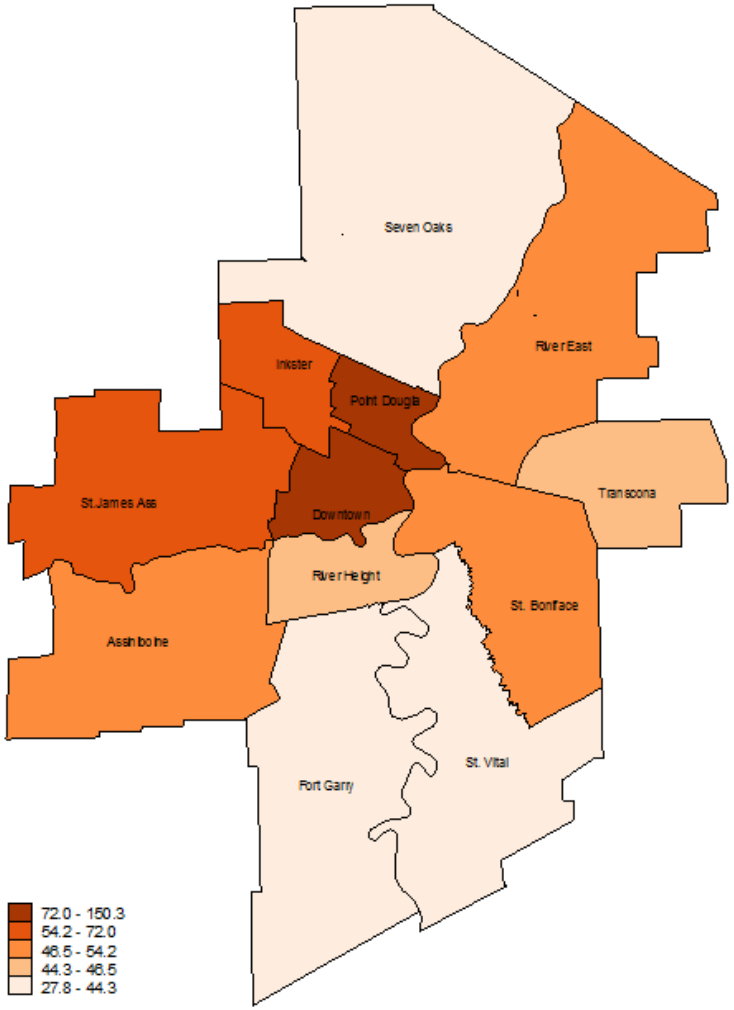
CI – Confidence Interval

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



Female Visits up to 30sep2018. 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 – September 30, 2018)



Male Visits up to 30sep2018. 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 - September 30, 2018)

Severity: Opioid Poisoning Hospitalizations

Table A. 6: Number of opioid poisoning hospitalizations in Manitoba by sex, Manitoba Health, Seniors and Active Living (January 1, 2008 – September 30, 2018)

Year	Female	Male	Total
2008	62	39	**101**
2009	62	39	**101**
2010	65	37	**102**
2011	81	71	**152**
2012	86	40	**126**
2013	65	51	**116**
2014	76	60	**136**
2015	70	52	**122**
2016	65	59	**124**
2017	74	65	**139**
2018 (Jan-Sep)	35	55	**70**

Table A. 7: Number of opioid poisoning hospitalizations in Manitoba by age group, Manitoba Health, Seniors and Active Living (January 1, 2008 – September 30, 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 (Jan-Sep)	15	17	28	10	**70**

Table A. 8: Number of opioid poisoning hospitalizations in Manitoba by opioid type, Manitoba Health, Seniors and Active Living (January 1, 2008 – September 30, 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 (Jan- Sep)	0	3	0	54	6	7	**70**

Table A. 9: Number of opioid poisoning hospitalizations in Manitoba by Regional Health Authority, Manitoba Health, Seniors and Active Living (January 1, 2008 – September 30, 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 (Jan-Sep)	0	0	13	0	57	**70**

Prescription Opioid Dispensation: Drug Program Information Network (DPIN)

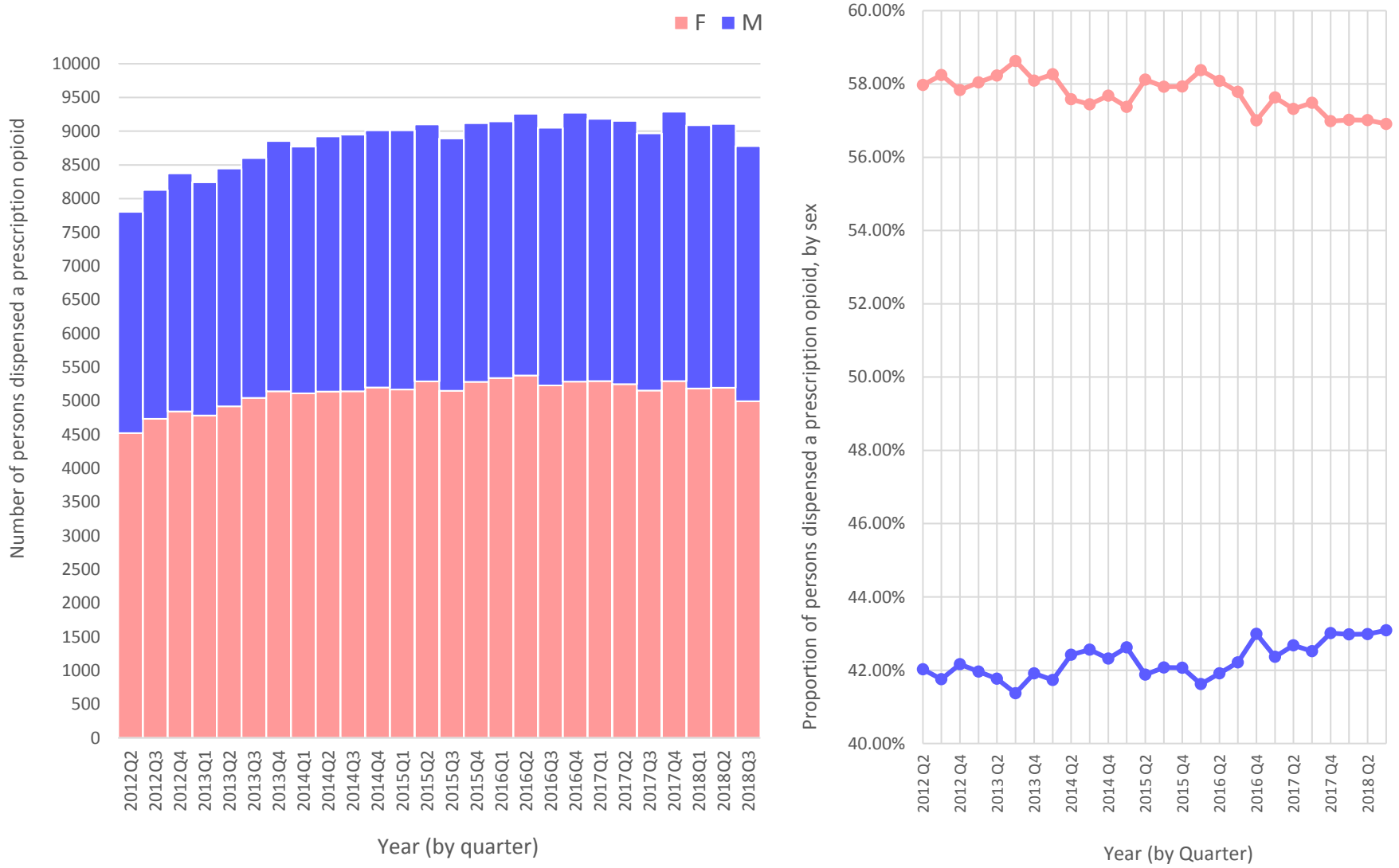


Figure A. 7: Number and proportion of Manitobans dispensed a prescription opioid from a community pharmacy by sex, Drug Program Information Network (April 1, 2012 – September 30, 2018)

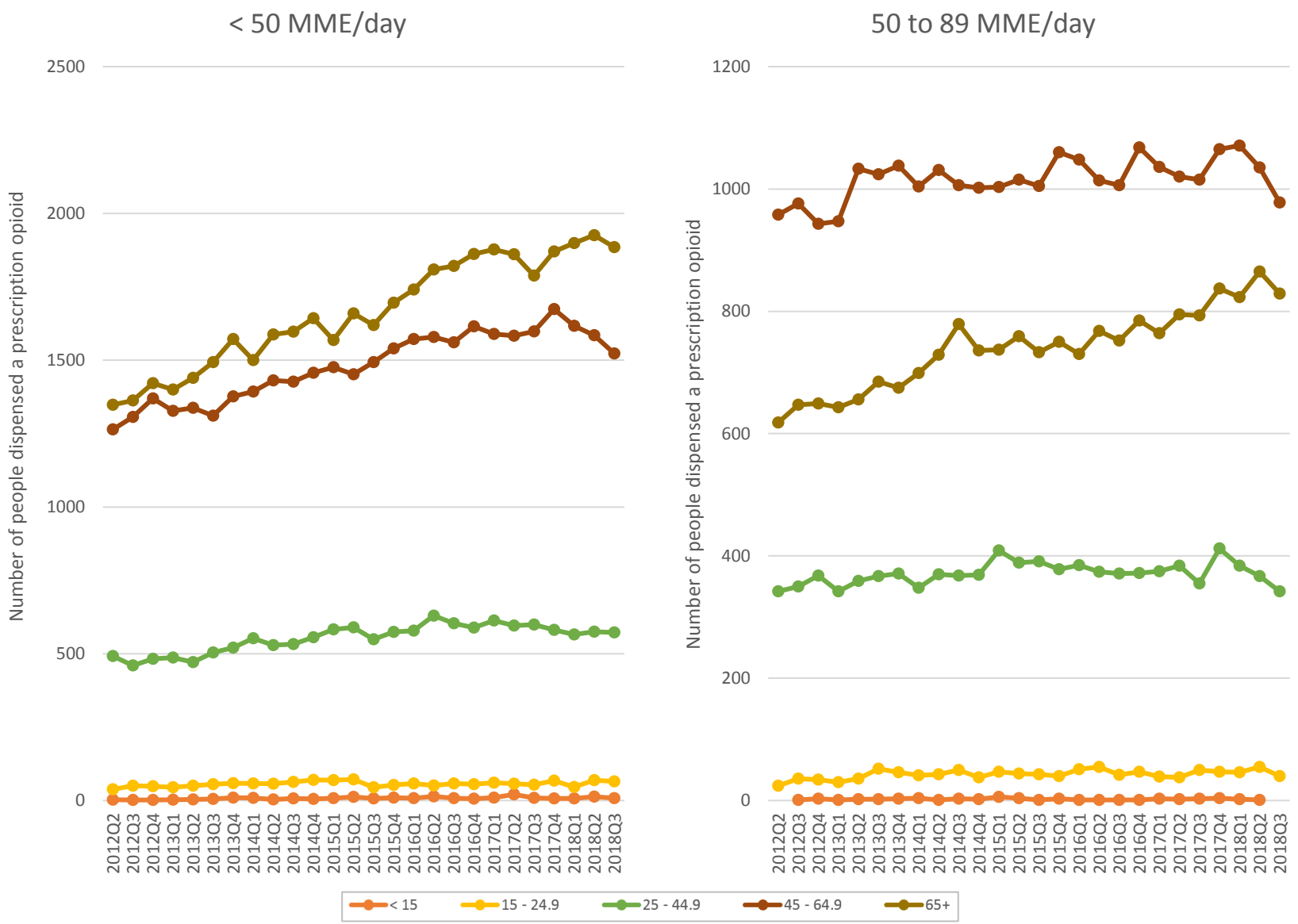


Figure A. 8: Number of Manitobans dispensed a prescription opioid from a community pharmacy by morphine milligram equivalent (MME) per day, <50 MME/day and 50 to 89 MME/day, and age group, Drug Program Information Network (April 1, 2012 – September 30, 2018)

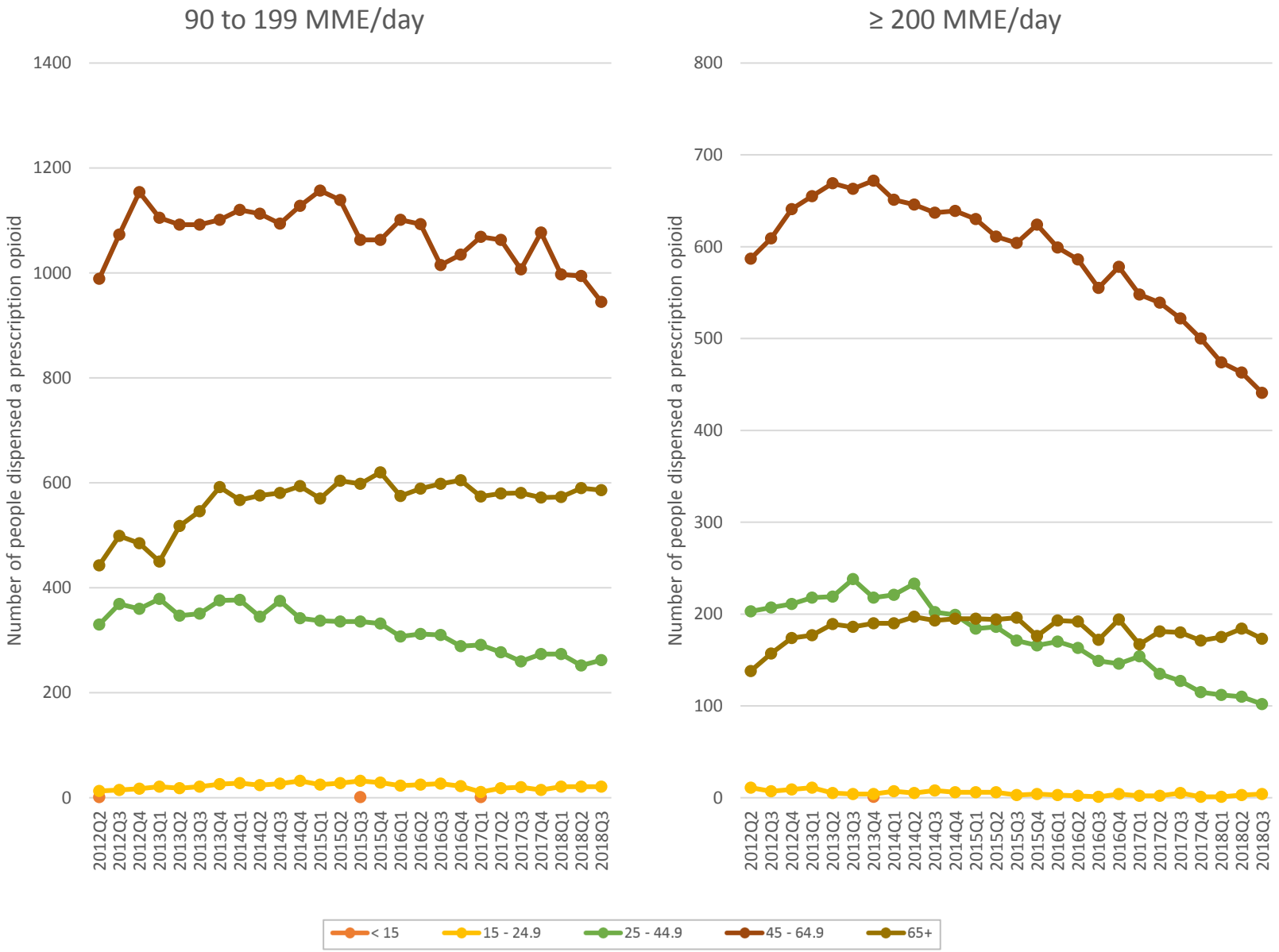


Figure A. 9: Number of Manitobans dispensed a prescription opioid from a community pharmacy by morphine milligram equivalent (MME) per day, 90 to 199 MME/day and ≥ 200 MME/day, and age group, Drug Program Information Network (April 1, 2012 – September 30, 2018)

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: 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. 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.

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
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.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, 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

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.

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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* 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.

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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