

Opioid Related Harms in New Brunswick:

Deaths, Overdoses and Take Home Naloxone Kits
2020 – Quarter 1 & 2

November 2020

Table of Contents

Introduction	
Data Sources	
Methodology	5
Suspect Opioid Overdoses	6
Apparent Opioid Overdose Deaths	8
Take-Home Naloxone Kit Data	12
Summary	14
Appendix A: Data Sources	15
Appendix B: Methodology	17
Appendix C: Definitions and Abbreviations	18
Appendix D: Polysubstance Use Substance Types	19

Introduction

This quarterly surveillance report describes data on apparent opioid overdoses and deaths that were collected by Ambulance New Brunswick (ANB) and the Chief Coroner's Office. Data on the take home naloxone kit distribution and use collected by non-government organizations and detoxification centres throughout the province are also described. All data are reported to the Office of the Chief Medical Officer of Health (OCMOH).

Data Sources

Comparisons should not be made between different data sources as each represents a different population. Together these data sources add to our understanding of the complex opioid overdose situation in New Brunswick.

Ambulance New Brunswick

Data from ANB are aggregate and include information about:

- a) patients who were administered naloxone by a paramedic for a suspected opioid overdose, and
- b) patients who responded to naloxone.

The number of patients who were administered naloxone might be an overestimation of the actual number of opioid overdoses; therefore, the number of patients responding to naloxone was also collected and reported. If a patient responds to naloxone, this indicates that the patient was experiencing an opioid-related overdose as naloxone only has an effect if opioids were consumed. Data in this report reflect data received from ANB as of September 30, 2020.

Limitations: The number of accidental/suspect opioid overdoses is an estimate based on the decision to administer naloxone by a paramedic. As such, the data do not include overdoses where patients were already dead on arrival or those who were not given naloxone by a paramedic.

See Appendix A for a detailed description of ANB data.

Chief Coroner's Office

Data received from the Chief Coroner's Office include a line list of all apparent drug-related (opioid and non-opioid) overdose deaths. Data in this report reflect data received from the Chief Coroner's Office as of July 20, 2020.

Limitations: Due to the inherent delay in investigating deaths, data are preliminary and may change over time as investigations are concluded and more information is acquired, or new cases are added.

See Appendix A for a detailed description of Coroner Data.

Non-Government Organizations, Detoxification Centres and Correctional Centres

Data for take home naloxone kits (THN kit) come from three non-government organizations (NGOs) (AIDS NB in Fredericton, Avenue B in Saint John, and Ensemble in Moncton), seven

detoxification centres (located in Bathurst, Campbellton, Edmundston, Fredericton, Miramichi, Moncton and Saint John), and three correctional centres (Saint John Regional Correctional Centre, Southeast Regional Correctional Center, and the New Brunswick Women's Correctional Centre / NB Youth Centre). Data include the number of THN kits that are distributed and used. An individual may be given a THN kit if 1) the individual is at risk of an opioid overdose due to current opioid use, or they have previously used opioids and are at risk of using opioids again; or 2) they are a family member, friend, or other person who is likely to witness and respond to an overdose. The data in this report reflect data received from the 13 centres as of August 17, 2020.

Limitations: Certain data elements are disclosed at the client's discretion and level of comfort, therefore not all variables requested may be collected. Data may be updated as additional information is obtained and reported, and as forms continue to be validated.

See Appendix A for a detailed description of the take home naloxone kit data.

Methodology

Data were received from ANB, the Chief Coroner's Office, and the NGOs, detoxification centres and correctional centres, then validated and analyzed by the OCMOH. Descriptive analyses were conducted for suspect opioid overdoses and apparent opioid overdose deaths.

Throughout this report, estimated rates were calculated using person-time contributed to the specified period. This method is used to provide a better estimate of rates that are calculated for partial years. Caution should be used when interpreting data in this report as small numbers can lead to wide variations.

The reported apparent opioid overdose death data are preliminary, and numbers are subject to change in the coming reports. Since the last report, updates have been made to previously reported counts and rates based on revised data.

See Appendix B for a detailed description of the methodology.

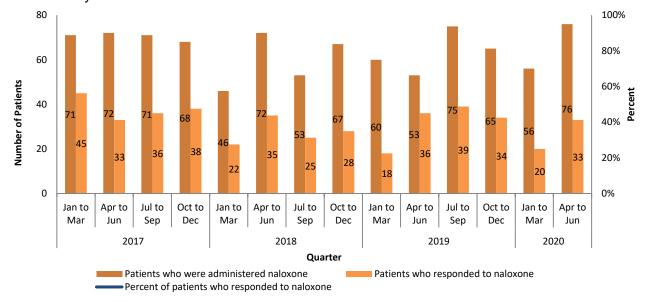
Suspect Opioid Overdoses

Ambulance New Brunswick

2020 Q1-2 (January 1 to June 30)

In the first two quarters of 2020, **naloxone was administered to 132 suspect opioid overdose patients** (Graph 1), with an average of 22 cases per month. Of the 132 suspect opioid overdose patients, **53 (39%) responded to naloxone** which corresponds to an average of 9 cases per month (range: 5 to 14).

Graph 1. Number of suspect opioid overdose patients who were administered naloxone and number and percentage of patients who responded to naloxone, quarterly in New Brunswick, from January 2017 to June 2020*.



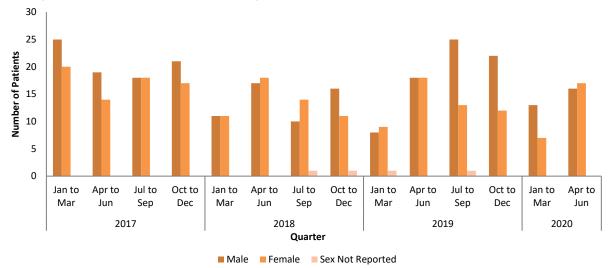
Data source: Ambulance New Brunswick, September 30, 2020.

Among the 53 patients who responded to naloxone in Q1-Q2 of 2020:

- There were slightly more males than females: 29 (55%) were male and 24 (45%) were female (Graph 2). Quarter 1 has seen the highest proportion of males at 65%, compared to all other quarters since January 2017. Between Q3 2019 and Q1 of 2020, there was a noticeable increase in the proportion of males being administered naloxone compared to females in previous quarters. The overall proportion of males to females since 2017 is approximately equal at 54% males and 45% females.
- The largest proportion of individuals were between 20-29 (23%) (Graph 3). The age distribution is similar to previous years.

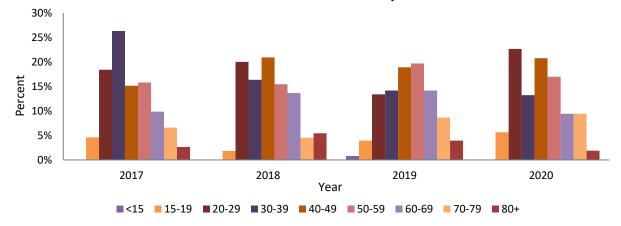
^{*}These numbers may change pending data entry completion

Graph 2. Number of suspect opioid overdose patients who responded to naloxone by sex, quarterly in New Brunswick, from January 2017 to June 2020*.



Data source: Ambulance New Brunswick September 30, 2020.

Graph 3. Distribution by age group of suspect opioid overdose patients who responded to naloxone in New Brunswick in 2017, 2018, 2019 and January-June 2020*.



Data source: Ambulance New Brunswick, September 30, 2020.

The estimated crude rate of suspect opioid overdose patients who responded to naloxone in New Brunswick in **2019** is **16.5** cases per **100,000** person-years. This is comparable to the 2018 and 2017 annual rates of 14.3 cases per 100,000 person-years and 18.6 cases per 100,000 person-years, respectively. The rate for Q1-Q2 of **2020** is **13.8** cases per **100,000** person-years. Regional rates are not reported as the small numbers lead to unstable rates.

^{*}These numbers may change pending data entry completion

^{*}These numbers may change pending data entry completion

Apparent Opioid Overdose Deaths

Chief Coroner's Office

Drug-related deaths have taken a toll on the lives of New Brunswickers, their families, and their friends. Between January 2016 and March 2020, there were 246 drug-related deaths (Figure 1). Apparent opioidrelated deaths were responsible for more than half (54%) of these deaths. Furthermore, apparent opioid-related deaths classified as accidental or pending intent account for 43% of all drug-related deaths. In 2019, **56 deaths** due to any type of drug (opioids and non-opioids) occurred, of which 29 (52%) were related to opioids.

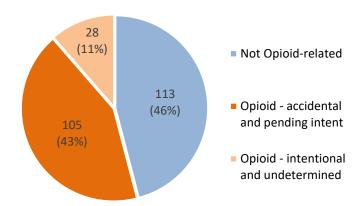


Figure 1. Distribution of drug related deaths in New Brunswick, by drug type and intent, January 2016 to March 2020*.

Data Source: Chief Coroner's Office, July 20, 2020*
These numbers may change as more information becomes available and coroner investigations are concluded.

Accidental and Pending Intent Deaths Due to Opioids

2019

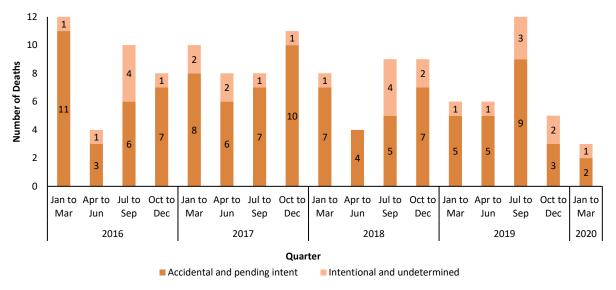
Of the 56 apparent drug-related overdose deaths in 2019, **29 (52%) were opioid-related** of which **22 (76%) were accidental or pending intent** (Graph 4). Four accidental or pending intent cases were associated with fentanyl.

Of the 22 apparent opioid-related overdose deaths classified as accidental or with pending intent:

- The majority were female (59% and 41%, respectively) (Graph 5).
- The largest proportion of individuals were between 30 and 39 years old (Graph 6). The average and median age for 2019 is 47 years and 45 years, respectively.
- Nine (41%) of the deaths involved illicit opioids, 7 (32%) involved prescribed opioids, and 6 (27%) involved opioids of unknown source.

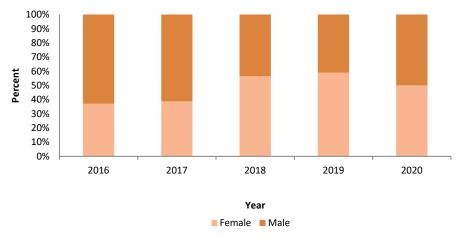
In 2019, the estimated annual crude mortality rate for accidental or pending intent opioid-related deaths in New Brunswick was **2.9 deaths per 100,000 person-years**. The rate for 2019 continues to be the lowest annual rate since surveillance began with 2017 having the largest rate at 4.0 deaths per 100,000 person-years. Regional rates are not reported as the small numbers involved can lead to unstable rates.

Graph 4. Number of apparent opioid-related overdose deaths by intent (intentional, accidental, pending intent or undetermined), quarterly in New Brunswick, from January 2017 to March 2020*.



Data Source: Chief Coroner's Office, July 20, 2020.

Graph 5. The proportion of apparent opioid-related overdose deaths classified as accidental or with pending intent by sex, quarterly, in New Brunswick from January 2016 to March 2020*.

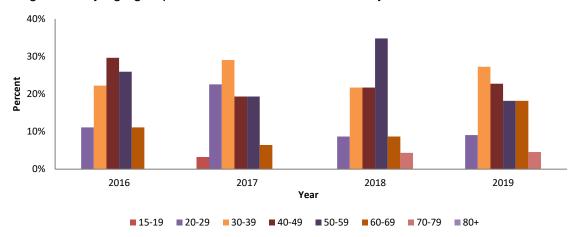


Data source: Chief Coroner's Office, July 20, 2020.

^{*}These numbers may change as more information becomes available and coroner investigations are concluded.

^{*}These numbers may change as more information becomes available and coroner investigations are concluded.

Graph 6. Number of apparent opioid-related overdose deaths classified as accidental or with pending intent, by age group in New Brunswick, from January 2016 to December 2019*.

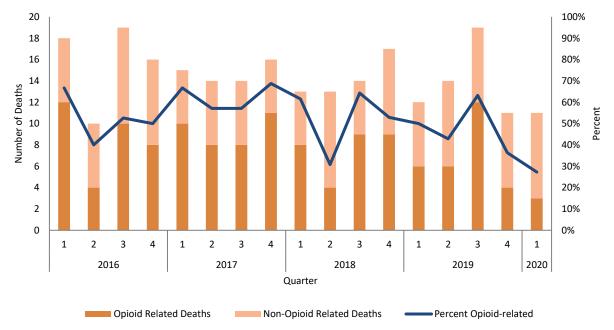


Data source: Chief Coroner's Office, July 20, 2020

2020

In Q1 of 2020, there were **3 apparent opioid-related deaths**, of which **2 have been accidental or pending intent**. While this is the lowest quarterly number of opioid-related deaths to date, new cases may be added or updated as coroner investigations continue and are completed. Further, data indicate that Q1 of 2020 has the lowest proportion of opioid-related deaths compared to non-opioid related deaths since surveillance began in 2016 (Graph 7).

Graph 7. Percent of substance-related deaths by opioid-related status, quarterly in New Brunswick from January 2016 to March 2020*.



Data Source: Chief Coroner's Office, July 20, 2020.

^{*}These numbers may change as more information becomes available and coroner investigations are concluded.

^{*}These numbers may change as more information becomes available and coroner investigations are concluded.

Polysubstance Use

Given that most substance-related deaths in New Brunswick demonstrate that multiple substances were consumed at the time of death, polysubstance use is of notable concern. Of the 133 decedents who died from an apparent opioid-related overdose between January 2016 and March 2020, 131 (98%) consumed opioids in conjunction with one or more non-opioid substance (e.g. alcohol or non-opioid drugs)¹. Benzodiazepines and antidepressants were the most commonly co-consumed substance type having been consumed by 88 (66%) and 76 (57%) of the decedents who died from an apparent opioid-related overdose, respectively (Table 1).

Table 1. Number (percent) of decedents who died from an apparent opioid-related overdose (AORD) who also consumed one or more non-opioid substance, from January 2016 to March 2020*.

Substance Type**	Total (% of AORD)	Number by sex (% of row total)	
		Female	Male
Benzodiazepines	88 (66%)	52 (59%)	36 (41%)
Antidepressants	76 (57%)	43 (57%)	33 (43%)
Stimulants	50 (38%)	25 (49%)	26 (51%)
Cannabinoids	44 (33%)	21 (48%)	23 (52%)
Antipsychotics	31 (23%)	16 (52%)	15 (48%)
Alcohol	21 (16%)	9 (43%)	12 (57%)

Data source: Chief Coroner's Office, July 20, 2020

Of the decedents who died from an apparent opioid-related overdose, 51 (38% of AORD; 65% female, 35% male) decedents consumed both benzodiazepines and antidepressants around the time of death.

It is important to note that the presence of other substances in addition to opioids does not necessarily indicate that they contributed to death, but only indicates that the substance was consumed around the time of death; therefore, this data should not be used to identify the number of individuals who died as a result of the indicated substances but should be used only to identify the number of people in whom these drug types were detected from toxicological testing or circumstantial evidence.

^{*}These numbers may change as more information becomes available and coroner investigations are concluded

^{**}See Appendix D for a description of the specific substances in each substance category. Categories are subject to change.

¹ Substances were identified as having been consumed around the time of death based on toxicology testing, rapid toxicology testing, and any circumstantial evidence in the absence of testing.

Take-Home Naloxone Kit Data

Non-Government Organizations, Detoxification Centres and Correctional Centres

2019 and 2020 Q1-Q2 (January 1 to June 30)²

Since the beginning of 2019, data show that **997 take home naloxone kits (THN kits) were distributed** into the community (Table 2). Approximately equal number of kits were distributed in the first and second half of 2019 (339 and 355, respectively), with slightly fewer being distributed in the first half of 2020 (303).

The reported number of kits used may be an underestimation of the total number of kits being used due to potential barriers that may inhibit individuals from reporting kit use (e.g. stigma, fear of re-traumatization, accessibility, fear of criminality). Data are subject to change as forms continue to be validated.

Table 2. Number of kits distributed by site, from January 1 to June 30, 2020.

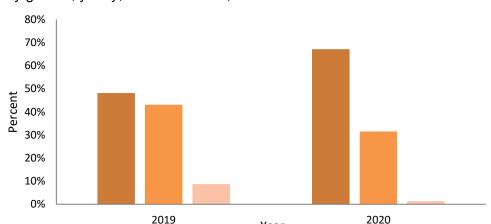
Site Name	2019	2020*	Total
AIDS NB - Fredericton	166	54	220
Ensemble - Moncton	91	29	120
Avenue B - Saint John	330	136	466
Detoxification Centres	107	52	159
Correctional Centres	N/A	32	32
Total	694	303	997

Data source: Non-government organizations, detoxification centres, and correction centres August 17, 2020

Since January 2019, nearly half (446, 45%) of the kits distributed have been distributed directly to the person at risk of an overdose. Among these individuals, more males received kits than females or individuals of other/unknown gender in both 2019 and 2020 (48% and 67%, respectively) (Graph 8).

^{*}Data up until June 2020, except for the detoxification centre in Saint John which is until May 2020. Data are subject to change.

² All data for THN kits represent data from January 2019 to June 2020 for all sites excluding the detoxification centre in Saint John (data up until May 2020).



Male

Graph 8. The proportion of individuals at risk of an overdose who received take home naloxone kits by gender, yearly, New Brunswick, 2019-June 2020*.

Data source: Non-government organizations, detoxification centres, and correction centres August 17, 2020 *Data up until June 2020, except for the detoxification centre in Saint John which is until May 2020. Data are subject to change.

■ Female ■ Other/Unknown

Year

Replacement kits were sought out by 59 individuals in 2019 and 34 individuals in the first half of 2020. Using a kit was the primary reason provided for seeking a replacement in both years.

Since 2019, **33 kits were reportedly used.** In 2019, 11 were reportedly used between January and June, with 10 others being reportedly used July to December. Data for 2020 currently show that 12 kits were reportedly used in January to June. Overall, approximately an **equal number of kits were reportedly used to treat males and females** (48% for males and 42% for females).

At the time of overdose, **26 individuals were not alone** (79%), 2 were alone (6%), and the remaining instances were unknown or not reported (15%). The **majority of overdoses occurred in a private residence** (16, 48%) followed by a hotel/motel (5, 15%).

Among the 33 instances of THN kit use, **19 (58%) report not calling 911 (13 in 2019, 6 in January-June 2020)**. The primary reason was **fear the police would come** (6 of 19, 32%).

Summary

When considering data from ANB, similar demographics have been observed in 2019 compared to previous years. The estimated crude rate of suspect opioid overdose patients who responded to naloxone in New Brunswick in Q1-Q3 of 2019 is comparable to previous years, while the rate in 2020 is the lowest to date.

Overall, trends in apparent-opioid related deaths in 2019 appear similar to 2018. Since 2016, there have been noticeable differences in sex and age characteristics each year, but small and varying numbers make it difficult to identify any discernable and substantial changes from one year to the next. Given the rise in concern over polysubstance use, newly reported data highlight the large proportion of individuals who co-consume substances around the time of death. Most notably, benzodiazepines and antidepressants were co-consumed by the majority of decedents whose death was attributed to an apparent opioid-related overdose.

A large number of take home naloxone kits have been distributed into the community despite the small number of kits being reportedly used; nonetheless, these data present valuable information about who is requesting a kit and kit use.

To date, data do not indicate that the first wave of COVID-19 resulted in an increase of apparent opioid-related overdose deaths or the number of suspect opioid overdoses as per ANB. However, data are incomplete for Coroner deaths and it is expected that additional cases will arise in the coming months during and after Q1 2020.

Though there have been changes in the data and trends since the last report and previous years, interpretation of these results should be done with caution due to the small number of events observed and the short duration during which these trends have been observed.

Appendix A: Data Sources

Ambulance New Brunswick

Data from ANB are abstracted in aggregate form and do not contain patient-level data. Data are sent to OCMOH monthly. The monthly totals for the following variables are broken down by sex (male, female, and sex not reported) and age group in years (<15, 15-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+, and age not reported):

- Accidental/suspect opioid overdoses
- Repeat individual opioid overdose cases
- Individuals who received 1 dose of naloxone
- Individuals who received 2 doses of naloxone
- Individuals who received 3 or more doses of naloxone
- Individuals who responded to naloxone

Data also include the monthly total of referrals to hospitals for patients with accidental/suspect opioid overdoses and those who responded to naloxone. The monthly totals of reason for dispatch are also included.

Data in this report primarily focus on individuals who responded to naloxone and referrals to hospitals for those who responded to naloxone. Any data for monthly totals of individuals who responded to naloxone are a subset of the totals for individuals with an accidental/suspect opioid overdose. Data include accidental/suspect opioid overdoses regardless of intent, and therefore may differ in terms of demographics from other data sources (e.g., apparent opioid overdose deaths).

Chief Coroner Office

Data from the Chief Coroner's Office include individual-level data. They are obtained on a quarterly basis representing the previous quarter. Data include all drug-related deaths with the following variables.

Variable	Variable Description	Response Options
Coroner Case ID	Unique ID number that coroner office assigns to each	Number - Up to 8
	death	digits
Quarter	The quarter of the year in which the death occurred	1, 2, 3, 4
Year	Year in which the death occurred	уууу
DOD	Date of death based on the date the death is	(dd-mmm-yy)
	pronounced	
Age	Age of case in years	
Sex	Sex of the case	Male
		Female
Case Status	Status of the case investigation.	Active
	-	Completed
Death Manner	The coroner assigns each case a manner of death	Accident

		Suicide Undetermined Natural
		Homicide
Judicial District	The judicial district in which the death occurred.	Bathurst
		Campbellton
		Edmundston
		Fredericton
		Miramichi
		Moncton
		Saint John
		Woodstock
Residential First 3 Digits of Postal Code	The first three digits of the residential postal code of the case	
Opioid Related	Whether the case is opioid-related or not. This is	Opioid
•	determined using all available evidence.	Not Opioid
Source of Opioid	The source of the opioid taken by the case. This	Prescribed
•	information is obtained by reviewing the file.	Illicit
		Unknown
		NA
With/Without	Whether the opioid was taken with or without other	With Other
Other Substances	substances. Other substances include alcohol or non-	Substance
	opioid drugs. This is determined through the	Without Other
	toxicology results.	Substance
		Unknown
		NA
Drug 1 - 15	List of drugs that were present in the toxicology report.	

Non-Government Organizations, Detoxification Centres and Correctional Centres

Data from the three NGOs, seven detoxification centres, and three correctional centres include individual-level data. Data are collected from two forms: a distribution form and a use form.

As this surveillance system has recently been updated, only the total numbers of kits distributed and used are analyzed in this report. Future reports will include more details as data are cleared and become available.

For the purpose of reporting, the date on which a THN kit was used is based on the recorded date of the overdose; if this is unavailable, then it is based on the date at which the form was completed.

Population Estimates

All population estimates were from 2019 population estimates received from Statistics Canada, Demography Division, March 2019.

Appendix B: Methodology

Ambulance New Brunswick

Data are sent to the OCMOH monthly and analyzed on a quarterly basis. Aggregate data are organized into various tables used to conduct descriptive analyses for apparent/suspect opioid overdoses and individuals who responded to naloxone; this includes counts, proportions, means, and rates. Health region specific rates, if reported, are estimated based on the hospital of referral as the location of dispatch pick-up is not available. Denominator data for the current year are based on the most recent estimates available (e.g. the 2019 version of the population estimates were used for the 2018 population estimates).

All analyses were conducted using Excel 365 ProPlus.

Chief Coroner Office

Cases for drug-related deaths are identified by coroner investigations. Once data are received by OCMOH, the data are validated prior to analyses. The data validation process includes verifying the classification of all variables by using case files and the coroner database, identifying any changes to previous cases, and identifying new cases since the last data submission. Once data are validated, they are further classified by intent (accidental, pending intent, intentional and undetermined) and drug type (non-opioids, non-fentanyl opioids, fentanyl opioids).

Descriptive analyses were conducted for apparent opioid overdose deaths; this includes counts, proportions, means, and rates. The rates are calculated using denominator data for the current year based on the most recent estimates available (e.g. the 2019 version of the population estimates were used for the 2018 population estimates).

Analyses were conducted using Excel 365 ProPlus and Stata MP v16.

Take Home Naloxone Kits: Non-Government Organizations, Detoxification Centres and Correctional Centres

Data are sent to OCMOH monthly and cover the previous month. Basic counts of the number of kits distributed and the number of kits reported as being used are calculated. Additional analyses may be conducted as more data are obtained in the future.

All analyses were conducted using Excel 365 ProPlus.

Appendix C: Definitions and Abbreviations

- **Illicit opioid:** Indicates the decedent consumed at least one street opioid or at least one opioid medically prescribed to another person.
- Manner of death:
 - Accidental death: A death considered to be unintentional in nature based on the coroner investigation.
 - Death with pending intent: An open investigation where the intent of death is yet to be determined by the coroner.
 - Intentional death: A death classified as a suicide based on the coroner investigation.
 - Undetermined death: A closed death investigation where the intent of death was deemed unknown by the coroner.
- **Naloxone:** An opioid antagonist which reverses or prevents the effects of an opioid but has no effect in the absence of opioids.
- Opioid: A class of pain-relieving drugs that block pain messages by binding to specific receptors (opioid receptors) on cells in the body. They can include either non-fentanyl opioids or fentanyl and fentanyl analogs.
 - Fentanyl and fentanyl analogs: Synthetic opioids that can be extremely toxic.
 Includes but is not limited to fentanyl, norfentanyl, acetylfentanyl, 3-methylfentanyl, carfentanil, butyrylfentanyl, furanyl-fentanyl, despropionyl-fentanyl.
 - Non-fentanyl opioids: Any opioid that is not a fentanyl or fentanyl analog opioid. Includes but is not limited to buprenorphine metabolites, codeine, dihydrocodeine, heroin, hydrocodone, hydromorphone (total, unconjugated), loperamide, meperidine, methadone, monoacetylmorphine, morphine (unconjugated, unconjugated-RIA), normeperidine, oxycodone, tapentadol, tramadol, U-47700.
- Opioid Related Death: Death from an acute intoxication resulting from the direct effects of consuming exogenous substance(s) where one or more of the substances is an opioid.
- **Prescription opioid:** Indicates the decedent consumed only opioids that were prescribed to the decedent.
- Take Home Naloxone Kit (THN Kit): Take home naloxone kits include two doses of naloxone as well as the necessary supplies to administer naloxone (e.g. alcohol swabs, syringes) and for personal protection (e.g. gloves, face shield).
- Q1: Quarter 1, January to March
- Q2: Quarter 2, April to June
- Q3: Quarter 3, July to September
- Q4: Quarter 4, October to December

Appendix D: Polysubstance Use Substance Types

Specific substances, drugs, and metabolites were used to identify individuals who co-consumed specific substance types. An individual was identified as having co-consumed these substances if there was one or more of the following substances detected. The detection of these substances is based on toxicology testing, rapid toxicology testing and circumstantial evidence in the absence of testing. Drug type categories are subject to change, and new substances may be added should they be identified among decedents who died from a substance related overdose death. Further, not all drugs listed in the categories have been detected in decedents.

Benzodiazepine: Adinazolam, Alprazolam (Alpha-Hydroxyalprazolam), Bromazepam (Hydroxybromazepam), Chlordiazepoxide, Clobazam (Norclobazam), Clonazepam (7-Amino Clonazepam), Clonazolam, Clorazepate, Delorazepam, Demoxepam, Diazepam (Nordiazepam), Diclazepam, Estazolam, Etizolam (Deschloroetizolam, Hydroxyetizolam), Flubromazapam, Flubromazolam, Flunitrazapam, Flurazepam (Hydroxyflurazepam, Hydroxyflurazepam, Metazolam, Loprazolam, Lorazepam (Lorazepam-glucuronide), Meclonazepam, Medazepam, Methazolamide, Midazolam (11-Hydroxymidazolam), Nimetazepam, Nitrazepam (7-Amino Nitrazepam), Oxazepam, Phenazepam, Pyrazolam, Temazepam, Tetrazepam, Triazolam (Hydroxytriazolam)

Antidepressant: Amitriptyline, Bupropion (Hydroxybupropion), Citalopram (Citalopram/Escitalopram, Escitalopram), Duloxetine, Fluoxetine (Norfluoxetine), Mirtazapine, Nortriptyline, Paroxetine, Sertraline (Desmethylsertraline), Trazodone (mCPP), Venlafaxine (O-Desmethylvenlafaxine)

Antipsychotic: Aripiprazole, Asenapine, Clozapine (Desmethylclozapine, Norclozapine), Fluphenazine, Haloperidol, Lurasidone, Loxapine, Olanzapine, Quetiapine (Desalkyquetiapine, Norquetiapine), Risperidone (9-Hydroxyrisperidone)

Stimulants: 6-MAM, Amphetamine, Atomoxetine, Caffeine, Catha, Cocaine (Benzoylecgonine, Cocaethylene), Dexamfetamine, Dextroamphetamine, Ethylphenidate, Ephidrine, Fluorophenmetrazine, Ketamine (Norketamine), Lisdexamfetamine, Methamphetamine, Methylenedioxyamphetamine, Methylenedioxymethamphetamine, Methylphenidate (Ritalinic Acid), Modafinil, Pemoline, Pseudoephedrine (Norpseudoephedrine), TFMPP

Cannabinoids: Tetrahydrocannabinol (Delta-9 THC, Delta-9 Carboxy THC, 11-Hydroxy Delta-9 THC)

Alcohol: Ethanol