

Opioid Related Harms in New Brunswick:

Deaths, Overdoses and Take Home Naloxone Kits

2021 – Quarter 1

June 2021

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Introduction

This quarterly surveillance report describes data on apparent opioid-related harms including suspect overdoses, apparent opioid-related deaths, hospitalizations and take-home naloxone kit distribution and use. Together these data sources add to our understanding of the complex opioid overdose situation in New Brunswick; however, comparisons should not be made between different data sources as each represents a different population. All data are reported to the Public Health New Brunswick (PHNB).

Key Messages

- Q3 2020 had the highest number of people administered naloxone by EMS
- The proportion of individuals responding to naloxone in 2020 is the lowest to date.
- 2020 had the highest number of substance-related deaths since 2016, and, along with 2017, had the highest number of opioid-related deaths.
- Three fentanyl-related deaths have occurred in 2020 to date.
- The total number of opioid-related poisoning hospitalizations in 2020 to date are within an expected range; however, there is a notable peak in the proportion of individuals aged 60-69 years old compared to previous years
- 2020 has the highest proportion of hospitalizations for accidental poisonings and the lowest proportion of intentional poisonings.

Though some indicators are reporting heightened values and marked changes in trends since prior to the onset of COVID-19, interpretation of these results should still be done with caution due to the small number of events observed and the short duration during which some of these trends have been observed.

Data Sources

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 April 26, 2021.

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 April 16, 2021.

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), eight detoxification centres (located in Bathurst, Campbellton, Edmundston, Fredericton, Miramichi, Moncton, Saint John and Tracadie-Sheila), 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 May 4, 2021.

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.

Hospital Data

Data for opioid-related poisoning hospitalizations are extracted from the Discharge Abstract Database. Data in this report reflect data received as of April 22, 2021.

An opioid-related poisoning hospitalization is defined by any acute care hospitalizations which has a diagnosis for opioid-related poisoning.

Limitations: Due to the inherent delay in data coding, there exists a data lag of several months.

See Appendix A for a detailed description of hospital data.

Methodology

Data were received from ANB, the Chief Coroner's Office, and the NGOs, detoxification centres, correctional centres, and the Discharge Abstract Database then validated and analyzed by the PHNB. Descriptive analyses were conducted for each data source.

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 and take home naloxone kit 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.

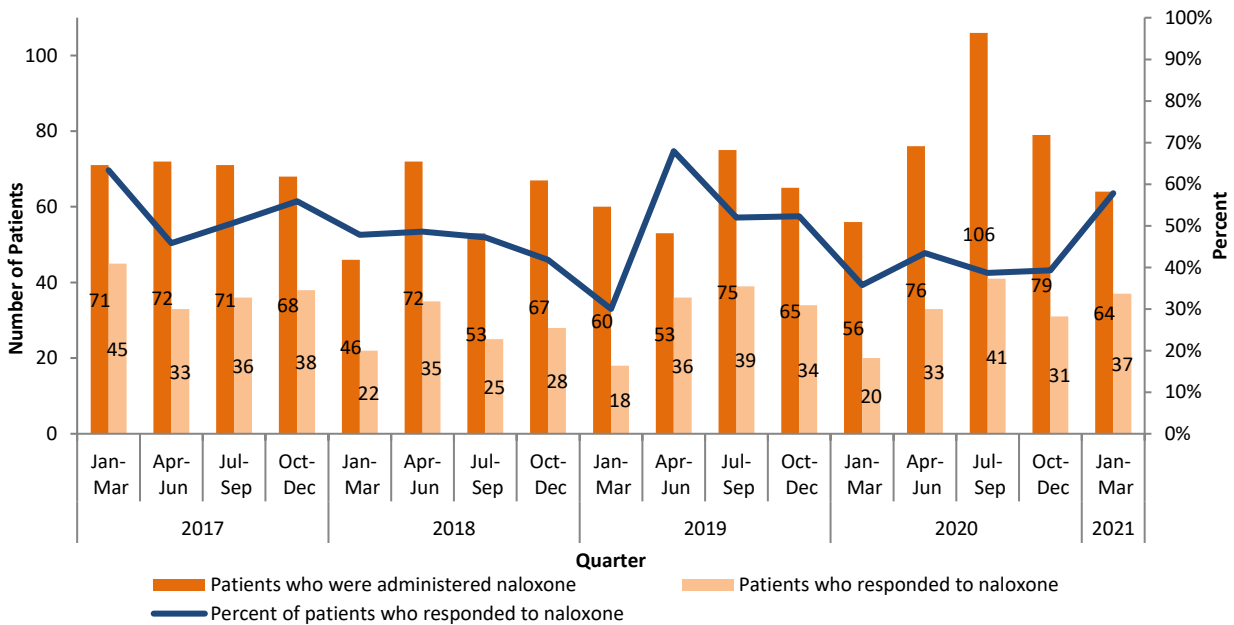
Suspect Opioid Overdoses

Ambulance New Brunswick

2021 Q1 (January 1 to March 31)

In Q1 2021, **naloxone was administered to 64 suspect opioid overdose patients** (Graph 1), with an average of 21 patients per month. Of the 64 suspect opioid overdose patients, **37 (58%) responded to naloxone** which corresponds to an average of 12 patients per month (range: 7 to 18).

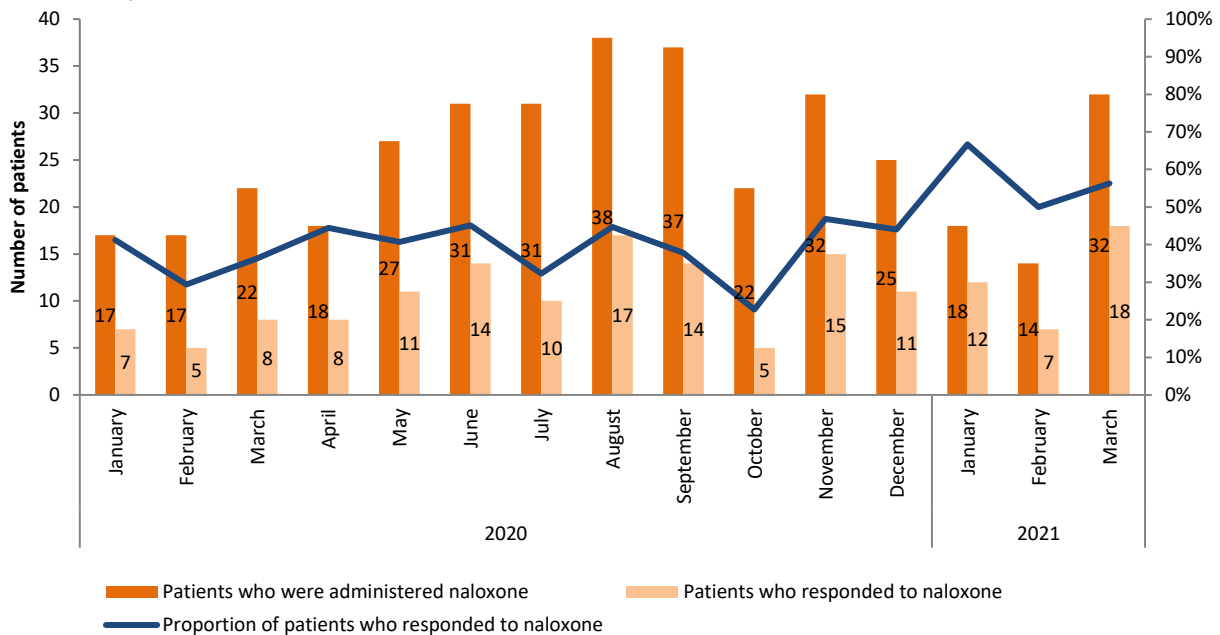
Graph 1. Number of suspect opioid overdose patients who were administered naloxone and number and percentage of patients who responded to naloxone, quarterly in New Brunswick, from January 2017 to March 2021.



Data source: Ambulance New Brunswick, April 26, 2021.

In August and September, the number of individuals administered naloxone reached an all-time high with roughly 41% of those individuals responding to naloxone (Graph 2). Between November 2020 and February 2021, there was an overall decrease in the number of individuals administered naloxone, but an overall increase in the proportion of individuals responding to naloxone. March 2021 marked a sharp increase in the number of individuals administered and responding to naloxone.

Graph 2. Number of suspect opioid overdose patients who were administered naloxone and number and percentage of patients who responded to naloxone, monthly in New Brunswick, from January 2019 to March 2021.

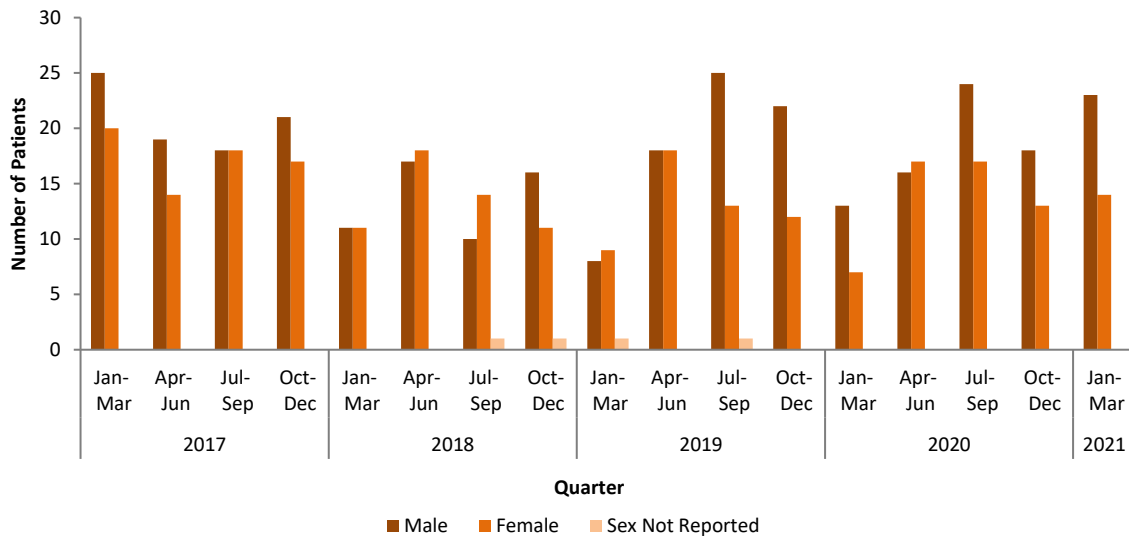


Data source: Ambulance New Brunswick, April 26, 2021.

Among the 37 patients who responded to naloxone in Q1 2021:

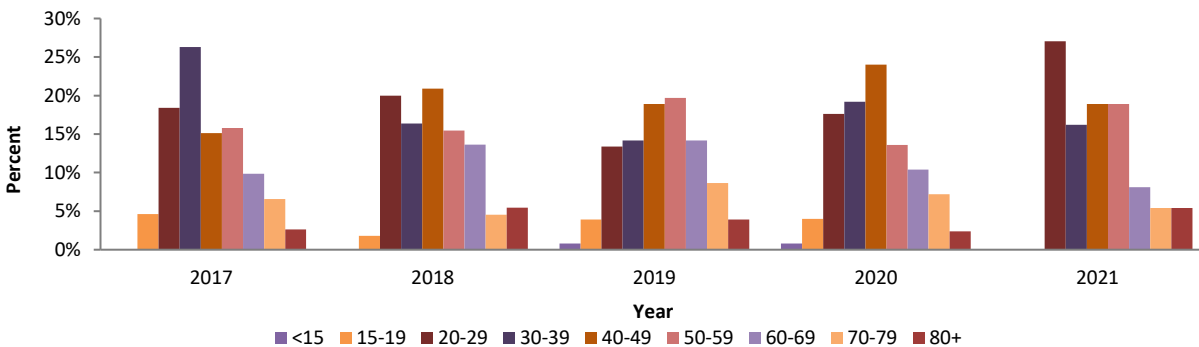
- **There were more males than females:** 23 (62%) were male and 14 (37%) were female (Graph 3).
- **The largest proportion of individuals were between 20-29 (27%)** (Graph 4). The age distribution is most similar to that of 2017 where younger individuals accounted for the highest proportion of individuals responding to naloxone.

Graph 3. Number of suspect opioid overdose patients who responded to naloxone by sex, quarterly in New Brunswick, from January 2017 to March 2021.



Data source: Ambulance New Brunswick April 26, 2021.

Graph 4. Distribution by age group of suspect opioid overdose patients who responded to naloxone in New Brunswick in 2017 to Q1 2021.



Data source: Ambulance New Brunswick, April 26, 2021.

The estimated crude rate of suspect opioid overdose patients who responded to naloxone in New Brunswick in **Q1 2021 is 19.1 cases per 100,000 person-years**. This is comparable to the 2017 crude rate of 19.8 cases per 100,000 person-years and remains within the range of rates from all years to date. The crude rate is expected to change in coming months as new data are compiled.

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 December 2020, there were 317 substance-related deaths (Figure 1). Apparent opioid-related deaths were responsible for more than half (55%) of these deaths. Furthermore, apparent opioid-related deaths classified as accidental or pending intent account for 44% of all drug-related deaths. In 2020, **73 deaths** due to any type of drug (opioids and non-opioids) occurred, of which **38 (52%) were related to opioids**.

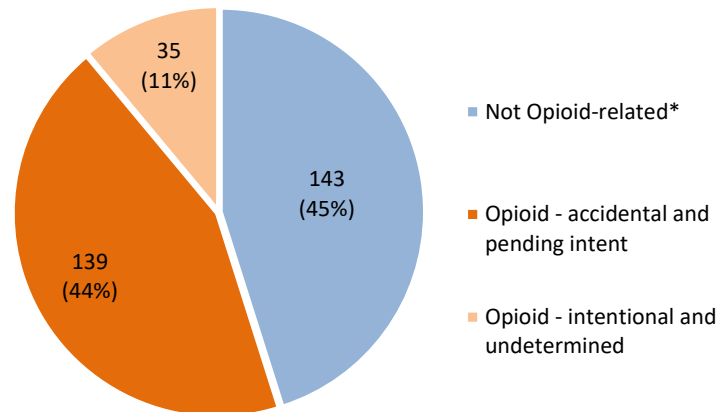


Figure 1. Distribution of drug related deaths in New Brunswick, by drug type and intent, January 2016 to March 2021.

Data Source: Chief Coroner's Office, April 16, 2021**

*Includes one substance-related death of unknown substance

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

Accidental and Pending Intent Deaths Due to Opioids

2020

In 2020, there were 73 substance-related deaths, of which **38 (52%) were apparent opioid-related deaths**. Among the opioid-related deaths, **31 were accidental or pending intent** (Graph 5), and three have involved fentanyl or fentanyl analogues. Since 2016, 2020 has reported the largest number of substance-related deaths and one of the highest opioid-related deaths.

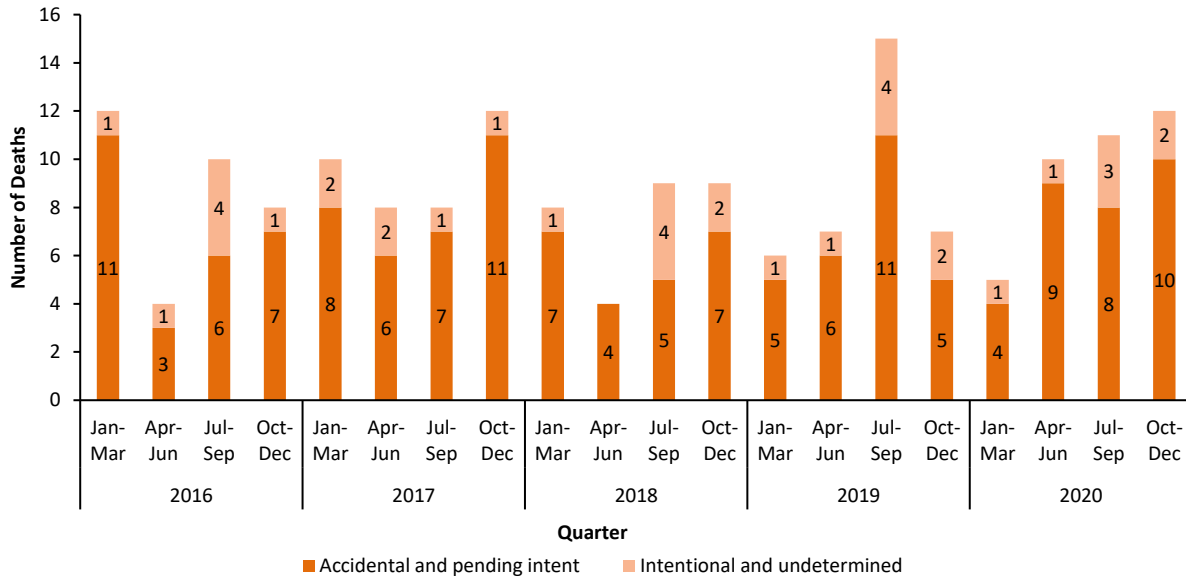
Of the 31 apparent opioid-related deaths classified as accidental or with pending intent:

- The **majority were male** (55% male, 45% female) (Graph 6).
- The **largest proportion of individuals were between 40-49 and 50-59 years old** (26% each) (Graph 7). The average and median age for 2020 is 49 and 44, respectively. These values are similar to previous years.
- Ten (32%) of the deaths involved illicit opioids, 12 (39%) involved prescribed opioids, and 9 (29%) involved opioids of unknown source.

The estimated annual crude mortality rate for accidental or pending intent opioid-related deaths in New Brunswick is **4.0 deaths per 100,000 person-years**. The rate in 2020 is second only to

2017 which had a rate of 4.2 deaths per 100,000 person-years. Regional rates are not reported as the small numbers involved can lead to unstable rates.

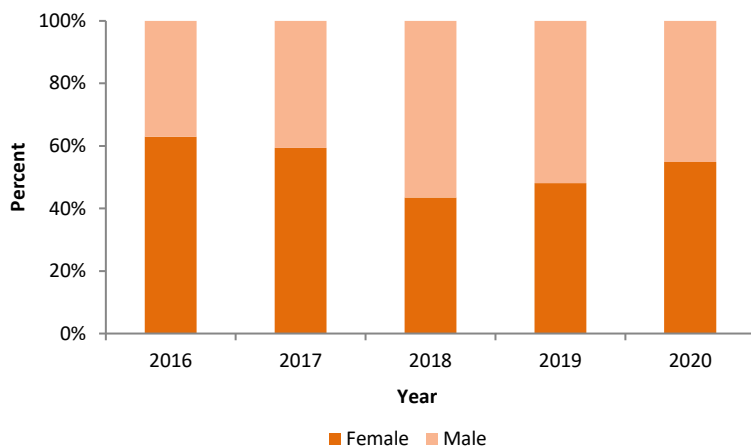
Graph 5. Number of apparent opioid-related overdose deaths by intent (intentional, accidental, pending intent or undetermined), quarterly in New Brunswick, from January 2016 to December 2020*.



Data Source: Chief Coroner's Office, April 16, 2021.

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

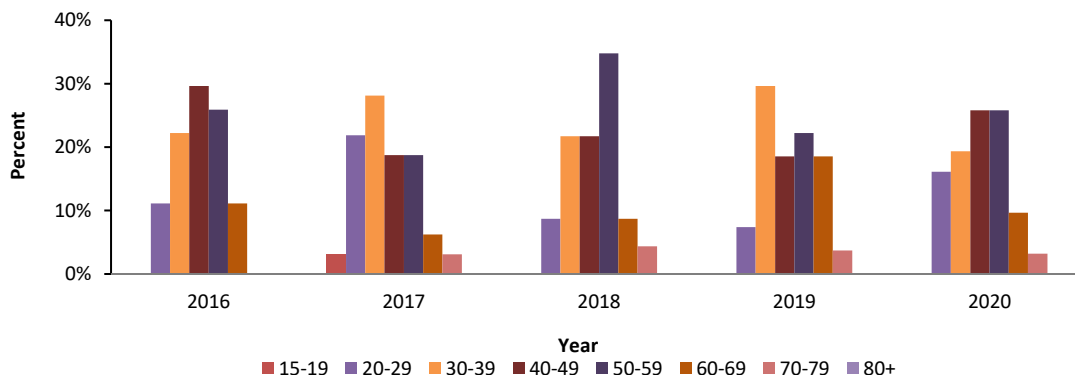
Graph 6. The proportion of apparent opioid-related overdose deaths classified as accidental or with pending intent by sex, quarterly, in New Brunswick from January 2016 to December 2020*.



Data source: Chief Coroner's Office, April 16, 2021.

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

Graph 7. 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 2020*.



Data source: Chief Coroner's Office, April 16, 2021

*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 175 decedents who died from an apparent opioid-related overdose between January 2016 and December 2020, **171 (97.7%) 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 113 (65%) and 98 (56%) of the decedents who died from an apparent opioid-related overdose, respectively (Table 1).

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.

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 December 2020*.

Substance Type**	Total (% of AORD)	Number by sex (% of row total)	
		Female	Male
Benzodiazepines	113 (65%)	63 (56%)	50 (44%)
Antidepressants	98 (56%)	55 (56%)	43 (44%)
Stimulants	73 (42%)	33 (45%)	40 (55%)
Cannabinoids	57 (33%)	25 (44%)	32 (56%)
Antipsychotics	37 (21%)	20 (54%)	17 (46%)
Alcohol	24 (14%)	11 (46%)	13 (54%)

Data source: Chief Coroner's Office, April 16, 2021

*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.

Of the decedents who died from an apparent opioid-related overdose, **65 (37% 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.

Hospitalization Data

Between January 2016 and December 2020, **521 opioid-related poisoning hospitalizations have occurred.**

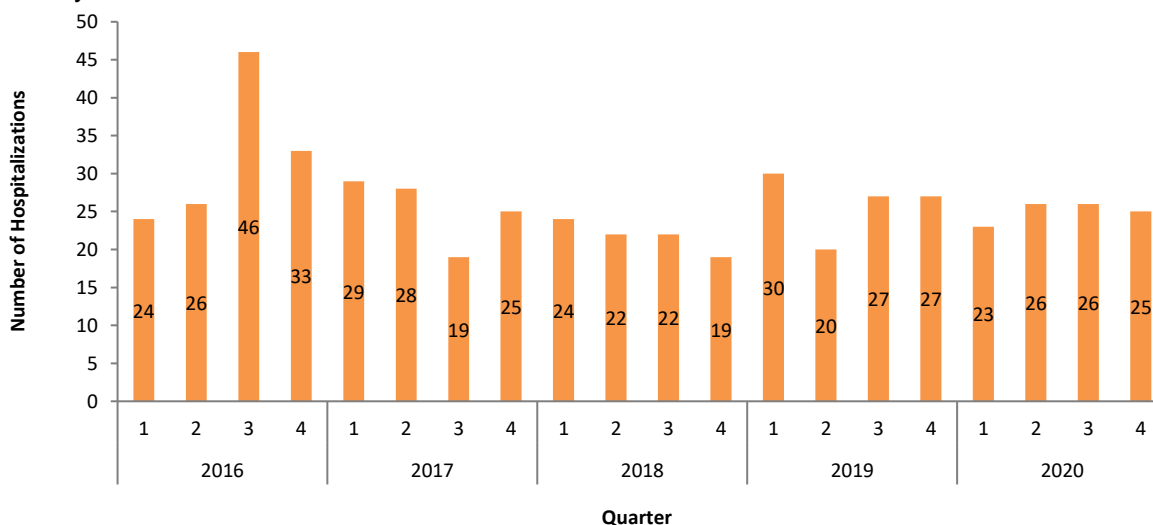
There were **100 hospitalizations from January to December 2020** (Graph 8). Monthly numbers are within an expected range. The annual and monthly averages for 2016 to 2019 is 105 and 9 hospitalizations, respectively; the monthly average for 2020 is 8.

The **proportion of hospitalizations who are male and female is roughly equal** (48% and 52%, respectively) (Graph 9).

Since January 2016, the **highest proportion of hospitalizations were among individuals aged 50 to 59 years old (18%)**. In 2020, there was a notable peak of the number of hospitalizations of individuals aged 60 to 69 (26%) (Graph 10). The average age for 2020 is the highest to date (54 years).

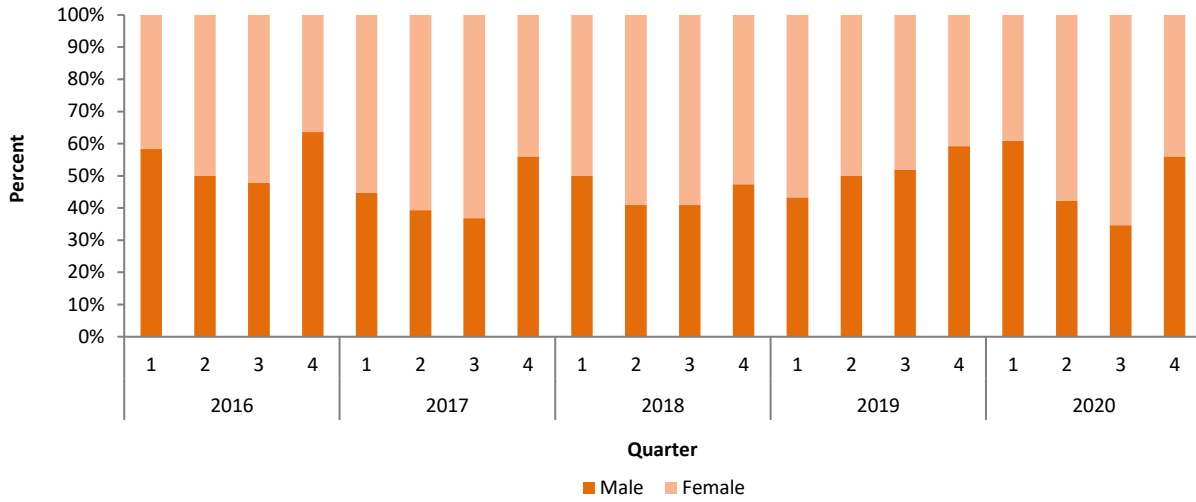
There was a **steady increase in the proportion of hospitalizations classified as accidental intent between Q1 2019 and Q2 2020**; since Q2 2020 it has stabilized at roughly 46% (Graph 11). 2020 has the highest proportion of accidental poisonings and the lowest proportion of intentional poisonings to date with 47% and 23%, respectively.

Graph 8. Number of opioid-related poisoning hospitalizations, quarterly, New Brunswick from January 2016 and December 2020



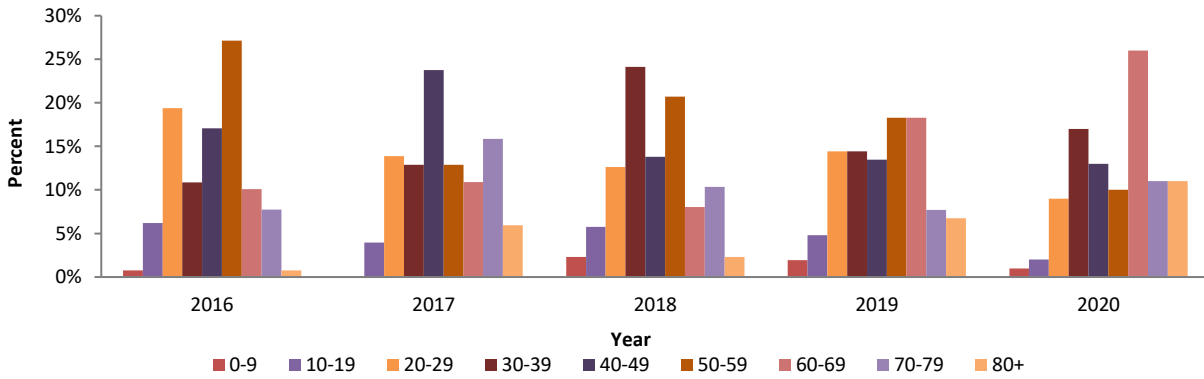
Data source: Discharge Abstract Database, April 22, 2021

Graph 9. Percent of opioid-related poisoning hospitalizations by sex, yearly, in New Brunswick from January 2016 to December 2020.



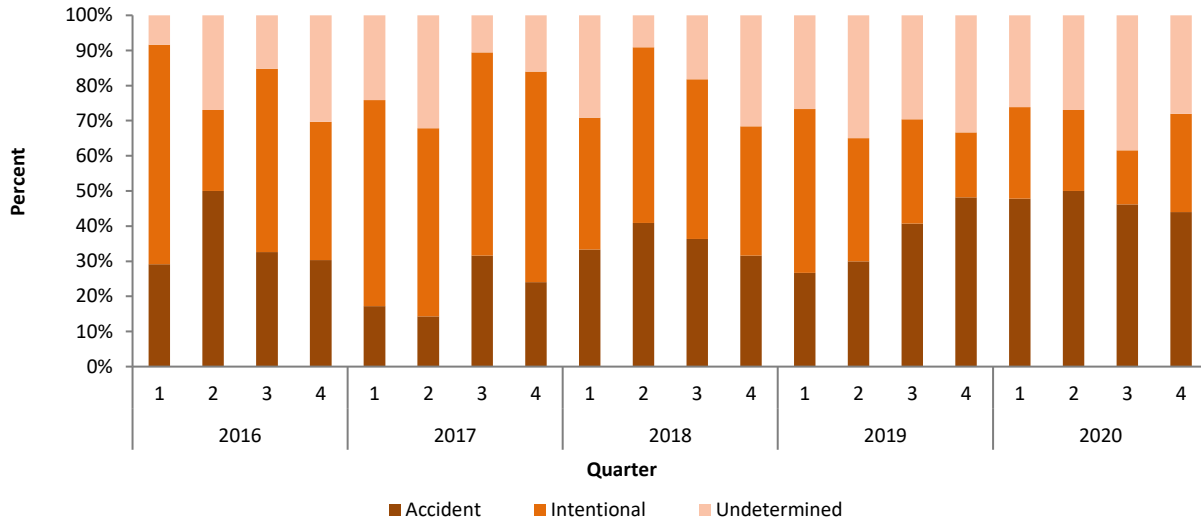
Data source: Discharge Abstract Database, April 22, 2021

Graph 10. Percent of opioid-related poisoning hospitalizations by age group, yearly, in New Brunswick from January 2016 to December 2020.



Data source: Discharge Abstract Database, April 22, 2021

Graph 11. Percent of opioid-related poisoning hospitalizations by intent, quarterly, in New Brunswick from January 2016 to December 2020.



Data source: Discharge Abstract Database, April 22, 2021

Take-Home Naloxone Kit Data

Non-Government Organizations, Detoxification Centres and Correctional Centres

Kit Distribution

Since October 2018, **1993 take home naloxone kits (THN kits) were distributed** into the community. In 2020, 741 THN kits were distributed; to date, **291 kits have been distributed in Q1 of 2021** (Table 2). The number of kits distributed in Q1 2021 is the greatest number of kits distributed in a single quarter.

Table 2. Number of kits distributed by site, from October 2018 to March, 2021².

Site Name	2018*	2019	2020	2021**	Total
AIDS NB - Fredericton	87	166	101	41	395
Avenue B - Saint John	118	330	262	31	741
Ensemble - Moncton	28	91	251	193	563
Detoxification Centres	34	107	84	24	249
Correctional Centres	N/A	N/A	43	2	45
Total	267	694	741	291	1993

Data source: Non-government organizations, detoxification centres, and correction centres May 4, 2021

*Data are only for Q4 in 2018.

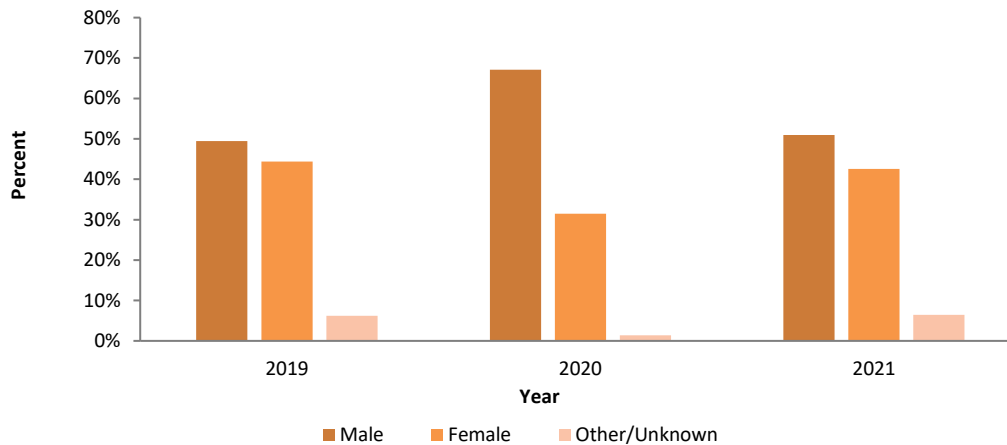
**Data for 2021 are preliminary and expected to change as some sites are experiencing delays in data reporting.

Since January 2019, one third (586, 34%) of the kits distributed have been distributed directly to the person at risk of an overdose. In Q4 2020 and Q1 of 2021, there was a notable increase in the number of kits distributed to unspecified individuals because of the new Interactive Dispensing Service located at Ensemble, Moncton, which does not collect information on the individual receiving the kit.

Among these individuals, **more males received kits than females** or individuals of other/unknown gender in 2019, 2020, and Q1 2021 (49%, 67%, and 51% respectively) (Graph 12).

² Data for THN kits are from January 2019 to March 2021 for all sites excluding detoxification sites in Edmundston, Fredericton, and Saint John, and the Saint John Regional Correctional facility and NB Women's and Youth Correctional Facility (data up until December 2020). The small numbers distributed in these centres are not expected to increase the number of kits distributed by a large number

Graph 12. The proportion of individuals at risk of an overdose who received take home naloxone kits by gender, yearly, New Brunswick, 2019, 2020, and 2021*.



Data source: Non-government organizations, detoxification centres, and correction centres May 4, 2021

**Data for 2021 are preliminary and expected to change as some sites are experiencing delays in data reporting.

Kit Use

Replacement kits were sought out by 59 individuals in 2019, 113 individuals in 2020 and 25 in Q1 2021. Using a kit was the primary reason provided for seeking a replacement in 2019, whereas replacing an expired kit was the primary reason in 2020 and Q1 2021.

Since 2018, **63 kits were reportedly used. In 2020, 27 kits were reportedly used, and 4 kits have been used in Q1 2021.** Overall, kits were reportedly used to **treat more males than females or individuals of other/unknown sex** (54% for males, 41% for females, and 5% other/unknown).

Overall, **52 individuals were not alone (83%)** at the time of overdose, 5 were alone (8%), and the remaining instances were unknown or not reported (11%). **Almost half of the overdoses occurred in a private residence** (31, 49%) followed by a hotel/motel (11, 17%).

Among the 63 instances of THN kit use, **36 (58%) report not calling 911 (7 in 2018, 13 in 2019, 12 in 2020, 4 in Q1 2021).** The primary reason was **fear the police would come** (15 of 36, 42%).

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.

Appendix A: Data Sources

Ambulance New Brunswick

Data from ANB are abstracted in aggregate form and do not contain patient-level data. 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.

Chief Coroner Office

Data from the Chief Coroner's Office include individual-level data. Data include all drug-related deaths and collect the following variables.

Variable	Variable Description	Response Options
Coroner Case ID	Unique ID number that coroner office assigns to each death	Number - Up to 8 digits
Quarter	The quarter of the year in which the death occurred	1, 2, 3, 4
Year	Year in which the death occurred	yyyy
DOD	Date of death based on the date the death is pronounced	(dd-mmm-yy)
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
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 determined using all available evidence.	Opioid Not Opioid
Source of Opioid	The source of the opioid taken by the case. This information is obtained by reviewing the file.	Prescribed Illicit Unknown NA
With/Without Other Substances	Whether the opioid was taken with or without other substances. Other substances include alcohol or non-opioid drugs. This is determined through the toxicology results.	With Other Substance Without Other 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.

Hospital Data

Data are obtained from the discharge abstract database on a monthly basis and include record-level data for all discharged related to opioid-related poisonings as defined by select diagnoses. In addition to variables containing diagnostic information, demographic and hospital-related variables are collected and include but not limited to age, sex, residence area, date of admission, date of discharge, length of stay, etc.

Population Estimates

All population estimates were from 2019 population estimates received from Statistics Canada, Demography Division, March 2020.

Appendix B: Methodology

Ambulance New Brunswick

Data are sent to the PHNB 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).

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).

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 PHNB, 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 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 2020 version of the population estimates were used to populate 2019 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 PHNB monthly and cover the previous month. 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. Basic descriptive analyses includes counts, proportions, means

All analyses were conducted using Excel 365 ProPlus and Stata MP v16.

Hospital Data

Data include any opioid-related poisoning hospitalization as defined³ by the following International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Canada (ICD-10-CA) codes: T40.0-T40.4 and T40.6. An opioid-related poisoning hospitalization diagnosis required a diagnosis type of “M” (most responsible diagnosis), “1” (pre-admission comorbidity), “2” (post-admission comorbidity), “W”, “X”, or “Y” (service transfer diagnosis). Any hospitalizations where the diagnoses was considered a query, i.e. a prefix code of “Q”, were excluded.

The intent of the opioid-related poisoning hospitalization was defined by the following diagnoses codes: “X42” for accidental, “X62” for intentional, and “Y12” for undetermined.

All analyses were conducted using Excel 365 ProPlus and Stata MP v16.

³ Definitions reflect previously published methodologies for opioid-related poisoning hospitalizations. <https://health-infobase.canada.ca/substance-related-harms/opioids/>

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), Flubromazepam, Flubromazolam, Flunitrazepam, Flurazepam (Hydroxyflurazepam, Hydroxyethylflurazepam, Desalkylflurazepam, Norflurazepam, Hydroxyflurazepam), Ketazolam, 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, Ephedrine, 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