



**BC Centre for Disease Control**  
Provincial Health Services Authority

655 West 12th Avenue  
Vancouver, BC V5Z 4R4

Tel 604.707.2400  
Fax 604.707.2401

[www.bccdc.ca](http://www.bccdc.ca)

# Overdose Response Indicator Report

## May 2020

## Introduction

The Overdose Emergency Response Centre (OERC), part of the Ministry of Mental Health and Addictions, works in close partnership with the BC Centre for Disease Control (BCCDC) to provide provincial coordination of surveillance, monitoring, and evaluation related to the overdose emergency. This provincial surveillance report provides current data on key overdose-related indicators.

The OERC facilitates planning at the provincial, regional and local levels, structured upon a set of [eight core interventions](#) that capitalize on evidence-informed strategies. Together, these strategies form an integrated, comprehensive response to the overdose crisis.

The indicators contained in this report measure progress on these interventions across the province, and can be viewed at the provincial or regional health authority level, broken down by age and sex where possible. This report is updated monthly using the most up to date data available on each indicator. The interpretive text is updated quarterly.

### Indicators

1. Paramedic Attended Overdose Events
2. Illicit Drug Overdose Deaths
3. BC Naloxone Program Indicators
4. Opioid Agonist Treatment Indicators
5. Overdose Prevention Services Indicators

This report is made possible by the contribution of data from the following agencies:



## 1. Paramedic Attended Overdose Events

B.C. paramedics attend a range of overdose/poisoning events every day. This indicator focuses on illegal drug overdose events not including prescription drugs or alcohol. An algorithm is used to identify overdose events and is based on paramedic impression codes as well as 9-1-1 dispatch codes.

The majority of people who experience an overdose and are attended by paramedics survive; while, for those who died, in many cases 9-1-1 was not called. Thus, this indicator, displayed as a monthly rate, represents largely non-fatal overdose events.

The provincial rate of paramedic attended overdoses events (events per 100,000 BC residents) has increased 4 fold in less than three years, from 8 events/100,000 in January 2015 to almost 31 events/100,000 by March 2019. There are notable peaks in November 2016, May 2017, and July 2018. A brief dip in rates occurred from October to February 2017. While the rate of events has steadied in late 2018, March 2019 saw the highest rate ever at 31 events/100,000.

Paramedic attended overdose rates among men are much higher than in women, and drive the severe rates seen in BC; nonetheless, rates in women are also considered unacceptably high. In general, trends over time are similar between men and women. However, in 2018, overdose event rates in women rose gradually early in the year, peaked in May, stabilized in late 2018, but have increased sharply in early 2019; while rates in men rose sharply early in 2018, peaked in July, stabilized in late 2018, but have increased sharply in early 2019. March 2019 featured the highest rates seen to this date among men and women.

Individuals between the ages of 19 and 59 have the highest overdose rates. Considering the age and sex breakdown of overdose events in BC, over the most recent year of data, over 40% of all events are in 19-39 year old males and an additional almost 25% are in males 40-59 years. Some differences exist between the health authorities in the distribution of overdose events by age and sex which can be explored in this interactive report.

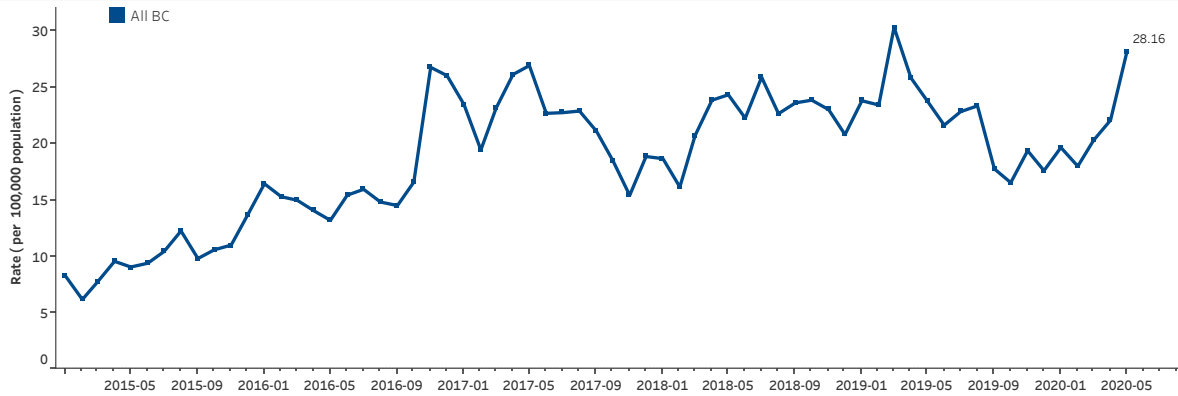
Refer to the Paramedic Attended Overdose Events data notes for more information about the indicators including definitions, data sources, and limitations

[http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/BCAS\\_indicator\\_public.pdf](http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/BCAS_indicator_public.pdf)

Data provided by the BC Emergency Health Service.

### Paramedic Attended Overdose Events

Breakdown by Health Authority, Rate per 100,000 Population, All Sex, All Age Group

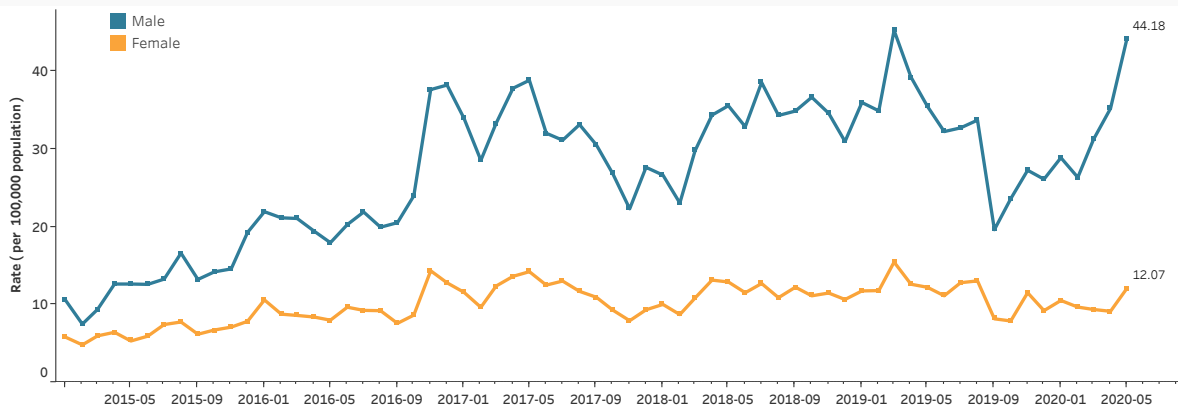


**Notes:**

- A rate is a measure of the frequency with which an event occurs in a defined population over a specified period of time. Rates make it easier to compare the frequency of events in different geographic areas, like health authorities, which have different population sizes.
- Unknown sex or age group records are excluded from the rate per 100,000 population metric
- Data for this indicator may be delayed
- This indicator is an estimate based on the best available data.

### Paramedic Attended Overdose Events

Breakdown by Sex, All BC Health Authority, Rate per 100,000 Population

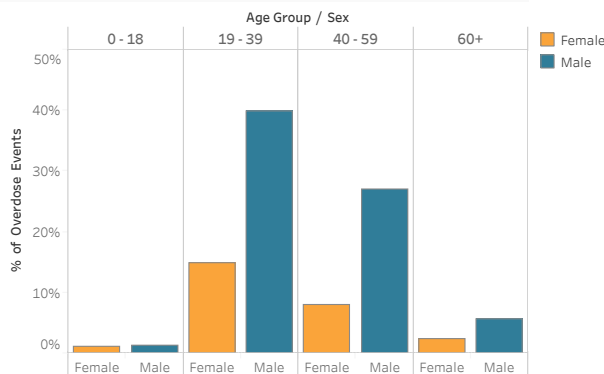


**Notes:**

- A rate is a measure of the frequency with which an event occurs in a defined population over a specified period of time. Rates make it easier to compare the frequency of events in different geographic areas, like health authorities, which have different population sizes.
- Unknown sex or age group records are excluded
- Data for this indicator may be delayed
- This indicator is an estimate based on the best available data.

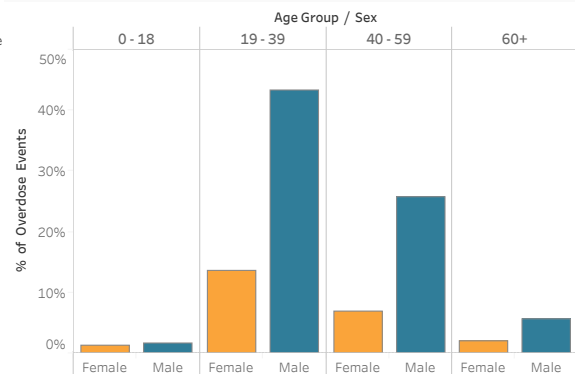
### Paramedic Attended Overdose Events

Age Distribution, All BC, from July 2019 through May 2020



### Paramedic Attended Overdose Events

Age Distribution, Fraser Health, from July 2019 through May 2020



**Note:**

'Unknown age' excluded from age distribution graphs

## 2. Illicit Drug Overdose Deaths

Illicit drug overdose deaths reported by the BC Coroners Service include overdose deaths involving street drugs (controlled and illegal drugs: heroin, cocaine, MDMA, methamphetamine, illicit fentanyl, etc.), medications that were not prescribed to the deceased, combinations of these with prescribed medications, and those overdoses where the origin of drug is not known.

The provincial rate of illicit drug overdose deaths (deaths per 100,000 BC residents), displayed here as a monthly rate, has been increasing steadily since January 2015. A sharp increase in deaths occurred in November 2016, peaking in December 2016, and is thought to coincide with the introduction of carfentanil into the illegal drug supply. Mortality dipped in some months throughout 2017 but remained consistently above the pre-November 2016 levels. 2018 rates peaked in March and, despite month to month variability, remained high and steady for the remainder of the year. A decrease in the rate of deaths is seen in early 2019.

In all Health Authorities, monthly rates of death tend to be higher for men than women, although regional differences in the gap between men and women exists. Some differences exist between the health authorities in the distribution of overdose deaths by age and sex which can be explored in this interactive report.

In BC, mortality due to accidental illicit drug overdose is extremely high, particularly in men 40-59 years old as well as those 19-39 years old.

Refer to the Illicit Drug Overdose Deaths data notes for more information about the indicators including definitions, data sources, and limitations.

[http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/BCCS\\_indicator\\_public.pdf](http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/BCCS_indicator_public.pdf)

Data provided by the BC Coroners Service.

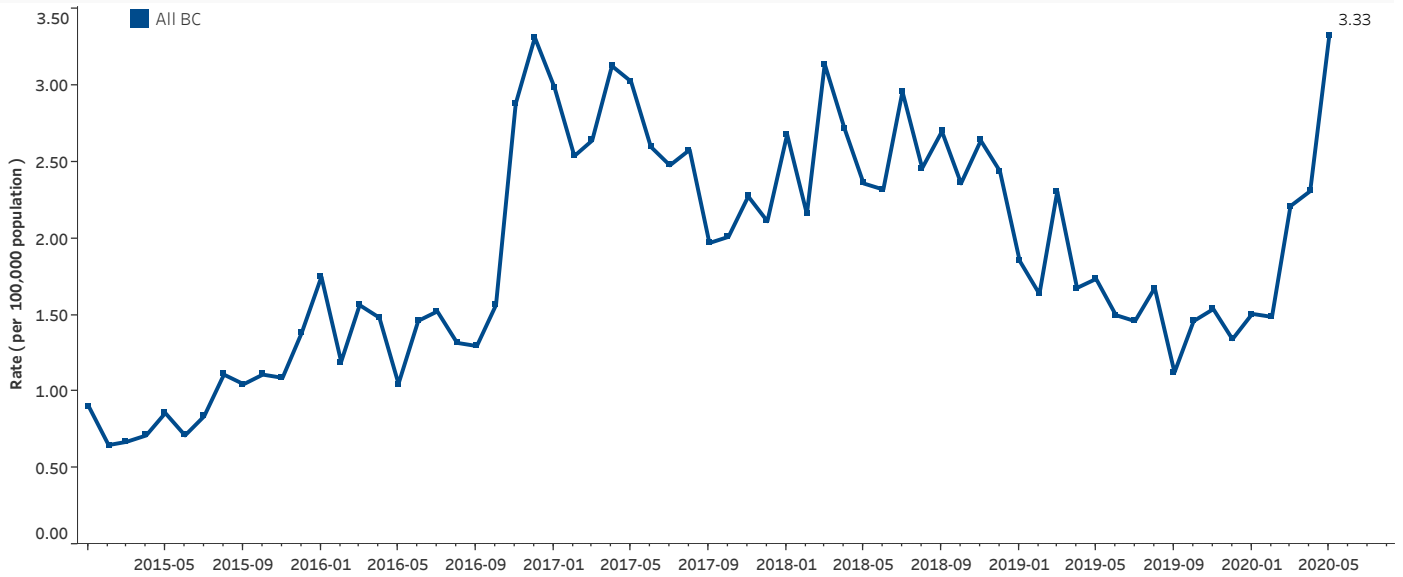
Health Authorities  
All BC

Sex  
All

Age Group  
All

### Illicit Drug Overdose Deaths

Breakdown by Health Authority, Rate per 100,000 population, All Sex, All Age Group



Notes:

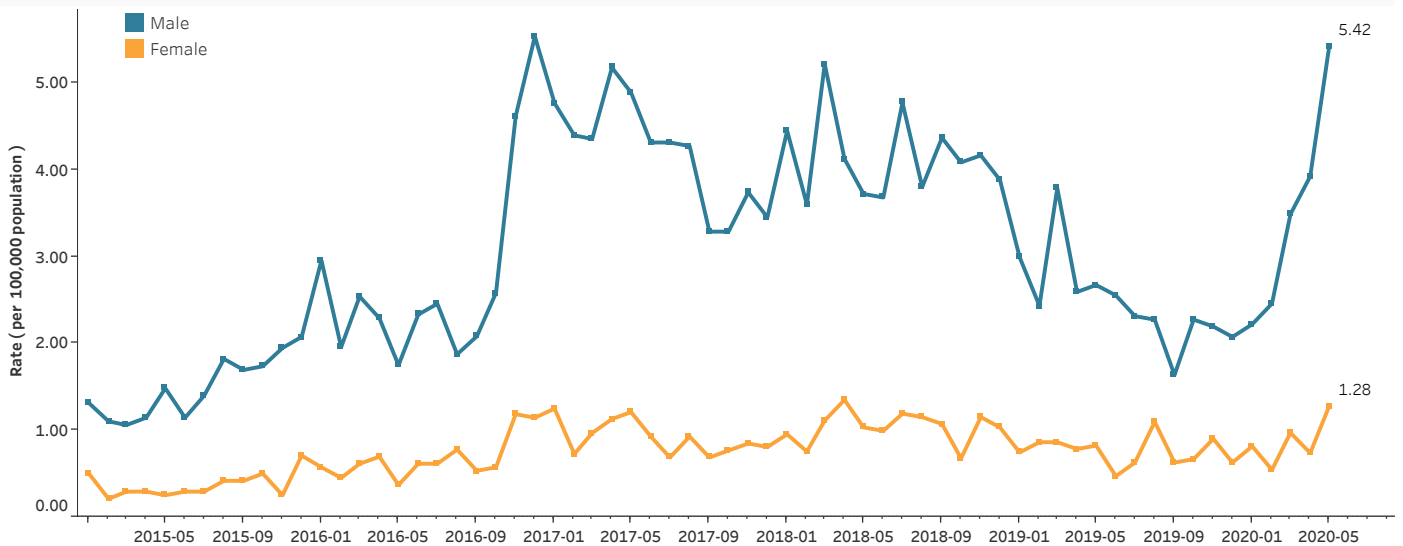
- A rate is a measure of the frequency with which an event occurs in a defined population over a specified period of time. Rates make it easier to compare the frequency of events in different geographic areas, like health authorities, which have different population sizes
- Data for this indicator may be delayed
- The BCCS operates in a live database environment. Some data for more recent years is based on preliminary circumstances and is subject to change as investigations are concluded

Health Authorities  
All BC

Choose Breakdown  
Sex

### Illicit Drug Overdose Deaths

Breakdown by Sex, All BC Health Authority, Rate per 100,000 population



Notes:

- A rate is a measure of the frequency with which an event occurs in a defined population over a specified period of time. Rates make it easier to compare the frequency of events in different geographic areas, like health authorities, which have different population sizes
- Data for this indicator may be delayed
- The BCCS operates in a live database environment. Some data for more recent years is based on preliminary circumstances and is subject to change as investigations are concluded

### 3. BC Naloxone Program Indicators

Naloxone is a medication that quickly reverses the effects of an overdose from opioids such as heroin, methadone, fentanyl and morphine. It is available in BC without a prescription and given as an injection into a muscle.

BC's Take Home Naloxone (THN) program began in late 2012 and provides free personal THN kits to people at risk of opioid overdose or likely to witness and respond to an overdose. Registered THN distribution sites include harm reduction sites, community service organizations, emergency departments, correctional facilities, and community pharmacies, among others. Sites order naloxone from the provincial program and return records of the number of kits distributed to clients.

The Facility Overdose Response Box (FORB) program, launched in late 2016, provides boxes containing multiple doses of naloxone to eligible not-for-profit community-based organizations. These boxes are designed for staff to use to respond to on-site overdoses. Site locations include supportive and subsidized housing, drop-in centres, and shelters, among others. The program helps staff to be prepared to recognize and respond to an overdose.

There are five core naloxone program indicators based on data available from the provincial naloxone database, which can be viewed as new monthly numbers or cumulative totals over time:

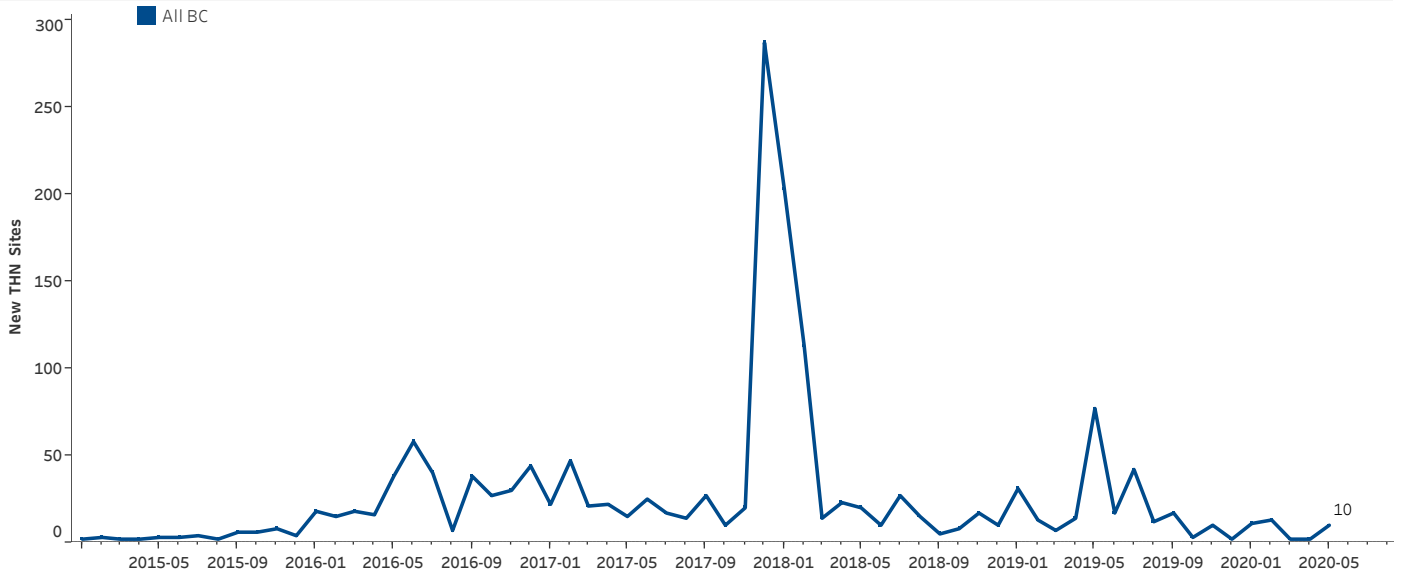
- The number of new THN sites enrolled in the provincial program each month. Site enrollment increased in mid-2016 and throughout 2017 in response to the ongoing overdose crisis. A key focus has been strategic expansion of site types and locations to fill gaps in access. The sharp increase seen in December 2017 to February 2018 was due to the enrollment of a large number of community pharmacies across BC. Site enrollment for the remainder of 2018 and into 2019 has been steady, focusing on low access areas.
- The number of new FORB sites enrolled in the provincial program each month. Site enrollment began in December of 2016. All health authorities have FORB sites.
- The number of THN kits shipped to THN sites each month. The number of THN kits shipped to sites in BC has been increasing steadily since early 2016. THN distribution reached a peak in August 2018 with over 21K kits shipped that month and has remained high and steady for the remainder of 2018. The numbers of kits shipped to ordering sites each month is typically higher than distribution records received back. Kits shipped in a given month are not related to kits distributed to clients in the same month.
- The number of THN kits distributed to clients each month, as reported by sites. Expansion of naloxone distribution or "ramp up" began in mid- 2016 in response to the ongoing crisis and continued throughout 2017. Prior to the program ramp up, less than 1000 kits were distributed per month, during the ramp up period, as many as 6000 kits were distributed in some months. Distribution peaked in summer 2017 and has been stable since with between approximately 4000-5000 kits distributed per month.
- The estimated number of overdoses reversed each month, using provincially-funded THN kits. Overdoses reversed are estimated based on the number of clients refilling or receiving a THN kit, who report they used the naloxone in a previous kit to reverse an overdose. The estimated number of reported overdoses reversed using a THN kit in BC began increasing gradually in since December 2015 with a sharp increase beginning in November 2016. Reported reversals peaked in August 2017 and again in August 2018, during which 1,878 and 2,067 overdoses were estimated to be reversed in those months alone. Overdose reversal reporting is variable but generally between 1000-2000/month since March 2017.

More information on both naloxone programs can be found at Toward the Heart. <https://towardtheheart.com/>

Refer to the BC Naloxone Program Indicators data notes for more information about the indicators including definitions, data sources, and limitations. [http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/THN\\_indicator\\_public.pdf](http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/THN_indicator_public.pdf)

Data provided by the BC Center for Disease Control and Regional Health Authorities.

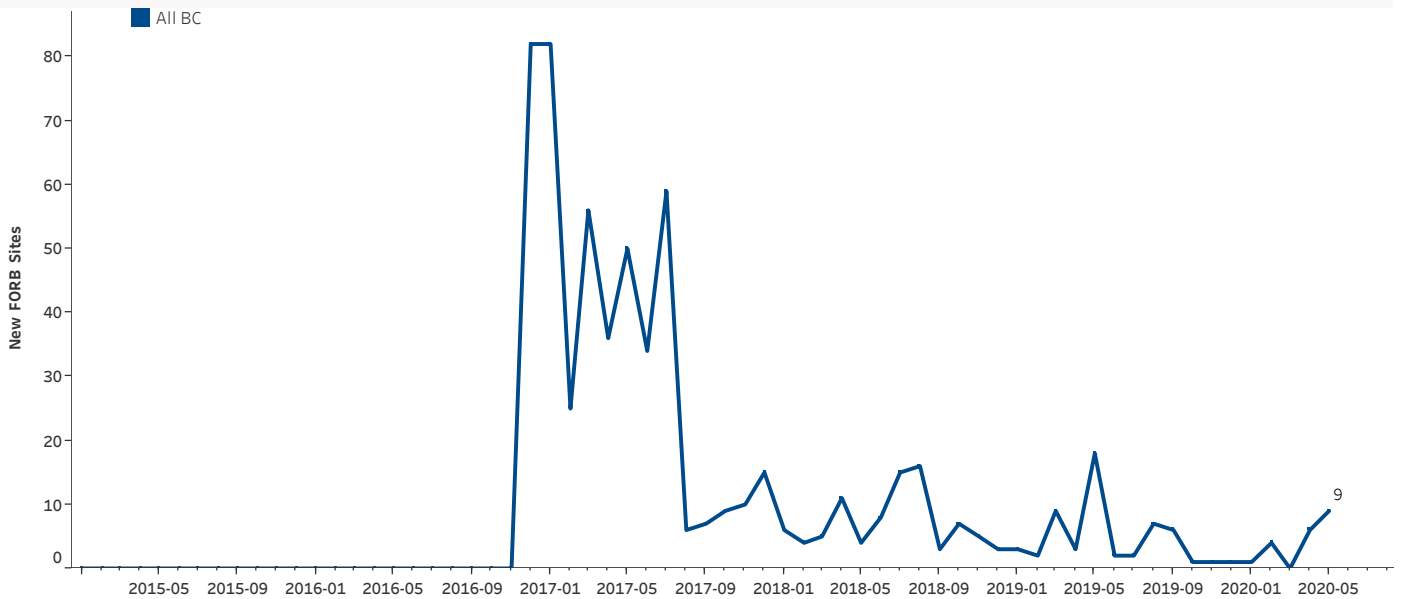
### New Take Home Naloxone Sites



**Note:**

- From December 2017 to February 2018, the BC Naloxone Program enrolled a large number of community pharmacies
- The Take Home Naloxone Program began in August 2012. The monthly and cumulative THN site counts shown here begin in January 2015, thus there was a total of 63 sites enrolled as of January, 2015.

### New Facility Overdose Response Box Sites

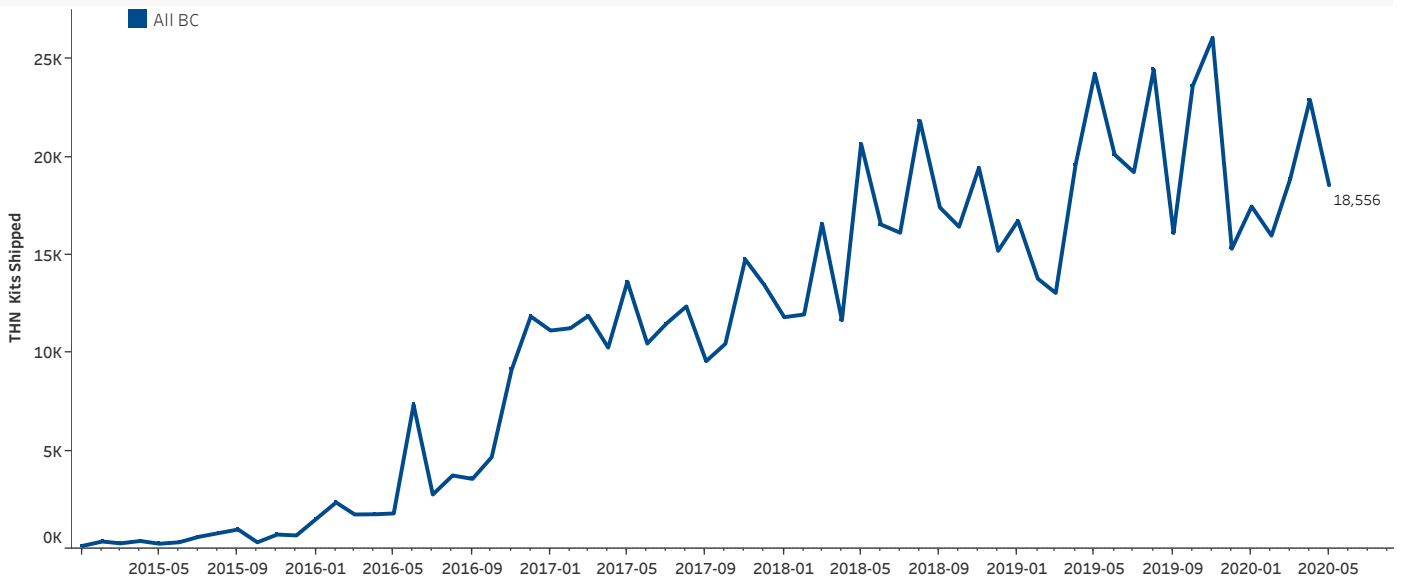


**Note:**

- The Facility Overdose Response Box (FORB) program provides boxes containing multiple doses of naloxone and other supplies. These boxes are not individual kits, rather are designed for employees at facilities and community-based organizations to use in response to on-site overdoses.
- The Facility Overdose Response Box Program began in December 2016, thus there were no sites enrolled prior to this date.



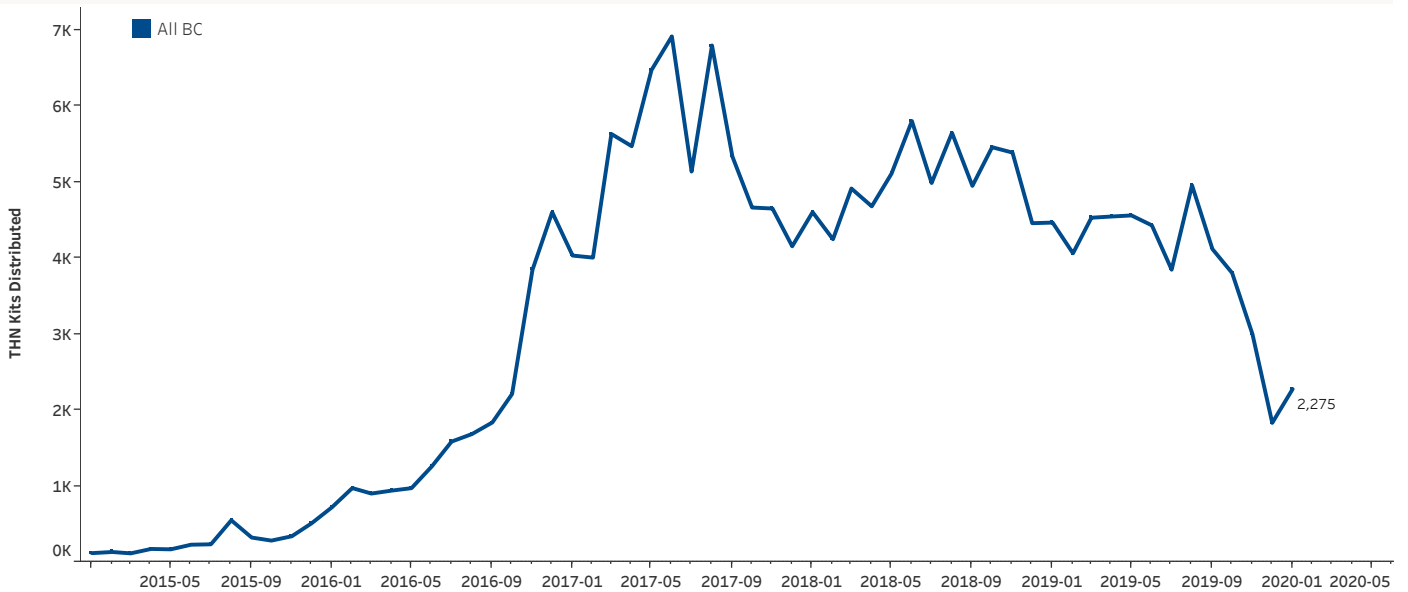
### Number of Take Home Naloxone Kits Shipped to Sites



**Notes:**

- Data for this indicator may be delayed
- Shipping data often shows a higher number of kits than distribution data
- Some kits received by THN distribution sites are retained on site as stock to manage demand fluctuations

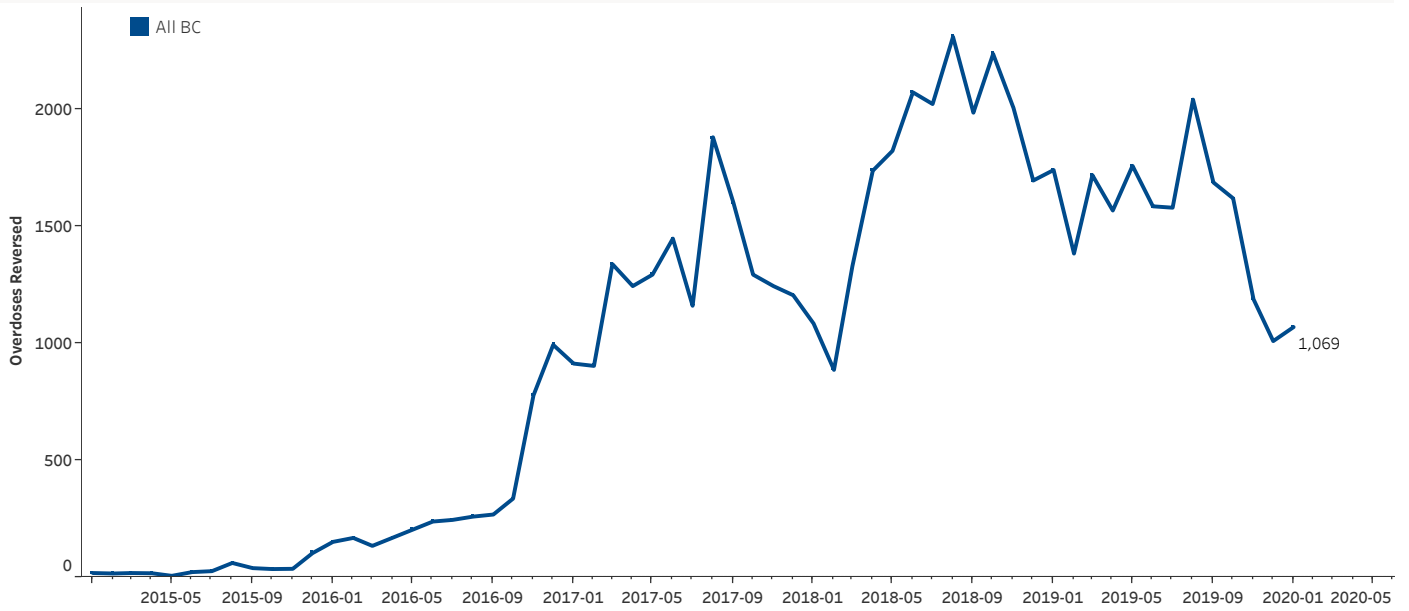
### Number of Take Home Naloxone Kits Distributed to Clients



**Notes:**

- Data for this indicator may be delayed
- Not all sites have 100% record return for all THN distributed (i.e. missing records)
- Orders data often shows a higher number of kits than distribution data
- Some ordered kits are retained on site as stock to manage demand fluctuations

## Estimated Number of Overdoses Reversed using a Take Home Naloxone Kit



### Notes:

- Data for this indicator may be delayed
- This is a good indicator of the trend of overdose reversals but likely underestimates the number, given that THN kits are based on client reporting in low barrier settings and reporting is voluntary

## 4. Opioid Agonist Treatment Indicators

Opioid Agonist Treatment (OAT) consists of a range of drug treatments for adults and youth with varying presentations of opioid use disorder. Increasing the availability of this treatment represents an important component of the health system response to the opioid overdose emergency. BC's evidence-based OAT treatment guidelines support the availability of a diversity of treatment options.

There are four core OAT indicators based on prescription drug data available from the provincial database, PharmaNet:

- The number of clients dispensed OAT in BC is defined by the number of unique clients who were dispensed OAT at a BC community pharmacy. This number began rising in 2016, largely driven by an increase in the number of clients dispensed buprenorphine/naloxone (Suboxone). Methadone prescribing has been stable since 2015.
- A new OAT client is defined as a client dispensed OAT for the first time at a BC community pharmacy. The number of clients dispensed OAT in BC for the first time has increased throughout 2016, and this trend mainly relates to the increase in clients dispensed buprenorphine/naloxone (Suboxone) for the first time. Notably, numbers of new clients on sustained release oral morphine has risen sharply in 2017 and peaked in January 2019 although this treatment option still accounts for fewer new starts than methadone or buprenorphine/naloxone.
- The number of OAT prescribers in BC is defined by the number of BC clinicians prescribing OAT as assessed by prescriptions filled at community pharmacies. The number of OAT prescribers in BC has been rapidly increasing since mid-2016 as Health Authorities and the BC Centre on Substance Use engage physicians in training and preceptorship activities (partnering knowledgeable and novice prescribers). The trend is largely driven by clinicians prescribing Buprenorphine/Naloxone (Suboxone). An increasing trend in the number of Sustained Release Oral Morphine prescribers is seen starting in mid-2017.
- In 2018, an average of 65 physicians per month prescribed OAT for the first time across BC. Physicians prescribing for the first time are most likely to prescribe buprenorphine/naloxone (Suboxone).

Note that the category 'ANY OAT' counts the unique number of clients dispensed (or clinicians prescribing) any of the listed drug types in a given month, so counts across treatments may not be additive. For example, if in a given month, the same person was started for the first time on methadone and buprenorphine/naloxone (Suboxone), they will be counted in each of those categories but will only be counted once in the ANY category.

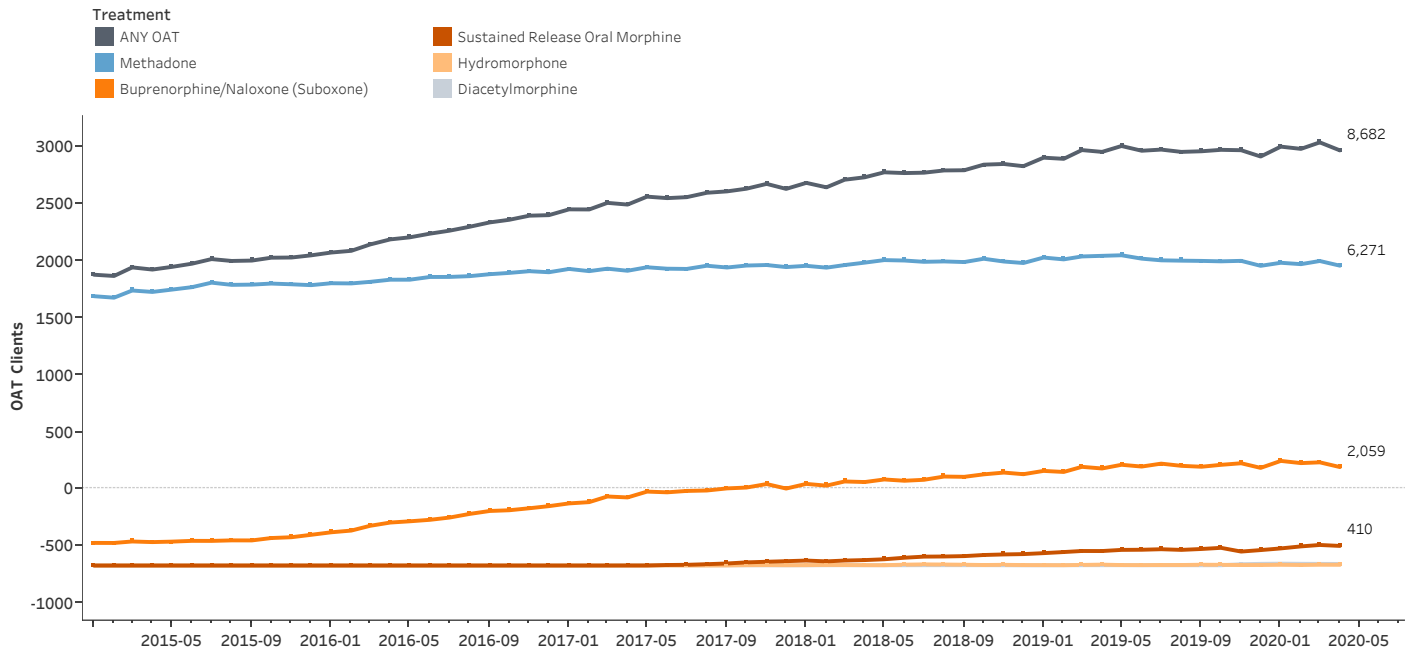
Refer to the Opioid Agonist Treatment Indicators data notes for more information about the indicators including definitions, data sources, and limitations.

[http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/OAT\\_indicators\\_public.pdf](http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/OAT_indicators_public.pdf)

Data provided by BC Ministry of Health.

### Number of Clients Dispensed OAT

Health Authority: Fraser, Sex: All Sex, Age Group: All Age Group

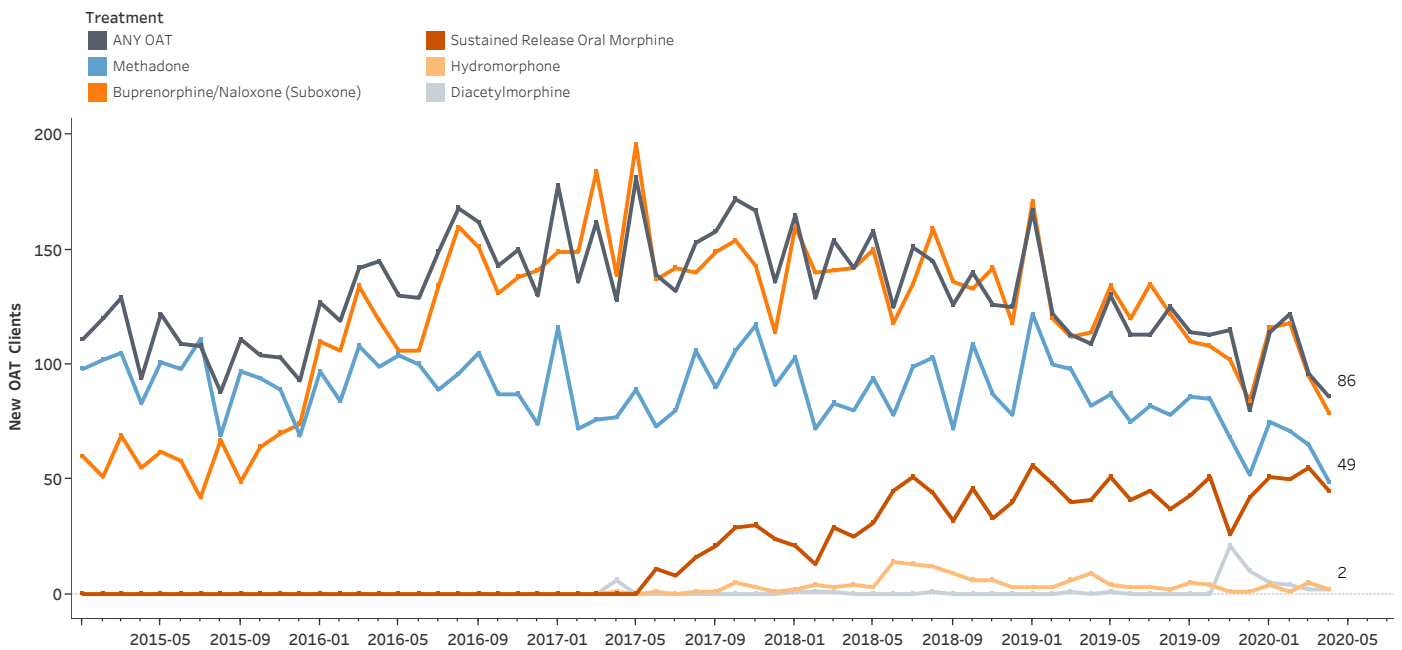


Notes:

- Client counts are assessed by OAT dispensations from community pharmacies
- This indicator does not assess discontinuation or adequate dosage in a given quarter.
- As clients may be prescribed more than one type of drug in a given month, the number of clients for the \*ANY OAT\* category may be lower than the sum for all drug types

### Number of Clients Dispensed OAT for the First Time

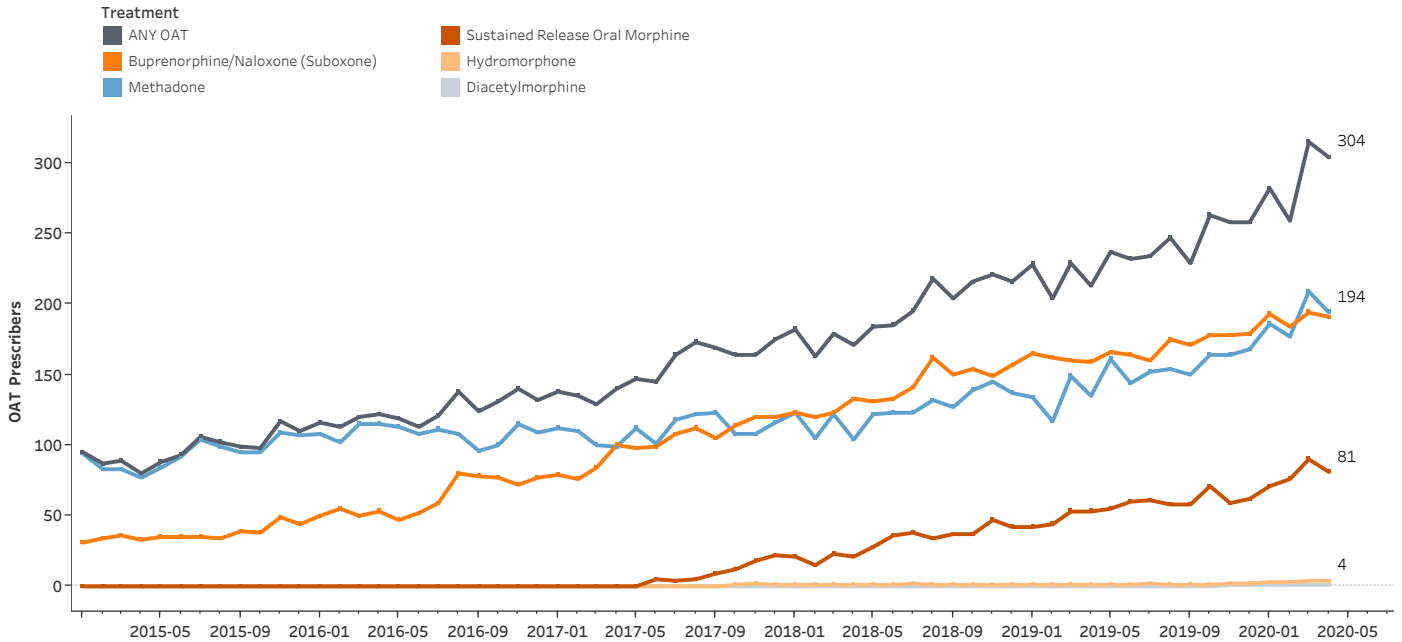
Health Authority: Fraser, Sex: All Sex, Age Group: All Age Group



Notes:

- OAT clients are defined as new to drug type if they have never (based on the history available in BC PharmaNet records) been dispensed the drug type before.
- A client is new to \*ANY OAT\* at the first dispensation of any of the OAT drug types monitored. Clients may be new to a specific drug type but not new to OAT, thus the sum of new clients by drug type may not equal the number of clients new to \*ANY OAT\*.

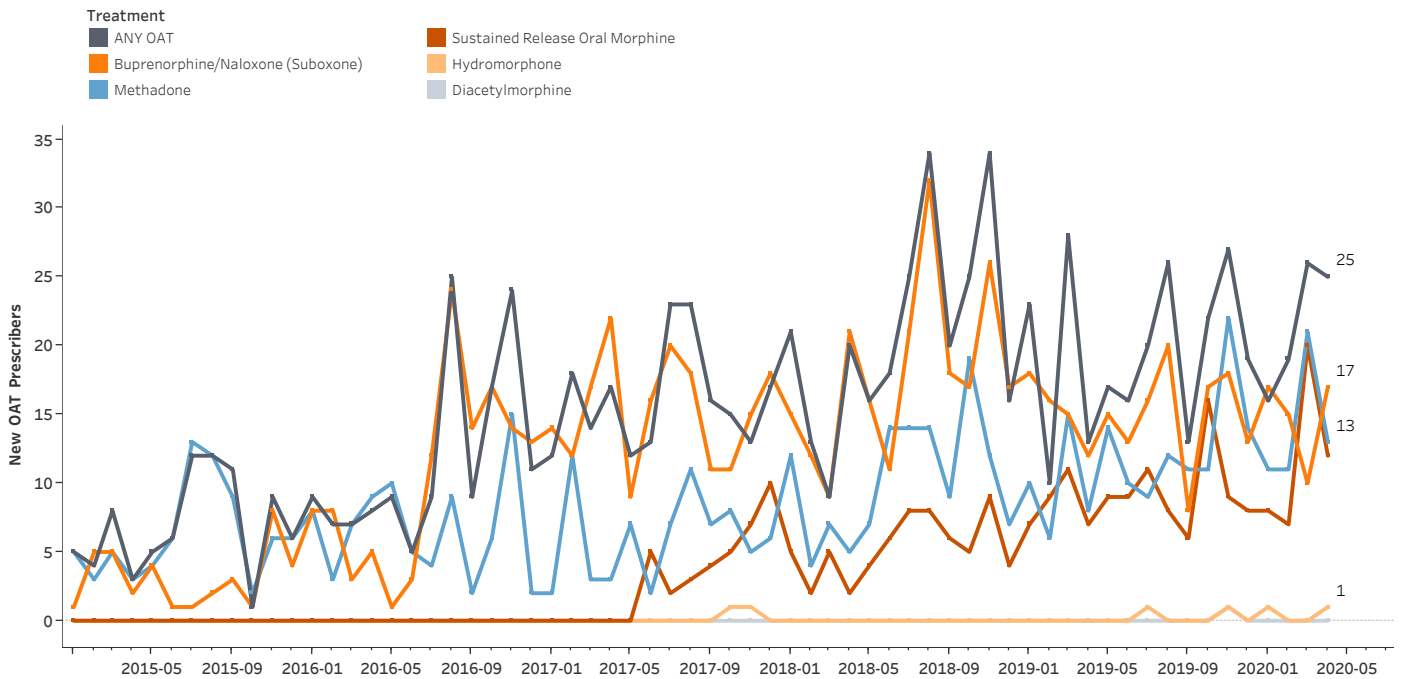
**Number of OAT Prescribers**  
Health Authority: Fraser



Notes:

- Prescriber counts are assessed by OAT dispensations from community pharmacies
- This indicator does not assess discontinuation or adequate dosage in a given quarter
- As prescribers may be prescribed more than one type of drug in a given month, the number of prescribers for the \*ANY OAT\* category may be lower than the sum for all drug types

**Number of New OAT Prescribers**  
Health Authority: Fraser



Notes:

- OAT prescribers are defined as new to drug type if they have never (based on the history available in BC PharmaNet records) prescribed the drug type before
- A prescriber is new to \*ANY OAT\* at the first prescription of any of the OAT drug types monitored. Prescriber may be new to a specific drug type but not new to OAT, thus the sum of new prescribers by drug type may not equal the number of prescriber new to \*ANY OAT\*.

## 5. Overdose Prevention Services Indicators

Overdose Prevention Services consist of a range of services designed to respond to and prevent overdoses and overdose deaths and includes both overdose prevention sites and supervised consumption sites. This monitoring indicator is based on data received from BC Regional Health Authorities operating the sites and is designed to monitor trends for OPS and SCS sites combined (OPS/SCS).

An OPS is a client service location with staff trained in overdose recognition and naloxone administration available to respond to prevent brain injury and death should overdose occur. Across BC, OPS vary considerably in structure and function and were first mandated to open in all BC health authorities in December 2016 by Order of the Provincial Health Officer. SCS sites provide similar services to OPS sites, operating under a federal exemption under section 56.1 of the Controlled Drugs and Substances Act. There are different models of overdose prevention service delivery, such as peer-to-peer services.

There are two core indicators for OPS/SCS sites based on data provided by Regional Health Authorities:

- The number of client visits to OPS/SCS sites each month. Sites visits related to observed consumption of substances have been increasing steadily in 2018 and into 2019.
- The number overdoses responded to by staff at OPS/SCS sites each month. Overdoses events at OPS/SCS have remained relatively stable in 2018, in the 300-400/month range, and have increased in 2019.

Each regional health Authority opened at least one site from December 2016. Since then, the number of OPS/SCS sites has increased, along with location changes or service model transitions. Site reporting on the monthly number of substance-related visits and overdose events is displayed here from January 2018. As of May, 2019, there are more than 30 OPS/SCS locations around BC. Most but not all locations are included in this reporting (see footnotes).

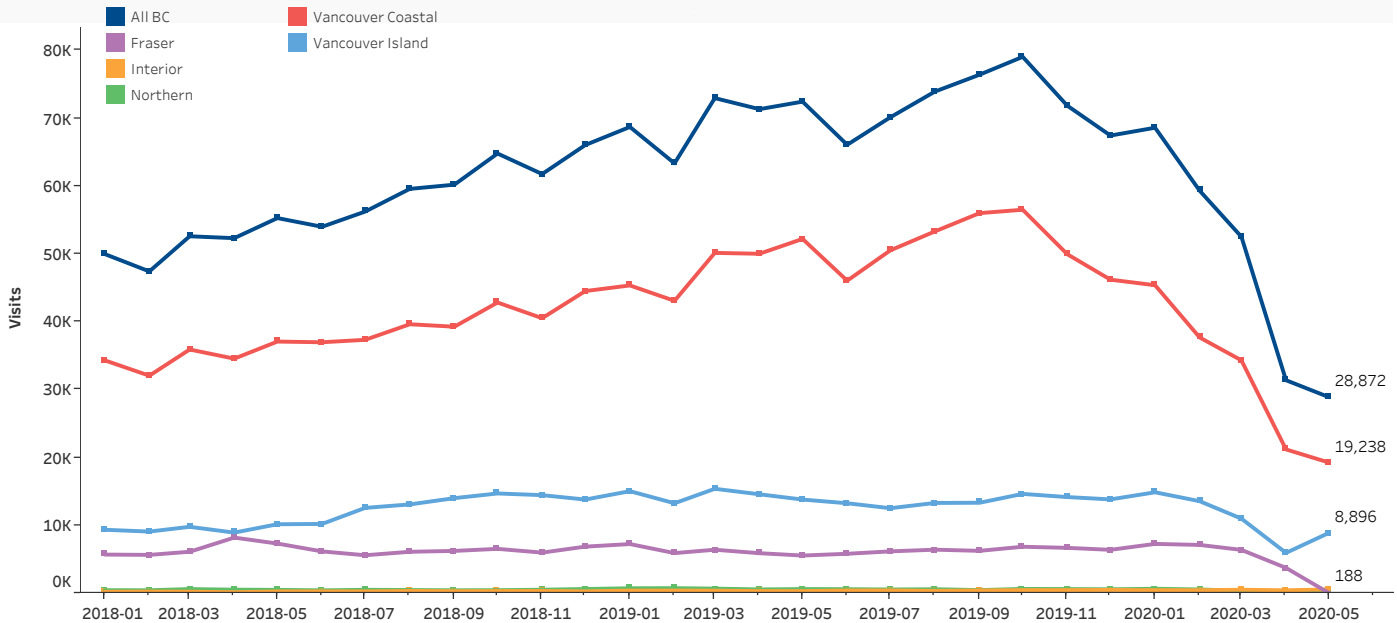
In addition to standalone OPS/SCS sites reported here, there are other forms of overdose prevention services based in a wide range of settings. For example, in the Vancouver Coastal Health and Fraser regions, there Overdose Prevention Services sites that are based in housing settings.

Refer to the Overdose Prevention Services Indicators data notes for more information about the indicators including definitions, data sources, and limitations.

[http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/OPS\\_indicator\\_public.pdf](http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Overdose/OPS_indicator_public.pdf)

Data provided by the Regional Health Authorities.

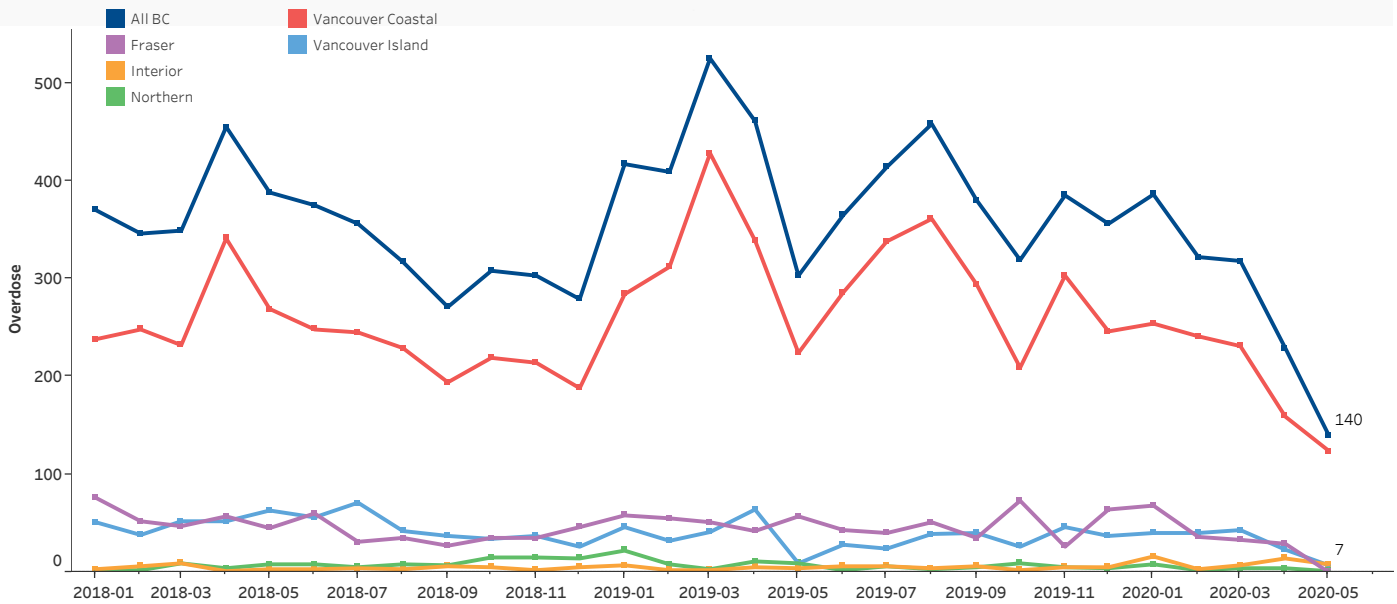
Visits to Overdose Prevention Service Sites and Supervised Consumption Services Sites



Notes:

- As of June 2020, there are 32 OPS/SCS locations in BC. Fraser: 5 OPS and 2 SCS; Interior: 3 OPS and 3 SCS locations; Island: 6 OPS and 2 SCS; Northern: 1 OPS; Vancouver Coastal: 7 OPS and 3 SCS.
- Most, but not all, locations are included in this reporting. May figure is an underestimate one HA was unable to submit to the end of May
- Data for this indicator may be delayed. Data are preliminary, derived from a live environment, and subject to modification. Site specific definition of overdose may range.
- Although sites may have been in operation prior to January 2018, comprehensive reporting is only available from this date.

Overdoses Survived at Overdose Prevention Service Sites and Supervised Consumption Services Sites



Notes:

- As of June 2020, there are 32 OPS/SCS locations in BC. Fraser: 5 OPS and 2 SCS; Interior: 3 OPS and 3 SCS locations; Island: 6 OPS and 2 SCS; Northern: 1 OPS; Vancouver Coastal: 7 OPS and 3 SCS.
- Most, but not all, locations are included in this reporting. May figure is an underestimate one HA was unable to submit to the end of May
- Data for this indicator may be delayed. Data are preliminary, derived from a live environment, and subject to modification. Site specific definition of overdose may range.
- Although sites may have been in operation prior to January 2018, comprehensive reporting is only available from this date.