

This report summarizes all unintentional illicit drug overdose deaths in British Columbia (accidental and undetermined) that occurred between January 1, 2007 and October 31, 2016, inclusive. It includes confirmed and suspected illicit overdose deaths.

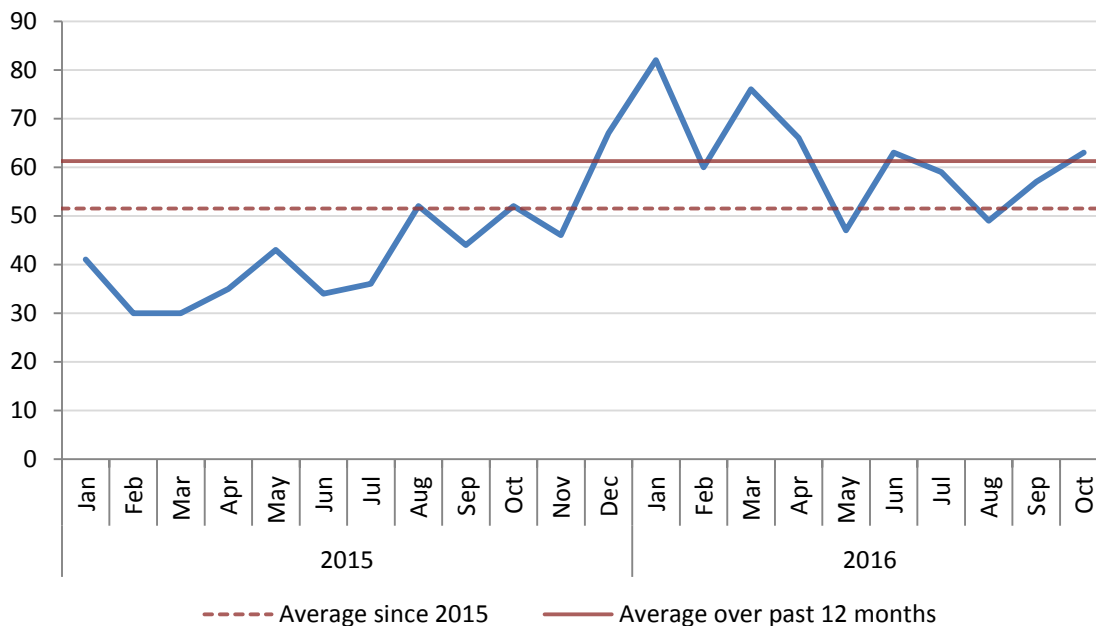
Inclusion Criteria: The illicit drug overdose category includes the following:

- Street drugs (heroin, cocaine, MDMA, methamphetamine, illicit fentanyl.)
- Medications that may not have been prescribed to the deceased
- Combinations of the above, with prescribed medications
- Origin of drug not known

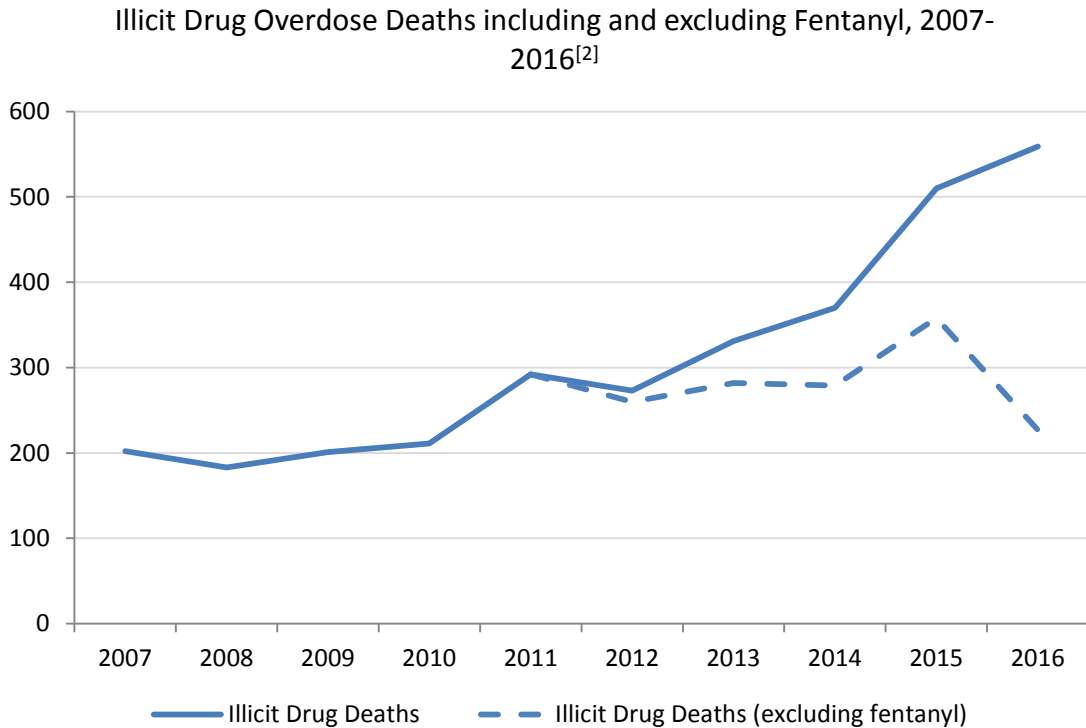
Summary

- There were 622 apparent illicit drug overdose deaths from Jan to Oct 2016. This is a 56.7% increase over the number of death occurring during the same period in 2015 (397).
- The number of illicit drug overdose deaths in Oct 2016 (63) is close to the average number of illicit drug overdose deaths for the past 12 months (61.3).

Illicit Drug Overdose Deaths by Month, 2015-2016^[2]



- Fentanyl-detected deaths appear to account largely for the increase in illicit drug overdose deaths since 2012 as the number of illicit drug overdose deaths excluding fentanyl -detected has remained relatively stable since 2011 (average of 294 deaths per year).



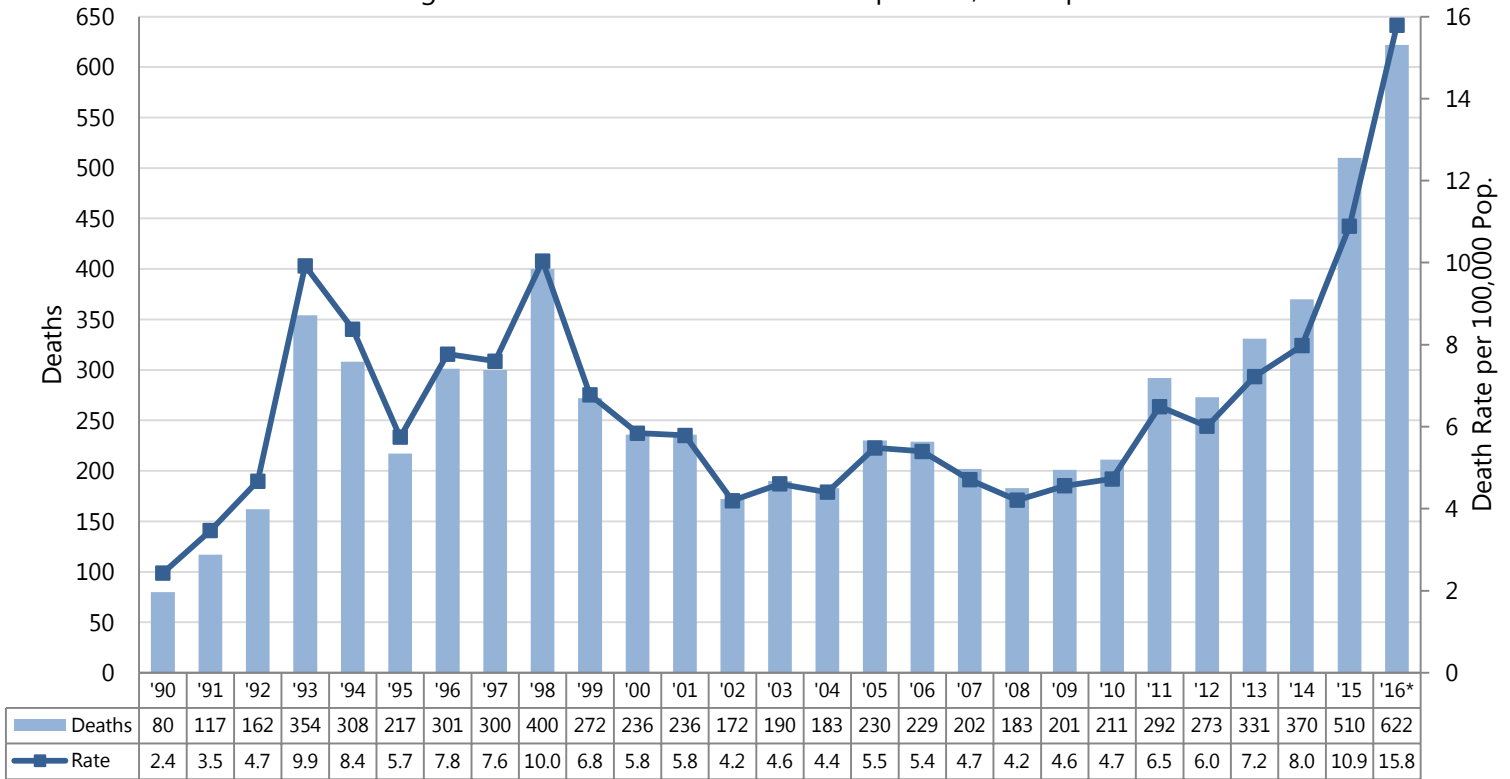
- Individuals aged 19-29 and 30-39 have accounted for the largest percentage of illicit drug overdose deaths in Jan – Oct 2016 (24.4% and 28.1%, respectively). Males accounted for 80.7% of apparent illicit drug overdose deaths in Jan – Oct 2016. The proportion of male deaths has steadily increased since 2012 (71.8%).
- Saturdays and Sundays were the days of the week most fatal illicit drug overdoses occurred in Jan to Oct 2016.
- Top three townships where fatal illicit drug overdoses occurred in 2007-2016, were Vancouver, Surrey, and Victoria.
- Fraser Health Authority had the highest number (211) of illicit drug overdose deaths in Jan – Oct 2016 which makes up 33.9% of all illicit drug overdose deaths during that period.
- Vancouver Island Health Authority had the highest rate of illicit drug overdose deaths (18.7 deaths per 100,000 individuals) in Jan – Oct 2016 among all health authorities and saw the largest increase in rate from 2015 (140% increase). Overall, the rate of illicit drug overdose deaths in BC increased 45.0% in Jan – Oct 2016 compared with 2015.

- The majority of fatal illicit drug overdoses in Jan – Oct 2016 occurred inside (87.1%) while 11.4% occurred outside and 1.4% had an unknown injury location.
- Preliminary data for Jan – Sep 30, 2016, suggest that the proportion of illicit drug overdose deaths for which fentanyl was detected (alone or in combination with other drugs) increased to approximately 59% in 2016 from 30% in 2015.

BC CORONERS SERVICE

BC Data and Rates

Illicit Drug Overdose Deaths and Death Rate per 100,000 Population^[2,5]



Illicit Drug Overdose Deaths by Month, British Columbia, 2007-2016 ^[2]										
Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Jan	15	18	23	16	24	20	20	23	41	82
Feb	14	8	15	14	24	17	21	39	30	60
Mar	19	17	10	15	25	25	32	28	30	76
Apr	24	18	8	9	26	31	31	30	35	66
May	10	18	19	22	21	20	28	41	43	47
Jun	18	18	16	21	22	25	25	28	34	63
Jul	11	24	19	23	33	29	37	25	36	59
Aug	21	16	27	24	22	20	21	37	52	49
Sep	14	12	16	20	22	17	28	31	44	57
Oct	15	10	13	18	23	20	19	35	52	63
Subtotal	161	159	166	182	242	224	262	317	397	622
Nov	19	9	18	18	26	28	31	28	46	
Dec	22	15	17	11	24	21	38	25	67	
Total	202	183	201	211	292	273	331	370	510	622

Average	16.8	15.3	16.8	17.6	24.3	22.8	27.6	30.8	42.5	62.2
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BC Data by Place of Injury

Illicit Drug Overdose Deaths by Place of Injury, 2016^[2]

	Place of Injury
Inside	542
Outside	71
Unknown	9
Total	622

Preliminary circumstances suggest that the majority of fatal illicit drug overdoses in Jan – Oct 2016 occurred inside (87.1%) while 11.4% occurred outside and 1.4% had an unknown injury location.

Inside - includes all housing (temporary or permanent), facilities, occupational sites, public buildings, and businesses.

Outside – includes vehicles, streets, sidewalks, parking lots, public parks, wooded areas, and campgrounds

BC Data by Gender/Age:

Illicit Drug Overdose Deaths by Gender, 2007-2016^[2]

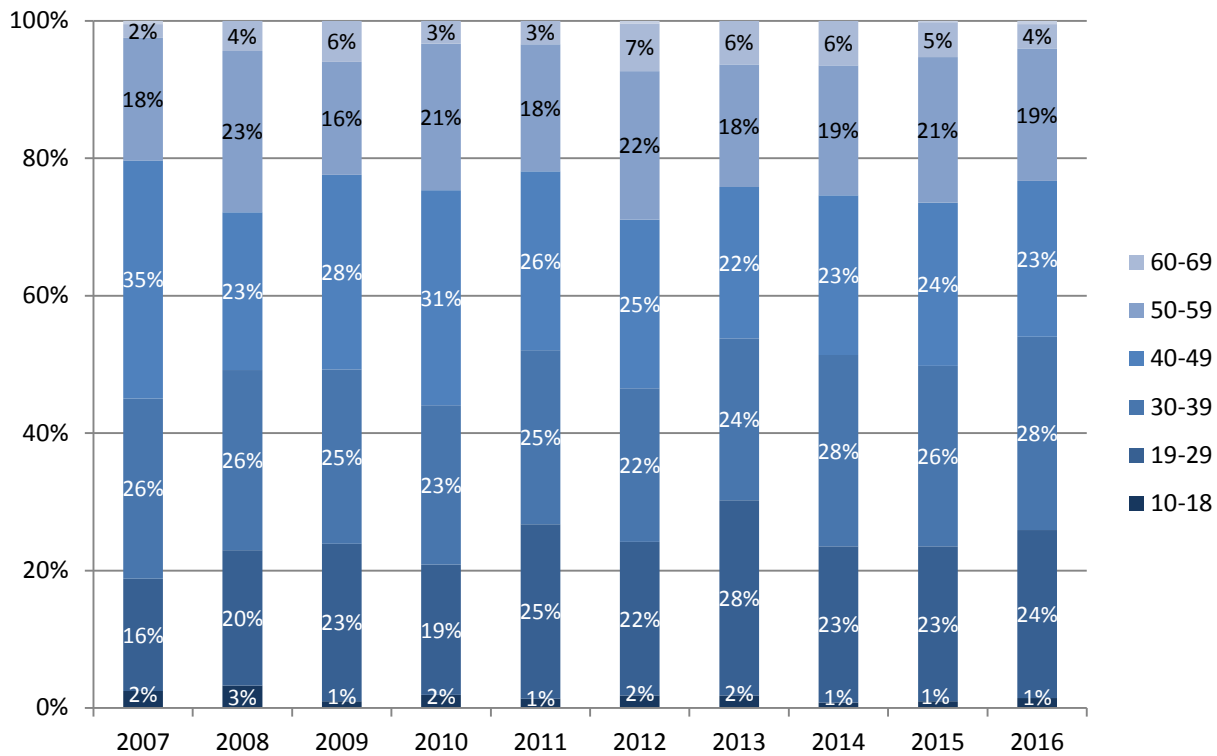
Gender	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Female	47	49	55	49	81	77	79	86	101	120
Male	155	134	146	162	211	196	252	284	409	502
Total	202	183	201	211	292	273	331	370	510	622

Illicit Drug Overdose Deaths by Age Group, 2007-2016^[2]

Age Group	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
10-18	5	6	2	4	4	5	6	3	5	9
19-29	33	36	46	40	74	61	94	84	115	152
30-39	53	48	51	49	74	61	78	103	134	175
40-49	70	42	57	66	76	67	73	86	121	141
50-59	36	43	33	45	54	59	59	70	108	120
60-69	4	8	12	7	10	19	21	24	26	22

70-79	1	-	-	-	-	1	-	-	1	3
Total	202	183	201	211	292	273	331	370	510	622

Illicit Drug Overdose Deaths by Age Group, 2007-2016^[2]



Age-Specific Illicit Drug Overdose Death Rates per 100,000, 2007-2016 ^[2,5]										
Age Group	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
10-18	1.0	1.3	0.4	0.9	0.9	1.1	1.3	0.7	1.1	2.7
19-29	5.2	5.5	6.9	5.9	10.9	8.9	13.7	12.1	16.5	28.9
30-39	9.1	8.2	8.6	8.3	12.5	10.2	12.9	16.7	21.4	36.9
40-49	10.1	6.1	8.3	9.7	11.3	10.1	11.2	13.4	19.1	30.2
50-59	5.8	6.8	5.1	6.8	8.0	8.6	8.5	10.0	15.3	22.4
60-69	1.0	1.8	2.6	1.5	2.0	3.7	3.9	4.3	4.5	4.9
70-79	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	1.2
Total	4.7	4.2	4.6	4.7	6.5	6.0	7.2	8.0	10.9	15.8

2016 age-specific population was estimated by adding the average population change over the past 5 years to the 2015 population estimate for each age group. 2016 age-specific rates were calculated by dividing the number of deaths by the estimated 2016 population multiplied by the fraction of months that have passed in the year for this reporting period for each age group.

BC Data by Day of Week:

Illicit Drug Overdose Deaths by Day of Week of Injury, British Columbia, 2007-2016(YTD) ^[2,3]										
Day	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Monday	25	21	15	29	39	33	33	38	69	63
Tuesday	23	24	24	26	26	35	42	37	60	68
Wednesday	24	25	31	30	34	39	35	50	65	89
Thursday	24	25	27	33	51	34	41	60	72	98
Friday	38	31	28	33	42	32	55	60	81	84
Saturday	34	34	34	35	53	47	73	73	85	114
Sunday	34	23	42	25	47	53	52	52	78	106
Total	202	183	201	211	292	273	331	370	510	622

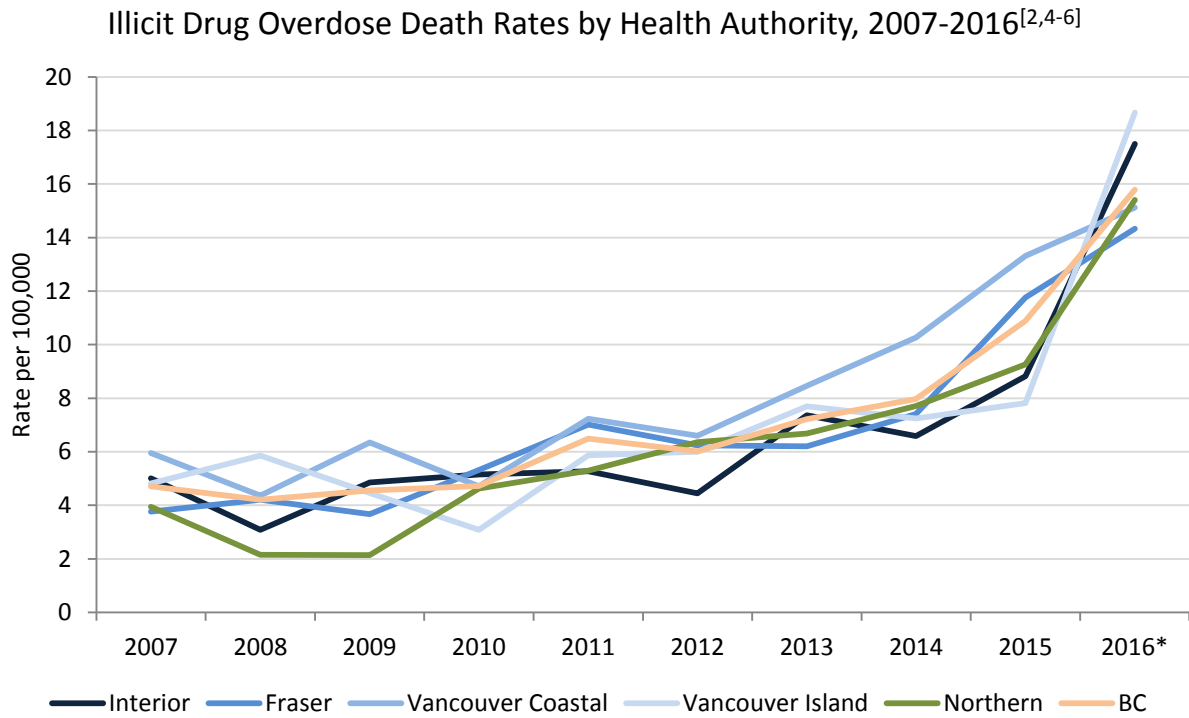
BC Data by Township of Injury:

Illicit Drug Overdose Deaths by Top Townships of Injury, 2007-2016 ^[2,4]										
Township	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Vancouver	59	38	60	42	68	67	80	100	134	124
Surrey	22	20	23	32	42	44	36	44	75	76
Victoria	19	29	13	13	17	17	25	20	18	51
Kelowna	6	2	5	9	14	8	12	12	20	37
Burnaby	9	12	8	9	10	10	13	11	16	22
Abbotsford	3	4	4	10	16	7	9	7	26	28
Nanaimo	2	2	6	4	8	6	20	16	19	23
Maple Ridge	5	2	6	4	4	5	10	14	28	24
Kamloops	11	7	7	10	2	5	8	8	7	31
Langley	3	5	2	3	9	5	10	10	10	21
Other Township	63	62	67	75	102	99	108	128	157	185
Total	202	183	201	211	292	273	331	370	510	622

Health Authority Data:

Illicit Drug Overdose Deaths by Health Authority, 2007-2016^[2,4,6]										
HA	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Interior	35	22	35	37	38	32	53	48	65	108
Fraser	57	65	58	86	115	104	105	127	205	211
Vancouver Coastal	64	47	69	52	80	74	96	118	154	147
Vancouver Island	35	43	33	23	44	45	58	55	60	120
Northern	11	6	6	13	15	18	19	22	26	36
BC	202	183	201	211	292	273	331	370	510	622

Illicit Drug Overdose Death Rates by Health Authority per 100,000, 2007-2016^[2,4-6]										
HA	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Interior	5.0	3.1	4.9	5.2	5.3	4.4	7.4	6.6	8.8	17.5
Fraser	3.8	4.2	3.7	5.3	7.0	6.2	6.2	7.4	11.8	14.3
Vancouver Coastal	6.0	4.4	6.3	4.7	7.2	6.6	8.5	10.3	13.3	15.1
Vancouver Island	4.8	5.9	4.5	3.1	5.9	6.0	7.7	7.2	7.8	18.7
Northern	3.9	2.1	2.1	4.6	5.3	6.4	6.7	7.7	9.3	15.4
BC	4.7	4.2	4.6	4.7	6.5	6.0	7.2	8.0	10.9	15.8



2016 population was estimated by adding the average population change over the past 5 years to the 2015 population estimate. 2016 rates were calculated by dividing the number of deaths by the estimated 2016 population multiplied by the fraction of months that have passed in the year for this reporting period.

Illicit Drug Overdose Deaths by Month of Death and Health Authority, 2016^[2,4,6]

Month	Interior	Fraser	Vancouver		Northern	Total
			Coastal	Island		
Jan	16	28	20	14	4	82
Feb	10	20	16	12	2	60
Mar	13	28	13	15	7	76
Apr	8	25	14	14	5	66
May	9	19	6	9	4	47
Jun	9	25	18	7	4	63
Jul	8	21	12	15	3	59
Aug	7	15	16	10	1	49
Sep	14	16	13	12	2	57
Oct	14	14	19	12	4	63
Total	108	211	147	120	36	622

Illicit Drug Overdose Deaths by Health Services Delivery Area, 2007-2016 ^[2,4,6]										
HSDA	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
East Kootenay	2	2	1	0	1	2	4	4	2	5
Kootenay Boundary	4	0	2	3	4	4	2	3	6	5
Okanagan	13	9	15	18	28	16	32	27	44	53
Thompson Cariboo	16	11	17	16	5	10	15	14	13	45
Fraser East	9	14	9	22	31	20	19	16	40	36
Fraser North	19	22	23	26	25	30	35	51	73	70
Fraser South	29	29	26	38	59	54	51	60	92	105
Richmond	0	1	3	4	4	1	3	3	5	7
Vancouver	59	38	60	42	68	67	80	100	134	124
North Shore/Coast Garibaldi	5	8	6	6	8	6	13	15	15	16
South Vancouver Island	21	31	15	13	17	20	26	23	22	60
Central Vancouver Island	8	6	13	6	17	20	24	25	30	45
North Vancouver Island	6	6	5	4	10	5	8	7	8	15
Northwest	2	2	0	3	1	0	6	2	5	8
Northern Interior	7	3	5	7	8	12	8	12	16	15
Northeast	2	1	1	3	6	6	5	8	5	13
Total	202	183	201	211	292	273	331	370	510	622

Illicit Drug Overdose Death Rates by Health Services Delivery Area per 100,000, 2007-2016 ^[2,4-6]										
HSDA	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
East Kootenay	2.7	2.6	1.3	0.0	1.3	2.6	5.3	5.2	2.6	7.8
Kootenay Boundary	5.2	0.0	2.6	3.9	5.1	5.2	2.6	3.9	7.8	7.8
Okanagan	3.9	2.6	4.3	5.2	8.1	4.6	9.2	7.6	12.2	17.4
Thompson Cariboo	7.5	5.1	7.8	7.4	2.3	4.6	6.9	6.3	5.9	24.4
Fraser East	3.3	5.1	3.2	7.8	10.9	7.0	6.6	5.5	13.5	14.5
Fraser North	3.3	3.8	3.8	4.2	4.0	4.8	5.5	7.9	11.2	12.7
Fraser South	4.3	4.2	3.7	5.3	8.0	7.2	6.6	7.7	11.6	15.6
Richmond	0.0	0.5	1.6	2.0	2.0	0.5	1.5	1.5	2.4	4.0
Vancouver	9.5	6.1	9.6	6.6	10.7	10.4	12.2	15.1	20.1	22.1
North Shore/Coast Garibaldi	1.9	3.0	2.2	2.2	2.9	2.2	4.7	5.3	5.3	6.8
South Vancouver Island	5.9	8.6	4.1	3.5	4.6	5.4	7.0	6.2	5.8	18.9
Central Vancouver Island	3.2	2.3	5.0	2.3	6.5	7.6	9.1	9.4	11.2	20.0
North Vancouver Island	5.2	5.1	4.2	3.4	8.3	4.2	6.7	5.8	6.6	14.8
Northwest	2.7	2.7	0.0	4.1	1.4	0.0	8.2	2.7	6.9	13.3
Northern Interior	5.0	2.1	3.6	5.0	5.6	8.5	5.7	8.5	11.6	13.0
Northeast	3.1	1.5	1.5	4.5	8.9	8.8	7.2	11.3	7.2	22.2

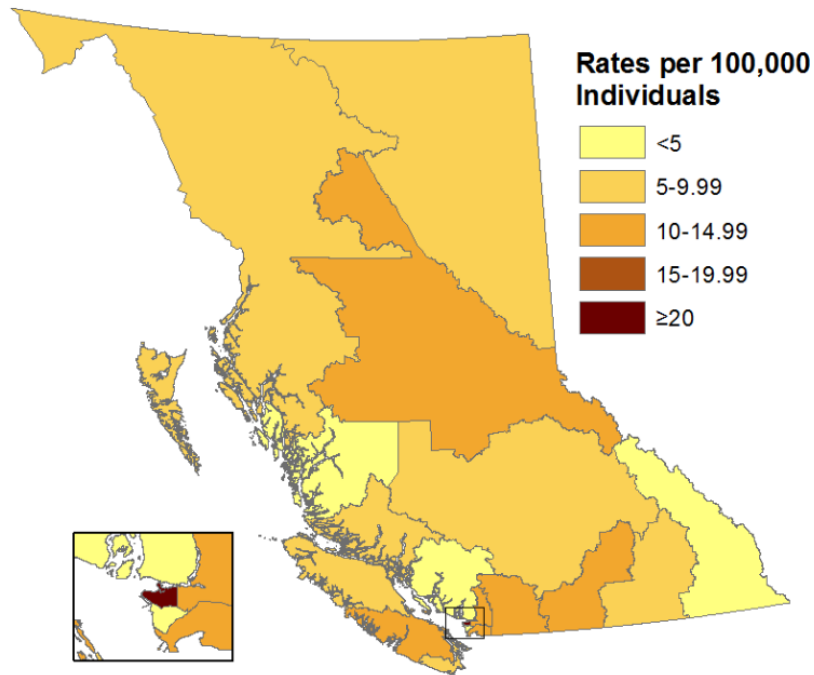
Total	4.7	4.2	4.6	4.7	6.5	6.0	7.2	8.0	10.9	15.8
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Notes:

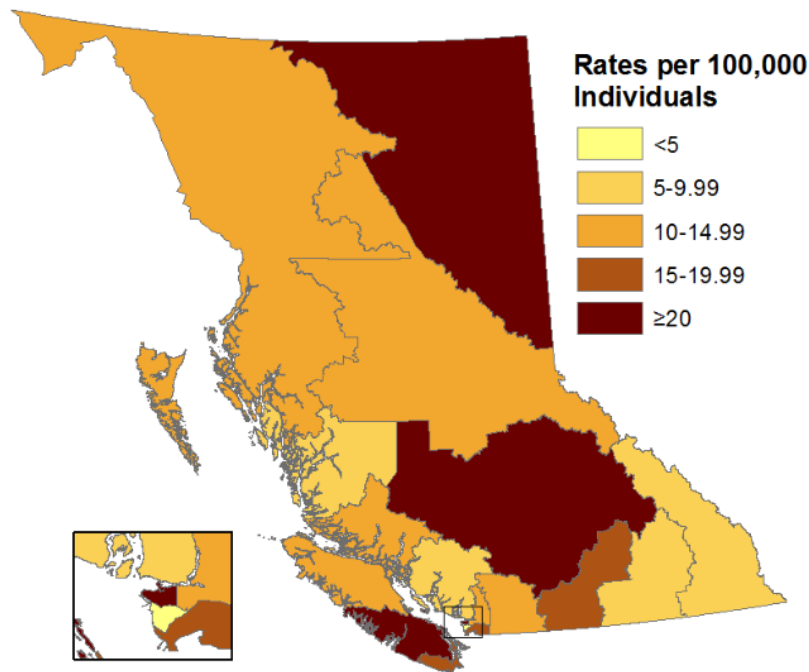
1. The BCCS operates in a live database environment. Some data for more recent years is based on preliminary circumstances and is subject to change as investigations are concluded. Data are not directly comparable to published counts from previous years.
2. 2016 data includes January 1, 2016 to October 31, 2016.
3. Date of death was used in tables where date of injury was unknown.
4. Death township was used in 5 cases of unknown or out of province injury township.
5. 2016 population was estimated by adding the average population change over the past 5 years to the 2015 population estimate. 2016 rates were calculated by dividing the number of deaths by the estimated 2016 population multiplied by the fraction of months that have passed in the year for this reporting period.
6. Health Region breakdowns can be found at:
<http://www.bcstats.gov.ca/statisticsbysubject/geography/referencemaps/health.aspx>

Illicit Drug Overdose Death Rate Maps by Health Services Delivery Area

2015 Illicit Drug Overdose Death Rates by Health Services Delivery Area



2016 Illicit Drug Overdose Death Rates by Health Services Delivery Area^[2]



References for health regions can be found at:

<http://www.bcstats.gov.bc.ca/statisticsbysubject/geography/referencemaps/health.aspx>