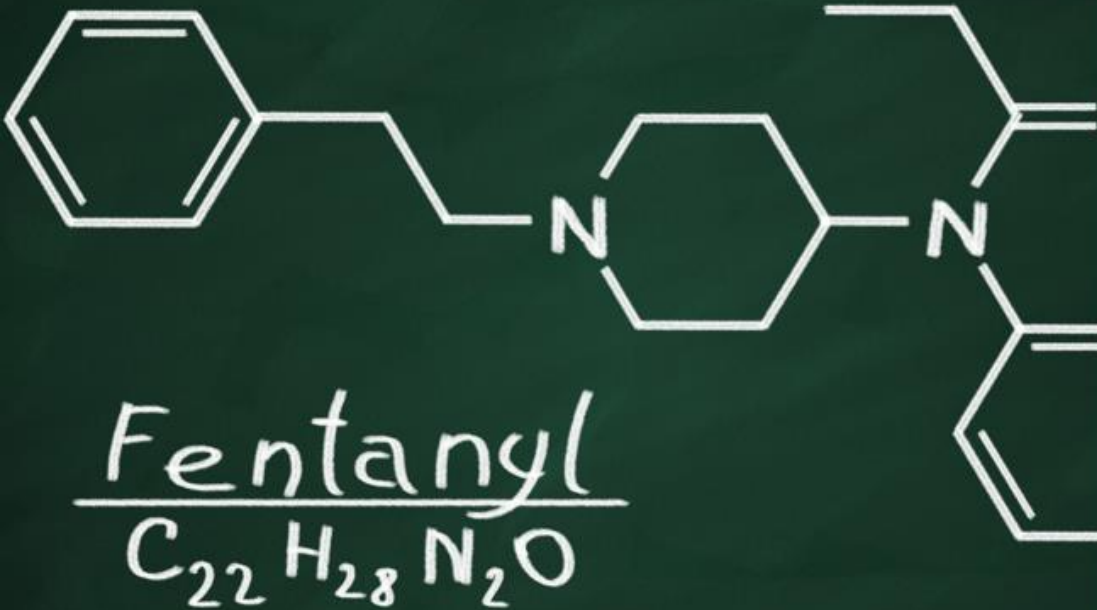


Illicit Drug Overdoses in British Columbia:

Reversing the Opioid Epidemic with Evidence-Based Interventions



Len Garis, Fire Chief City of Surrey, Adjunct Professor, School of Criminology and Criminal Justice & Associate to the Centre for Social Research University of the Fraser Valley, Affiliated Research Faculty - John Jay College of Criminal Justice, and The Christian Regenhard Centre for Emergency Response Studies, New York

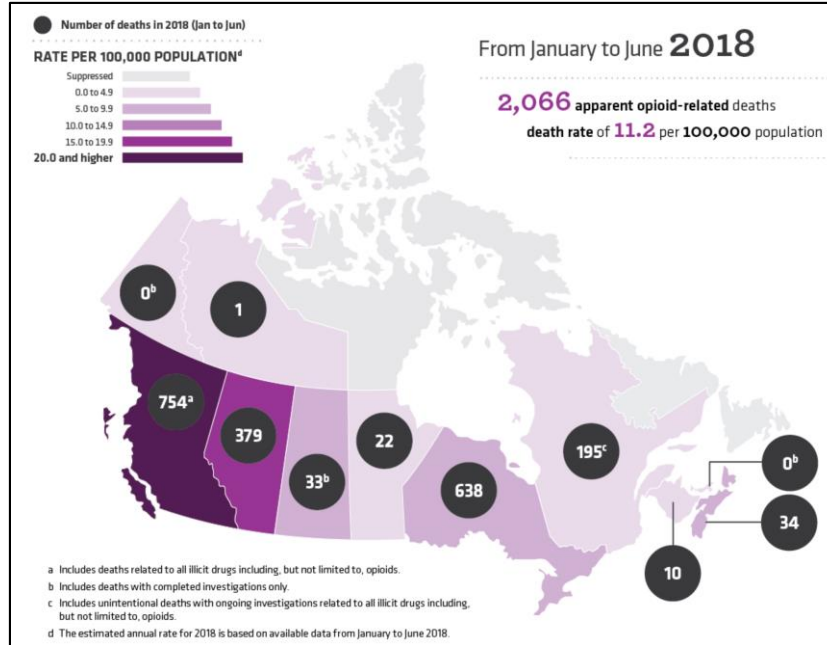
Illicit Drug Overdoses in Surrey & British Columbia:

“The Problem” “Enhanced Data” “Technology” “Response”

- Scope of the Problem
- Origins of the Illicit drugs
- Surrey Fire Service: real-time alerting to assist health and first responders
- Community actions: recovery homes, predicting neighbourhood overdoses , statistics Canada social data linking , supervised consumption services, second-responder, construction worker

Canada

Population: (35,000,000)



In 2016

3,014 apparent opioid-related deaths
death rate of 8.3 per 100,000 population

In 2017

3,998 apparent opioid-related deaths
death rate of 10.9 per 100,000 population

From January to June 2018

2,066 apparent opioid-related deaths
death rate of 11.2 per 100,000 population

Illicit Drug Overdoses in British Columbia

BC Opioid Crisis

1,487 suspected overdose deaths in 2017

1,489 suspected overdose death's in 2018

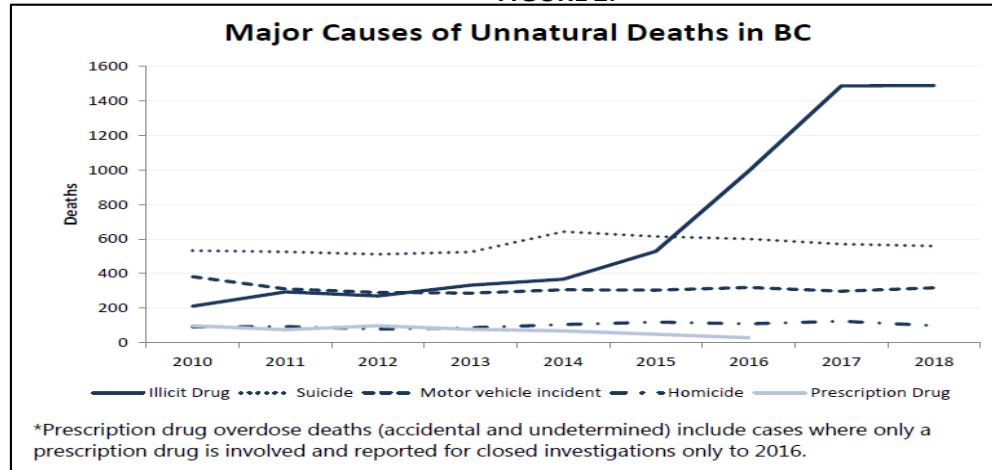


Illicit Drug Overdoses in British Columbia

BC Opioid Crisis

- Illicit drug overdose deaths now exceed, suicides, homicides, motor vehicle incidents - combined as the leading cause of death in BC

FIGURE 2:



Illicit Drug Overdoses in British Columbia

Vancouver / Surrey



Illicit Drug Overdoses in British Columbia

Why Fentanyl?

It is believed the vast size of Asia's chemical industry and little regulation makes it easy to import along with its component ingredients.

Simple economics:

- 1kg Heroin = \$80,000.00 CDN
- 1kg Fentanyl = \$8,000.00 CDN
- 1kg Fentanyl = 50kg Heroin
- **\$4,000,000 CDN**



Illicit Drug Overdoses in British Columbia

Why Fentanyl?

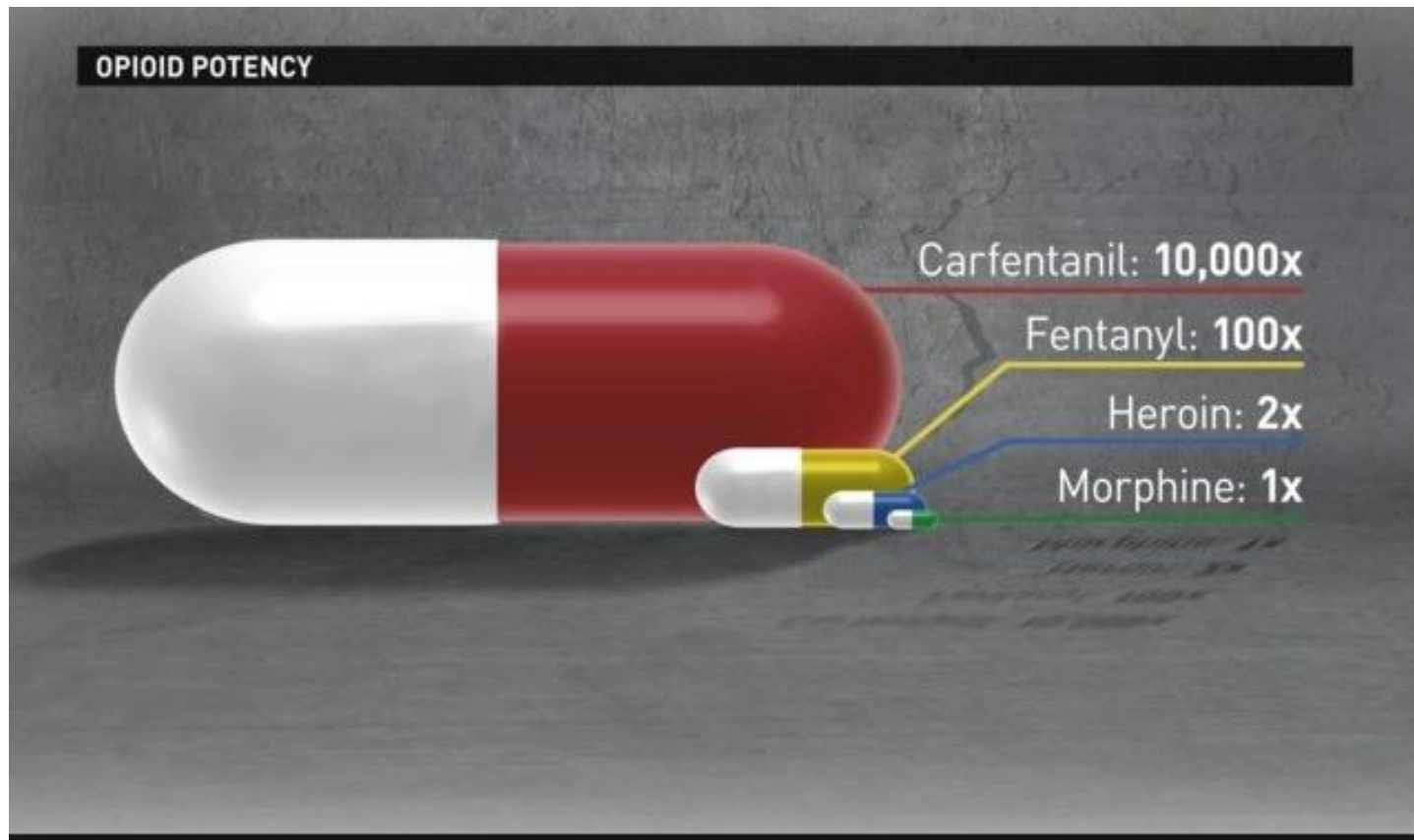
- Fentanyl is delivered through the postal service.



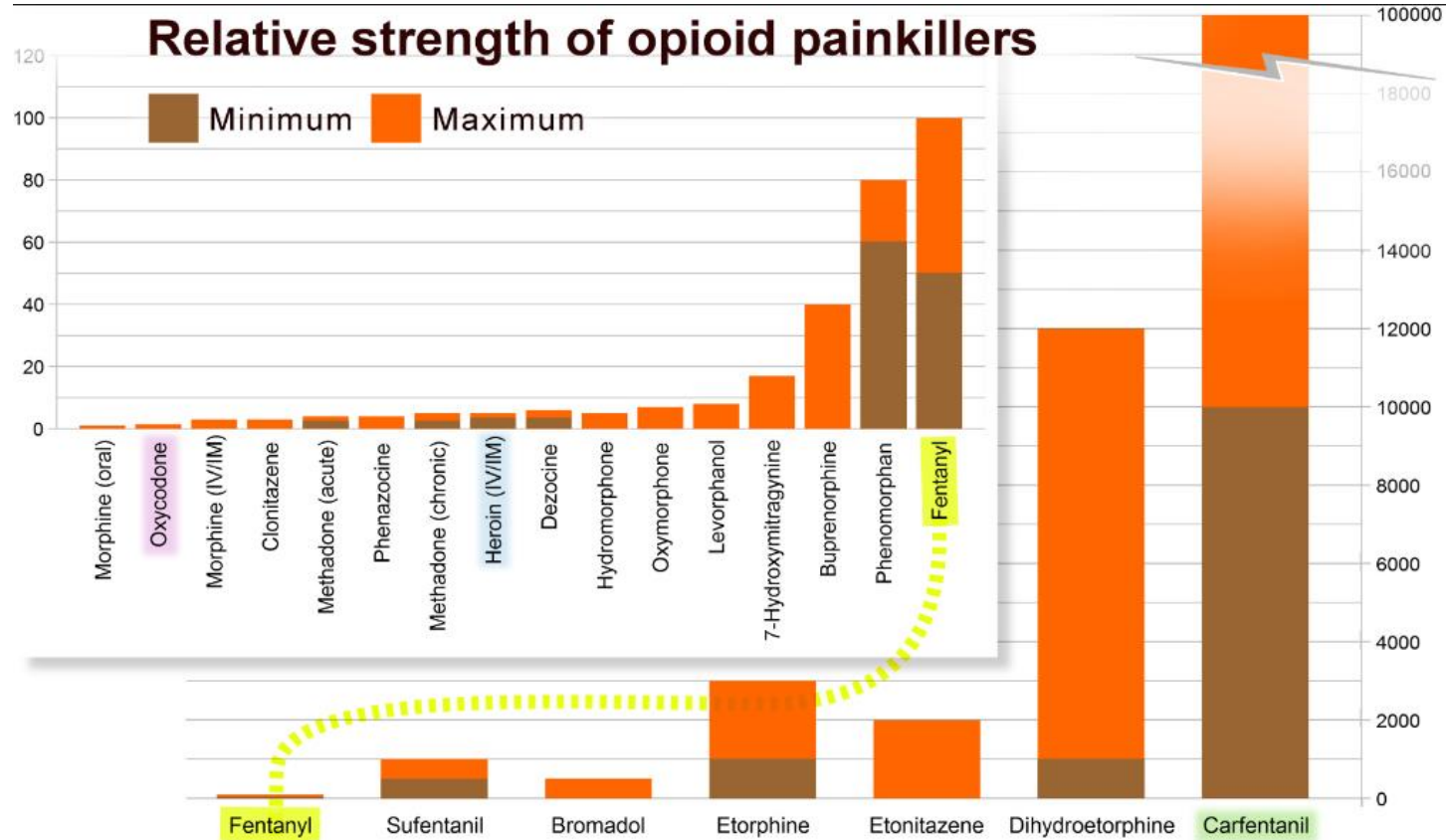
Hot Spots



Carfentanil / Fentanyl



Strength of Opioid Painkillers



Party Scene



Drugs Do Not Discriminate



Drugs Do Not Discriminate



Drugs Do Not Discriminate



FENTANYL

CAN BE DEADLY WHEN CUT WITH THE DRUGS YOU'RE TAKING

KNOW YOUR SOURCE? **BE DRUG SMART**

KNOW**YOURSOURCE**.CA



FENTANYL

CAN BE DEADLY WHEN CUT WITH THE DRUGS YOU'RE TAKING

KNOW YOUR SOURCE? **BE DRUG SMART**

KNOW**YOURSOURCE**.CA



Drugs Do Not Discriminate



CARRY A NALOXONE KIT



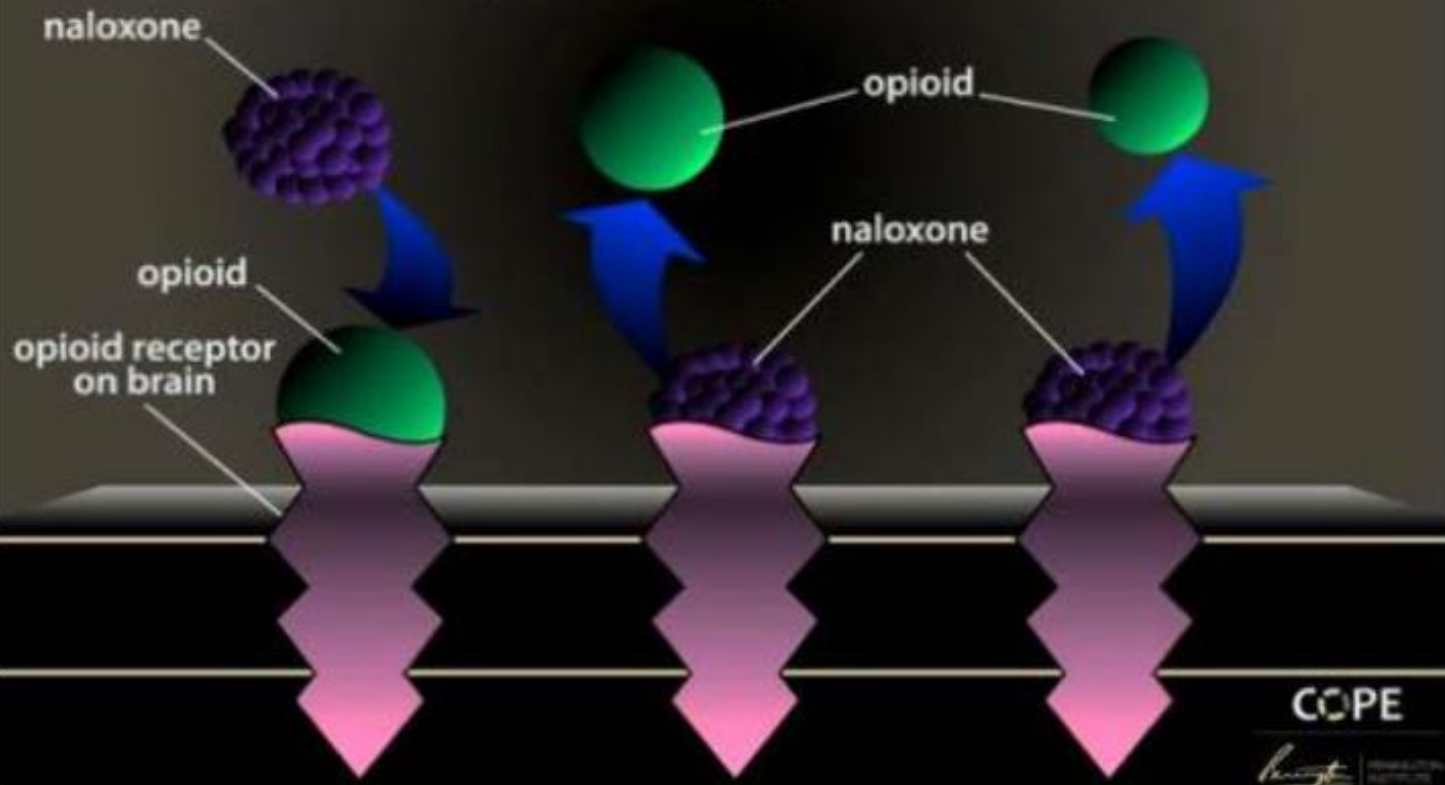
CALL 911



#STOPOVERDOSE

Naloxone reversing an overdose

Naloxone has a stronger affinity to the opioid receptors than opioids, such as heroin or oxycodone, so it knocks the opioids off the receptors for a short time (30-90 minutes). This allows the person to breathe again and reverse the overdose.



Overdose Deaths by Month: 2007 – 2018

Illicit Drug Overdose Deaths by Month, British Columbia, 2008-2018^[3,4]

Month	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Jan	18	23	16	24	20	20	23	43	85	147	130
Feb	8	15	14	24	17	21	38	31	59	124	103
Mar	17	10	15	25	25	33	28	32	76	130	160
Apr	18	8	9	26	31	31	29	34	71	154	136
May	18	19	22	22	19	28	40	41	51	148	113
Jun	18	16	21	22	25	25	29	34	71	129	112
Jul	24	19	23	33	29	38	25	39	74	123	144
Aug	16	27	24	22	20	21	37	53	63	128	119
Sep	12	16	20	22	16	28	31	50	64	95	131
Oct	10	13	18	23	19	19	35	53	76	99	110
Nov	9	18	18	27	28	31	28	52	142	106	119
Dec	15	17	11	24	21	38	25	67	161	104	112
Total	183	201	211	294	270	333	368	529	993	1,487	1,489
Average	15.3	16.8	17.6	24.5	22.5	27.8	30.7	44.1	82.8	123.9	124.1



Posting Date February 7, 2019

Overdose Deaths by Gender / Age: 2007 – 2018

BC Data by Gender/Age:

Illicit Drug Overdose Deaths by Gender, 2008-2018^[3,4]

Gender	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	49	55	49	82	76	79	86	107	200	268	295
Male	134	146	162	212	194	254	282	422	793	1,218	1,194
Unknown	0	0	0	0	0	0	0	0	0	1	0
Total	183	201	211	294	270	333	368	529	993	1,487	1,489

Illicit Drug Overdose Deaths by Age Group, 2008-2018^[3,4]

Age Group	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
10-18	6	2	4	4	5	6	3	5	12	24	17
19-29	36	46	40	74	61	94	83	118	206	274	293
30-39	48	51	49	75	61	77	101	137	261	401	386
40-49	42	57	66	77	67	74	85	129	232	355	332
50-59	43	33	45	54	56	61	72	110	227	306	337
60-69	8	12	7	10	19	21	24	29	51	120	117
70-79	0	0	0	0	1	0	0	1	3	7	7
80+	0	0	0	0	0	0	0	0	1	0	0
Total	183	201	211	294	270	333	368	529	993	1,487	1,489

Note: The age range of decedents of illicit drug overdose between 2007-2018 ranged from 13 to 82 years of age.

Overdose Deaths by City / Township: 2007 – 2018

Illicit Drug Overdose Deaths by Top Townships of Injury in 2017, 2008-2018* [3,4]

Township	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Vancouver	38	60	42	69	65	80	101	139	233	376	382
Surrey	20	23	33	42	44	36	44	76	117	178	210
Victoria	29	13	13	17	18	25	20	23	68	94	94
Kelowna	2	5	9	14	8	12	12	20	48	75	55
Kamloops	7	7	10	2	5	8	7	7	44	38	48
Prince George	2	4	1	6	10	7	10	12	18	24	46
Burnaby	12	8	9	10	10	13	11	15	40	44	43
Abbotsford	4	4	10	16	7	10	7	27	40	52	40
Chilliwack	4	2	2	8	8	6	6	10	13	22	35
Nanaimo	2	6	4	8	6	20	16	18	28	55	34
New Westminster	4	2	6	6	3	5	9	12	10	25	34
Langley	6	2	3	10	5	10	10	10	31	36	29
Maple Ridge	2	6	4	4	5	10	14	29	28	33	27
Vernon	1	4	6	7	1	11	6	8	12	23	24
Delta	2	1	2	6	3	4	2	6	11	20	21
Other Township	48	54	57	69	72	76	93	117	252	392	367
Total	183	201	211	294	270	333	368	529	993	1,487	1,489

*sorted by 2018 totals.

17.9 % Increase

Illicit Drug Overdose Deaths and Death Rate per 100,000 Population in BC: 1990 - 2018

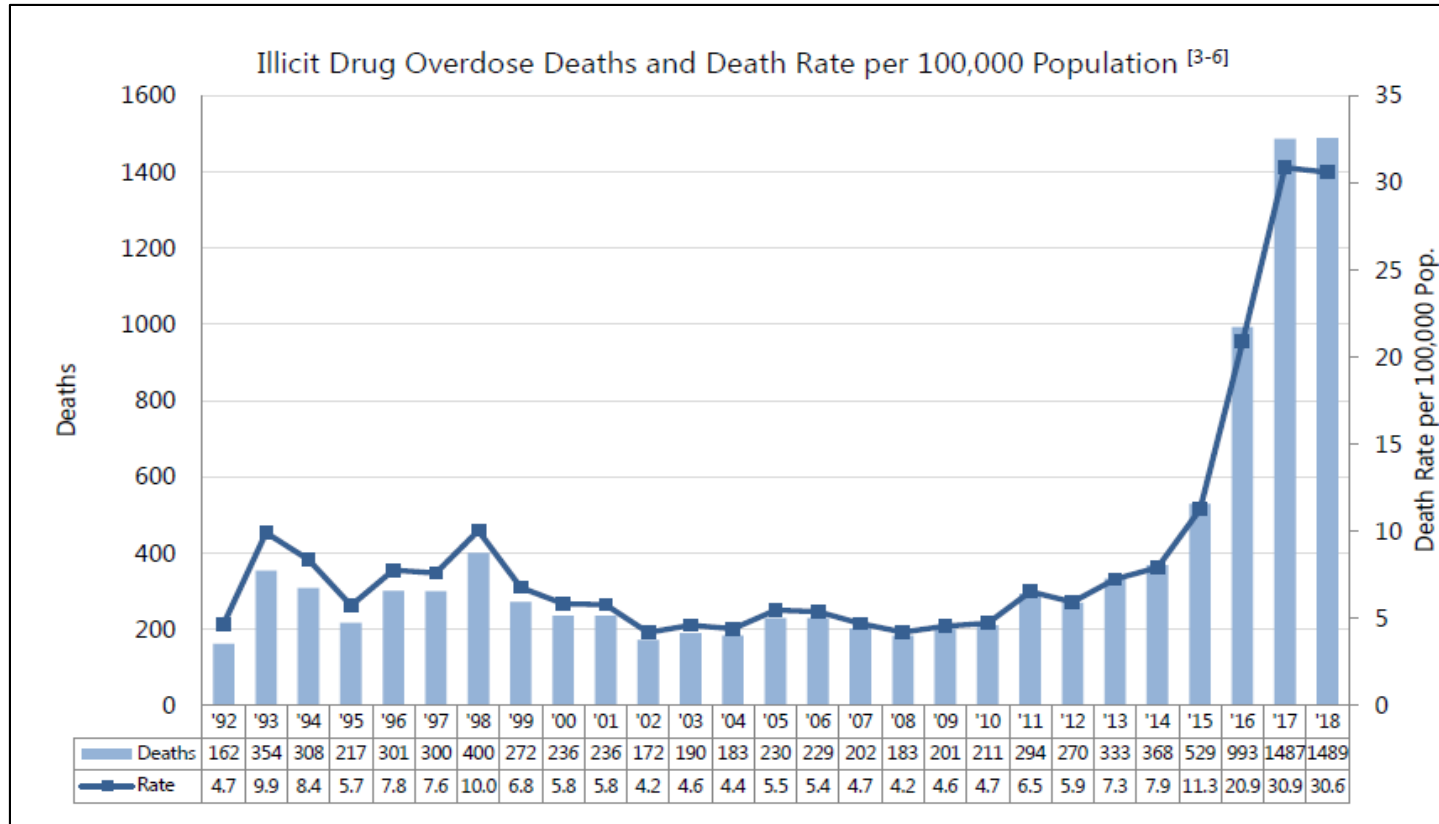
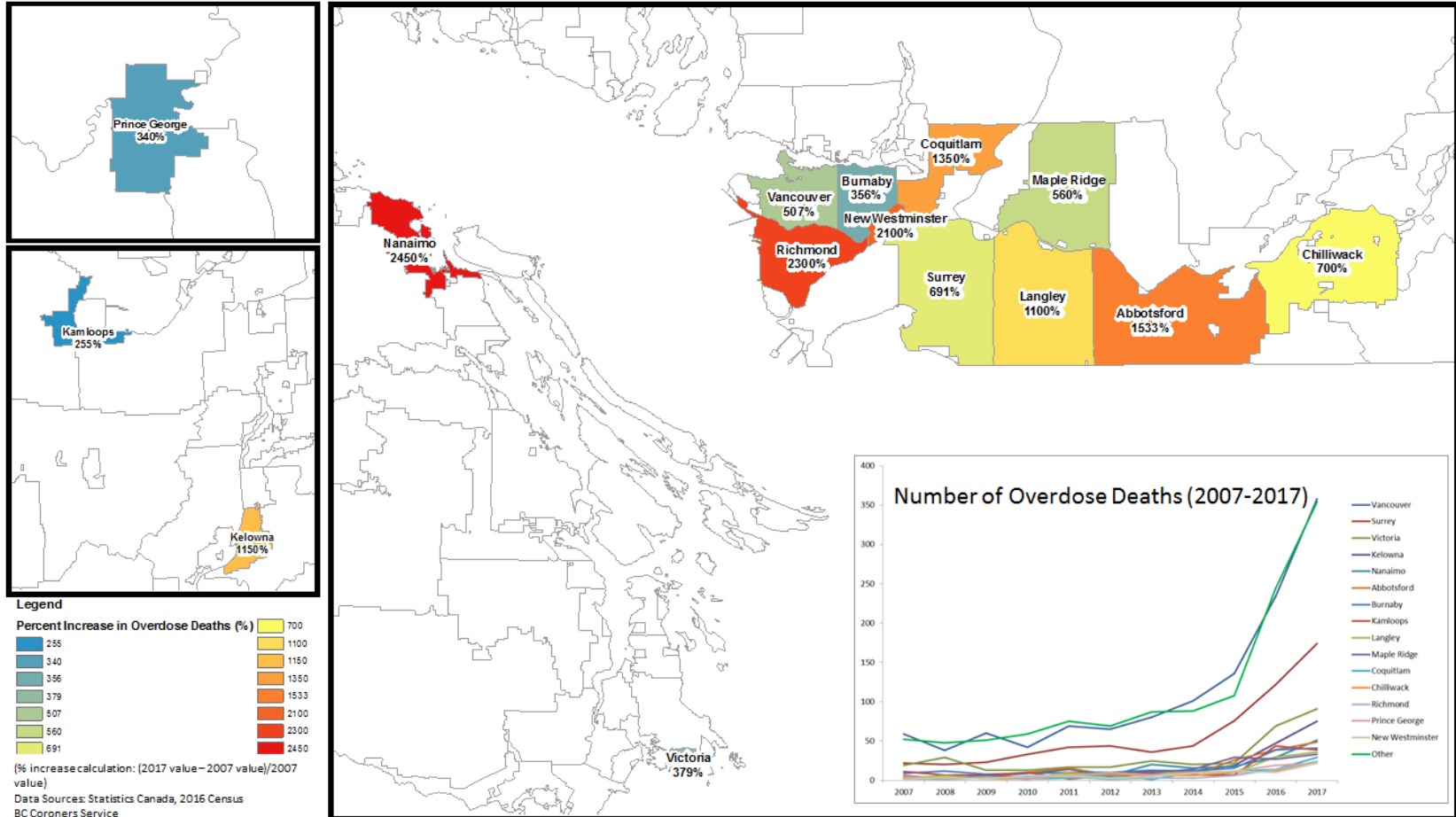


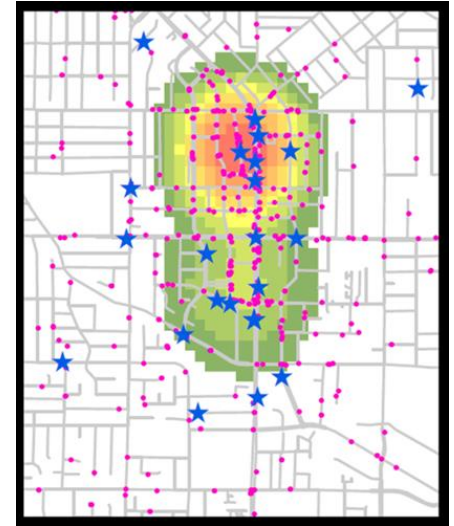
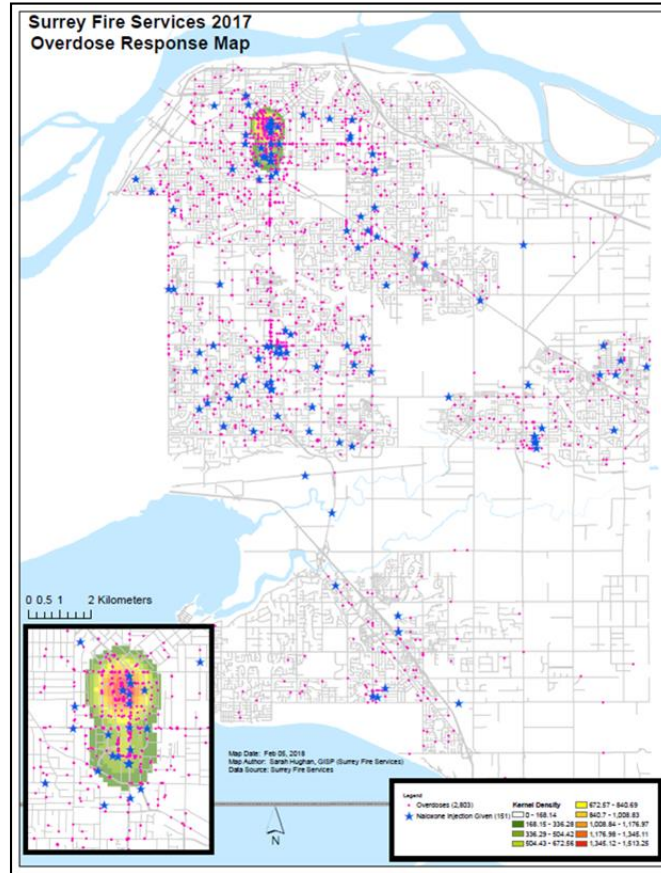
Figure: 7

Number of Overdose Deaths by City / Township: 2007 - 2017



Illicit Drug Overdoses in British Columbia

Overdoses in Surrey 2017



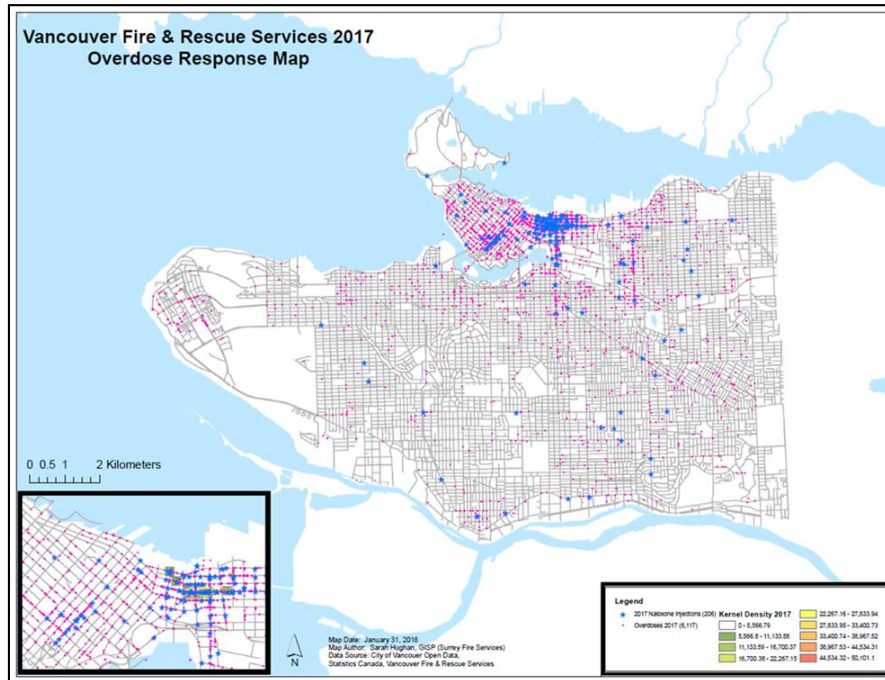
Illicit Drug Overdoses in British Columbia

135A Street, Surrey 2017



Illicit Drug Overdoses in British Columbia

Overdoses in Vancouver 2017



Illicit Drug Overdoses in British Columbia

Downtown Eastside,
Vancouver

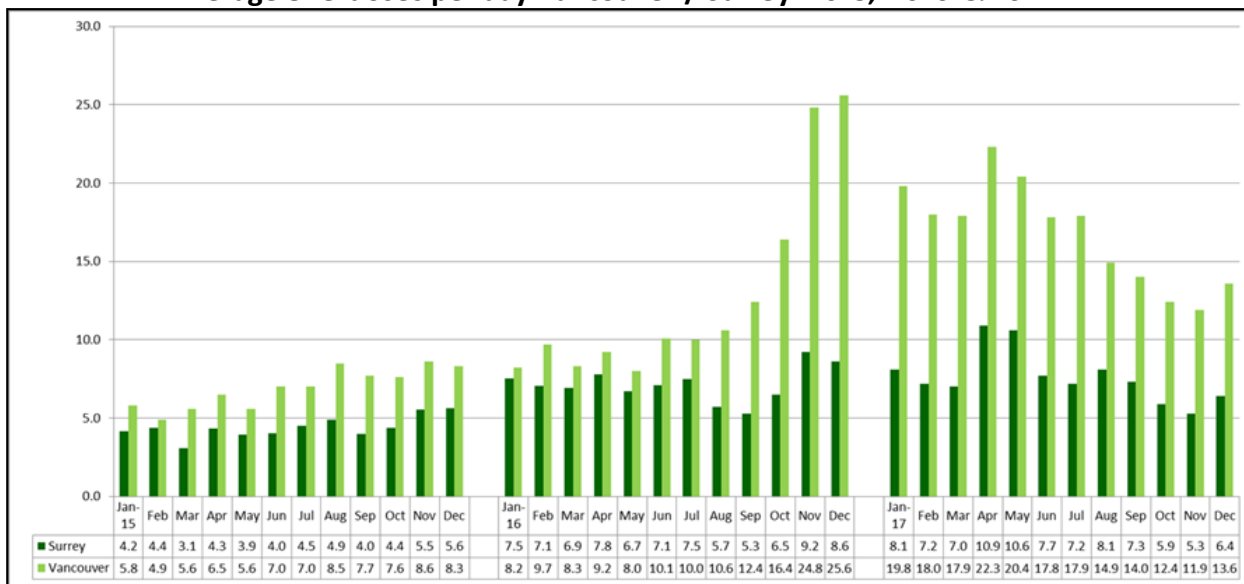


Illicit Drug Overdoses in British Columbia

Overdoses in Surrey and Vancouver

FIGURE 11:

Average Overdoses per day Vancouver / Surrey: 2015, 2016 & 2017



Illicit Drug Overdoses in British Columbia

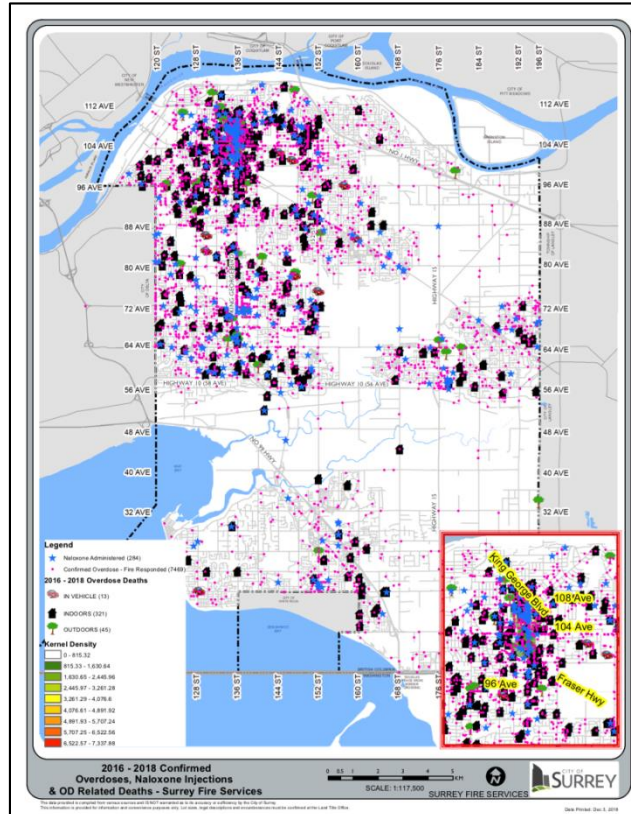
Overdoses Awareness and Harm Reduction

- If you are an opioid user, or know someone who might be at risk, *get a naloxone kit*
- Find out about fentanyl and naloxone
- Know what to do to prevent an overdose
- Learn how to respond to an overdose



Illicit Drug Overdoses in British Columbia

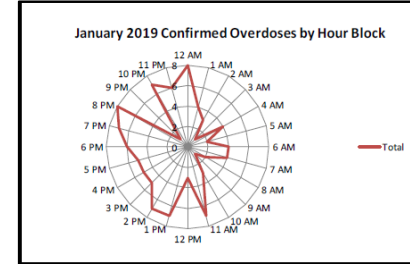
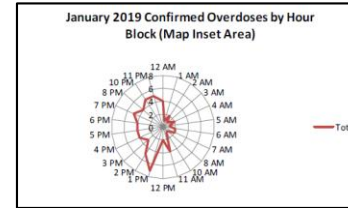
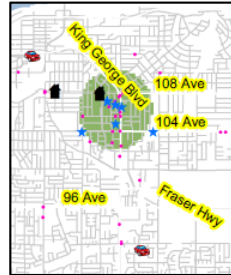
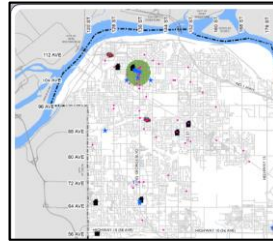
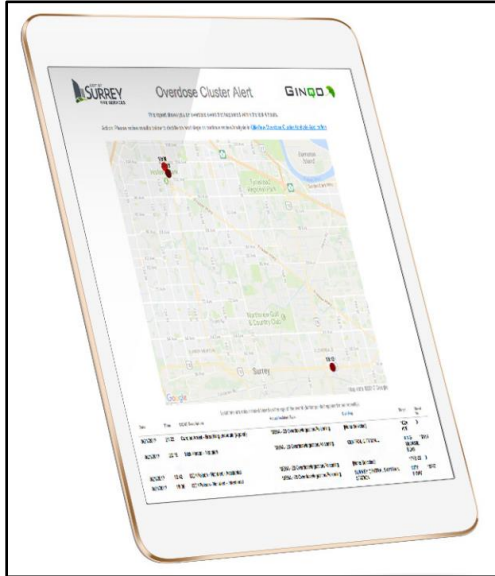
Three Years (2016 - 2018), 7,469 Overdoses / 379 Deaths in Surrey



379 Deaths
321 Indoors
45 Outdoors
13 In Vehicles

Illicit Drug Overdoses in Surrey British Columbia

Technology: Realtime Alerting and Mapping of Overdoses

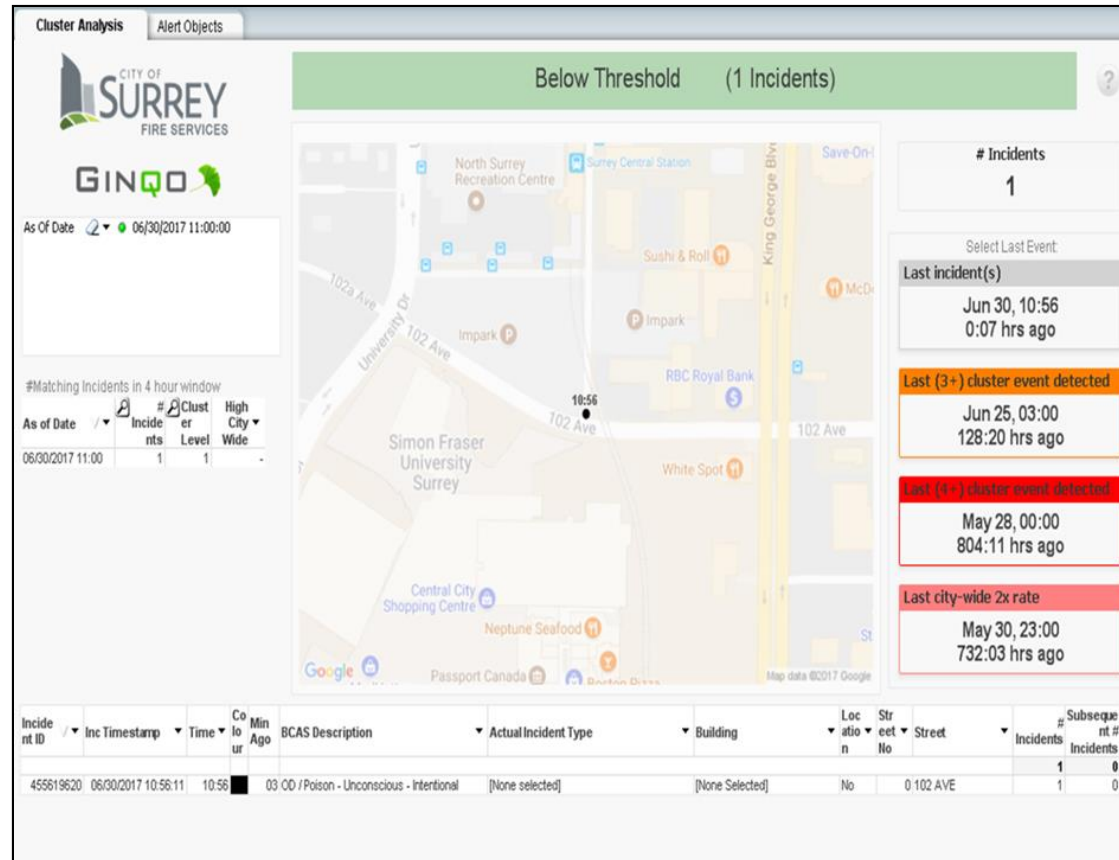


Illicit Drug Overdoses in Surrey British Columbia

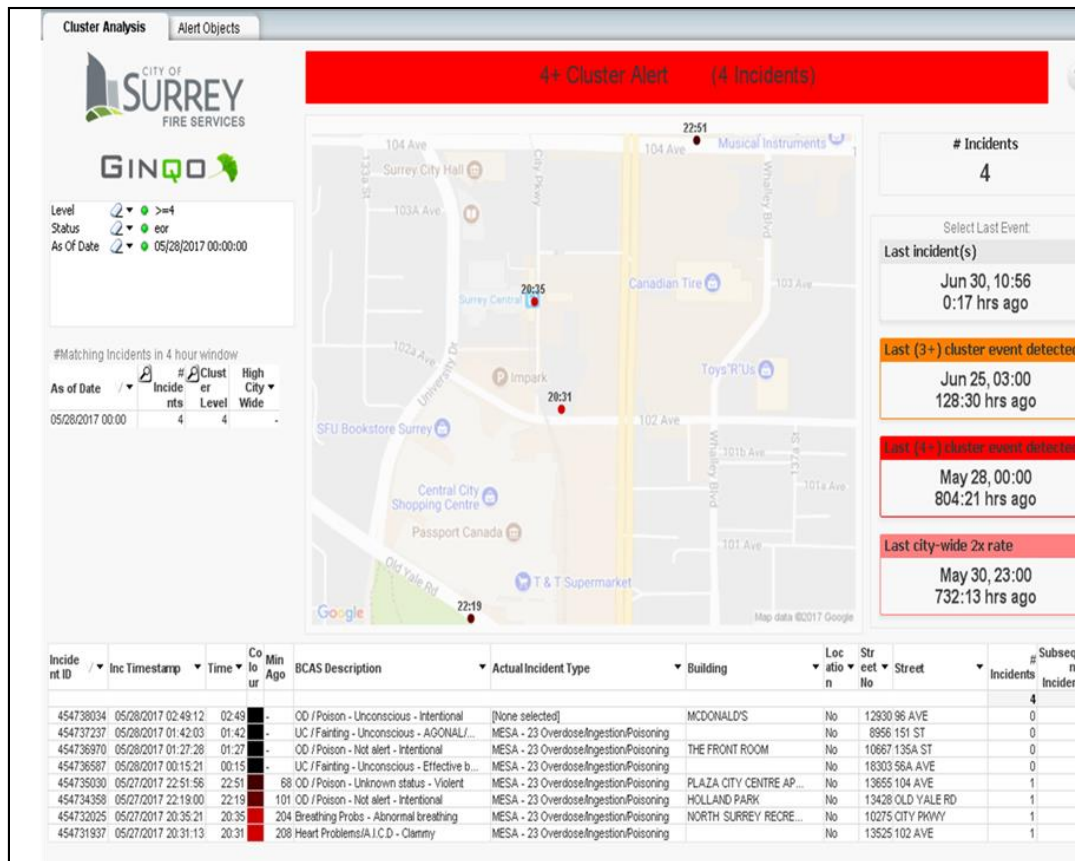
The Drug Overdose Situation

- Surrey Fire Service developed a business intelligence crowdsourcing tool to identify the time, location, and details of overdose incidents happening in clusters within close proximity of each other.
- The Overdose Cluster Analysis Application is based on fire incident data that is a real-time, data-driven response to addressing the opioid crisis in the City.
- The application can identify clusters of 4 incidents occurring within a 1 kilometre distance over a 4 hour period.
- It calculates a rate of overdoses X2 4 hours expressed at the 75th percentile over 2 years.

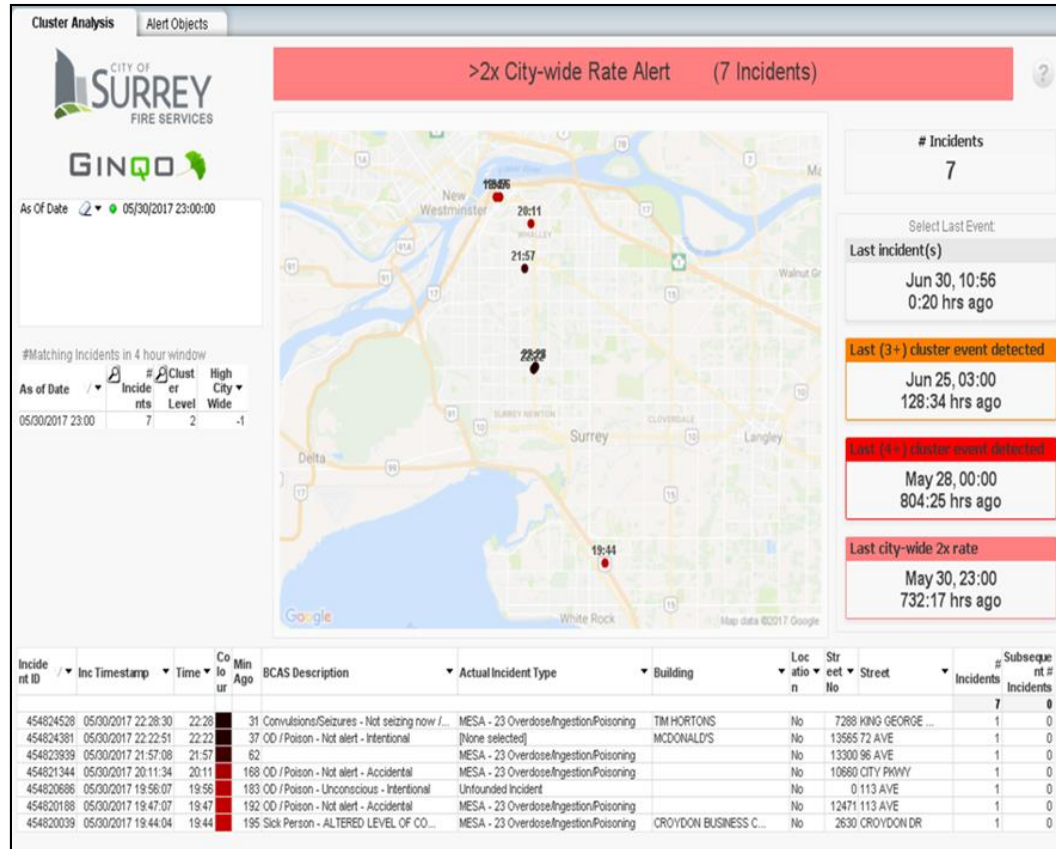
Illicit Drug Overdoses in Surrey British Columbia



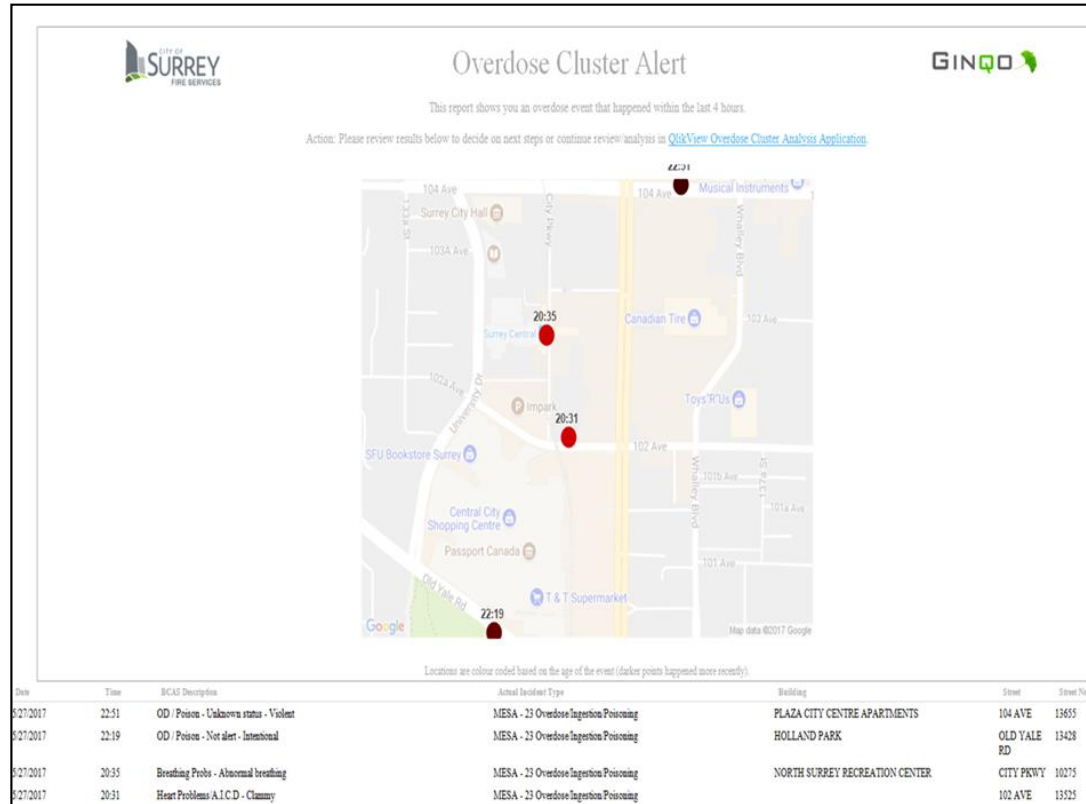
Illicit Drug Overdoses Surrey in British Columbia



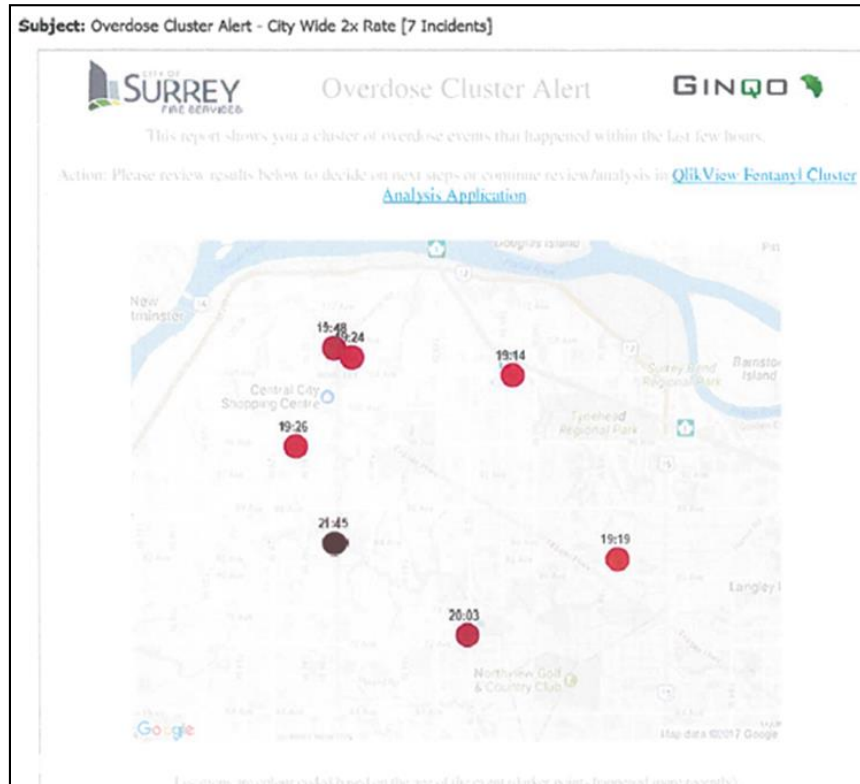
Illicit Drug Overdoses in Surrey British Columbia



Illicit Drug Overdoses in Surrey British Columbia



Illicit Drug Overdoses in British Columbia



Illicit Drug Overdoses in Surrey British Columbia

Overdose Cluster Analysis Application

The benefits are:

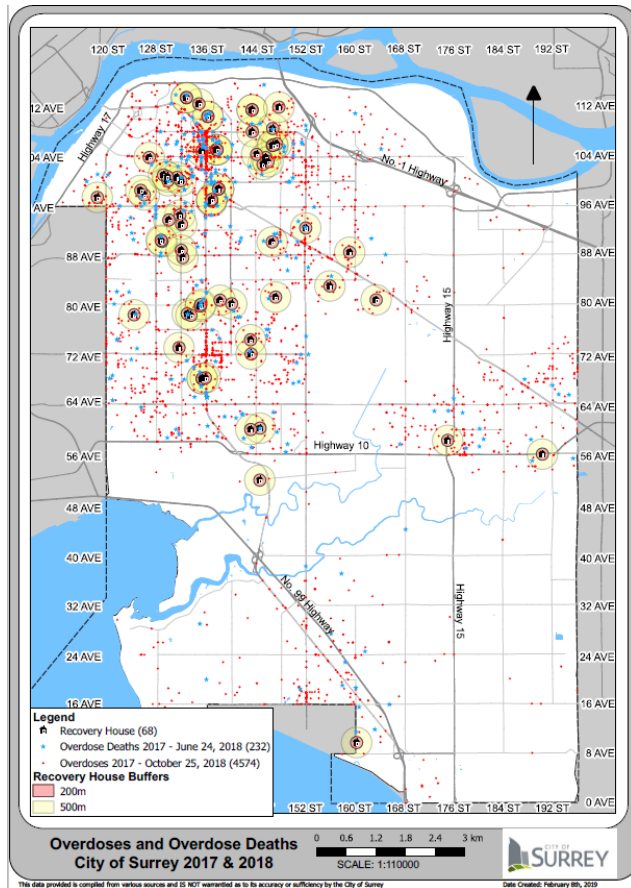
- Emergency responses are faster and more effectively targeted.
- Public health workers can reach persons in medical distress with the appropriate assistance.
- Police can actively respond to drug trafficking.
- **BC Police Forces are working on a similar Tool to Alert Realtime Sudden Deaths**

Illicit Drug Overdoses in British Columbia

Recovery Houses

- When registered and properly-managed, drug recovery houses can play a crucial role in supporting recovering addicts and their re-integration back into society after dealing with addiction issues.
- Some privately-run, unregistered recovery houses operate with few internal controls and owners keep overhead costs at a bare minimum.

Understanding the relationships: overdoses, recovery houses , “treatment”



Legend



Recovery House (68)



Overdose Deaths 2017 - June 24, 2018 (232)



Overdoses 2017 - October 25, 2018 (4574)

Recovery House Buffers



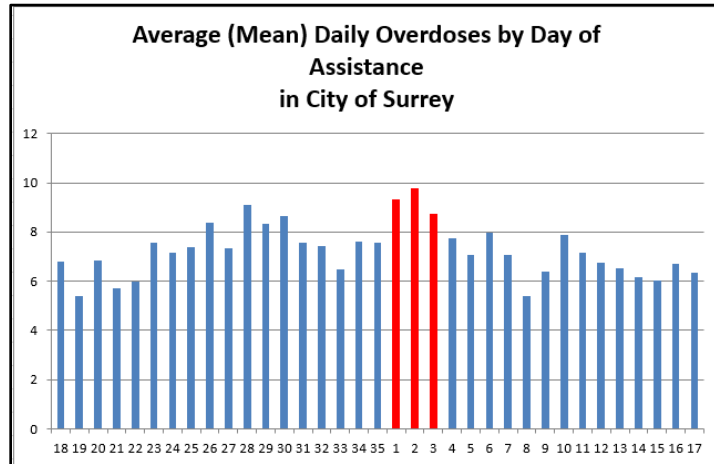
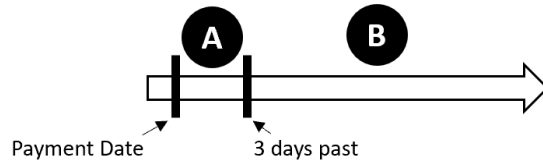
200m



500m

Understanding the relationships: overdoses, social support income , recovery houses, “City Wide”

Income Payment Periods and Partitions



For the global date range of October 26, 2016 to October 25, 2018, there have been 5,171 overdoses and 32,454 property crime incidents. This equates to an average of over 7 overdoses and 44 crime incidents a day.

There is a 37% increase in daily overdoses during the first 3 days of the most recent income payments.....

Illicit Drug Overdoses in British Columbia

Understanding the Person: Overdoses, Drug Overdose Deaths, Naloxone Deliveries, and Recovery Houses

- Overdoses and overdose deaths are clustering within a 200 to 500 metre radius of recovery houses.
- Research occurred to understand how property crime is correlated.



Illicit Drug Overdoses in British Columbia

Recovery Houses – “Treatment”

Knowing the spatial distribution of overdoses and overdose deaths relative to problem recovery houses we treated 68 locations in the following manner:

- Fire Prevention to ensure safe places
- Enforced safe places as needed
- Provide support for additions and recovery
- Provide Naloxone kits and training
- Develop Policy & Regulation recommendations



Illicit Drug Overdoses in Surrey BC

Recovery Houses – The Treatment

The underlying notion was that this “soft treatment” or intervention approach would improve the effectiveness of the recovery houses by reducing instances of overdoses and mortality at and in the immediate vicinity of the recovery sites.



Illicit Drug Overdoses in Surrey BC

Recovery Houses –The Treatment

In all there were 166 care workers supervising 565 persons residing in these homes despite having a capacity of 863.

- 58 houses, an average of 84% of the inspection items were rated as being “satisfactory.”
- Fire safety plan in place (48% unsatisfactory);
- Laundry rooms (39% unsatisfactory)
- Smoke alarm missing (37% unsatisfactory)
- Fire alarm panel not serviced (36% unsatisfactory)
- Emergency lighting problems (26% unsatisfactory)
- Exit sign and light missing (18% unsatisfactory)
- Occupancy over load (13% unsatisfactory).

Fire Department inspectors and public health nurses from Fraser Health most homes to be functioning relatively satisfactory

- 93% of the houses had naloxone on site
- Public health nurses distributed an additional 204 kits, or about 3 per location.
- 73% of the houses did not have a training regimen in place and provided to a total of 256 individuals or about 3.8 per site.

Understanding the relationships: overdoses, recovery houses Pre/ Post

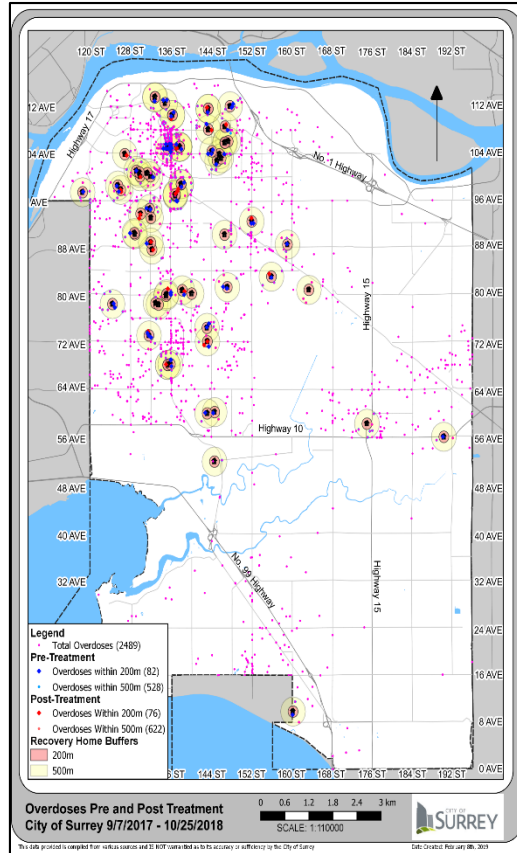


Table 1: Overdose Incidents by Distance, Pre and Post-intervention

Category	Count	Percent of Total
Incidents Pre-intervention Within 200m	82	3.3
Incidents Post-intervention Within 200m	76	3.1
Incidents Pre-intervention Between 200-500m	446	17.9
Incidents Post-intervention Between 200-500m	546	21.9
Incidents Pre-intervention Within 500m	528	21.2
Incidents Post-intervention Within 500m	622	25.0
Incidents Beyond 500m	189	7.6
Total Incidents Over Period (9/7/17-10/25/18)	2489	100.0

Understanding the relationships: overdose deaths, recovery houses Pre / Post

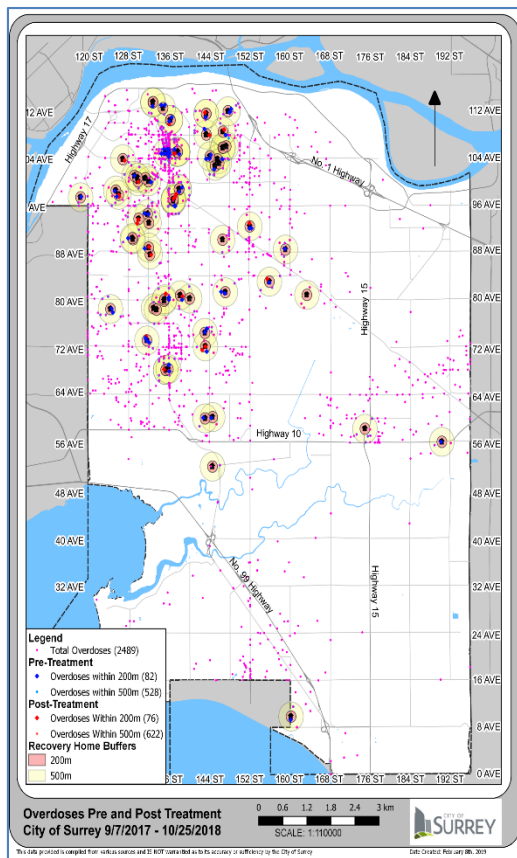
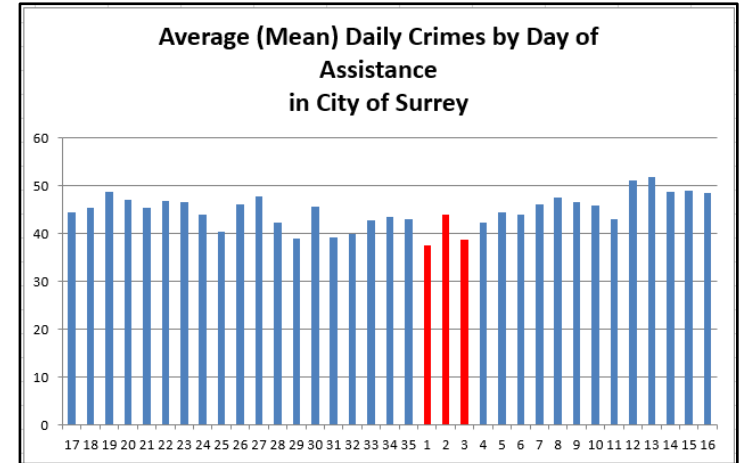
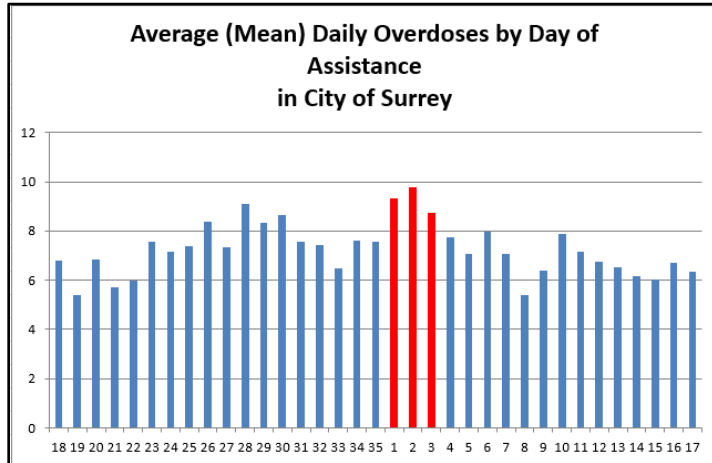
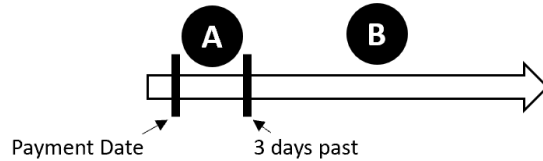


Table 2: Deaths by Distance, Pre and Post-intervention

Category	Count	Percent of Total
Deaths Pre-intervention Within 200m	3	3.3
Deaths Post-intervention Within 200m	5	5.5
Deaths Pre-intervention Between 200-500m	13	14.3
Deaths Post-intervention Between 200-500m	14	15.4
Deaths Pre-intervention Within 500m	16	17.6
Deaths Post-intervention Within 500m	19	20.9
Incidents Beyond 500m	21	23.1
Total Deaths Over Period (12/7/17 - 6/24/18)	91	100.0

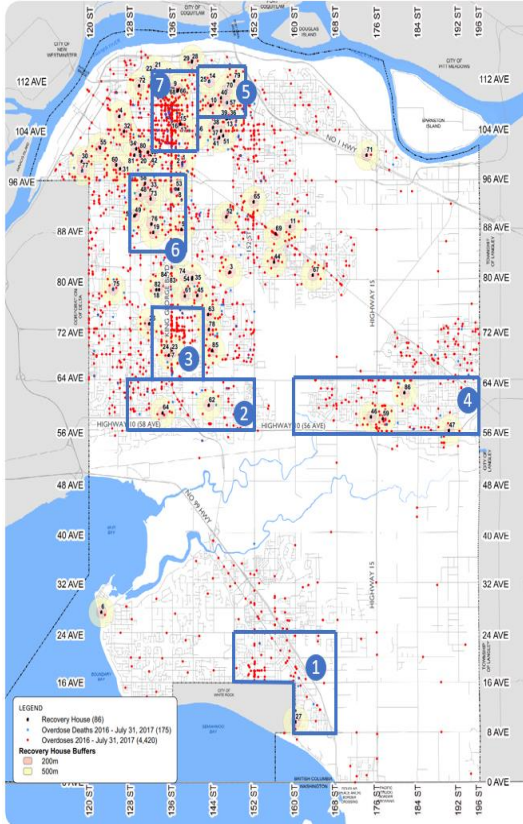
Understanding the relationships: overdoses, social support income , recovery houses, crime“City Wide”

Income Payment Periods and Partitions



- There is a 37% increase in daily overdoses during the first 3 days of the most recent income payments.
- There is 15% decrease in daily crime incidents during the 3 days.....

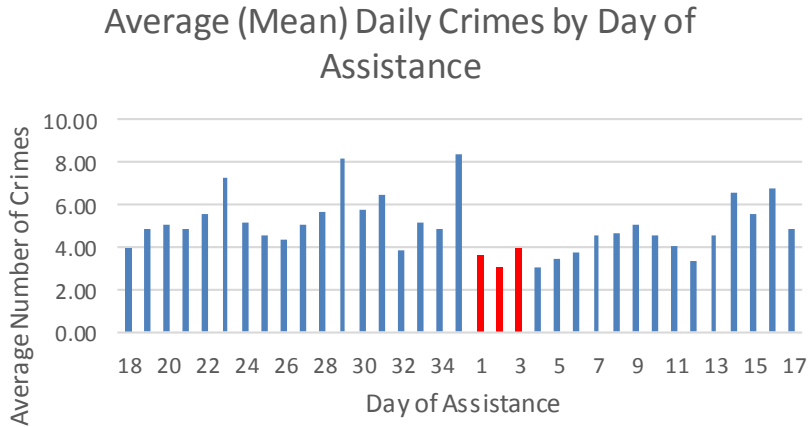
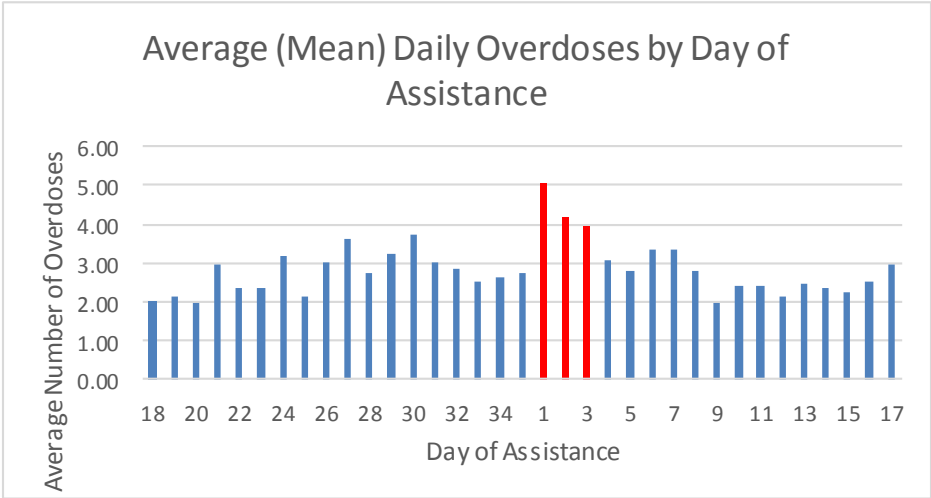
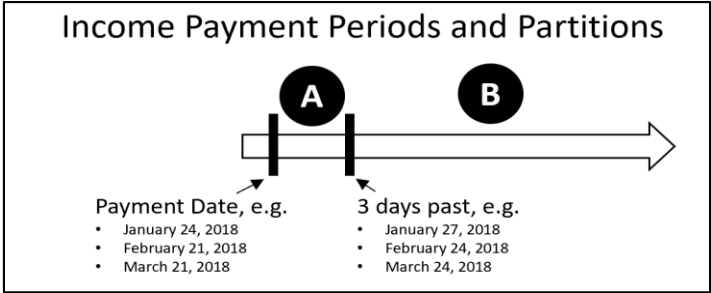
Understanding the relationships: overdoses, support income , crime and recovery houses (Regions)



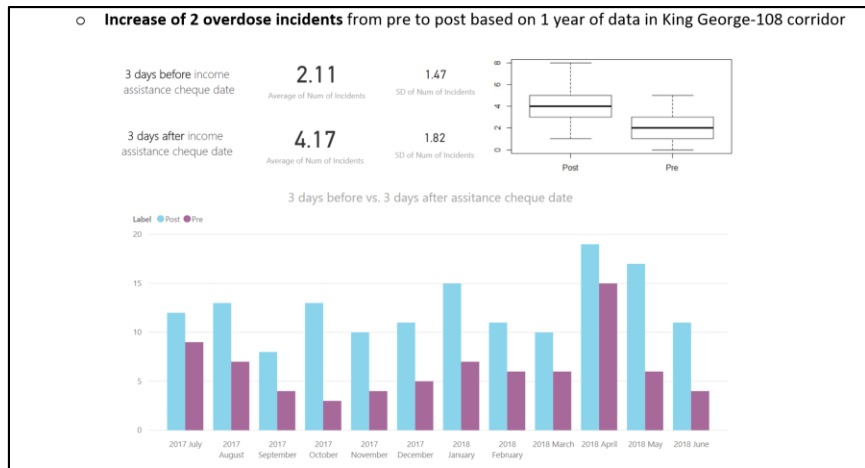
Sample means	Region							
Type	Partition	1	2	3	4	5	6	7
Overdose	A	0.173	0.378	0.490	0.224	0.122	0.265	4.020
Overdose	B	0.160	0.217	0.487	0.158	0.108	0.178	2.633
Property crime	A	1.592	0.969	2.153	1.908	0.561	0.776	3.388
Property crime	B	1.951	1.274	2.627	2.324	0.698	0.948	5.014

- Higher sample mean for overdoses in A compared to B, and lower sample mean of crime incidents.
- Applying the T-Test and Wilcox Test, 3 out of the 7 regions demonstrated statistical significance in rejecting the null hypotheses and favoring the alternative of higher overdose incidents within 3 days of income payments.
- Applying 5 out of the 7 regions demonstrated statistical significant (based on the standard threshold of $p = 0.05$) in favoring the alternative of lower property crime incidents in A.

Understanding the relationships: overdoses, income support , crime and recovery houses Region # 7



Can the neighbourhood distribution of overdoses be predicted?

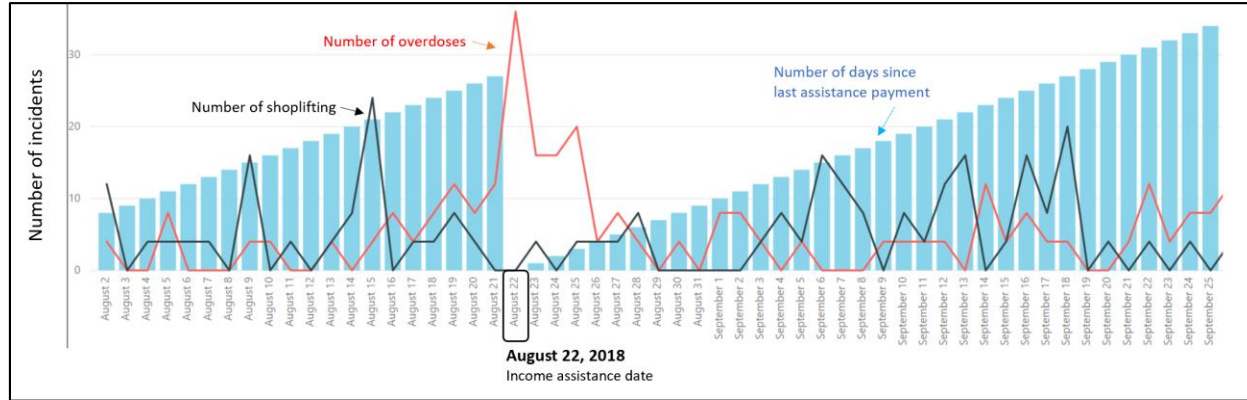


Predictive Modeling Microsoft

- Seasonality, including month and day
- Day of the week
- Days since last income assistance payment
- Property crime type incident counts (that is, Break and Enter, Shoplifting, Motor Vehicle Theft)
- Total property crime incident counts
- Crime and overdose incidents for previous day, the previous two days, and the previous week

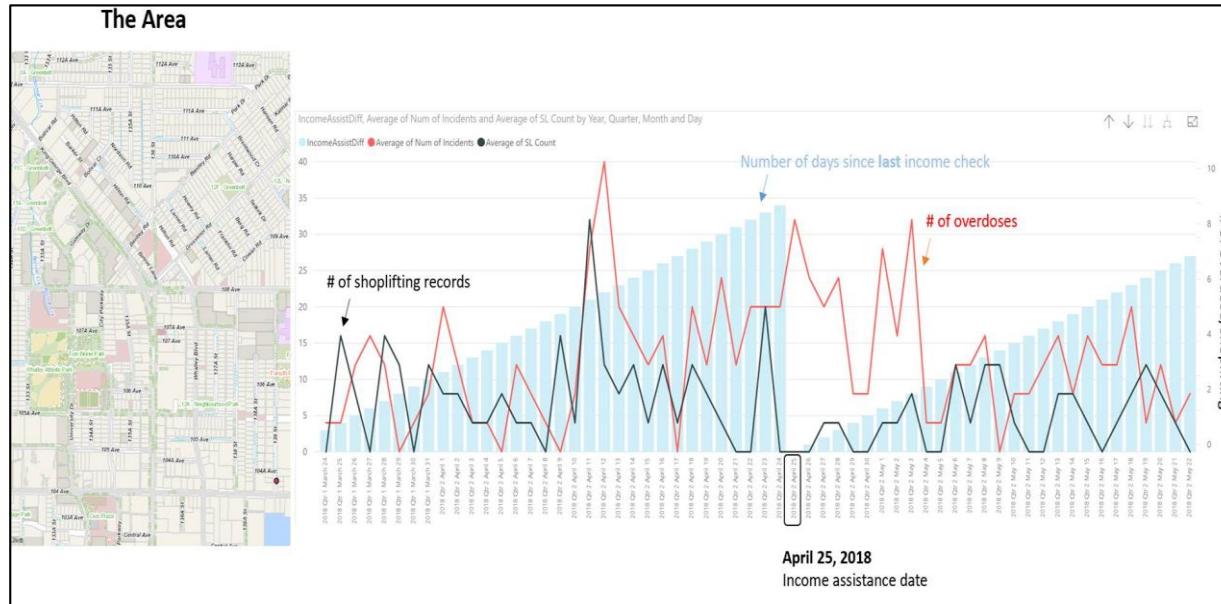
Can the neighbourhood distribution of overdoses be predicted?

Predictive Modeling



Can the neighbourhood distribution of overdoses be predicted?

Predictive Modeling



Can the neighbourhood distribution of overdoses be predicted?

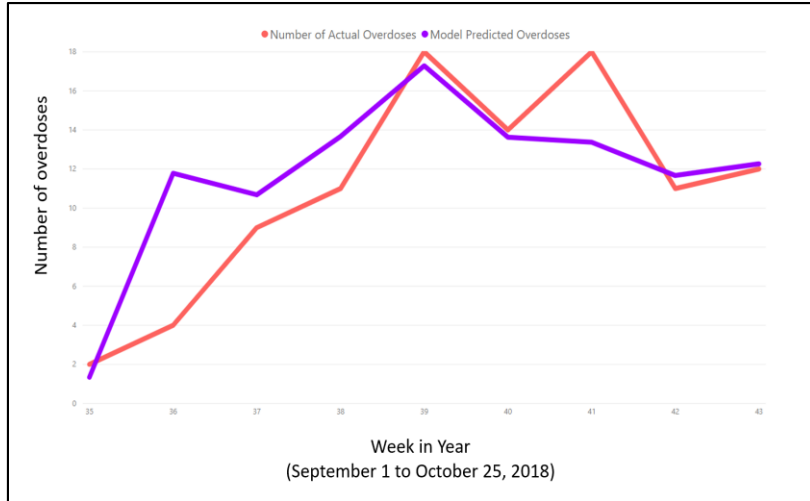


Predictive Modeling

Statistical Rigor , OD Rise
and Crime Declines

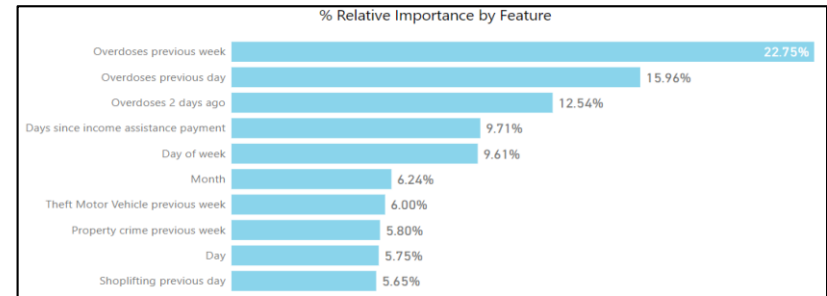


Can the neighbourhood distribution of overdoses be predicted?



Modeling results and discussion

After the predictive modeling algorithm was built from the training set, data from the testing set was applied to the model algorithm the error was **1.13**



Surrey Opioid Project: Understanding and addressing the root causes of the opioid crisis

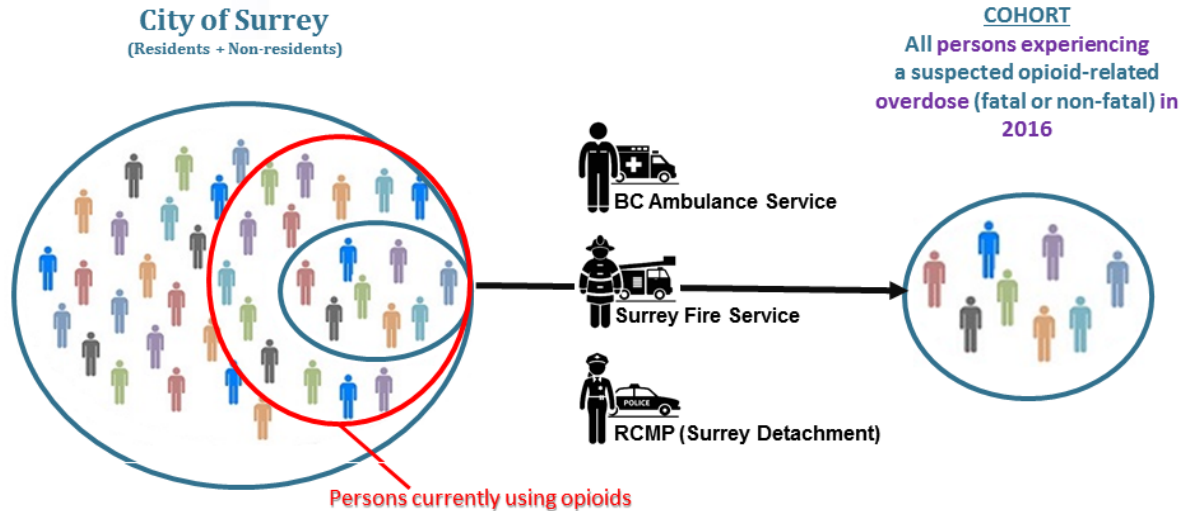
In 2016, British Columbia's Provincial Health Officer declared a public health emergency in response to a rise in opioid-related drug overdoses and related deaths.



Despite continued and heroic efforts across the province, an unprecedented number of drug overdoses and related **fatalities continue** on a **progressive, widespread scale**.

- **Demonstration project** bringing together agencies from **all levels of government** and data from **various social domains**
- Collect, analyze and action data to develop **evidence-informed interventions** and **precision programming** and **policy development**
- Considered a **model** for the rest of BC and Canada

Building a Cohort, Understanding the Person



Additional Data Sources from BC Partners



BC Coroners Data

- January 2007 to September 2017
- Key information related to all fatal overdoses



BC PharmaNet Data

- Record of all medications dispensed in community pharmacies in BC
- Medication history and claims history
- 2008 to 2017



Mental Health Services Data File

- Data on mental health services
- Client/Patient Information Management (CPIM) system
- Mental Health Minimum Reporting Requirements (MHMRR) system
- 2008 to 2017



Medical Services Plan (MSP)

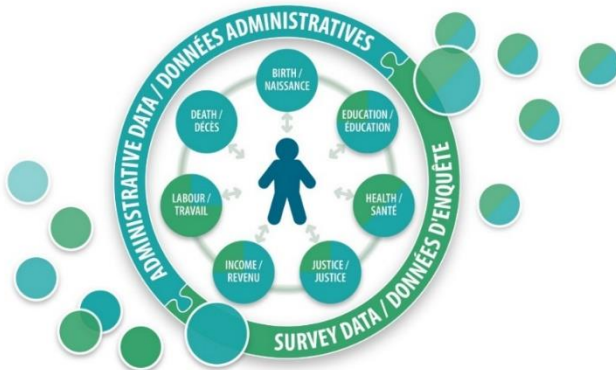
- Record of all insured medical fee-for-service and alternate payment services provided by general practitioners and specialists
- Also includes services provided by other health practitioners such as chiropractors, naturopaths, physical therapy, oral & dental surgeons, acupuncturists, etc..
- 2008 to 2017



Information available through Statistics Canada's Social Data Linkage Environment (SDLE)



Record linkage is conducted at Statistics Canada in a secure environment to ensure we protect the confidentiality and privacy of Canadians.



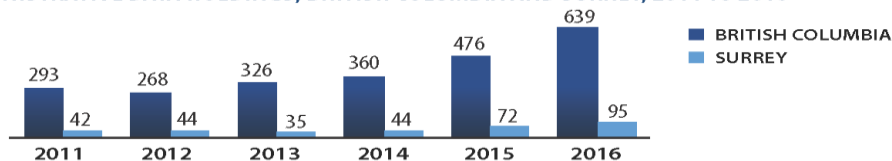
Potential data sources:

- ✓ T1 Family File (T1FF)
- ✓ T4 Statements of Remuneration
- ✓ T5007 (Social Assistance)
- ✓ Immigration Landing Database
- ✓ Census (short-form and long-form)
- ✓ Integrated Criminal Court Survey
- ✓ Discharge Abstract Database
- ✓ National Ambulatory Care Reporting System
- ✓ National Marginalization Index

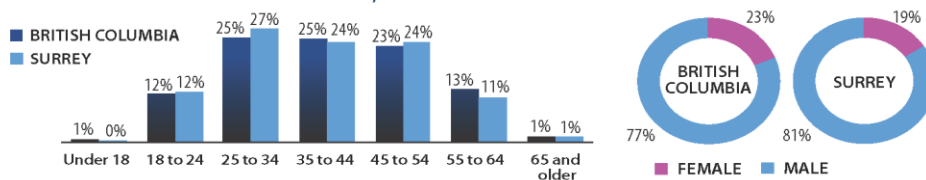
Illicit Drug Overdose Deaths, 2011-2016: British Columbia and Surrey (Released Nov. 13, 2018)

Between 2011 and 2016 there were **2,362 confirmed illicit drug overdose deaths** in British Columbia and **332 in Surrey** alone.

NUMBER OF ILLICIT DRUG OVERDOSE DEATHS THAT WERE INTEGRATED WITH STATISTICS CANADA ADMINISTRATIVE DATA HOLDINGS, BRITISH COLUMBIA AND SURREY, 2011 TO 2016



DEMOGRAPHIC CHARACTERISTICS OF DECEDENTS, BRITISH COLUMBIA AND SURREY

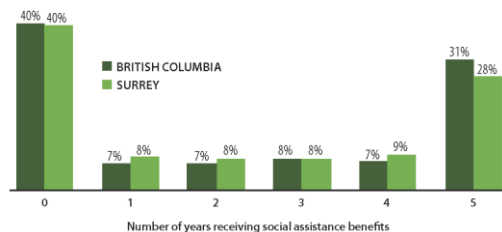


Employment and Social Assistance

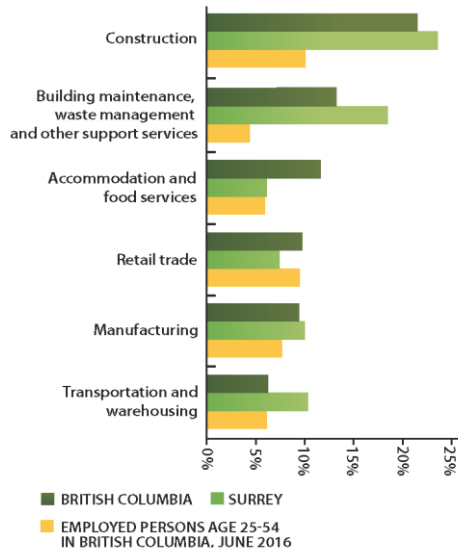
NUMBER OF YEARS EMPLOYED IN THE 5 YEARS PRIOR TO DEATH



NUMBER OF YEARS OF RECEIVING SOCIAL ASSISTANCE BENEFITS IN THE 5 YEARS PRIOR TO DEATH

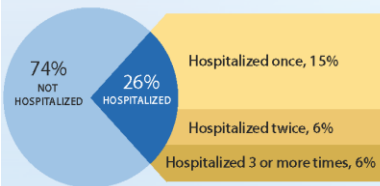


INDUSTRY OF LAST MAIN JOB IN THE 5 YEARS PRIOR TO DEATH

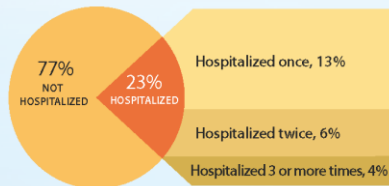


Hospitalizations and Emergency Dept. Visits

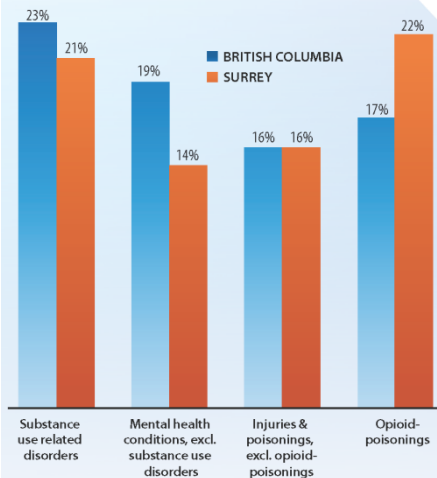
HOSPITALIZATIONS IN THE 12 MONTHS PRIOR TO DEATH, BRITISH COLUMBIA



HOSPITALIZATIONS IN THE 12 MONTHS PRIOR TO DEATH, SURREY



MAIN REASON FOR HOSPITALIZATIONS IN THE 12 MONTHS PRIOR TO DEATH



EMERGENCY DEPARTMENT VISITS IN THE 12 MONTHS PRIOR TO DEATH, BRITISH COLUMBIA

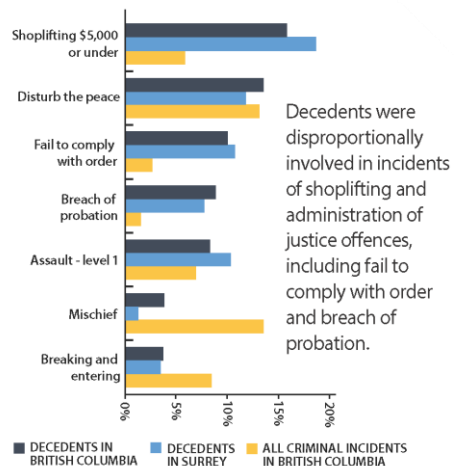


EMERGENCY DEPARTMENT VISITS IN THE 12 MONTHS PRIOR TO DEATH, SURREY

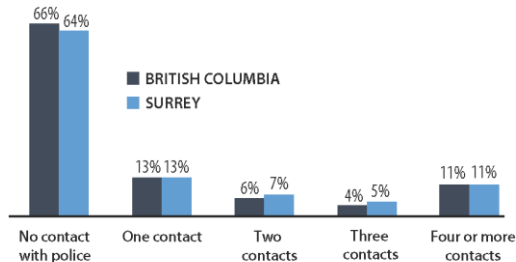


Contact with the Police

REASONS FOR CONTACT WITH THE POLICE IN THE 24 MONTHS PRIOR TO DEATH



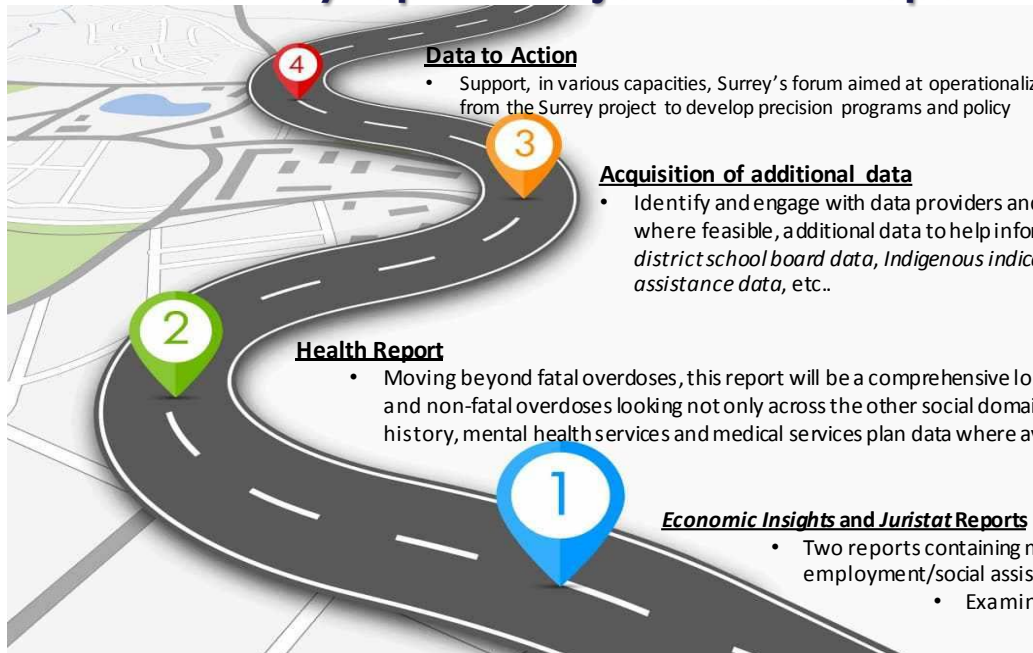
FREQUENCY OF CONTACT WITH THE POLICE IN THE 24 MONTHS PRIOR TO DEATH



PROPORTION OF DECEDENTS WITH A POLICE CONTACT, BY TIME ELAPSED BETWEEN THEIR LAST POLICE CONTACT AND FATAL OVERDOSE, CUMULATIVE PERCENT

Time period prior to the fatal overdose	British Columbia	Surrey
1 month prior to fatal overdose	16%	10%
3 months prior to fatal overdose	33%	24%
6 months prior to fatal overdose	52%	47%
12 months prior to fatal overdose	74%	75%
18 months prior to fatal overdose	89%	89%
24 months prior to fatal overdose	100%	100%

Surrey Opioid Project: Next Steps



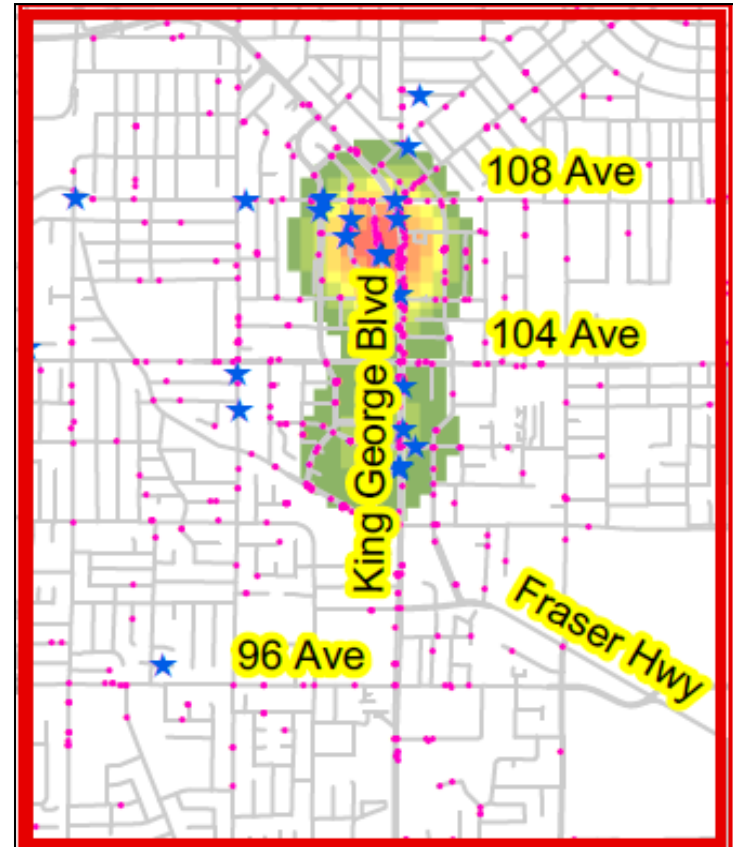
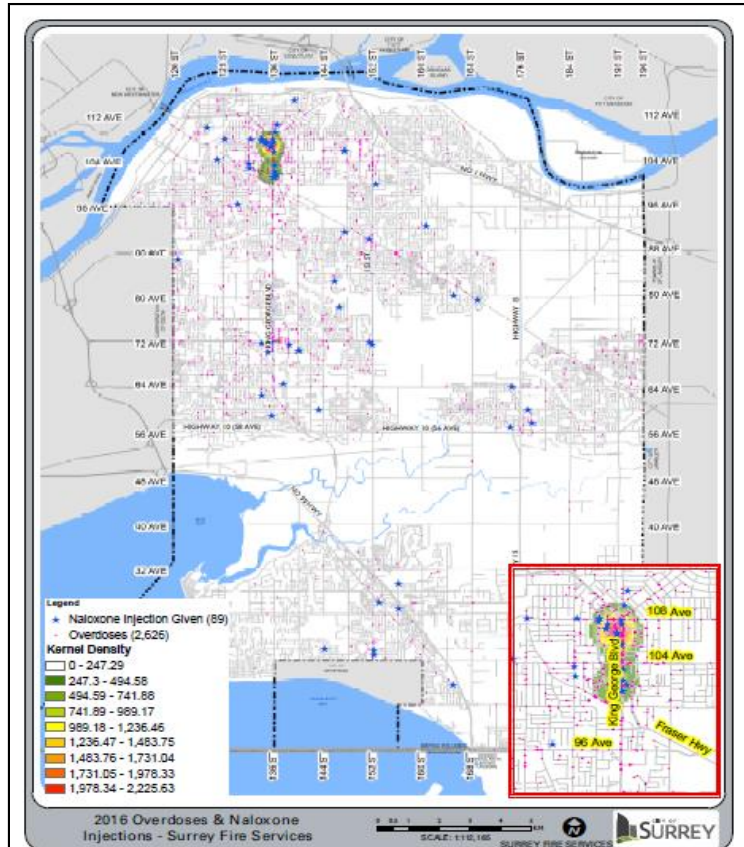
Illicit Drug Overdoses in British Columbia

Supervised Consumption Sites & Illicit Drug Overdoses

- SafePoint on 135A Street opened on June 8, 2017 and is operated in partnership with the Lookout Emergency Aid Society.
- Quibble Creek Sobering and Assessment Centre on 94A Avenue began providing supervised consumption services to clients of the centre on June 20, 2017.



Supervised Consumption Sites & Illicit Drug Overdoses

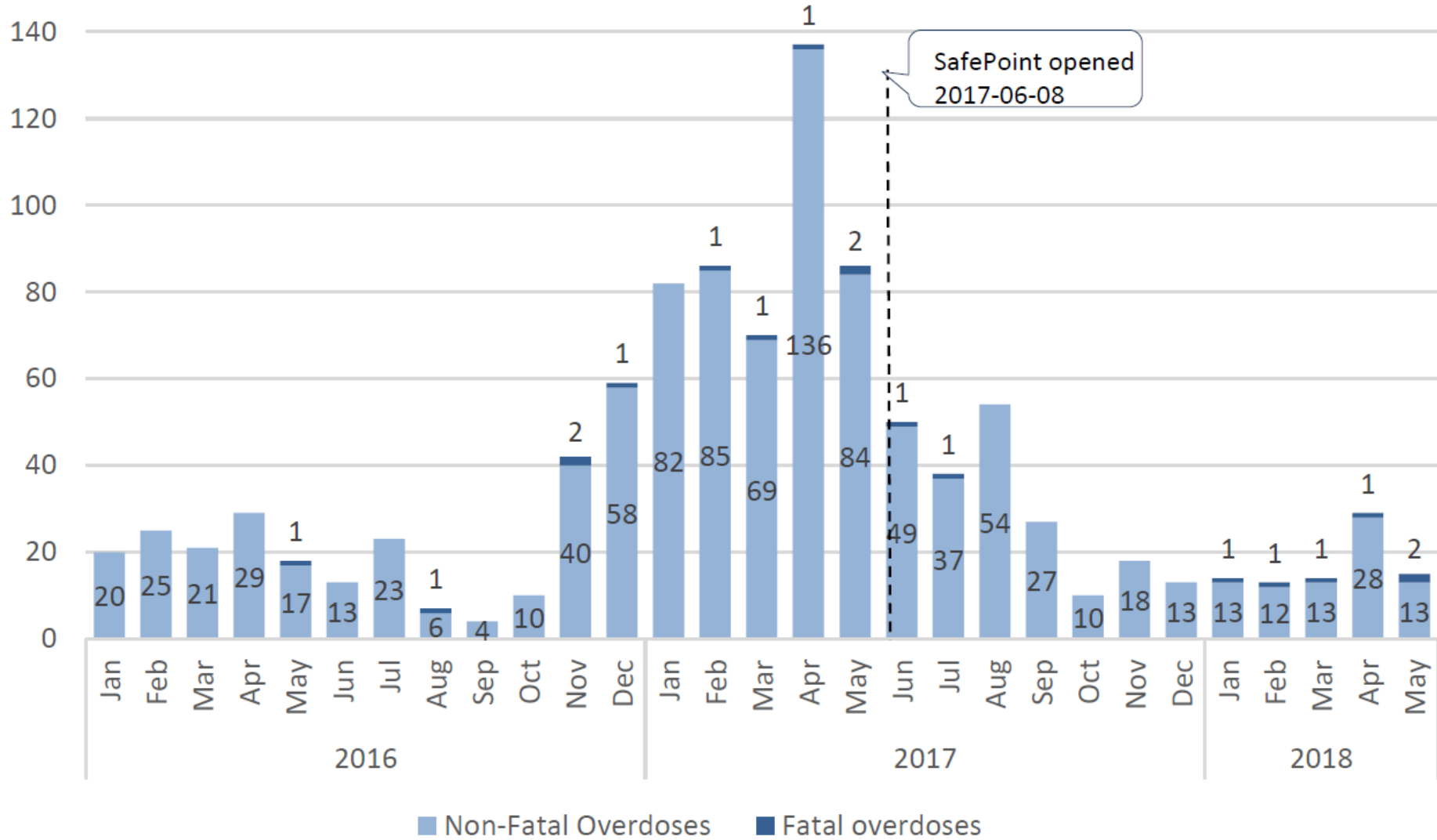


Supervised Consumption Sites & Illicit Drug Overdoses

The following images show a 6-month pre-period of illicit drug overdoses and drug-related fatalities occurring within a 500m buffer around the SafePoint and Quibble Creek facilities.

It also reveals a 6-month post-period of drug overdoses and drug-related fatalities occurring within the same defined area.

Number of Drug Overdoses



Second Responder ?

- Second Responder: Subsequent visits of first responders to the same locations where OD incidents occurred for Post-Overdose Follow-up and Linkage to Care that exists in other jurisdictions:

- Post-Overdose Response Team in Boston, MA in 2016 (2 FFs and 1 harm reduction specialist provide counseling and support)
- Gloucester Model by Gloucester PD, MA in 2015 (Drug users are paired with volunteers who offer guidance re: treatment options)
- Drug Abuse Response Team at Lucas County in 2014 (First responders educate, support, and link OD victims to treatment options)
- Post-Overdose-Response-Team in Ohio in 2016 (a Police officer, a Sheriff Deputy, a Social Worker link OD victims to treatment options)
- Safe Stations in Nashua New Hampshire (FF link addiction victims to treatments)
- Safe Response Team in Burlington Vermont in 2018
- 12 US jurisdictions received OD Outreach Project Funding Awards for post OD response initiatives

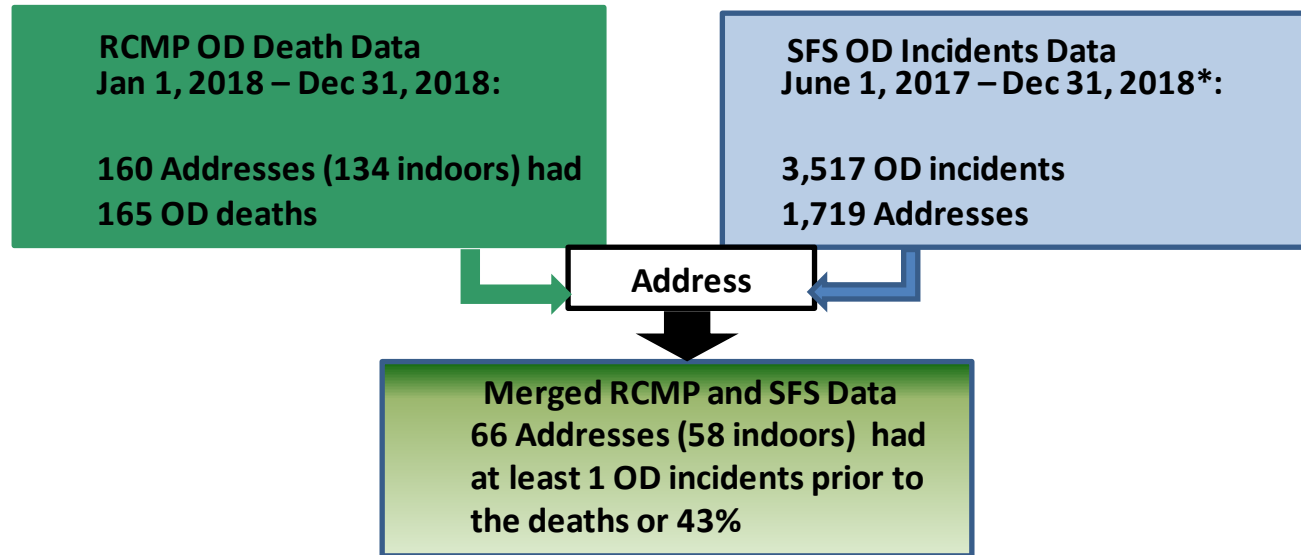
Second Responder

- Case study from Huntington, VA (Overdose Capital of America)
 - Second Responder: Subsequent visits of emergency responders to the same locations where OD incidents occurred
 - Results in 50% Reduction of OD deaths
- Research Questions:
 - Would this initiative be applicable to Surrey, BC?
 - What does the data say to show the opportunity?
- Merging OD death data with OD incidents data is required to determine the frequency of OD incidents occurred prior to OD deaths at same addresses

Research Question

- Would this post OD response initiative be applicable to Surrey, BC?
- What does the data say to show the opportunity?
- Merging OD death data with OD incidents data is required to determine the frequency of OD incidents occurred prior to OD deaths at same addresses

Merging RCMP and Surrey Fire Data



*Note: 18 months data are used to capture OD incidents preceding OD deaths at the same locations

Analysis – Preliminary Result

- 5 Addresses had 10 OD deaths and 27 OD incidents prior to the deaths
- 53 Addresses had 55 OD deaths and each address had up to 10 OD incidents prior to the deaths
- 48 Addresses had 49 OD deaths and each address had up to 5 OD incidents prior to the deaths
- 38 Addresses had 38 OD deaths and each address had up to 2 OD incidents prior to the deaths

Illicit Drug Overdoses in British Columbia

The Building Trades Worker

- WorkSafeBC, an agency responsible for insuring workers, are seeing a greater number of injured workers struggling with opioid dependency.
- In Fraser Health, men aged 19-59 who work in the building trades have disproportionately been the victims of the opioid overdose epidemic.
- There are increased risk factors for building tradespersons, such as greater exposure to injury, the transient nature of the work, financial pressures, and the demographics of the population.



Illicit Drug Overdoses in British Columbia

- Fraser Health analyzed 45,000 visits for 5,000 people who were treated for an overdose in its emergency departments.
- They conducted a chart review of 90 men admitted to hospital after a serious, non-fatal overdose. Men with serious non-fatal drug overdoses:



They live with others and require support



Higher rates of mental health issues compared to the general population



Found by a household member after overdosing



Physical trauma or pain was the common stressor

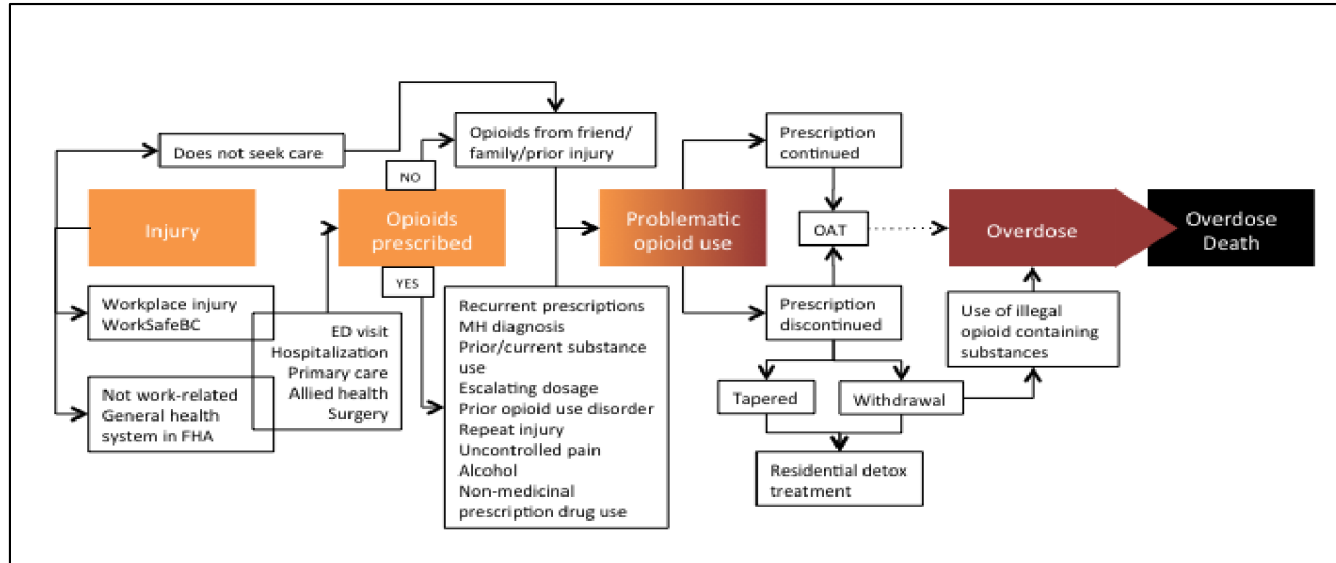


Nearly 75% had a diagnosed alcohol or substance use disorder



The most common industry they worked in was the building trades

The Building Trades Worker



Illicit Drug Overdoses in British Columbia

- A hypothesis: Reverse engineer an injured worker's path into opioid abuse, looking at work history, clinical records, and prescription medications to create a profile.
- Once harms are fully understood, it is possible to target workers with anti-opioid interventions.



Questions



Special Thank You:

Fraser Heath

RCMP Surrey

Stats Canada

Microsoft

City of Surrey

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