



BC Centre for Disease Control
Provincial Health Services Authority

Overdose deaths and the COVID-19 pandemic in British Columbia

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on behalf of

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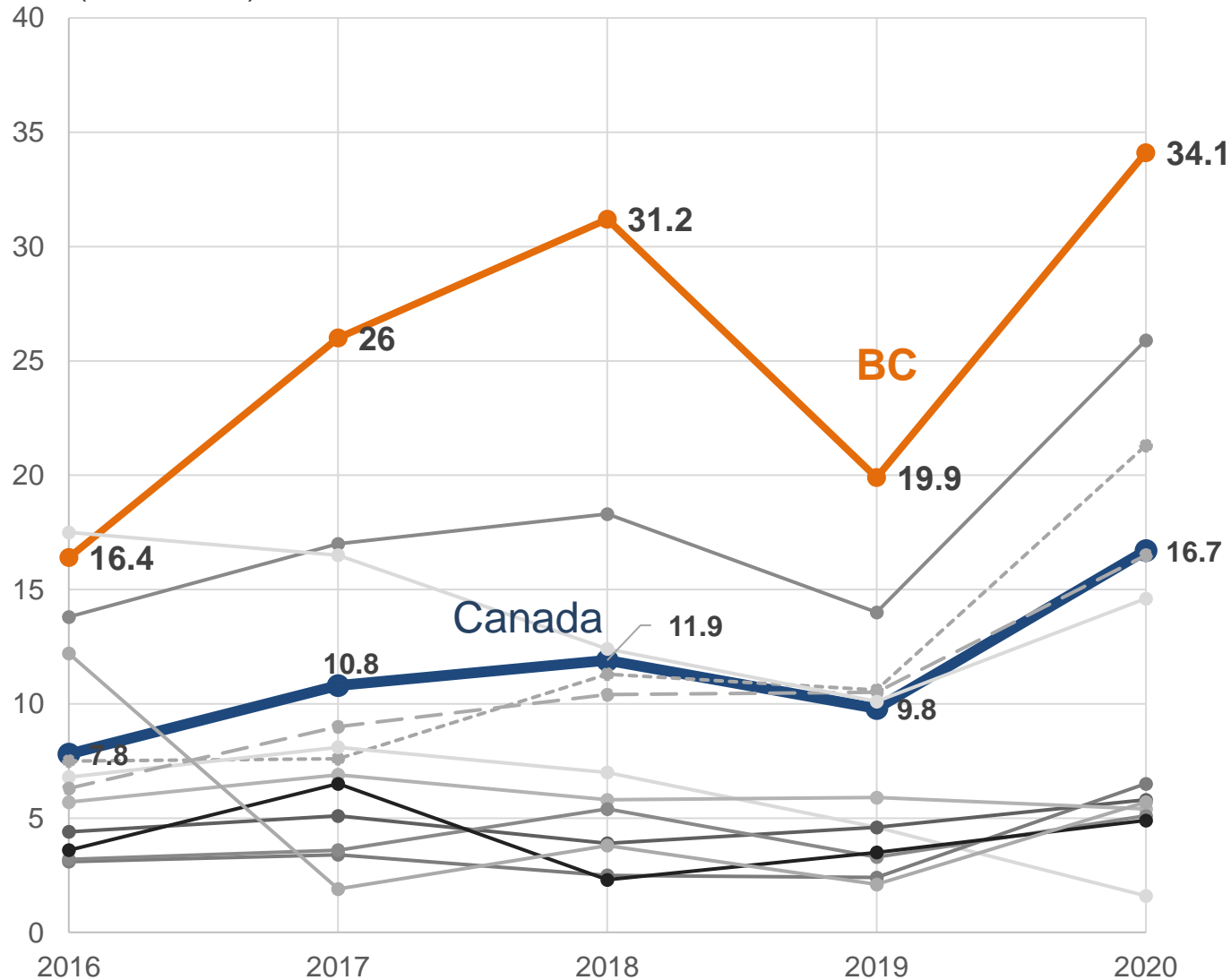


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Territorial Acknowledgement

We respectfully and gratefully acknowledge that the work we do takes place on the unceded homelands of the x^wməθk^wəy'əm (Musqueam), Skwxwú7mesh (Squamish), and seɫɫwɪtulh (Tsleil-Waututh) Nations.

Figure 1: Age-adjusted overdose deaths per 100,000 by province or territory (2016-2020)

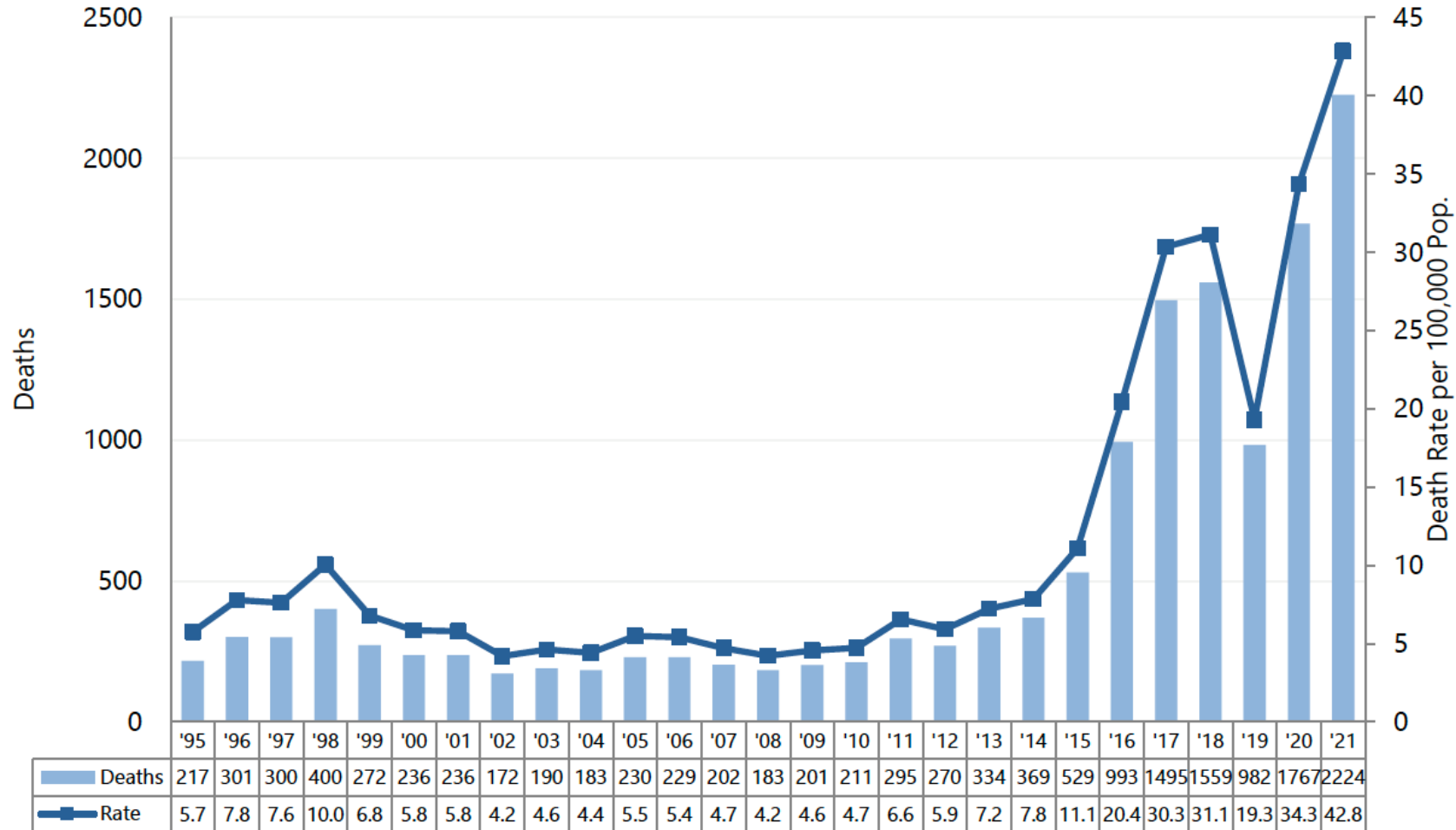


Since 2016, the age-adjusted rate of overdose deaths in BC has been at least double the national average

(Source: Public Health Agency of Canada
<https://bit.ly/30mVmpc>)



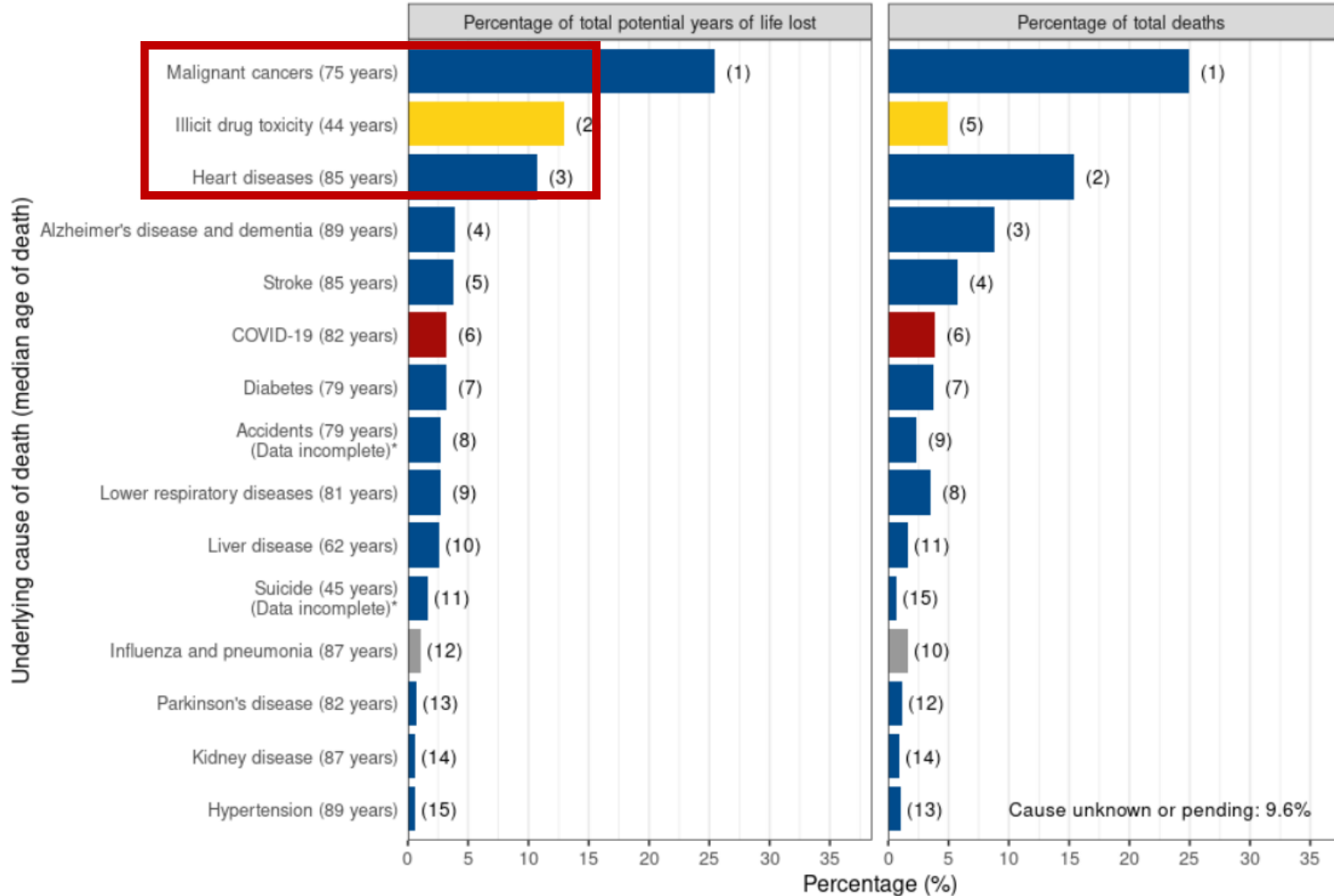
Figure 1: Illicit Drug Toxicity Deaths and Death Rate per 100,000 Population [3,5]



(Source: [BC Coroners Service](#))



Top 15 causes of death (ranking) in BC for March 2020 to February 2022



Overdose is the **second leading cause** of potential years of life lost

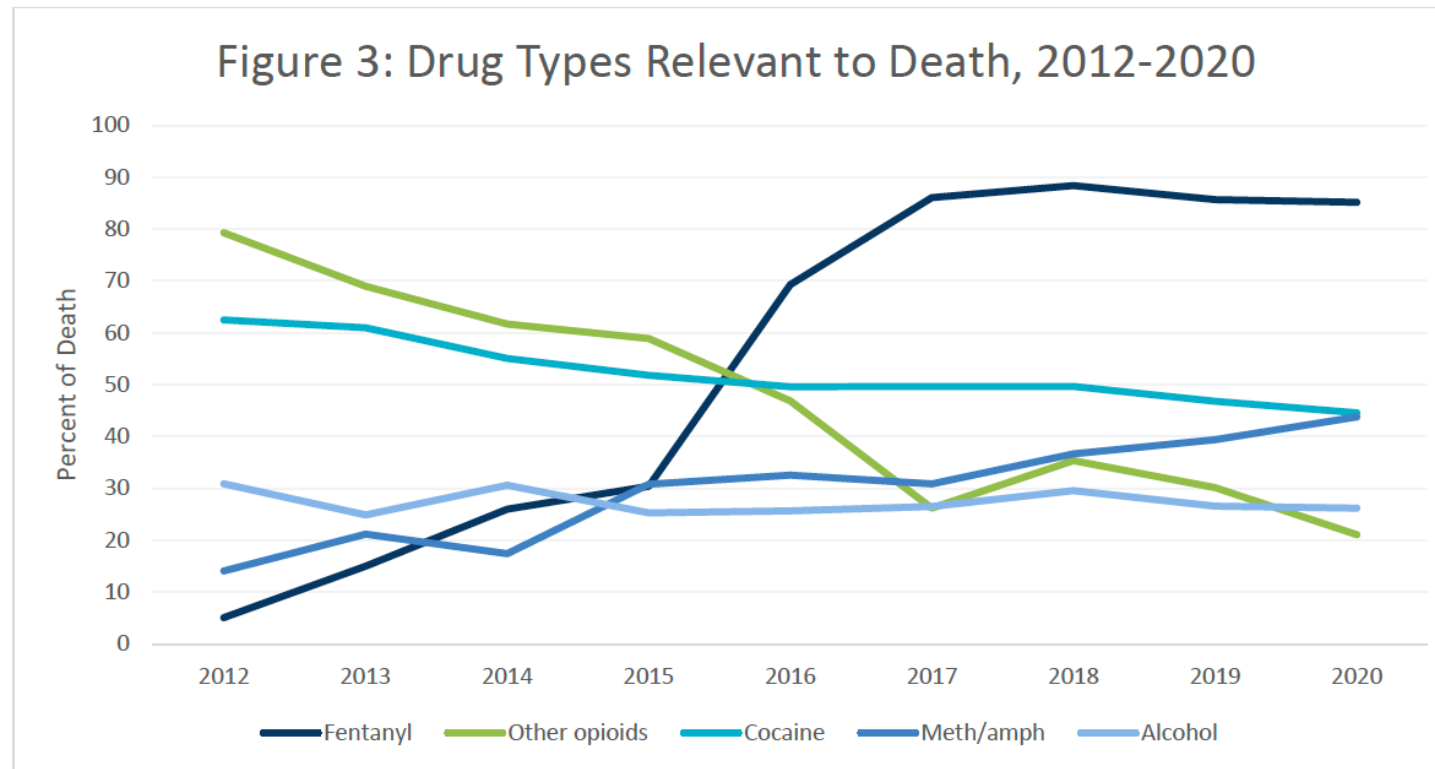
*External causes of death (other than illicit drug toxicity) incomplete due to reporting delay and may rise in ranking as cause of death data become complete.
Data sources: 1) BC Vital Statistics; 2) Data on illicit drug toxicity deaths provided to BCCDC by BC Coroners Service; 3) Statistics Canada Table 13-10-0114-01 Life expectancy and other elements of the life table, Canada, reference period 2017-2019.

Hypothesized pathways of COVID-19 on overdose

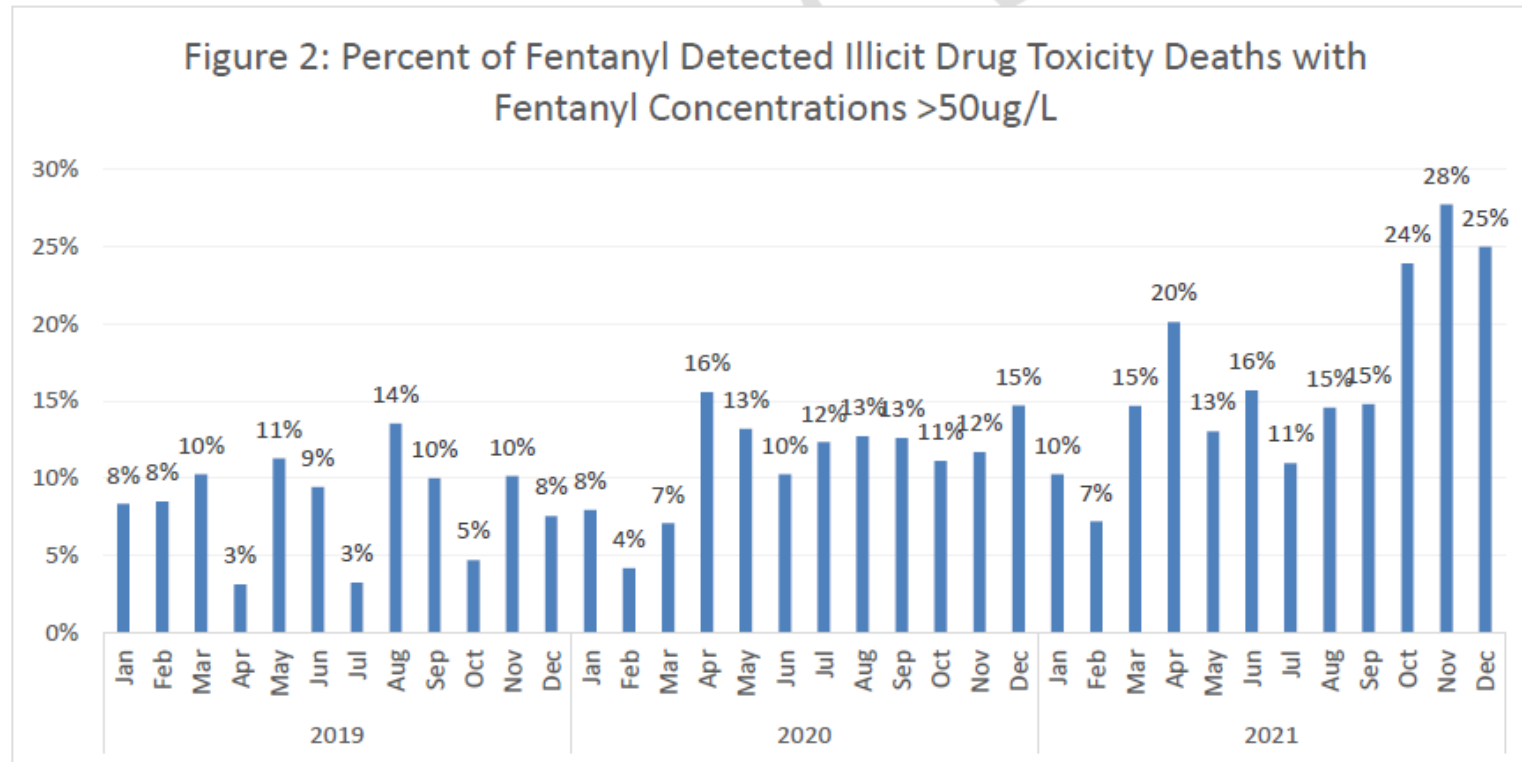
Public Health Measure	Unintended Impact
Physical distancing	<ul style="list-style-type: none">• More persons use drugs alone• Visitor restrictions• Decreased bystander reversed overdoses
Business closures	<ul style="list-style-type: none">• Unemployment• Fewer social opportunities• Increased risk of relapse
Reduced hours and availability of harm reduction and treatment services	<ul style="list-style-type: none">• Premature treatment discontinuation• Lower rate of treatment initiation• Limited access to supervised consumption

Nguyen, T., & Buxton, J. A. (2021). Pathways between COVID-19 public health responses and increasing overdose risks: a rapid review and conceptual framework. *International Journal of Drug Policy*, 103236.

Toxicity of the drug supply has been increasing



Toxicity of the drug supply has been increasing



Objective

- To describe changes in the demographics and geography of overdose death, comparing periods before and after COVID19 was declared a public health emergency in BC.

Methods

- BC Coroners Service surveillance data
 - Including all confirmed illicit drug toxicity (overdose) deaths in BC as determined by a medical examiner or presiding coroner
- We report characteristics of cases of death pre-(03/2019-12/2019) and post- (03/2020 to 12/2020) COVID-19
- Chi-square tests to compare characteristics before and after
- Multivariable logistic regression model – determine the impact of each variable (while holding others constant).

Results

- Overdose deaths since 17 March 2020 (n = 1516) more than doubled those observed in the same period in 2019 (n = 744).

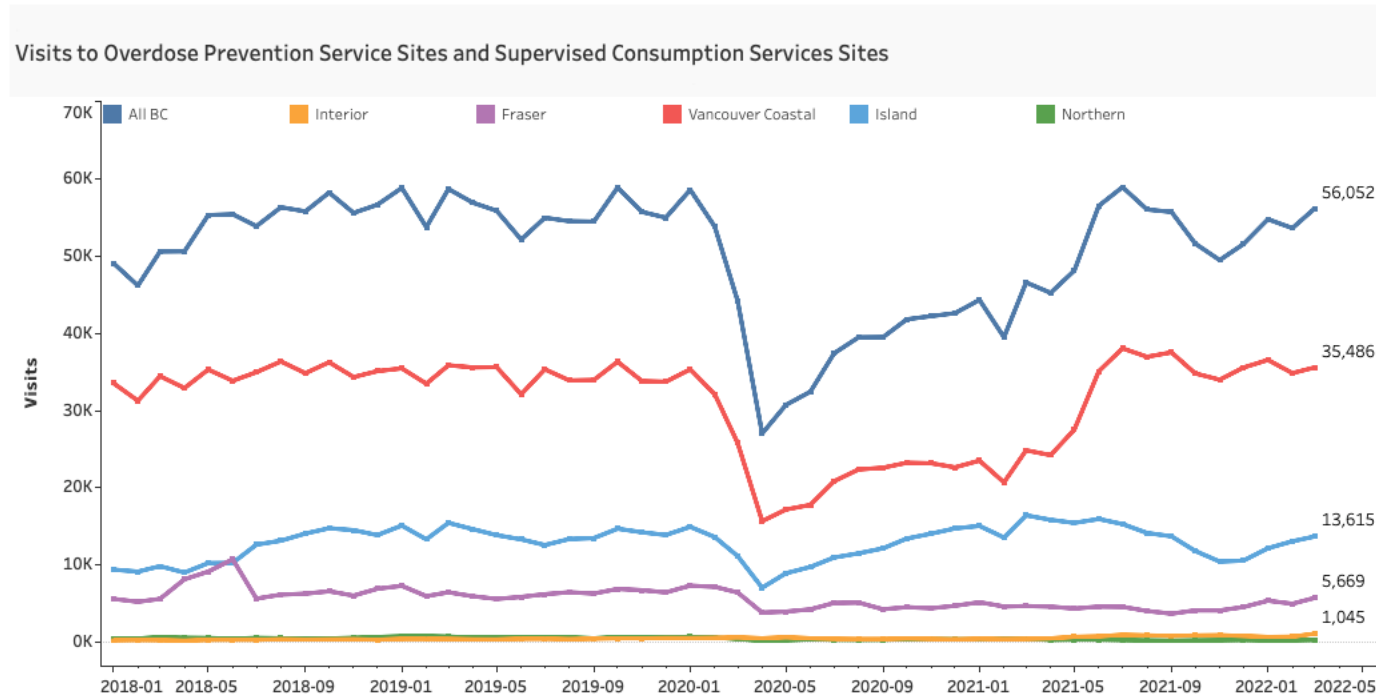
Results:

- Significantly more males in post vs pre (81.7% vs 74.9%).
- Significantly more deaths outside in post vs pre (15.4% vs. 12.8%)
- No significant changes in the geography of overdose deaths by health region
- No changes in fentanyl detected post-mortem (82.5% vs 84.4%)

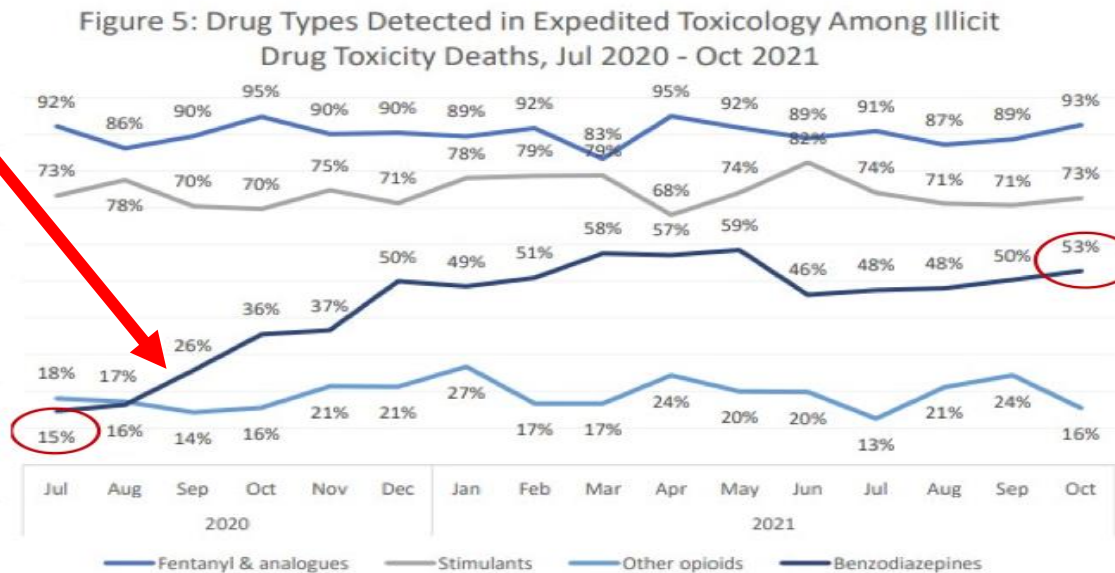
	Adjusted OR (95% CI)
Reference:	
Pre-COVID-19 OD death (March 17th-December 31st 2019)	
Place of overdose	
Private Residence	Reference
Other Residence	1.00(0.81-1.25)
Public building	0.46(0.22-0.97)
Outside	1.20(0.91-1.56)
Other	0.40(0.19-0.85)
Overdose location urbanicity score	
Large	Reference
Medium	0.92(0.71-1.18)
Small	1.10(0.81-1.49)
Rural	1.08(0.79-1.48)
Age category	
< 19	1.10(0.46-2.61)
20-29	1.22(0.93-1.61)
30-39	Reference
40-49	1.33(1.03-1.72)
50-59	1.43(1.10-1.85)
60+	1.65(1.18-2.30)
Sex	
Female	Reference
Male	1.47(1.18-1.82)
Fentanyl detected	
No	Reference
Yes	1.11(0.87-1.42)

- Odds of death significantly lower in the post- vs. pre COVID19 period for:
 - Public buildings, other locations (e.g. medical and correctional facilities) vs. in Private residence
- Odds of death significantly higher in the post- vs. pre COVID19 period for:
 - People aged 40-49, 50-59, 60 + vs. 30-39
 - males vs. female

- Location of overdose findings are consistent with reporting from Ontario, with increase in detection of deaths outdoors.
- Could be driven by reduced access to safe spaces for drug use (e.g. OPS, SCS) has been reduced during COVID19



- Fentanyl detection (yes vs no) did not change
 - Changes in detection of high fentanyl concentration, and other drugs (e.g. **benzodiazepines**) during this period



Implications

- Urgency of return to full services for people at risk of illicit drug toxicity
 - Identifying and addressing barriers, e.g. masking requirements, staffing problems
- Increase opportunities for social connectedness
- Build on changes to delivery of OAT during COVID-19
- Expand access to safer supply, especially non-prescribed models

Thank you!