

Smoking Fentanyl During the Opioid Crisis in Vancouver

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Introduction

- The number of overdose deaths due to fentanyl has been increasing globally, especially in North America¹.
- Fentanyl is more potent, rapid-acting, and shorter-lasting than heroin, conferring much higher risks of death².
- Fentanyl can be administered through various routes including transdermal, oral, inhalation, and injection.
- In western parts North America, there has been a shift from injection to smoking fentanyl where there are more deaths from smoking than injecting³⁻⁵.
- Smoking has emerged as the most common route of administration of fentanyl in the western parts off North America including Vancouver, British Columbia¹.

Objectives

1. To better characterize the demographics, pattern of opioid use, and service use in individuals who primarily smoke illicit fentanyl.
2. To quantify the overdose risks associated with route of administration of fentanyl.

Methodology

Data Source: The Fentanyl Cohort Study is a cross-sectional survey of people who used fentanyl in the previous 6 months (n=174) with the purpose of evaluating British Columbia's response to the overdose crisis. The survey was developed through expert consensus and an iterative process.

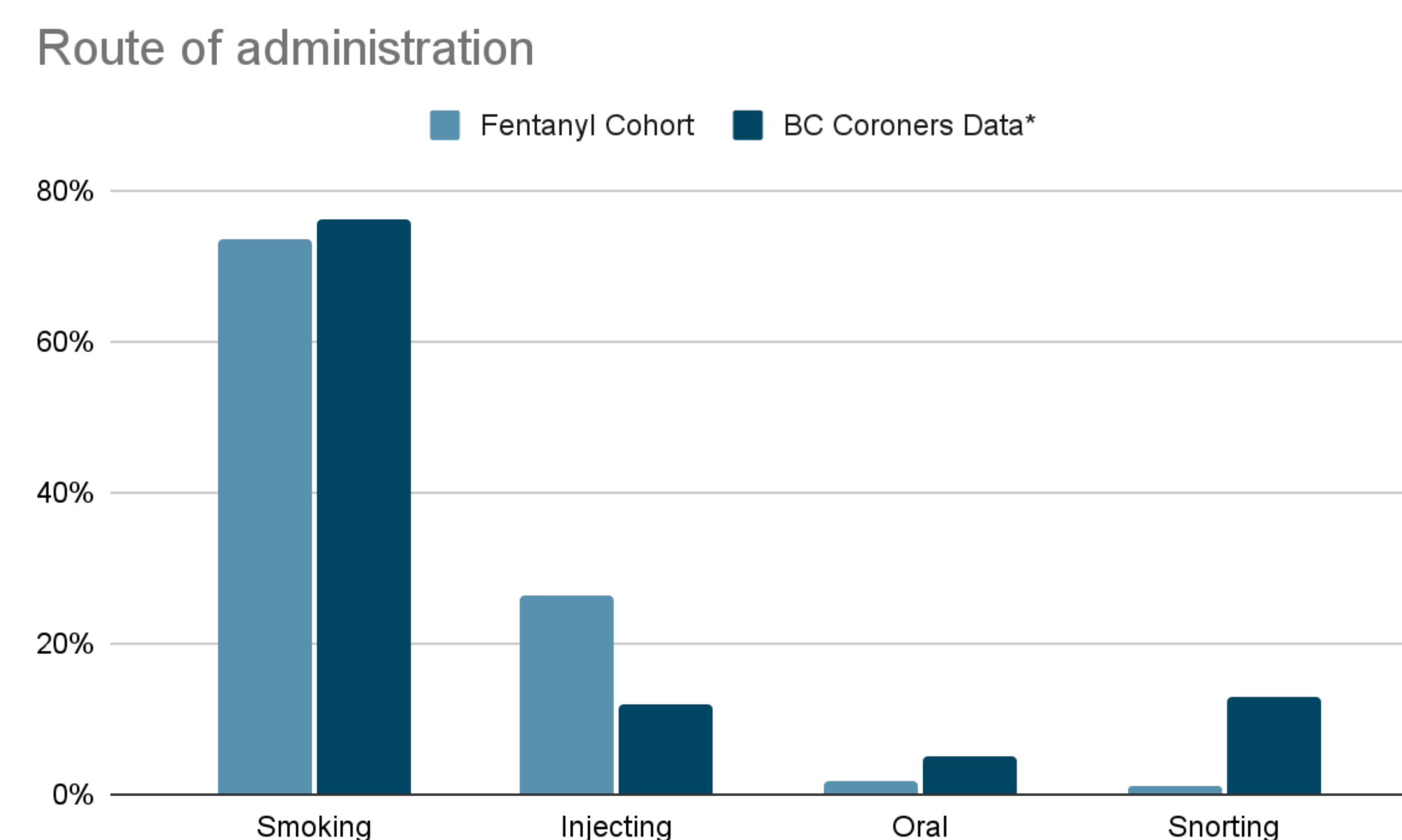
Participants were recruited from the Vancouver General Hospital Chronic Pain and Addiction Service (CPAS) consult team. Eligible participants were adults > 18-year-old who used fentanyl in the previous 6 months.

Statistical Analysis:

- Bivariate analysis was conducted between smoking fentanyl and sociodemographic, route of administration when first using fentanyl, self-reported history of overdoses, history of blood-borne infections, and access to substance use services.
- Multivariate logistic regression was conducted to evaluate the relationship between smoking and history of overdose while adjusting for age, gender, and covariates that had significant relationship with history of overdose (p<0.05).

Results

Smoking (73.7%, n = 123) was the most common route of administration of illicit opioids in the past 6 months.



*BC Coroners Service data of unregulated drug deaths from *all substances* in March 2024¹. In 2023, 84.5% of deaths involved fentanyl, 40.6% cocaine, 48.1% methamphetamine, and 42.6% benzodiazepines.

	Injecting (N = 44)	Smoking (N = 123)	P-value
Age	44.7 (10.8)	41.5 (10.9)	0.537
Self-perceived "very low risk"	13 (33.3%)	28 (23.7%)	0.402
History of Overdose	40 (90.0%)	102 (82.9%)	0.203
Stable housing past 6 months	16 (36.4%)	48 (39.0%)	0.755
Employed last 6 months	7 (16.3%)	19 (15.8%)	0.945
Smoking as first route	17 (38.6%)	87 (70.7%)	<0.001*
Use any other opioids	23 (63.9%)	41 (42.6%)	0.030*
Previous Hep C positive	22 (50.0%)	43 (35.0%)	0.079
Prior Opioid agonist treatment	37 (84.1%)	117 (95.1%)	0.019*
Use of Harm Reduction supplies in the past 6 months	28 (63.6%)	46 (37.4%)	0.003*

*p-value<0.05

Injecting street opioids over the past 6 months did not increase the risk of overdose (OR = 1.382, 95% CI:0.332 - 5.746) after adjusting for age, gender, first age of use, wanting to reduce/stop fentanyl use, preferring fentanyl over other opioids, medium to high self-perceived risk of overdose, and use of supervised consumption site in the past 6 months.

Conclusion

- Smoking was the most common route of administration of street opioids in Vancouver, British Columbia.
- Those who smoke street opioids were more likely to be on opioid agonist treatment in the past and not use other forms of street opioids.
- The risk of overdose was not significantly different for those who primarily smoke fentanyl from those who inject fentanyl.
- Those who smoke also used less harm reduction supplies.
- Other risks associated with smoking such as respiratory illnesses should be further characterized.
- The current harm reduction services in Vancouver should adapt to the shifting pattern of use.

References

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