Engagement in Risk Reduction Practices Following the Detection of Unexpected Drugs in Community Drug Checking Samples: A Cross-Sectional Study

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Overview of drug checking services in BC

- Pilot began in October 2017 as a response to the growing drug toxicity crisis
- Services operate out of select supervised consumption sites, overdose prevention sites, and other sanctioned sites
- **Point-of-care:** Fourier-transform infrared spectroscopy + fentanyl, benzodiazepine, and xylazine immunoassay strips
- **Confirmatory analysis:** qNMR/GC-MS/LC-MS at a lab

Drug checking in progress

Fourier-transform infrared (FTIR) spectrometer

Methods

- Cross-sectional survey conducted in-person or by phone
- Conducted between March 2020 and July 2024
- Recruitment at 22 community harm reduction sites
- All participants used drug checking services in the last 6 months

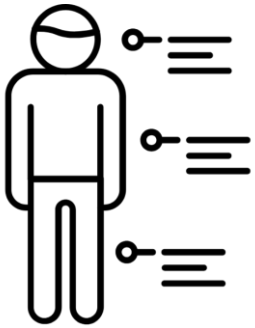
- Relevant questions based on most recent drug check:

Exposure
- ➢ *What drug did you check?*
- ➢ *What were the results?*

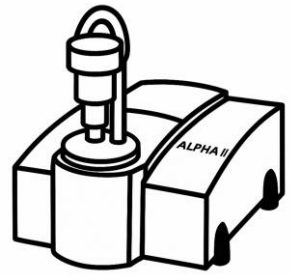
Outcome
- ➢ *What did you do with your drugs when you got your results?*

- Multivariable logistic regression controlled for variables we believed to be associated with the relationship

Study sample (n=447)



- Median age of **43 years**
- **33%** women**,** **66%** men; **2%** gender minority
- **73%** White, **27%** Indigenous, Black, Person of Colour
- **30%** unhoused



- **69%** checked an opioid, **31%** checked a stimulant
- **81%** ≥ weekly stimulant use
- **79%** ≥ weekly opioid use

Results

Unexpected active drugs and engagement in a risk reduction behaviour

- n = 438
- **39%** reported an unexpected active drug in their sample
  - **20%** of these were in the absence of the expected drug
- Risk reduction practice
  - **24%** (w/ unexpected drugs present) vs. **14%** (w/o)

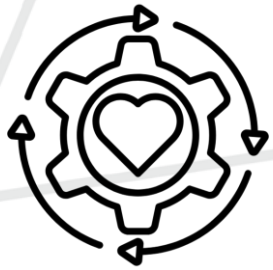
Model (Unexpected active drug vs. not)	Odds Ratio	95% Confidence Interval	*p*-value
Unadjusted model	2.03	1.24 – 3.31	0.005
Adjusted model*	2.24	1.30 – 3.87	0.004
Sensitivity analysis**	2.59	1.35 – 4.97	0.004

**Adjusted for age, gender, unregulated opioid use, stimulant use, regular source of drugs, drug checked was an opioid, drug checked was a stimulant*
***Sensitivity analysis categorizes 'sold' and 'gave away drug' as risk reduction practices where the original definition did not*

Limitations

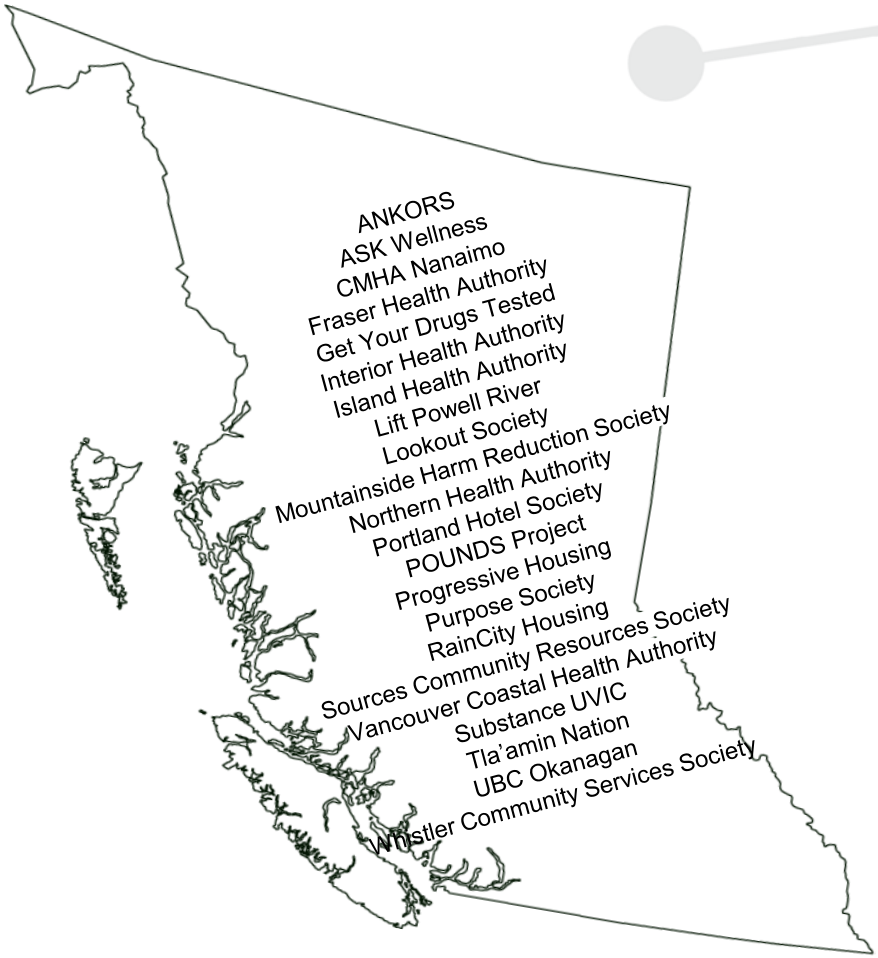
- Non-random recruitment may limit generalizability
- Potential reporting biases
  - Recall bias
  - Social desirability bias
- Cross-sectional nature limits causal inference

Conclusion



- When unexpected, active drugs were detected in a drug checking sample, participants were 2.24 times more likely to engage in a risk reducing behaviour
- These findings:
  - reinforce the value of drug checking technologies capable of detecting a wide spectrum of components
  - suggest opportunities for more tailored harm reduction messaging

Acknowledgements



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Thank you

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