

Increased presence of benzodiazepines in opioids tested at overdose prevention sites in Vancouver, BC

Key Findings: The British Columbia Centre on Substance Use (BCCSU) Drug Checking Project is monitoring an increase in benzodiazepine adulteration of opioids for the latter half of April into May, 2020 from samples gathered at the two overdose prevention sites (OPS) in Vancouver’s Downtown Eastside offering drug checking services.

In partnership with community-based organizations, the following data were collected at point-of-care sites in the Downtown Eastside of Vancouver. Benzodiazepine test strips (BTS) in conjunction with a FTIR spectrometer were the two methods used to check samples of opioids for the presence of benzodiazepines. The use of BTS for drug checking is undergoing an evaluation for efficacy; however, preliminary results indicate these strips are effective for detecting benzodiazepine presence (including etizolam) in both opioid samples and benzodiazepine tablets. Due to the detection threshold of FTIR being too high, benzodiazepines will likely not be identified in opioid samples so results rely heavily on BTS.

The following graph indicates that the percentage of benzodiazepine-positive opioid samples increases after the start of the COVID-19 health emergency and a brief suspension of services. From January to mid-March, no more than 12% of samples tested positive for benzodiazepines per week. After April 9th, the percentage of benzodiazepines in samples presented for testing rises to over 25%.

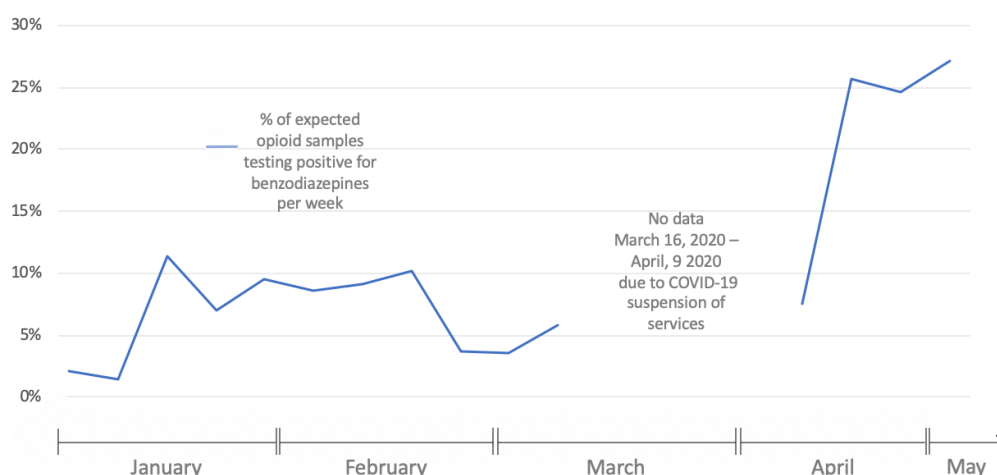


Figure 1. Percentage benzodiazepine-positivity of expected opioid samples as determined by benzodiazepine test strip, per week at two overdose prevention sites in Vancouver, British Columbia.

Week (M-Su)	Get Your Drugs Tested		Overdose Prevention Society		Total	
	n	% positive	n	% positive	n	% positive
Jan 1 – 5	37	2.7%	0		37	2.7%
Jan 6 – 12	50	2.0%	0		50	2.0%
Jan 13 – 19	30	13.3%	0		30	13.3%
Jan 20 – 26	31	3.2%	6	16.7%	37	5.4%
Jan 27 – Feb 2	52	11.5%	5	0.0%	57	10.5%
Feb 3 – 9	40	5.0%	12	16.7%	52	7.7%
Feb 10 – 16	42	7.1%	8	12.5%	50	8.0%
Feb 17 – 23	42	2.4%	14	7.1%	56	3.6%
Feb 24 – Mar 1	42	2.4%	5	0.0%	47	2.1%
Mar 2 – 8	36	0.0%	4	25.0%	40	2.5%
Mar 9 – 15	47	6.4%	6	16.7%	53	7.6%
Mar 16 – 22	4	25.0%	0		4	25.0%
Mar 23 – 29	0		0		0	
Mar 30 – Apr 5	0		0		0	
Apr 6 – 12	7	0.0%	0		7	0.0%
Apr 13 – 19	13	0.0%	8	12.5%	21	4.8%
Apr 20 – 26	13	38.5%	44	15.9%	57	21.1%
Apr 27 – 30	27	37.0%	18	5.6%	45	24.4%
May 1 – 5	26	27.0%	0		26	27.0%
Total	539	8.5%	130	12.3%	669	9.3%

Table 1. Percentage-positivity of benzodiazepine test strips in expected opioid samples at two overdose prevention sites in Vancouver, British Columbia.

Benzodiazepine adulteration of opioids poses additional harms for people who use drugs. Many participants have reported symptoms such as memory loss, blackouts, and overdose after consuming benzodiazepine-adulterated opioids. Benzodiazepines are depressants and therefore increase the likelihood of overdose by suppressing breathing.ⁱ Effects of benzodiazepines are further compounded when mixed with potent fentanyl analogues. It is always recommended to administer naloxone in the event of an overdose, but sedation, drowsiness, and memory loss may persist for hours after naloxone is administered. Naloxone will reverse the effects of opioids, but will be ineffective against the effects of benzodiazepines.

The data presented here are limited to a small number of samples presented at two sites in the Downtown Eastside and cannot be generalized to the larger drug supply. In addition, as the service is anonymous, there is no way to track if the same participant is presenting drugs for analysis on multiple occasions. The number of samples also decreased at the time of the COVID-19 public health response. However, these data do indicate that there are changes in sample results after drug checking services resumed.

It is recommended that harm reduction measures are always followed, especially with potential changes in the drug supply.

- When available, use at an overdose prevention site.
- Start with less and go slow.
- Do a tester shot or smoke a small amount to start.
- In the event of an overdose call 911.
- Carry naloxone and know how to use it. For a refresher on how to use a naloxone kit, visit any harm reduction site and ask.

ⁱ Lysyshyn, M. & Ahamad, K. *Illicitly Manufactured Benzodiazepines in the Local Drug Supply*. July 18th, 2019. [Press release]