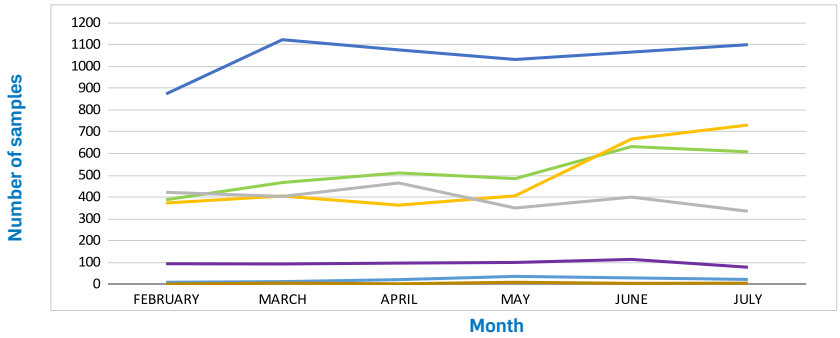
July 2023

Drug Checking in British Columbia

Key Findings

- In July, a total of 2,879 drug checks were performed at community drug checking sites offering FTIR services in BC (43 access points).
- The overall percentage of opioids testing positive for benzodiazepines by FTIR and test strip was 49.0% (539 of 1100 samples).
- Benzodiazepines continue to be increasingly detected by FTIR, indicating their presence in high concentrations. In July, bromazolam was detected in 126 opioid samples, followed by desalkylgidazepam (23 samples), and etizolam (7 samples).
- A shift from fentanyl to fluorofentanyl continues in the unregulated opioid supply. In July, 31.8% of unregulated opioid samples were found to contain fluorofentanyl (322 of 1011 samples), whereas 45.8% contained fentanyl (463 samples).
- Xylazine, a veterinary sedative, was found in 2.4% of unregulated opioids in July (24 of 1011 samples), occurring mostly in the Fraser Health region.
- The median fentanyl concentration of unregulated opioids has been increasing over the past year. In July, the median fentanyl concentration of opioids checked was 14.9%. See page 3 for more detailed results.

Number of drug samples checked in the past 6 months



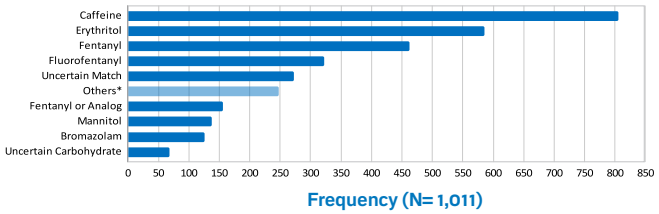
Number of samples by drug category in July

Opioid	1100
Stimulant	608
Depressant	78
Psychedelic	731
Other	22
Polysubstance	5
Unknown	335

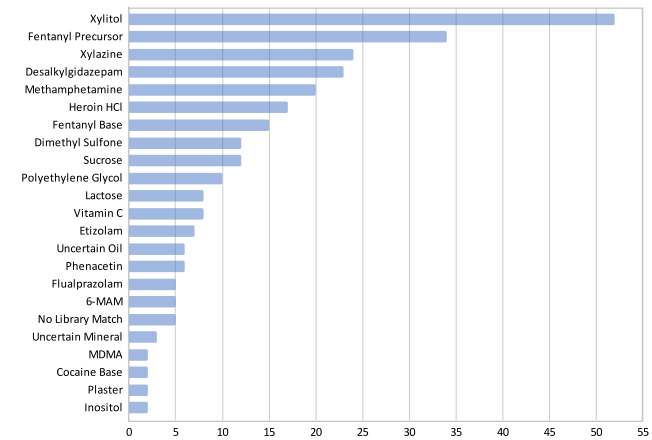
TOTAL: 2,879

Components found in drug samples in July

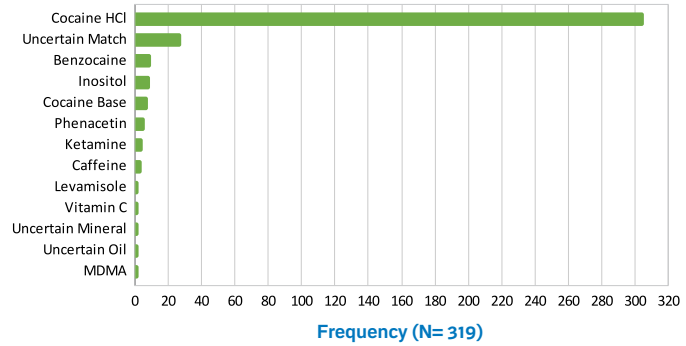
Components in unregulated opioids



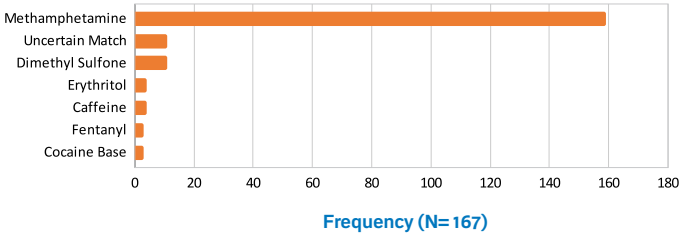
*Other components in unregulated opioids



Components in cocaine



Components in methamphetamine



There were additional compounds detected a single time each. To save space, they have been omitted from these charts. For the full list of compounds detected, visit our data dashboard at www.drugcheckingbc.ca/dashboard/

July 2023

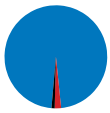
Drug Checking in British Columbia

Number of samples tested with fentanyl present

1,100 Opioid samples
990 FENTANYL POSITIVE (90%)

110 FENTANYL NEGATIVE (10%)

608 Stimulant samples
590 FENTANYL NEGATIVE (97%)



3 FENTANYL NOT TESTED (1%)
15 FENTANYL POSITIVE (2%)

78 Depressant samples
70 FENTANYL NEGATIVE (90%)

8 FENTANYL POSITIVE (10%)

731 Psychedelic samples
724 FENTANYL NEGATIVE (99%)

7 FENTANYL NOT TESTED (1%)

335 Unknown samples
233 FENTANYL NEGATIVE (69%)

2 FENTANYL NOT TESTED (1%)
100 FENTANYL POSITIVE (30%)

22 Other samples
22 FENTANYL NEGATIVE (100%)

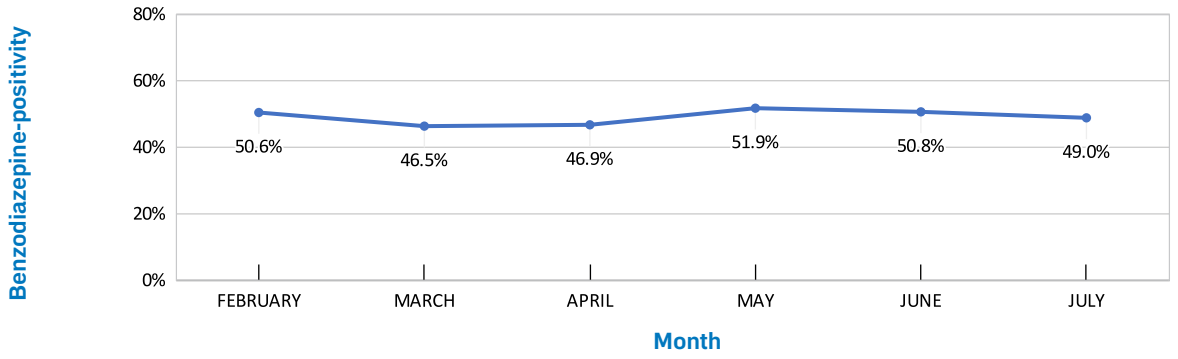
5 Polysubstance samples
1 FENTANYL NEGATIVE (20%)

4 FENTANYL POSITIVE (80%)

PUBLIC HEALTH NOTIFICATIONS

Date & Location	Expected Drug	Drugs Detected	Fentanyl Strip	Benzo Strip	Area Purchased	Alert Message
July 5, 2023 DTES Vancouver	Crack Cocaine	Crack Cocaine, Uncertain Match	Negative	Positive	DTES Vancouver	Brown resin chunks sold as crack cocaine in the DTES of Vancouver causing sedation and overdose tested positive for benzos.
July 6, 2023 Vancouver	Alprazolam	Microcrystalline Cellulose, Xylazine, Uncertain Oil	Negative	Negative	Vancouver	White tablet sold as alprazolam, also known as Xanax, in Vancouver tested positive for xylazine and negative for benzos.
July 7, 2023 Vernon	Down	Caffeine, Fentanyl, Bromazolam	Positive	Positive	Vernon	Mulitple light purple and pink subsatnces sold as Down tested positive for high concentrations of fentanyl and benzodiazepines in Vernon.
July 12, 2023 Penticton	Down	Fentanyl, Bromazolam	Positive	Positive	Penticton	Light green chunky powder sample sold as Down tested positive for high concentrations of fentanyl and benzodiazepines in Penticton.
July 14, 2023 DTES Vancouver	Oxycodone	Microcrystalline Cellulose, Fentanyl, Xylazine	Positive	Negative	DTES Vancouver	Light blue pressed pill with imprint “M” on one side and “30” on the other sold as oxycodone in the DTES of Vancouver tested positive for fentanyl and xylazine.
July 21, 2023 DTES Vancouver	Fentanyl	Caffeine, Erythritol, Fentanyl, Xylazine	Positive	Negative	DTES Vancouver	Dark blue chunks tested positive for fentanyl and xylazine, an animal analgesic. Sample tested in the DTES.
July 28, 2023 DTES Vancouver	Oxycodone	Acetaminophen, Oxycodone, Uncertain Carbohydrate	Negative	Positive	DTES Vancouver	White pressed tablets of varied thickness with imprint “TEC” on one side and a single score mark on the other sold as oxycodone in the DTES of Vancouver tested positive for oxycodone, acetaminophen, and benzos.
July 31, 2023 Penticton	Down	No library match (Nitazene-analogue)	Negative	Negative	Penticton	White chunky, flaky substance sold as Down tested positive for Nitazene (a strong synthetic opioid) in Penticton – Fentanyl was not present despite this being the expected substance.
Health authorities and community organizations issue further toxic drug alerts from sources other than drug checking. See their respective websites or social media accounts for more alerts.						

Percentage of opioids testing positive for benzodiazepines in the past 6 months



During the month of July, **49.0%** of expected opioid samples tested positive for benzodiazepines in our partner sites around BC **(539 samples of 1100 checked)**. Opioid samples are checked for benzodiazepine-positivity using BTNX test strips and the FTIR spectrometer. The results presented here are derived from both of these technologies and are presumptive until confirmed by a laboratory.

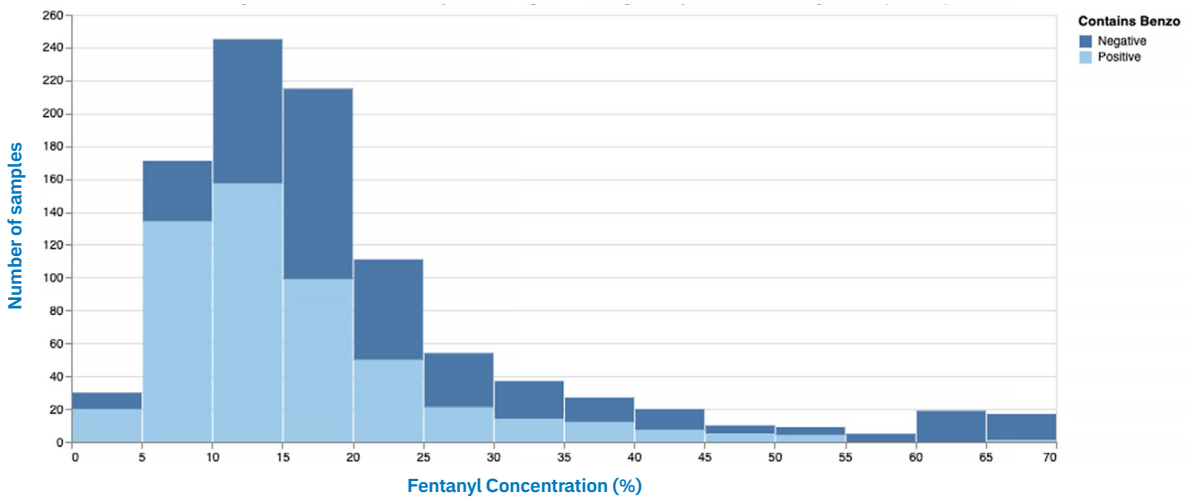
July 2023

Drug Checking in British Columbia

Fentanyl Quantification

The charts below summarize fentanyl concentrations of fentanyl-positive opioid samples brought for drug checking in British Columbia. Fentanyl concentrations were determined using FTIR and a calibrated fentanyl quantification model. Technicians at point-of-care may provide an estimated fentanyl quantification, generally an approximate range of fentanyl percentage in a mixture, but these results were calculated separately (post hoc) using the model for the purpose of this report.

Fentanyl Concentration of Opioid Drug Checking Samples in BC, July 2023



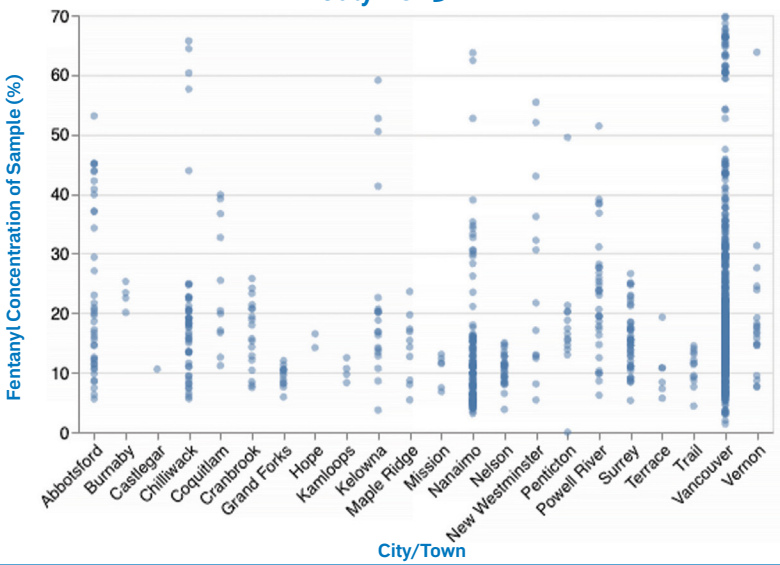
While most of fentanyl-positive opioids checked have a concentration of fentanyl between 10% and 20%, there remain many samples above 20% fentanyl-by-weight, and concentrations can approach 75% of the mixture. The median fentanyl concentration of all samples increased from 14.9% in June to 15.8% in July. When purchasing fentanyl from an unregulated drug supply, it is often impossible to know what the fentanyl concentration of the drugs is. Drug checking can help, but point-of-care quantification results are provided in a range since it is not possible to be precise with the available technologies. For example, a technician might say, “This sample contains caffeine, mannitol, and between 5% and 10% fentanyl.”

Drug supplies vary by location in the province. While samples from smaller communities appear to be more consistent, it is important to remember that this is a small number of drugs checked in each city or town. It is also important to note that these locations include only those participating in the BCCSU Drug Checking Project that provide data from FTIR spectroscopy. These numbers may not represent the broader supply or the supply in other settings.

It is very important to remember that the results presented here are fentanyl, not fentanyl analogues like fluorofentanyl or carfentanil. While fluorofentanyl is reported to have similar potency to fentanyl, carfentanil is a very potent opioid that is often present below the detection limit of the spectrometer, and is therefore missed by point-of-care drug checking technologies. Your drug checking technician can explain the limitations in detail when you get your drugs checked, but always take additional harm reduction precautions, like using at an OPS if available, because potent opioids may be presented and go undetected.

If you have any questions about the results, please email us at **drugchecking@bccsu.ubc.ca**.

Fentanyl Concentration of Opioid Samples by City/Town, July 2023

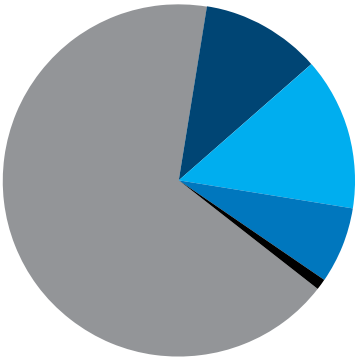


July 2023

Drug Checking in British Columbia

Number of samples tested by region:

Total #: 2,879



1,944: Vancouver Coastal Health region (67%)

318: Fraser Health region (11%)

401: Interior Health region (14%)

194: Vancouver Island Health Region (7%)

22: Northern Health region (1%)

Number of samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG	Matched	Did Not Match	Match Not Determined	Samples Tested
Opioid	1059	29	12	1100
Stimulant	565	41	2	608
Depressant	49	28	1	78
Psychedelic	700	29	2	731
Other	14	5	3	22
Polysubstance	4	1	0	5
Unknown	0	0	335	335
Total	2391	133	355	2879

Please note that the presence of the expected substance does not imply purity, as samples frequently contain adulterating cutting agents

Depressant include: *benzodiazepines, etizolam, GHB, hypnotics*

Opioids include: *"down", heroin, fentanyl (unregulated opioids), and pharmaceutical opioids*

Polysubstance includes: *cross-category mixtures*

Psychedelic include: *MDMA and related, 2C-family, tryptamines, ketamine, LSD*

Stimulant include: *methamphetamine, "speed," cocaine and crack cocaine, cathinones*

Unknown includes: *samples where the individual was unable to identify an expected substance - this includes found samples.*

July 2023

Drug Checking in British Columbia

Number of opioid samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG	Matched	Did Not Match	Match Not Determined	Samples Tested
Fentanyl	393	3	0	396
Heroin	4	2	0	6
Fentanyl and Heroin	2	0	0	2
Other Opioid	0	2	0	2
Down	595	14	0	609
Pharmaceutical	53	6	12	71
Opium	12	2	0	14
Total	1059	29	12	1100

Please note that the presence of the expected substance does not imply purity, as samples frequently contain adulterating cutting agents.
'Down' can refer to any opioid drug present in any amount.

Data represented here are collected from our partner sites across the province. Drug samples are tested using the Fourier Transform Infrared (FTIR) spectrometer in combination with fentanyl test strips and benzodiazapine test strips.

There is 5% fentanyl detection limit on the FTIR spectrometer (McCrae, 2019), and a drug check on any given sample consists of both the FTIR and BTNX fentanyl immunoassay test strip testing done in combination. When applicable, BTNX benzodiazepine immunoassay test strips are also used.

BCCSU gratefully acknowledges the contributions of the following partners: