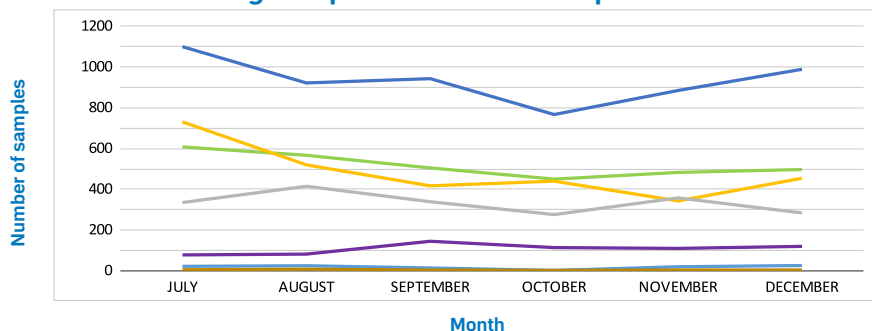


## Key Findings

- In December, a total of 2,374 drug checks were performed at community drug checking sites offering FTIR services in BC (44 access points).
- The percentage of all opioids testing positive for benzodiazepines by FTIR and test strip was 54.6% (540 of 989 samples).
- Benzodiazepines continue to be increasingly detected by FTIR, indicating their presence in higher concentrations. In December, benzodiazepines were detected by FTIR in 17.8% of unregulated opioids, with bromazolam (143 samples), desalkylgidazepam (11 samples), and etizolam (6 samples) most frequently identified.
- Fluorofentanyl detection has been decreasing since June. In December, fluorofentanyl was detected by FTIR in 19.2% of unregulated opioids (178 of 928 samples), whereas fentanyl was detected in 47.2% (438 samples).
- Xylazine was detected by FTIR in 2.4% of unregulated opioids (22 of 928 samples).
- The median fentanyl concentration of unregulated opioids was 16.7%, consistent with the previous month and highest level to-date. See page 3 for more detailed results.

## Number of drug samples checked in the past 6 months



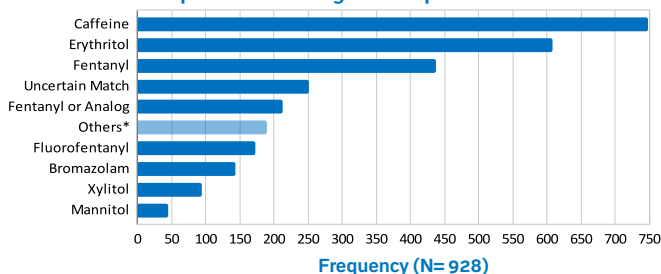
## Number of samples by drug category in December

Opioid	989
Stimulant	497
Depressant	120
Psychedelic	454
Other	26
Polysubstance	4
Unknown	284

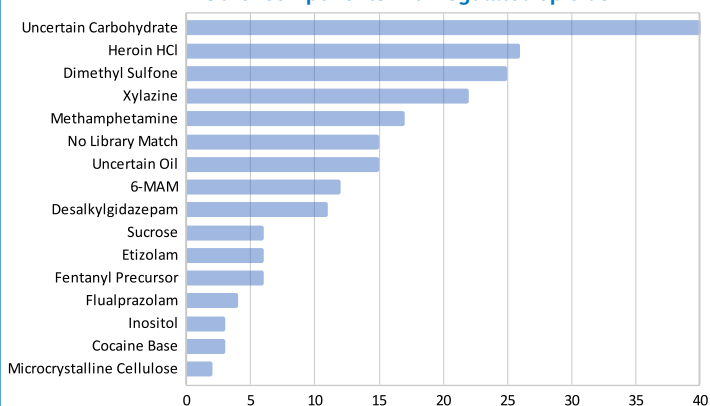
**TOTAL: 2,374**

## Components found in drug samples in December

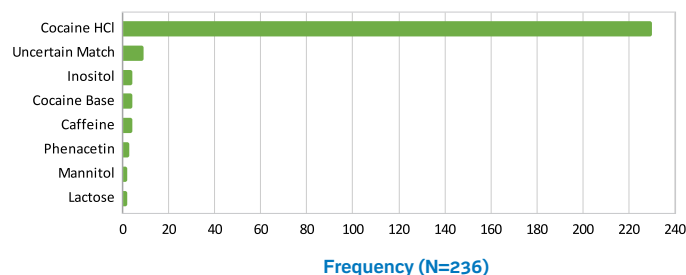
## Components in unregulated opioids



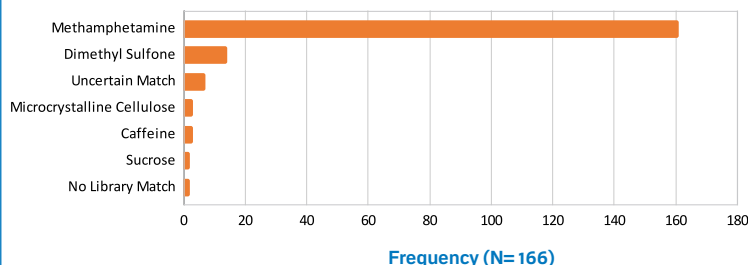
## \* Other components in unregulated opioids



## Components in cocaine



## Components in methamphetamine

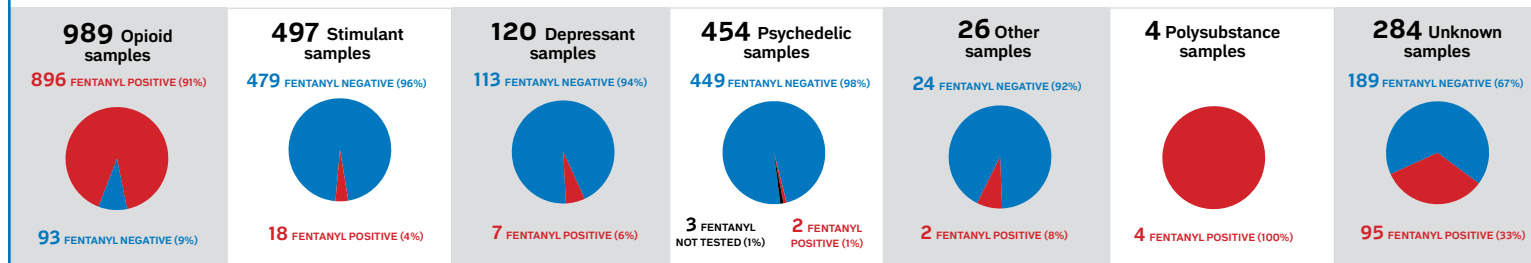


There were additional compounds detected a single time each. To save space, they have been omitted from these charts. For the full list of compounds detected, visit our data dashboard at [www.drugcheckingbc.ca/dashboard/](http://www.drugcheckingbc.ca/dashboard/)

December  
2023

# Drug Checking in British Columbia

## Number of samples tested with fentanyl present



## PUBLIC HEALTH NOTIFICATIONS

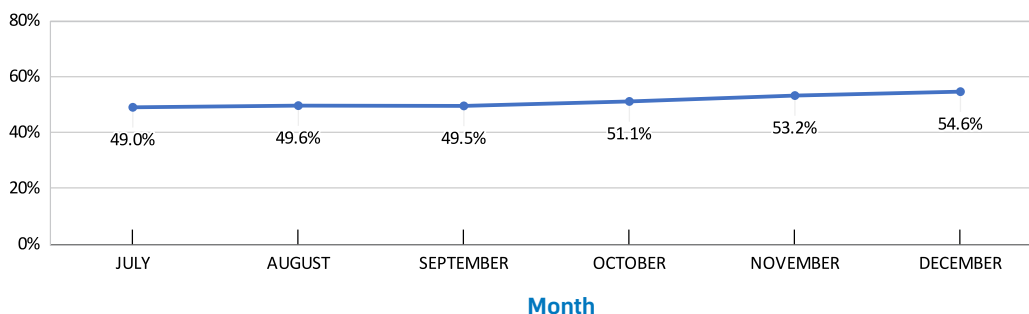
Date & Location	Expected Drug	FTIR Spectroscopy Results	Fentanyl Strip	Benzo Strip	Alert Message
December 4, 2023 Vancouver	Down	Caffeine, Fentanyl, Xylazine	Positive	Positive	Blue granules sold as down in the DTES of Vancouver tested positive for fentanyl, xylazine, and benzos
December 5, 2023 Sechelt	Down	Caffeine, Erythritol, Xylazine, Fentanyl or Analog	Positive	Positive	Dark orange pebbles from Schelt tested positive for fentanyl, xylazine, and benzos
December 18, 2023 Nelson	Down	Caffeine, Fentanyl, Erythritol, Xylazine, Bromazolam	Positive	Positive	Pink chunks sold as down tested positive for high amounts of fentanyl (25%), bromazolam (17%), and xylazine (11%) in Nelson*
December 21, 2023 Cranbrook	Down	Caffeine, Fentanyl, Erythritol, Xylazine, Uncertain Match	Positive	Positive	Pink chunks sold as down tested positive for high amounts of fentanyl (27%), bromazolam (17%), and xylazine (26%) in Cranbrook*
December 21, 2023 Vancouver	Oxycodone	Microcrystalline Cellulose, AMB-FUBINACA, Uncertain Match, Uncertain Oil	Negative	Negative	Dark green granules sold as oxycodone in Vancouver tested positive for AMB-FUBINACA, a synthetic cannabinoid, and negative for oxycodone

\*Quantitative results provided by complementary testing partner Substance using Paper Spray Mass Spectrometry, all other spectroscopy results are determined by FTIR.

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

Benzodiazepine-positivity

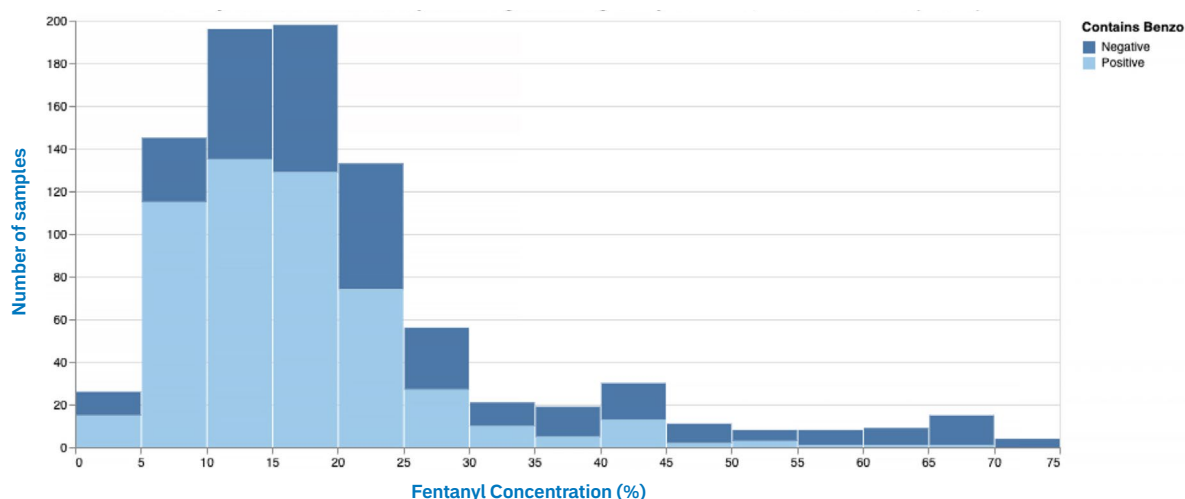


During the month of December, **54.6%** of expected opioid samples tested positive for benzodiazepines in our partner sites around BC (**540 samples of 989 checked**). Opioid samples are checked for benzodiazepine-positivity using BTNX test strips and the FTIR spectrometer. The results presented here are derived from both of these technologies and are presumptive until confirmed by a laboratory.

## 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, December 2023



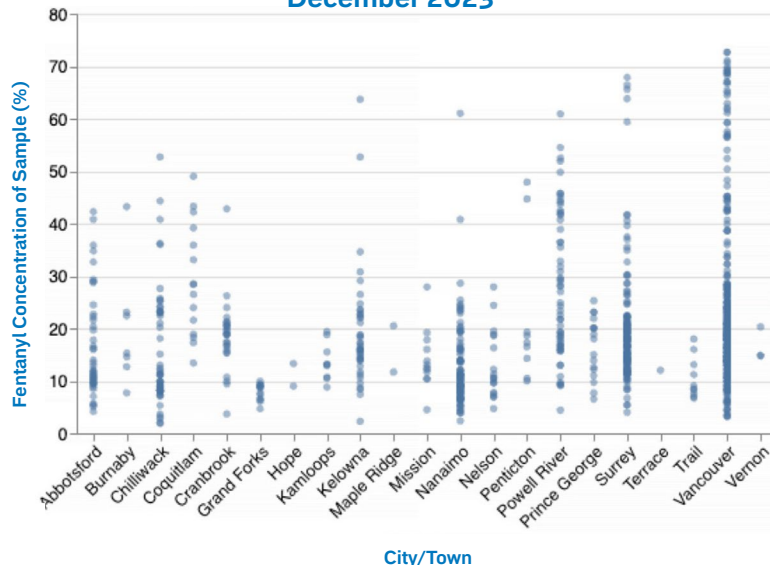
While most of fentanyl-positive opioids checked have a concentration of fentanyl between 10% and 20%, there remain many samples above 20% fentanyl-by-weight, and concentrations can approach 75% of the mixture. The median fentanyl concentration of all samples was 16.7% in December, consistent with the previous month. 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 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](mailto:drugchecking@bccsu.ubc.ca).

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



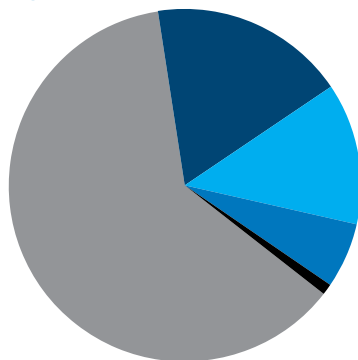
December  
2023

# Drug Checking in British Columbia

## Number of samples tested by region:

Total #: 2,374

1,471: Vancouver Coastal  
Health region (62%)



427: Fraser Health region (18%)

309: Interior Health region (13%)

145: Vancouver Island  
Health Region (6%)

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	925	56	8	989
Stimulant	482	15	0	497
Depressant	100	17	3	120
Psychedelic	416	27	11	454
Other	11	8	7	26
Polysubstance	4	0	0	4
Unknown	0	0	284	284
Total	1938	123	313	2374

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.

## 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		169	2	0	171
Heroin		21	13	0	34
Down		705	18	0	723
Pharmaceutical		18	23	8	49
Opium		12	0	0	12
Total		925	56	8	989

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 benzodiazepine 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:



Health Canada

Santé Canada



fraserhealth



Interior Health



Canadian Mental Health Association

