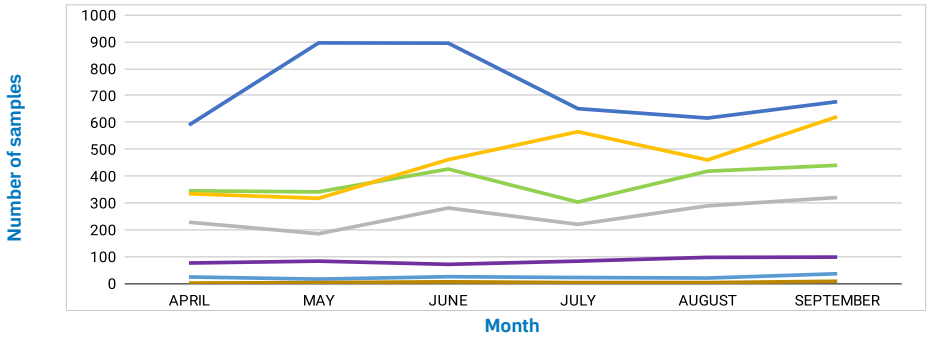
September 2022

Drug Checking in British Columbia

Key Findings

- In September, a total of 2200 samples were tested, the most drug checks performed in one month to date. Samples were tested at 27 access points offering FTIR services across BC.
- An increase in the number of drugs tested in the psychedelics category in September was a result of the higher number of psychedelics tested at GYDT in the VCH region, and drug checking at a small festival in the Interior region. Data from drug checking services provided at larger festivals will be published in a separate report.
- Benzodiazepines were detected in 34.9% of all opioids tested at BC drug checking sites, a rate consistent with previous months. As always, the true rate may be higher than reported here because benzodiazepines, and benzodiazepine-like substances like etizolam, may be missed by drug checking technologies.
- In September, etizolam was the most frequent benzodiazepine detected by FTIR overall, present in 16 opioid samples, followed by bromazolam, which was detected in 14 opioid samples. This indicates samples had concentrations of benzodiazepines above 5%, high enough to be detectable by FTIR.
- The fentanyl analogue para-fluorofentanyl appeared in down more frequently this month, detected in 36 samples by FTIR. Para-fluorofentanyl is believed to be less potent than fentanyl and is accurately detected with fentanyl test strips.
- The presence of xylazine, a non-opioid veterinary tranquilizer, continues to be detected by FTIR drug checking services in BC. Xylazine was detected in 13 opioid samples in September, twice as many detected in the previous month.
- The median fentanyl concentration of all opioid samples was 16.4%, a slight increase from 15.8% last month. See page 3 for more detailed results.

Number of drug samples checked in the past 6 months



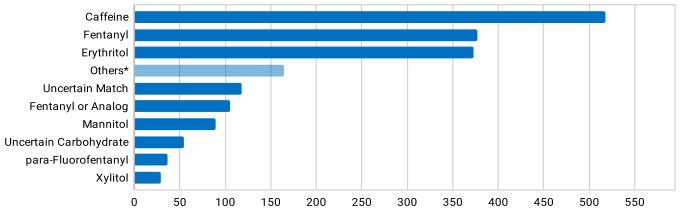
Number of samples by drug category in September

Opioid	677
Stimulant	440
Depressant	98
Psychedelic	621
Other	36
Polysubstance	8
Unknown	320

TOTAL: 2,200

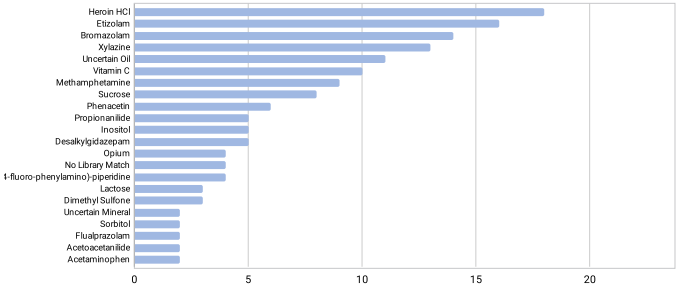
Components found in drug samples in September

Components in opioids



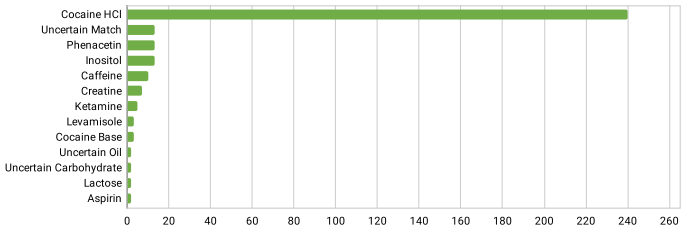
Frequency (N= 635)

*Other components found in opioids



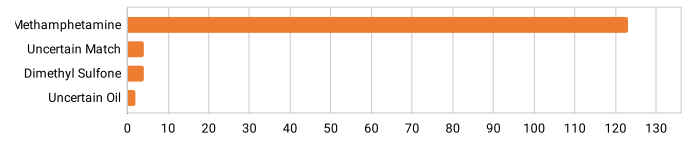
Frequency (N= 635)

Components in cocaine



Frequency (N= 252)

Components in methamphetamine



Frequency (N= 126)

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/

September 2022

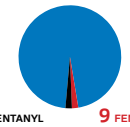
Drug Checking in British Columbia

Number of samples tested with fentanyl present

677 Opioid samples
605 FENTANYL POSITIVE (89%)

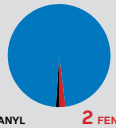
72 FENTANYL NEGATIVE (11%)

440 Stimulant samples
424 FENTANYL NEGATIVE (96%)



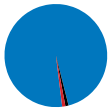
7 FENTANYL NOT TESTED (2%)
9 FENTANYL POSITIVE (2%)

98 Depressant samples
95 FENTANYL NEGATIVE (97%)



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

621 Psychedelic samples
612 FENTANYL NEGATIVE (98%)



4 FENTANYL POSITIVE (1%)
5 FENTANYL NOT TESTED (1%)

320 Unknown samples
250 FENTANYL NEGATIVE (78%)

67 FENTANYL POSITIVE (21%)
3 FENTANYL NOT TESTED (1%)

36 Other samples
34 FENTANYL NEGATIVE (94%)

2 FENTANYL POSITIVE (6%)

8 Polysubstance samples
2 FENTANYL NEGATIVE (25%)

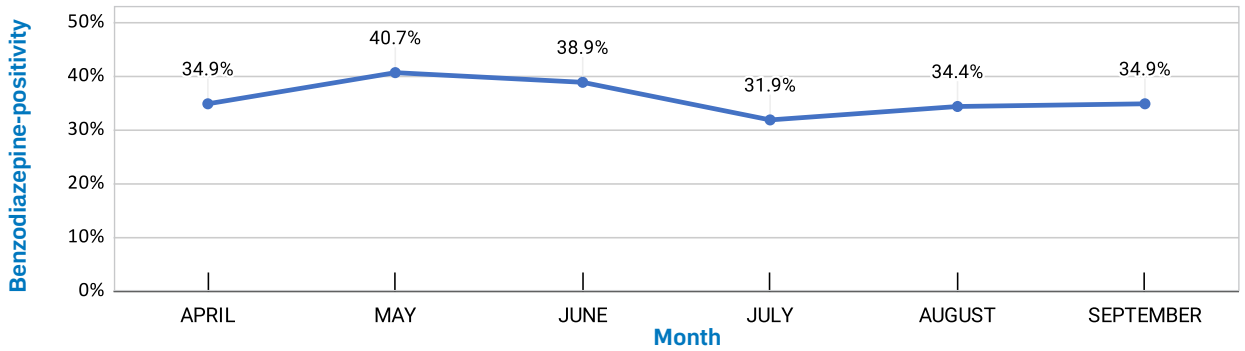
6 FENTANYL POSITIVE (75%)

PUBLIC HEALTH NOTIFICATIONS

Date & Location	Expected Drug	Drugs Detected	Fentanyl Strip	Benzo Strip	Area Purchased	Alert Message
September 1 2022 Vancouver	Methamphetamine	Methamphetamine, Levamisole	Negative	Positive	Vancouver	Unexpected presence of benzodiazepines may pose risk of loss of consciousness.
September 2 2022 Vancouver	Cocaine	Flubromazepam	Positive	Positive	Vancouver	Risk of overdose is high as sample was sold as cocaine but instead tested as a benzodiazepine with fentanyl present. Sample has been associated with an overdose.
September 6 2022 Vancouver	Methamphetamine	Methamphetamine	Positive	Positive	Powell River	Unexpected presence of fentanyl and benzodiazepines poses risk of overdose.
September 8 2022 Nelson	Down/Fentanyl	Fentanyl, Fluorofentanyl, Bromazolam	Positive	Positive	Nelson	Combination of fentanyl/fentanyl analogue and benzodiazepine poses high risk of overdose, fatal overdose, and loss of consciousness
September 26 2022 Vancouver	Fentanyl	Xylazine, Fentanyl	Positive	Negative	Vancouver	Sample was sold as fentanyl but primarily contained a high concentration of xylazine, an animal tranquilizer linked to soft tissue injury.
September 26 2022 Vancouver	MDMA	MDMA, TFMPP	Negative	N/A	Vancouver	TFMPP is a piperazine-derived novel stimulant, which may cause adverse symptoms such as agitation and anxiety.

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 September, **34.9%** of expected opioid samples tested positive for benzodiazepines in our partner sites around BC **(236 samples of 677 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.

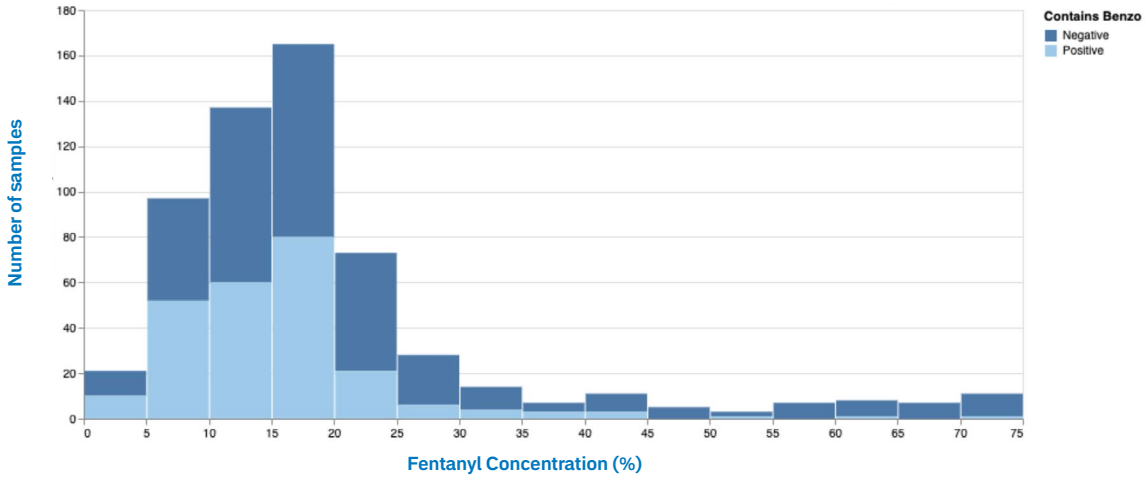
September 2022

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, September 2022



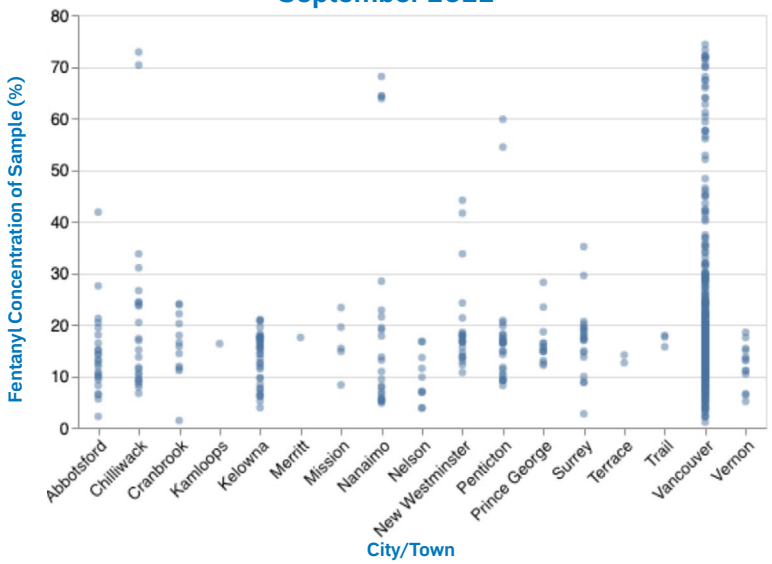
While most of fentanyl-positive opioids checked have a concentration of fentanyl between 5% and 15%, there remain many samples above 15% fentanyl-by-weight, and concentrations can approach 75% of the mixture. The median fentanyl concentration of all samples was 16.4%, up from 15.8% last month. When purchasing 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's hard 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 carfentanil. Carfentanil is a 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, September 2022

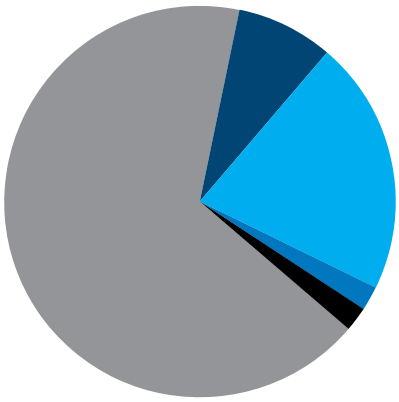


September 2022

Drug Checking in British Columbia

Number of samples tested by region:

Total #: 2,200



1,476: Vancouver Coastal Health region (67%)

176: Fraser Health region (8%)

465: Interior Health region (21%)

39: Vancouver Island Health Region (2%)

44: Northern Health region (2%)

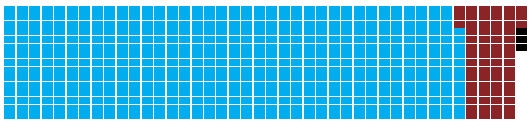
Number of samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG:
Depressant
98 Samples Tested

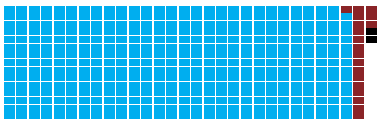
Matched: 46
Did not match: 51
Match not determined: 1

EXPECTED DRUG:
Psychedelic
621 Samples Tested



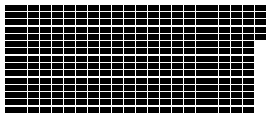
Matched: 552
Did not match: 66
Match not determined: 3

EXPECTED DRUG:
Stimulant
440 Samples Tested



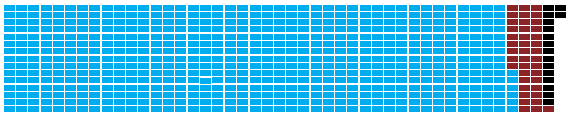
Matched: 419
Did not match: 19
Match not determined: 2

EXPECTED DRUG:
Unknown
320 Samples Tested



Match not determined: 320

EXPECTED DRUG:
Opioid
677 Samples Tested



Matched: 621
Did not match: 40
Match not determined: 16

EXPECTED DRUG:
Other
36 Samples Tested

Matched: 24
Did not match: 12

EXPECTED DRUG:
Polysubstance
8 Sample Tested

Matched: 5
Did not match: 3

Total
2,200 Samples Tested

Matched: 1,667
Did not match: 191
Match not determined: 342

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

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

Opioid September include: *"down," heroin, fentanyl, pharmaceutical opioids*

Polysubstance includes: *cross-category mixtures*

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

Stimulant September 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.*

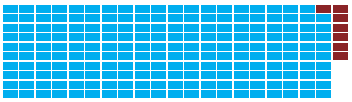
September 2022

Drug Checking in British Columbia

Number of opioid samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG:
Fentanyl
206 Samples Tested



Matched: 199
Did not match: 7

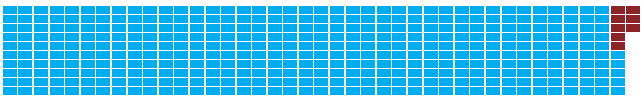
EXPECTED DRUG:
Heroin
19 Samples Tested

Matched: 13
Did not match: 6

EXPECTED DRUG:
Opium
5 Samples Tested

Matched: 5

EXPECTED DRUG:
Down
403 Samples Tested



Matched: 395
Did not match: 8

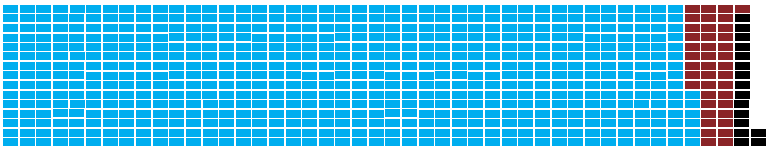
EXPECTED DRUG:
Pharmaceutical
42 Samples Tested

Matched: 9
Did not match: 17
Match not determined: 16

EXPECTED DRUG:
Other Opioid
2 Samples Tested

Did not match: 2

Total
677 Samples Tested



Matched: 621
Did not match: 40
Match not determined: 16

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:

British Columbia Centre on Substance Use · Health Canada · Santé Canada · Vancouver Coastal Health · fraserhealth · Interior Health · northern health · island health · CRISM British Columbia · Providence Health Care Research Institute · Providence Health Care · St. Paul's Foundation · UBC · Mountainside Harm Reduction Society · insite · ANKORS · ASK Wellness Society · O.P.S. · Canadian Mental Health Association · Purpose · phs Community Services Society · Lookout Housing + Health Society · The Pounds Project · GetYourDrugsTested.com