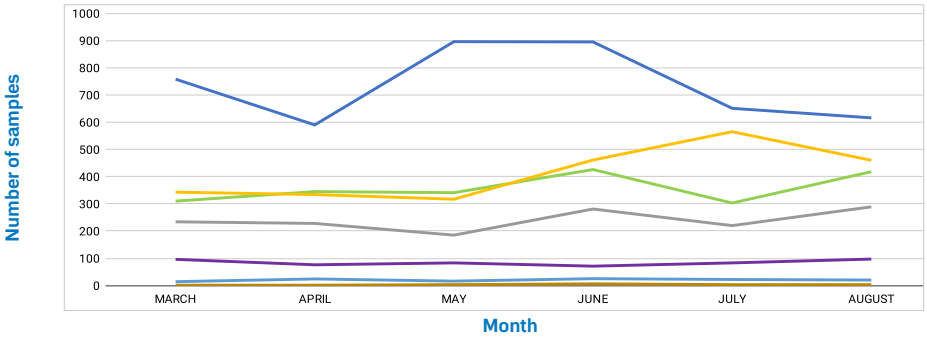
August 2022

Drug Checking in British Columbia

Key Findings

- August 2022 saw an increase in overall drug checks compared to the previous month. Drug checking provided at two music festivals in Fraser and Interior regions account for these small increases. Data from drug checking services provided at larger festivals will be published in a separate report.
- Benzodiazepines were detected in 34.4% of all opioids tested at BC drug checking sites, a slight increase from July. As always, the true rate may be higher than reported here because benzodiazepine-like substances like etizolam, may be missed by drug checking technologies.
- Etizolam was the most frequently detected benzodiazepine in August overall, present in 16 opioid samples, indicating its presence in concentrations high enough to be detectable by FTIR (>5%).
- Desalkylgidazepam, a novel benzodiazepine, was detected in 11 opioid samples in August, mostly occurring within the Lower Mainland.
- The presence of xylazine, a non-opioid veterinary tranquilizer, was detected in 6 opioid samples in August.
- The median fentanyl concentration of all samples was 15.8%, up from 14.3% last month. See page 3 for more detailed results.
- 11 alerts were issued across the regions in August. Many alerts concerned samples being sold as one substance but testing as other unexpected substances (e.g. sold as crack cocaine but testing as fentanyl with xylazine).

Number of drug samples checked in the past 6 months



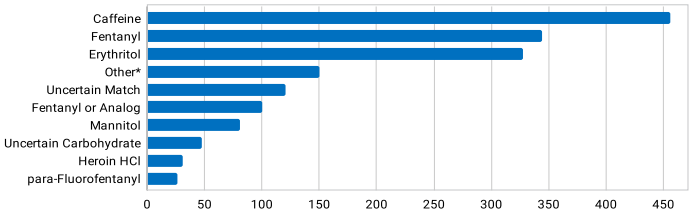
Number of samples by drug category in August

Opioid	616
Stimulant	418
Depressant	97
Psychedelic	460
Other	20
Polysubstance	3
Unknown	289

TOTAL: 1,903

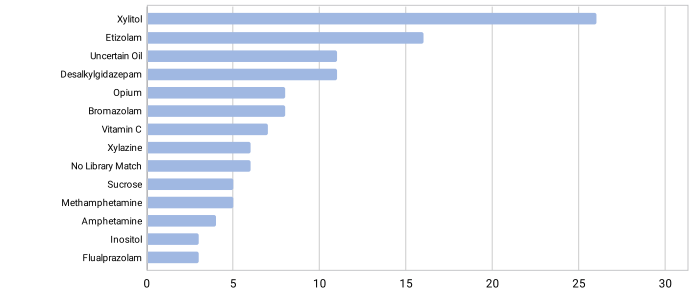
Components found in drug samples in August

Components in opioids



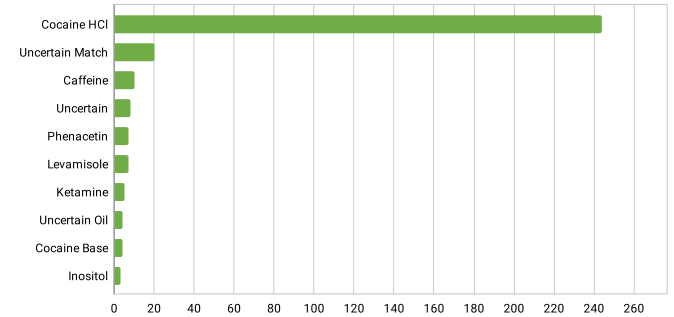
Frequency (N= 570)

*Other components found in opioids



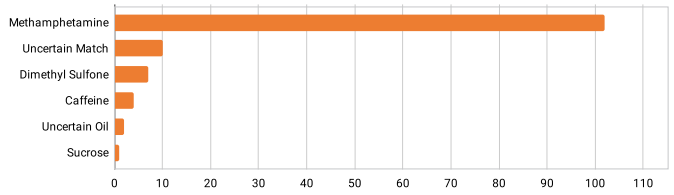
Frequency (N= 570)

Components in cocaine



Frequency (N= 261)

Components in methamphetamine



Frequency (N= 108)

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/

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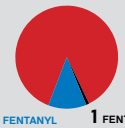
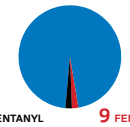
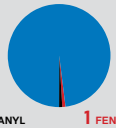
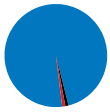
Number of samples tested with fentanyl present

616 Opioid samples
541 FENTANYL POSITIVE (87%)

74 FENTANYL NEGATIVE (12%)
1 FENTANYL NOT TESTED (1%)

418 Stimulant samples
402 FENTANYL NEGATIVE (96%)

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

97 Depressant samples
95 FENTANYL NEGATIVE (98%)

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

460 Psychedelic samples
450 FENTANYL NEGATIVE (98%)

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

289 Unknown samples
163 FENTANYL NEGATIVE (56%)

121 FENTANYL POSITIVE (42%)
5 FENTANYL NOT TESTED (2%)

20 Other samples
18 FENTANYL NEGATIVE (90%)

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

3 Polysubstance samples

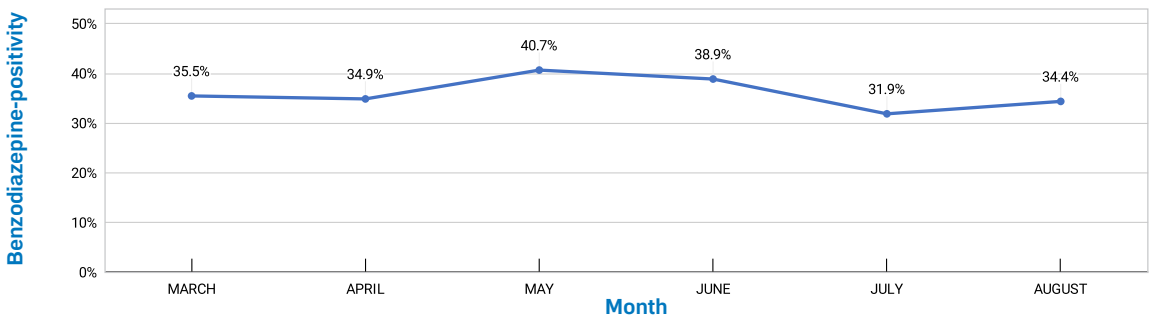
3 FENTANYL POSITIVE (100%)

PUBLIC HEALTH NOTIFICATIONS

Date & Location	Expected Drug	Drugs Detected	Fentanyl Strip	Benzo Strip	Area Purchased	Alert Message
August 2 2022 Vancouver	Down	Caffeine, Fentanyl, Heroin, MDMA	Positive	Positive	Vancouver	Combining depressants such as opioids and benzodiazepines increases the risk of overdose. Sample also contained an unexpected stimulant.
August 8 2022 Vancouver	Unknown	Microcrystalline Cellulose, Fentanyl	Positive	Negative	Vancouver	Sample resembled a morphine pill, but contained a high concentration of fentanyl, increasing the risk of overdose.
August 8 2022 Vancouver	Fentanyl	Xylazine	Negative	Negative	Vancouver	Sample was sold as fentanyl but instead contained a high concentration of xylazine, an animal tranquilizer linked to soft tissue injury.
August 9 2022 Trail	Down/Fentanyl	Fentanyl, Bromazolam, Flubromazepam	Positive	Positive	Trail	Combination of high concentrations of fentanyl and benzodiazepines poses high risk of overdose not resolved by naloxone.
August 11 2022 Vancouver	Acetaminophen and Oxycodone	Microcrystalline Cellulose, Fentanyl	Positive	N/A	Vancouver	Risk of overdose is increased as sample was sold as a Percocet pill but instead contains fentanyl.
August 15 2022 Vancouver	Crack Cocaine	Crack Cocaine	Positive	Negative	Vancouver	The unexpected presence of fentanyl poses significant risk of opioid toxicity, especially for opioid-naïve individuals.
August 15 2022 Vancouver	Flubromazolam	Alpha-PHiP	Negative	Negative	Vancouver	Sample was sold as a benzodiazepine but instead tested as a cathinone-class stimulant.
August 15 2022 Vancouver	Fentanyl	GHB	Negative	Negative	Vancouver	Sample was sold as liquid fentanyl, but tested as GHB.
August 19 2022 Vancouver	3-HO-PCP	Fentanyl	Positive	Positive	Vancouver	Risk of overdose is high as sample was sold as a dissociative, but tested as high concentration of fentanyl with benzodiazepines present.
August 19 2022 Vancouver	Crack Cocaine	Fentanyl, Xylazine, Caffeine, Erythritol	Positive	Positive	Vancouver	Combination of fentanyl, xylazine, and benzodiazepines poses very high risk of overdose, especially when unexpected. This sample has been associated with multiple overdoses.
August 23 2022 Vancouver	Cocaine	Mannitol, Caffeine, Fentanyl, Methamphetamine	Positive	Negative	Vancouver	Sample poses a very high risk of overdose, as was sold as cocaine, but instead contains fentanyl. This sample has been associated with an overdose.

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 August, **34.4%** of expected opioid samples tested positive for benzodiazepines in our partner sites around BC **(212 samples of 616 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.

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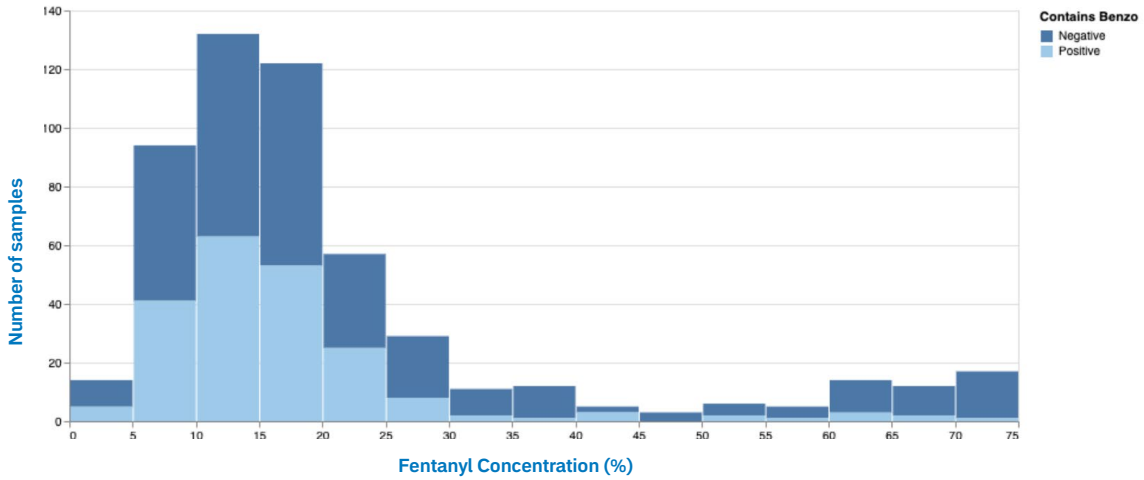
Fentanyl Quantification

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, August 2022



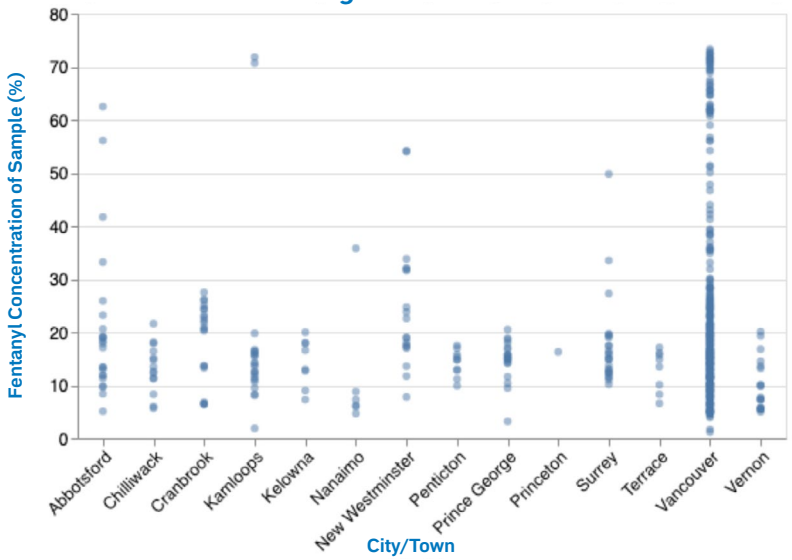
While most of fentanyl-positive opioids checked have a concentration of fentanyl between 5% and 15%, there remain many samples above 15% fentanyl-by-weight, and concentrations can approach 75% of the mixture. The median fentanyl concentration of all samples was 15.8%, up from 14.3% last month. When purchasing 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, August 2022



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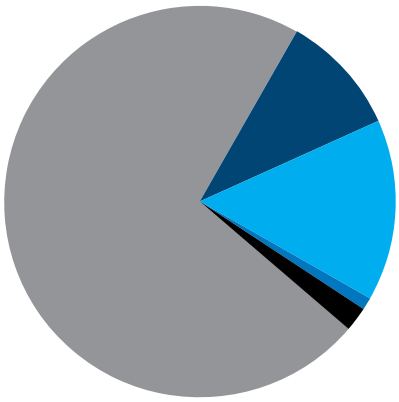
Drug Checking in British Columbia

Number of samples tested by region:

Total #: 1,903



1,366: Vancouver Coastal Health region (72%)

184: Fraser Health region (10%)

286: Interior Health region (15%)

18: Vancouver Island Health Region (1%)

49: Northern Health region (2%)

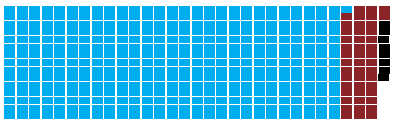
Number of samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG:
Depressant
97 Samples Tested

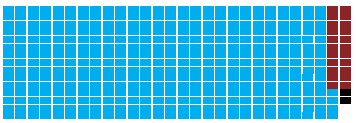
Matched: 61
Did not match: 35
Match not determined: 1

EXPECTED DRUG:
Psychedelic
460 Samples Tested



Matched: 406
Did not match: 46
Match not determined: 8

EXPECTED DRUG:
Stimulant
418 Samples Tested

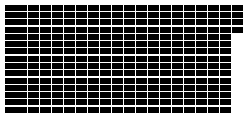


Matched: 394
Did not match: 22
Match not determined: 2

EXPECTED DRUG:
Other
20 Samples Tested

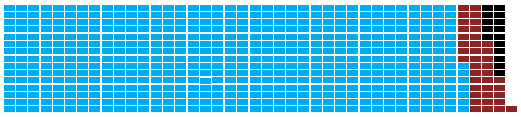
Matched: 12
Did not match: 7
Match not determined: 1

EXPECTED DRUG:
Unknown
289 Samples Tested



Match not determined: 289

EXPECTED DRUG:
Opioid
616 Samples Tested

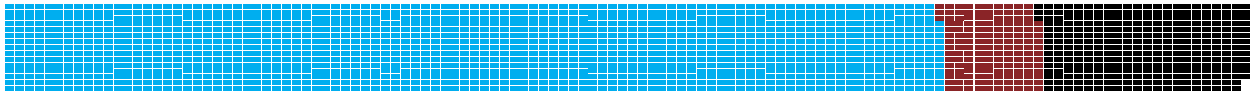


Matched: 562
Did not match: 39
Match not determined: 15

EXPECTED DRUG:
Polysubstance
3 Sample Tested

Matched: 2
Did not match: 1

Total
1,903 Samples Tested



Matched: 1,437
Did not match: 150
Match not determined: 316

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

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

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

Polysubstance includes: *cross-category mixtures*

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

Stimulant August 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.*

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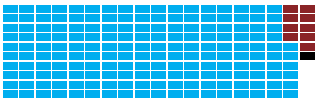
Number of opioid samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG:
Fentanyl
186 Samples Tested



Matched: 176
Did not match: 9
Match not determined: 1

EXPECTED DRUG:
Heroin
20 Samples Tested

Matched: 16
Did not match: 4

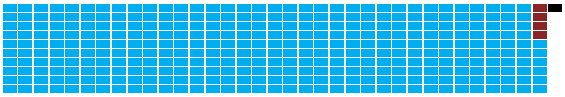
EXPECTED DRUG:
Fentanyl and Heroin
1 Samples Tested

Did not match: 1

EXPECTED DRUG:
Opium
9 Samples Tested

Matched: 8
Match not determined: 1

EXPECTED DRUG:
Down
351 Samples Tested



Matched: 346
Did not match: 4
Match not determined: 1

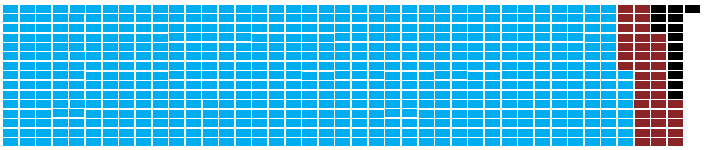
EXPECTED DRUG:
Pharmaceutical
46 Samples Tested

Matched: 17
Did not match: 18
Match not determined: 11

EXPECTED DRUG:
Other Opioid
3 Samples Tested

Did not match: 3

Total
616 Samples Tested



Matched: 563
Did not match: 39
Match not determined: 14

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 · 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