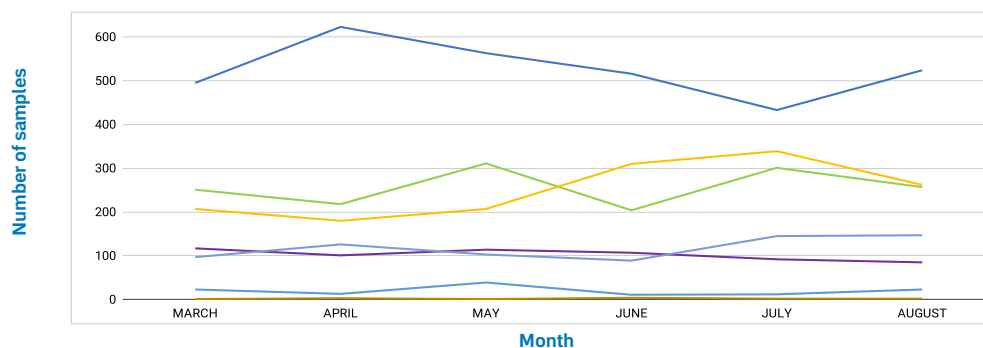


Key Findings

- The percentage of opioids testing positive for benzodiazepines across BC drug checking sites (25%) has increased to the highest level since the start of this project. The true rate may be higher than reported here because etizolam, the predominant benzodiazepine in expected opioids, may be missed by drug checking technologies.
- In samples sent for confirmatory testing, carfentanil was detected in samples expected to be fentanyl and *down*. When carfentanil is detected, fentanyl is detected alongside it over half of the time. Fentanyl test strips may detect carfentanil if the concentration is high enough, but cannot differentiate it from regular fentanyl.
- Fentanyl was detected in 6 non-opioid drug samples: 4 in Vancouver Coastal Health, 1 in Interior Health, and 1 in Island Health.
- The median fentanyl concentration of opioids checked was 12.7%, increasing from 11.5% last month. See page 3 for more detailed results on fentanyl concentrations.

Number of drug samples checked in the past 6 months



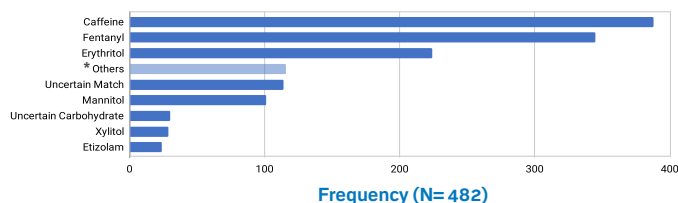
Number of samples by drug category in August

Opioid	524
Stimulant	257
Depressant	85
Psychedelic	262
Other	23
Polysubstance	2
Unknown	147

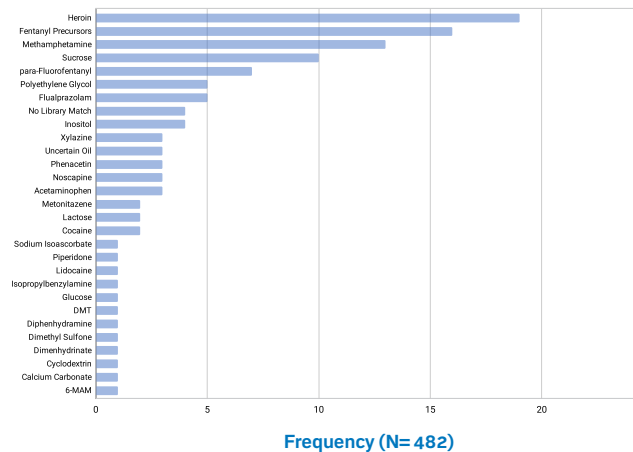
TOTAL: 1300

Components found in drug samples in August

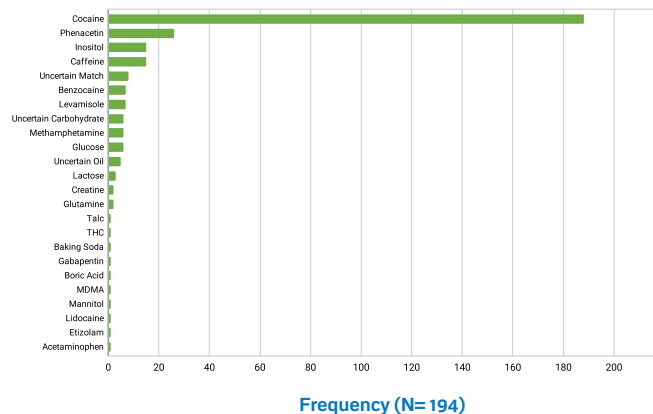
Components in opioids



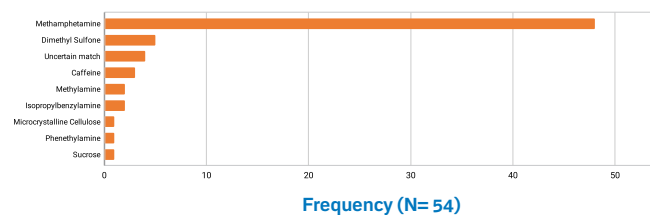
* Other components found in opioids



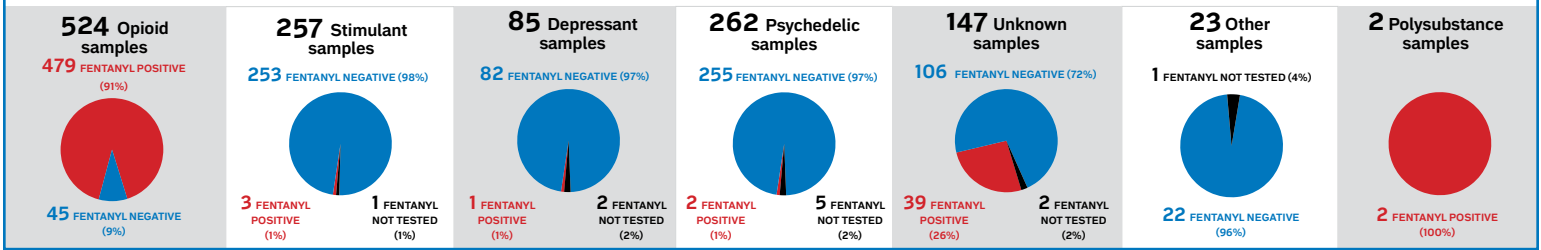
Components in cocaine



Components in methamphetamine



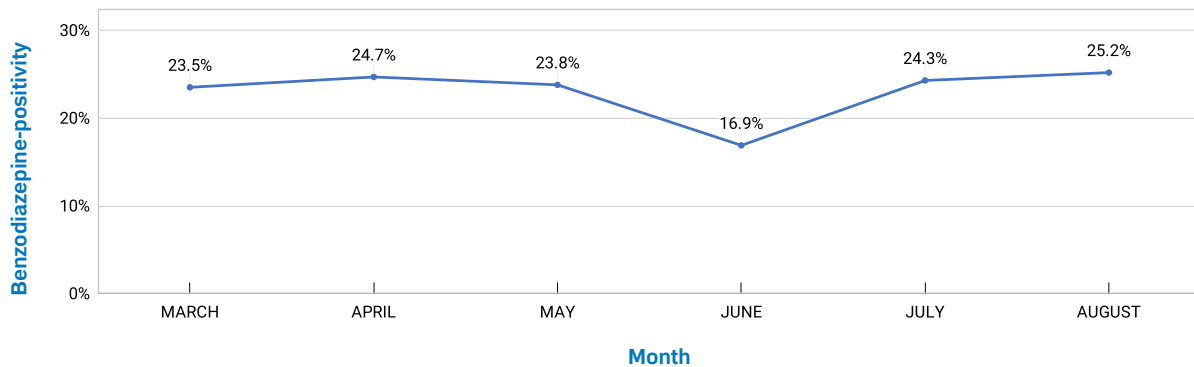
Number of samples tested with fentanyl present



PUBLIC HEALTH NOTIFICATIONS

Date & Location	Expected Drug	Drugs Detected	Fentanyl Strip	Benzo Strip	Area Purchased	Alert Message
August 30, 2021 Get Your Drugs Tested Vancouver	2C-B	Dimethyl Sulfone, 3-MeO-PCP, MDMA, Uncertain match	Positive	Negative	Vancouver	3-MeO-PCP can cause psychosis in high doses and fentanyl can cause opioid toxicity especially for opioid-naïve individuals.
August 24, 2021 Get Your Drugs Tested Vancouver	Down (Unknown Opioid)	Flualprazolam, Fentanyl	Positive	Positive	Vancouver	Flualprazolam is a potent benzodiazepine that may cause drowsiness, especially when consumed unintentionally.
August 11, 2021 Get Your Drugs Tested Vancouver	Cocaine	Etizolam	Negative	Positive	Vancouver	Etizolam is a benzodiazepine derivative that may cause drowsiness, especially when consumed unintentionally.

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



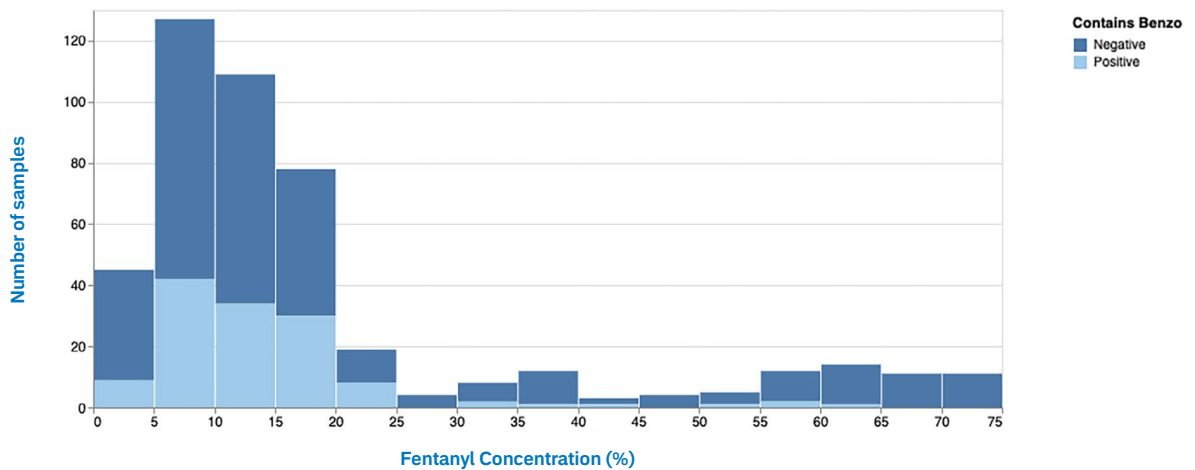
During the month of August, **25.2%** of expected opioid samples tested positive for benzodiazepines in our partner sites around BC (**132 samples of 524 checked**). Opioid samples are checked for benzodiazepine-positivity using BTNX test strips and the FTIR spectrometer. The results presented here are derived from both of these technologies and are presumptive until confirmed by a laboratory.

Fentanyl Quantification

Since May 2021, the BCCSU Drug Checking Project has included two visualizations of fentanyl quantification data in the monthly public health reports. The visualizations highlight the range in the concentration of fentanyl in unregulated opioids.

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 (Tobias et al., 2021; Tobias & Ti, 2021). 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 2021



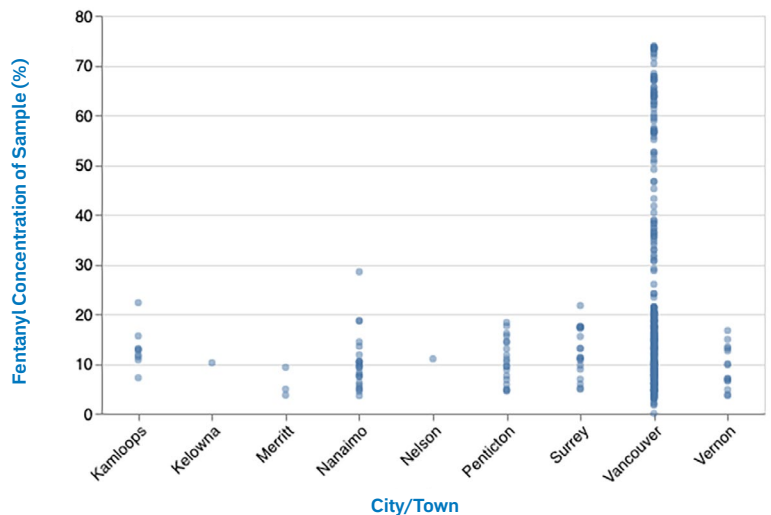
While over half of all samples fall between 5% and 15% concentration of fentanyl, over a third of samples are above 15% fentanyl-by-weight, and concentrations can approach 80% of the mixture. The median fentanyl concentration of all samples was 12.7%, up from 11.9% last month. When purchasing fentanyl 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 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.

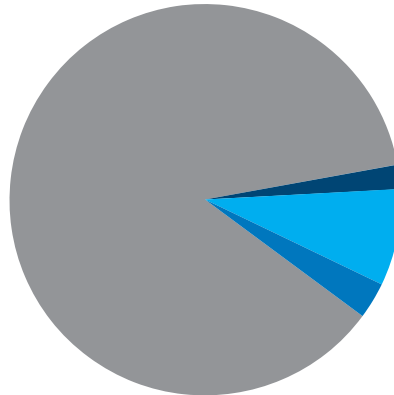
Fentanyl Concentration of Opioid Samples by City/Town, August 2021



Number of samples tested by region:

Total #: 1,300

1,131: Vancouver Coastal Health region (87%)




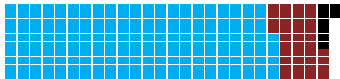


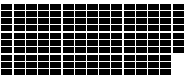
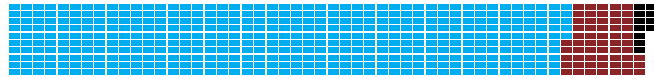

22: Fraser Health region (2%)

110: Interior Health region (8%)

37: Vancouver Island Health Region (3%)

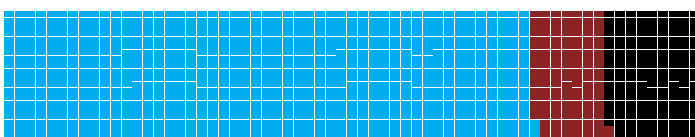
Number of samples that matched expectation

using FTIR/test strip drug checking

<p>EXPECTED DRUG: Depressant 85 Samples Tested</p>  <p>Matched: 57 Did not match: 26 Match not determined: 2</p>	<p>EXPECTED DRUG: Psychedelic 262 Samples Tested</p>  <p>Matched: 216 Did not match: 38 Match not determined: 8</p>	<p>EXPECTED DRUG: Stimulant 257 Samples Tested</p>  <p>Matched: 241 Did not match: 14 Match not determined: 2</p>	<p>EXPECTED DRUG: Other 23 Samples Tested</p>  <p>Matched: 13 Did not match: 2 Match not determined: 8</p>
<p>EXPECTED DRUG: Unknown 147 Samples Tested</p>  <p>Match not determined: 147</p>	<p>EXPECTED DRUG: Opioid 524 Samples Tested</p>  <p>Matched: 455 Did not match: 58 Match not determined: 11</p>		<p>EXPECTED DRUG: Polysubstance 2 Sample Tested</p>  <p>Matched: 1 Did not match: 1</p>

Total

1,300 Samples Tested



Matched: 983
Did not match: 139
Match not determined: 178

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

Depressant may include:
benzodiazepines, etizolam,
GHB, hypnotics

Opioid may include:
"down," heroin, fentanyl,
pharmaceutical opioids

Polysubstance includes:
cross-category mixtures

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

Stimulant may 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.

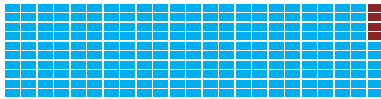
Number of opioid samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG:

Fentanyl

228 Samples Tested



Matched: 224

Did not match: 4

EXPECTED DRUG:

Heroin

43 Samples Tested



Matched: 15

Did not match: 28

EXPECTED DRUG:

Fentanyl and Heroin

2 Samples Tested



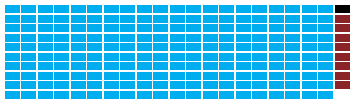
Matched: 1

Did not match: 1

EXPECTED DRUG:

Down

209 Samples Tested



Matched: 200

Did not match: 8

Match not determined: 1

EXPECTED DRUG:

Pharmaceutical

39 Samples Tested



Matched: 16

Did not match: 18

Match not determined: 9

EXPECTED DRUG:

Opium

1 Samples Tested



Matched: 1

EXPECTED DRUG:

Other Opioid

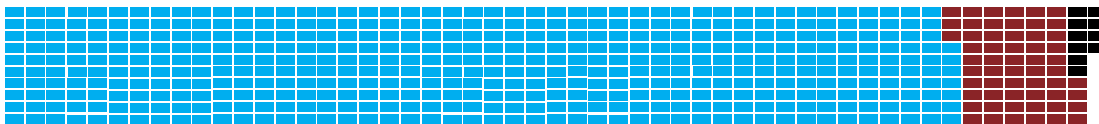
2 Samples Tested



Did not match: 2

Total

524 Samples Tested



Matched: 457

Did not match: 57

Match not determined: 10

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:

