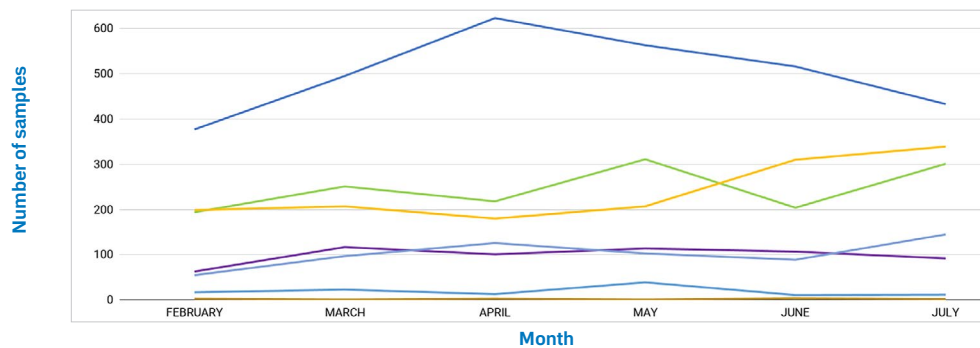


Key Findings

- The percentage of opioids testing positive for benzodiazepines at point-of-care has increased to 24% after a downward blip last month. Etizolam, the predominant benzodiazepine in expected opioids, may be missed by drug checking technologies. This means that the true rate may be higher than reported here.
- In samples sent for confirmatory testing, carfentanil was detected in drugs 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 7 non-opioid drug samples: 4 in Vancouver Coastal and 3 in Interior Health. Among them, 4 were misrepresented samples of down. Many drugs look alike—drug checking can help you confirm what you think you have.
- The median fentanyl concentration of opioids checked was 11.5%, decreasing from 12.6% last month. See page 3 for more detailed results.

Number of drug samples checked in the past 6 months



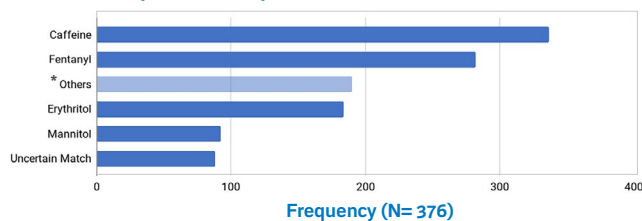
Number of samples by drug category in July

Opioid	433
Stimulant	301
Depressant	92
Psychedelic	339
Polysubstance	2
Other	12
Unknown	145

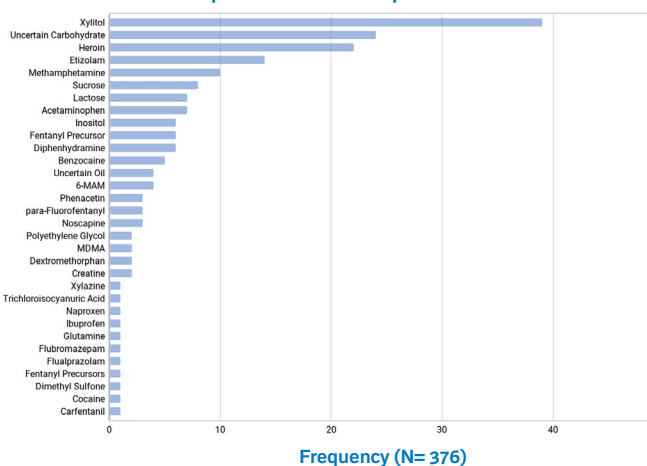
TOTAL: 1324

Components found in drug samples in July

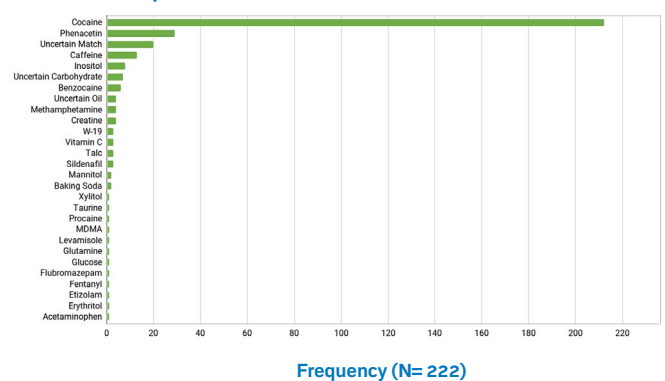
Components in opioids



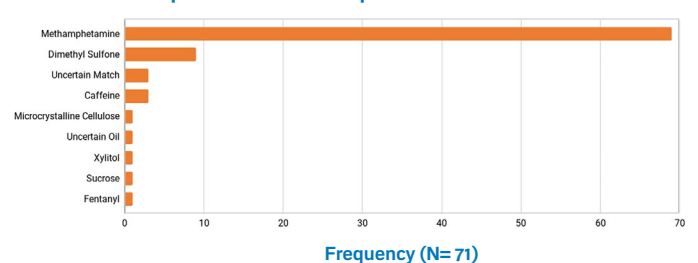
* Other components found in opioids



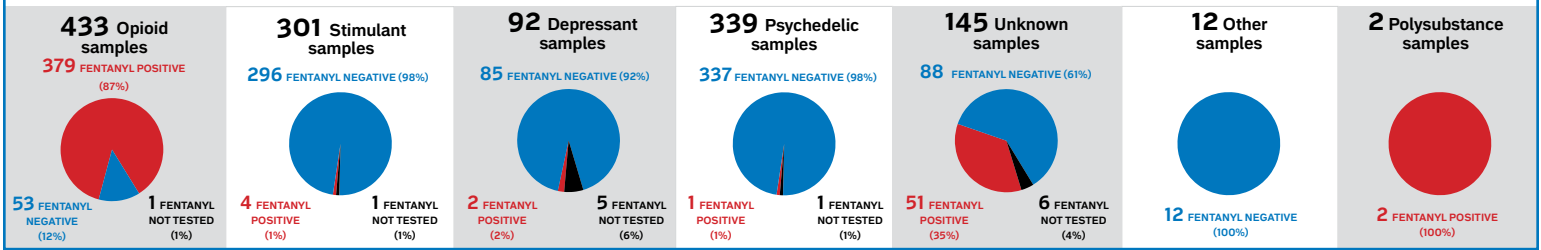
Components in cocaine



Components in methamphetamine



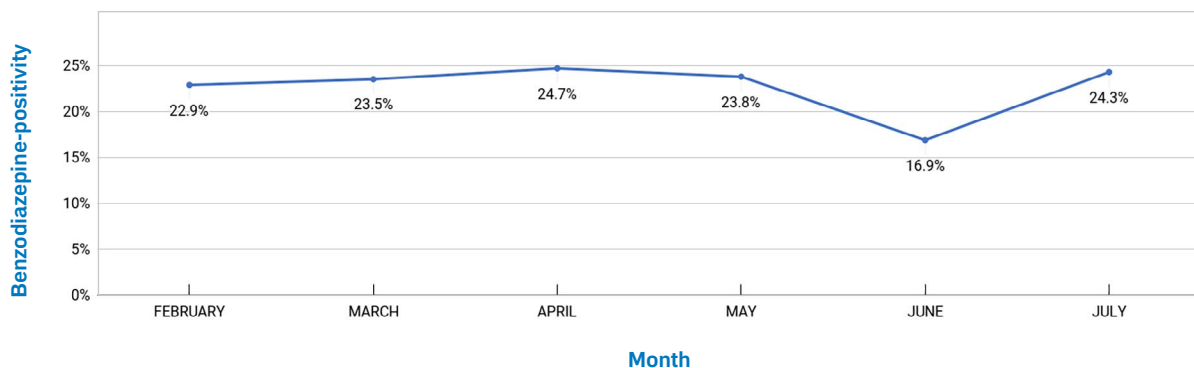
Number of samples tested with fentanyl present



PUBLIC HEALTH NOTIFICATIONS

Date & Location	Expected Drug	Drugs Detected	Fentanyl Strip	Benzo Strip	Area Purchased	Alert Message
July 30 2021 Living Positive Resource Centre, Kelowna	Cocaine	Cocaine, Phenacetin	Positive	N/A	Kelowna	There is a risk of opioid toxicity when stimulants are contaminated with fentanyl.
July 23 2021 Insite Vancouver	Xanax (Alprazolam)	Microcrystalline cellulose	Positive	Positive	Vancouver	Counterfeit Xanax may contain a variety of different drugs other than the expected alprazolam. Drug checking Xanax can help you avoid ingesting unexpected adulterants.
July 21 2021 Get Your Drugs Tested Vancouver	Cocaine	Flubromazepam	Negative	Positive	Vancouver	Benzodiazepines can cause intense drowsiness. Many drugs are white powders, so always get your drugs checked to confirm what you think you have.
July 21 2021 ASK Wellness Kamloops	Methamphetamine	Caffeine, Xylitol, Methamphetamine, Fentanyl	Positive	Positive	Kamloops	The risk of overdose is increased when combining depressants (i.e., benzodiazepines with opioids) especially for people who don't regularly use opioids. Always be suspicious of methamphetamine if it's not a colourless, clear crystal—but still get it checked!
July 19 2021 Get Your Drugs Tested Vancouver	MDMA	Xylazine	Negative	N/A	Unknown	Checking your drugs before you use them can remove your risk of exposure to harmful adulterants. Not much is known about the effect of xylazine in humans since it is only used in veterinary medicine.

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

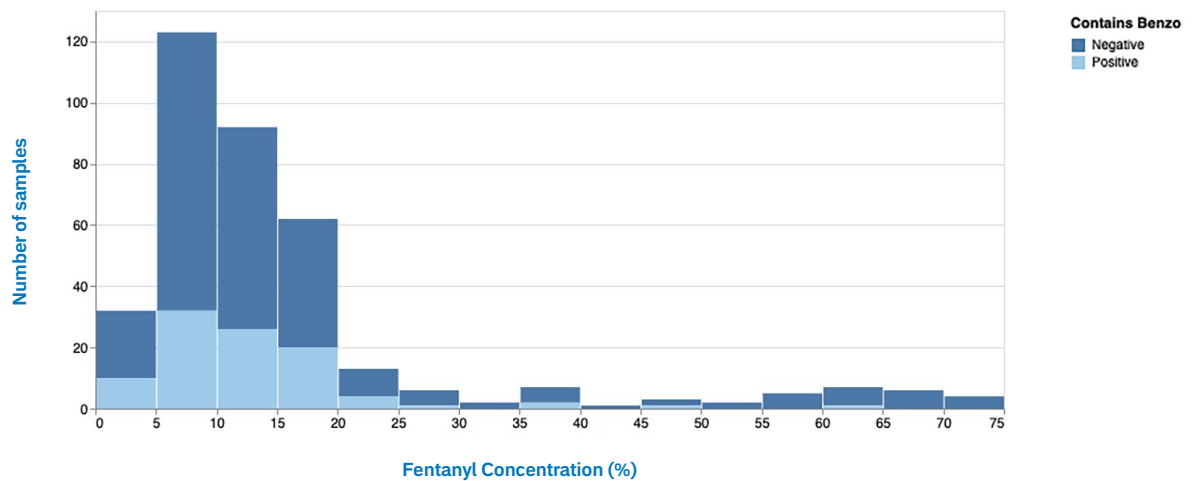


During the month of July, **24.3%** of expected opioid samples tested positive for benzodiazepines using test strips in our partner sites around BC (**105 samples of 433 checked**). Opioid samples are checked for benzodiazepine-positivity using BTNX test strips and the FTIR spectrometer. The results 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 (Tobias et al., 2021; Tobias & Ti, 2021). While point-of-care drug checking technicians can attempt to quantify fentanyl during a drug check, 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 2021



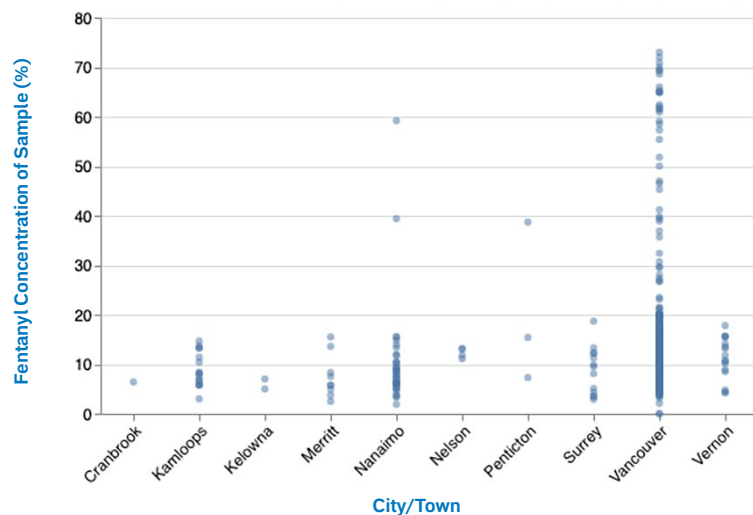
While over half of all samples fall between 5% and 15% concentration of fentanyl, nearly a third of samples are above 15% fentanyl-by-weight, and concentrations can approach 80% of the mixture. The median fentanyl concentration of all samples was 11.5%, down from 12.6% last month. Fentanyl concentration is not associated with benzodiazepine-positivity: samples at all fentanyl concentrations tested positive for benzodiazepines. 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.

Drug supplies vary by location in the province. While samples in smaller communities cluster around 10% fentanyl, outliers present in the results reflect the unpredictability of the supply.

It is very important to remember that the results presented here are fentanyl, not fentanyl analogues like carfentanyl. Carfentanyl 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.

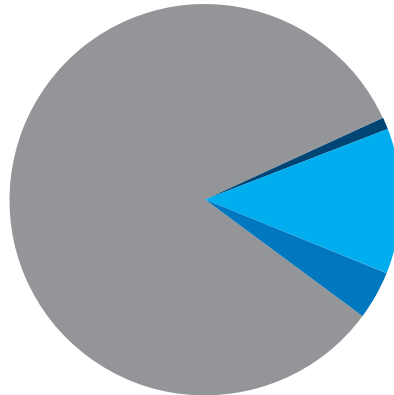
Fentanyl Concentration of Opioid Samples by City/Town, July 2021



Number of samples tested by region:

Total #: 1,324

1,103: Vancouver Coastal Health region (83%)



19: Fraser Health region (1%)

152: Interior Health region (12%)

50: Vancouver Island Health Region (4%)

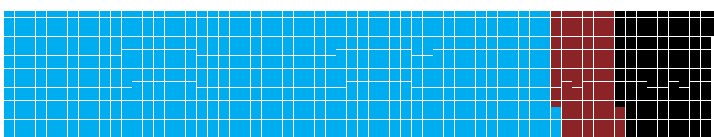
Number of samples that matched expectation

using FTIR/test strip drug checking

<p>EXPECTED DRUG: Depressant 92 Samples Tested</p> <p>Matched: 56 Did not match: 30 Match not determined: 6</p>	<p>EXPECTED DRUG: Psychedelic 339 Samples Tested</p> <p>Matched: 289 Did not match: 39 Match not determined: 11</p>	<p>EXPECTED DRUG: Stimulant 301 Samples Tested</p> <p>Matched: 283 Did not match: 18</p>	<p>EXPECTED DRUG: Other 12 Samples Tested</p> <p>Matched: 8 Did not match: 3 Match not determined: 1</p>
<p>EXPECTED DRUG: Unknown 145 Samples Tested</p> <p>Match not determined: 145</p>	<p>EXPECTED DRUG: Opioid 433 Samples Tested</p> <p>Matched: 387 Did not match: 30 Match not determined: 16</p>	<p>EXPECTED DRUG: Polysubstance 2 Sample Tested</p> <p>Matched: 2</p>	

Total

1,324 Samples Tested



Matched: 1,025
Did not match: 120
Match not determined: 179

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.

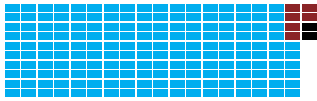
Number of opioid samples that matched expectation

using FTIR/test strip drug checking

EXPECTED DRUG:

Fentanyl

184 Samples Tested



Matched: 176

Did not match: 6

Match not determined: 2

EXPECTED DRUG:

Heroin

29 Samples Tested



Matched: 16

Did not match: 13

EXPECTED DRUG:

Fentanyl and Heroin

2 Samples Tested

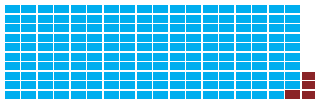


Did not match: 2

EXPECTED DRUG:

Down

179 Samples Tested



Matched: 175

Did not match: 4

EXPECTED DRUG:

Pharmaceutical

36 Samples Tested



Matched: 19

Did not match: 4

Match not determined: 13

EXPECTED DRUG:

Opium

1 Samples Tested



Matched: 1

EXPECTED DRUG:

Other Opioid

2 Samples Tested

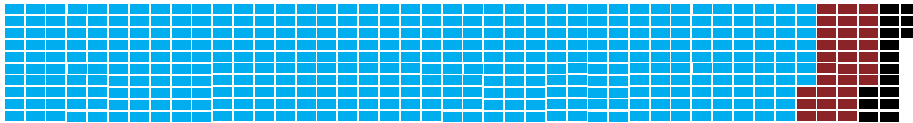


Matched: 1

Match not determined: 1

Total

433 Samples Tested



Matched: 387

Did not match: 30

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 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:

