Preliminary Results for February 2022

The Vancouver Island Drug Checking Project delivers drug checking services in Victoria, BC. Our service has been operating in partnership with SOLID Outreach, AVI Health and Community Services, Lantern Services, Dr. Chris Gill and the team at Vancouver Island University, and the Island Health Authority. This free and confidential service provides information on composition of substances and harm reduction information.

Highlighted findings:

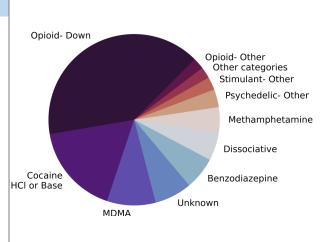
- Carfentanil was found in four samples, all expected opioid-down
- The maximum concentration of carfentanil found was 0.95%, the highest concentration we have seen to date
- 90% of expected opioid-down samples contained fentanyl
- The median fentanyl concentration found was 8.8%, with a maximum of over 80%
- Benzodiazepines and/or etizolam were found in 58.0% of expected opioid-down samples
- The maximum concentration of etizolam found was >25%, in an expected opioid-down sample

Read our blog for further interpretations of our February data.

What were people bringing to be tested?

Service users bring us a wide variety of substances that can be grouped into different drug classes. The table below aggregates the total number of samples we tested by their "expected" substance (i.e. the drug category reported by the service user). These data are visually represented in the pie chart below and are separated by collection location/method on the following page.

Expected substance	Number of Samples
Opioid Down (fentanyl and/or heroin)	131
Cocaine (HCl or Base)	56
Psychedelic (MDMA, MDA, LSD, 2C-B)	41
Benzodiazepine (alprazolam, diazepam, etizolam)	20
Dissociative (ketamine)	17
Methamphetamine	16
Other Stimulants (3-FPM, 3-MMC)	8
Other Opioids (Dilaudid, oxycodone)	7
Other (GHB, cannabinoids, "research chemicals")	7
Unknown/Missing	23



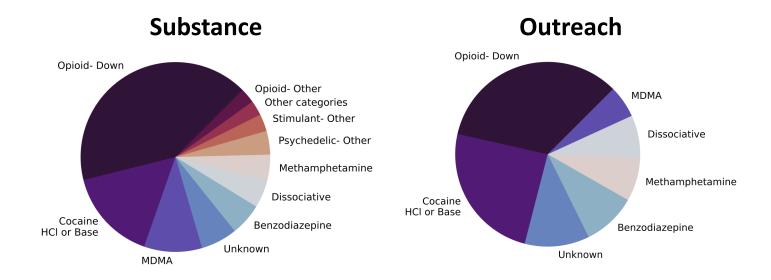
326

Samples Tested 1 - 28 February 2022

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What were people bringing to be tested by service model?

A majority of the samples that we check are brought in to our Victoria storefront by service users, however we also collect and receive samples though various outreach efforts. The "expected substance" data presented on the front page of this document can be separated by sample collection location/method, where "Substance" samples are those brought directly to our storefront, while "Outreach" samples are those collected at supported housing sites, at overdose prevention and supervised consumption locations, through no contact drop-off envelopes, and via mail-in envelopes. These data are tabulated and visualized below.

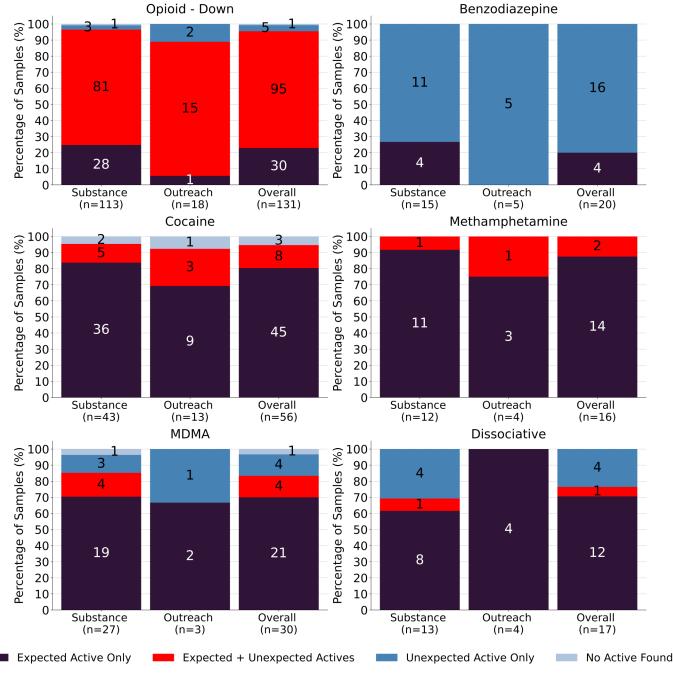


Expected substance	Substance	Outreach	Overall
Opioid Down (fentanyl and/or heroin)	113	18	131
Cocaine (HCl or Base)	43	13	56
Psychedelic (MDMA, MDA, LSD, 2C-B)	38	3	41
Benzodiazepine (alprazolam, diazepam, etizolam)	15	5	20
Dissociative (ketamine)	13	4	17
Methamphetamine	12	4	16
Other Stimulants (3-FMA, 3-MMC)	8	0	8
Other Opioid (Dilaudid, oxycodone)	7	0	7
Other (GHB, cannabinoids, "research chemicals")	7	0	7
Unknown/Missing	17	6	23
Total samples checked	273	53	326

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What did we find?

We tested each sample to determine what active ingredients, adulterants, and cutting agents were present. The majority of samples contained the expected active drug. However, we also detected a number of other notable components that may cause unexpected effects. The figures below illustrate the percentages and numbers of samples tested in each drug category, separated by collection location/method, color coded by their composition. **Dark Purple** regions group samples that were simply as expected with no other notable compounds detected, **Red** shows samples that contained the expected drug *and* were contaminated with an unexpected active, **Dark Blue** groups samples that only contained an unexpected active (the expected drug was not found), and **Light Blue** displays samples where no active compounds were detected.



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What did we find?

Expanding on the figures shown on the previous page, for each drug category and collection location/model, we list the number of samples that contained the expected active and/or other notable components.

Cocaine (HCI or Base)	Substance	Outreach
Expected Active Only	36	9
Cocaine Base	7	1
Cocaine HCI	29	8
Expected* + Unexpected Active(s)	5	3
Cocaine Base*	1	
Cocaine HCI*	4	3
2C-H		1
Benzocaine		1
Levamisole	4	
Phenacetin	1	1
Procaine	2	

Methamphetamine	Substance	Outreach
Expected Active Only	11	3
Methamphetamine	11	3
Expected* + Unexpected Active(s)	1	1
Methamphetamine*	1	1
Cocaine HCl		1
Fentanyl	1	

Data are preliminary. There were missing data for some samples. Instruments may not be able to detect all ingredients and certainty of interpretations may vary. Multiple substances may be present in one sample and substances may be present in trace concentrations. *Expected active component. ¹May be due to limitations of technology to detect certain substances. ²Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.

Opioid Down	Substance	Outreach
Expected Active Only	28	1
Fentanyl	28	1
Heroin	1	
Expected* + Unexpected Active(s)	81	15
Fentanyl*	75	14
Heroin*	9	1
Acetaminophen		1
Acetylcodeine	2	1
Acetylfentanyl		1
Acetylmorphine	6	1
Benzocaine	2	1
Benzodiazepine (undifferentiated) ²	11	2
Carfentanil	2	
Codeine	1	
Etizolam	44	8
Flualprazolam	12	2
Fluorofentanyl	8	3
Furanyl UF-17	1	
Hydromorphone	2	
Lidocaine	1	
Methamphetamine	1	1
Morphine	3	1
Noscapine	1	
THCA-A	1	
Xylazine	1	1
Unexpected Active(s) Only	3	2
Carfentanil	2	
Cocaine HCl	1	
Etizolam		1
Flualprazolam	2	
Methadone		1

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Benzodiazepines	Substance	Outreach
Expected Active Only	4	
Alprazolam	4	
Unexpected Active(s) Only	11	5
Benzocaine		2
Benzodiazepine (undifferentiated) ²		1
Diazepam	1	
Etizolam	8	3
Fentanyl	1	3
Flualprazolam	2	1
Fluorofentanyl	1	

Dissociatives	Substance	Outreach
Expected Active Only	8	4
DMXE	1	
Ketamine	7	4
Expected* + Unexpected Active(s)	1	
Ketamine*	1	
MDA	1	
Unexpected Active(s) Only	4	
Amphetamine	1	
Cocaine HCl	1	
Ketamine	1	
MDMA	1	

Data are preliminary. There were missing data for some samples. Instruments may not be able to detect all ingredients and certainty of interpretations may vary. Multiple substances may be present in one sample and substances may be present in trace concentrations. *Expected active component. ¹May be due to limitations of technology to detect certain substances. ²Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.

Psychedelics	Substance	Outreach
Expected Active Only	23	2
DMT	1	
LSD	3	
MDA	3	
MDMA	16	2
Expected* + Unexpected Active(s)	4	
MDA	4	
MDMA*	4	
Unexpected Active(s) Only	6	1
Cocaine HCl	1	
Etizolam	1	
LSD	1	
MDA	3	1
MDMA	1	

Opioid Other	Substance
Expected Active Only	6
Hydromorphone	3
Morphine	2
Oxycodone	2
Unexpected Active(s) Only	1
Methadone	1

Stimulant Other	Substance
Expected Active Only	4
3-FPM	1
3-MMC	1
5-MAPB	2
Unexpected Active(s) Only	4
Methamphetamine	4
MDA	1

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Other	Substance
Expected Active Only	2
GHB	1
Sildenafil	1
Expected* + Unexpected Active(s)	1
GHB*	1
GBL	1
Unexpected Active(s) Only	1
Nandrolone phenylpropinate	1

Data are preliminary. There were missing data for some samples. Instruments may not be able to detect all ingredients and certainty of interpretations may vary. Multiple substances may be present in one sample and substances may be present in trace concentrations. *Expected active component. ¹May be due to limitations of technology to detect certain substances. ²Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.

Unknown/Missing	Substance	Outreach
Unexpected Active(s) Only	15	6
Acetaminophen	4	
Benzodiazepine (undifferentiated) ²		1
Cocaine HCI	3	
Cyclobenzaprine	1	
Etizolam	1	3
Fentanyl	5	3
Flualprazolam	1	
Flubromazepam	1	
Fluorofentanyl		1
Hydromorphone	1	
MDMA	2	
Methamphetamine	1	2
Morphine	1	
Xylazine	1	1

Quantification

Using paper spray mass spectrometry (PS-MS) data, we were able to quantify low concentration compounds. These aggregate values are inclusive to all expected drug categories in which the active drugs are found. Weight percentage is reported below.

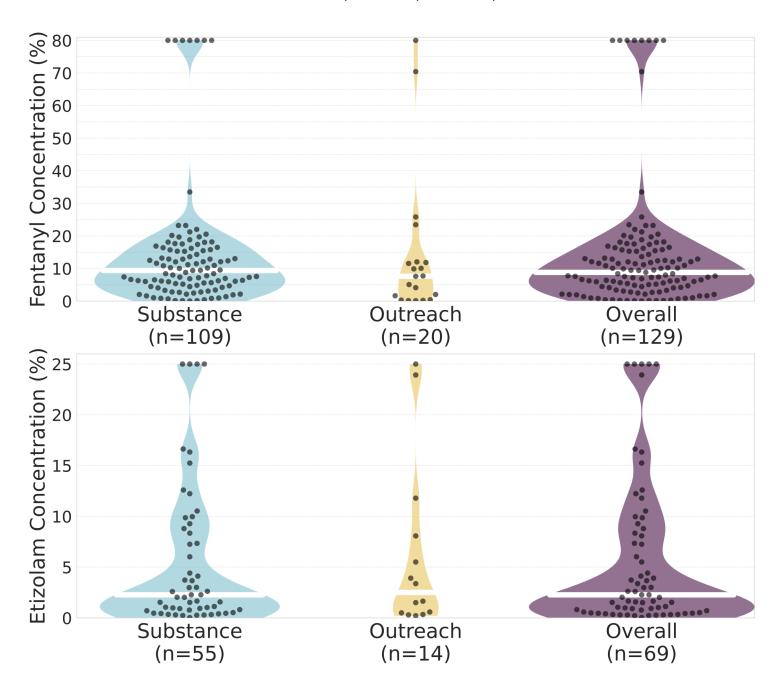
Substance	# Quant.	Median	Min	Max
Fentanyl	129	8.8%	0.1%	>80%*
Etizolam	69	2.3%	0.1%	>25%*
Flualprazolam	20	0.6%	0.2%	1.7%
Fluorofentanyl	13	1.0%	0.2%	27.9%
Heroin	10	>80%*	11.1%	>80%*
Acetylmorphine	7	2.6%	1.3%	30.0%
Carfentanil	4	0.72%	0.48%	0.95%
Xylazine	4	6.8%	0.1%	17.5%

^{*}There is a maximum concentration limit that the PS-MS can quantify for each compound of interest. If a sample contains a higher percentage of a compound than the PS-MS's limits, then only the upper limit will be reported. For example, the upper limit of reporting for etizolam on the PS-MS is 25% - any sample containing more than 25% etizolam will be flagged as ">25%".

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Distribution of Fentanyl and Etizolam Concentrations

The concentrations of fentanyl and etizolam for every sample quantified, separated by collection location/model, are illustrated below to highlight the variability in the unregulated drug market. **Black Dots** are individual samples, **White**Lines mark the median concentration of the fentanyl/etizolam positive samples checked, and the width of the col-



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The Vancouver Island Drug Checking Project is based out of the University of Victoria and operates community-wide drug checking services within Victoria, BC. We are continuing to offer drug checking services in response to the dual public health emergencies, and exploring new ways to better reach those who may benefit from this service. We have partnered with Dr. Chris Gill and the team at Vancouver Island University to improve detection and reporting using their methods for the paper spray - mass spectrometer.

See the blog portion of our website to view our more detailed interpretations of our reports.

Our project respectfully acknowledges that we work as visitors on the traditional territory of the Lkwungen (Songhees), Wyomilth (Esquimalt), and WSÁNEĆ (Saanich) peoples of the Coast Salish Nation. We also acknowledge the inextricable links between research, colonization and racism against Indigenous peoples, which continue to this day. Ending the violence faced by people who use substances and the overdose crisis cannot be achieved without facing the legacy through which we have come to be in this territory.

For more information please visit: substance.uvic.ca

We gratefully acknowledge our partners and funders on this project

Our Partners



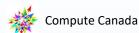




BC Ministry of Mental Health and Addictions

BC Support Vancouver Island Centre

Canadian Institute for Substance Use Research



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Our Funders

Health Canada Substance Use and Addictions Program



Natural Sciences and Engineering Research Council



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