Preliminary Results for January 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:**

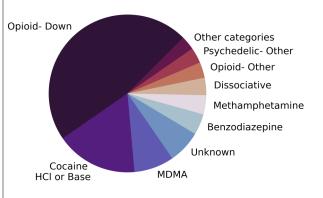
- Carfentanil was found in three samples, all expected opioid-down
- 97% of expected opioid-down samples contained fentanyl
- The median fentanyl concentration found was 10.8%, with a maximum of over 80%
- Benzodiazepines and/or etizolam were found in 50.8% of expected opioid-down samples
- The maximum concentration of etizolam found was >25%, in an expected opioid-down sample
- W-19, a novel synthetic analgesic was detected in a sample with an "unknown" reported drug category

Read our blog for further interpretations of our January 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.

Expected substance	Number of Samples
Opioid Down (fentanyl and/or heroin)	132
Cocaine (HCl or Base)	47
Psychedelic (MDMA, MDA, LSD, 2C-B)	32
Benzodiazepine (alprazolam, diazepam, etizolam)	12
Methamphetamine	11
Dissociative (ketamine)	10
Other Opioid (Dilaudid, oxycodone)	9
Other (cannabinoids, "research chemicals")	8
Unknown/Missing	19



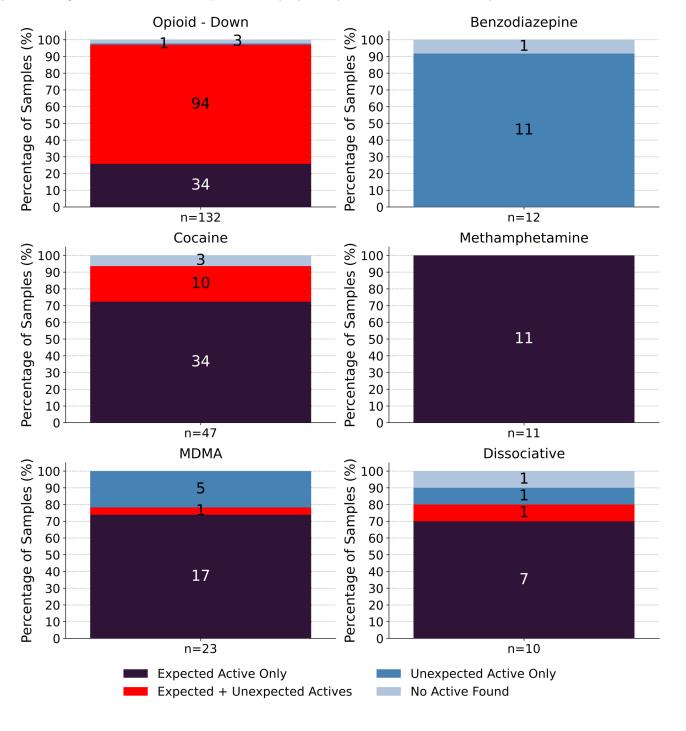
280

Samples Tested 1 - 31 January 2022

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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 notable components that may cause unexpected effects. The figures below illustrate the percentages and numbers of samples tested in each drug category, 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 we list the number of samples that contained the expected active and/or other notable components.

Opioid Down	N Samples	
Expected Active Only	34	
Fentanyl	34	
Expected* + Unexpected Active(s)	94	
Fentanyl*	94	
Heroin*	2	
Acetylcodeine	1	
Acetylfentanyl	2	
Acetylmorphine	2	
Benzocaine	1	
Benzodiazepine (undifferentiated) <sup>2</sup>	23	
Carfentanil	3	
Cocaine HCl	2	
Etizolam	35	
Flualprazolam	17	
Fluorofentanyl	5	
Levamisole	1	
Lidocaine	4	
3-Methyl fentanyl	1	
Phenacetin	2	
Procaine	1	
Xylazine	1	
Unexpected Active(s) Only	1	
Benzocaine	1	

Cocaine (HCL or Base)	N Samples	
Expected Active Only	34	
Cocaine Base	2	
Cocaine HCl	33	
Expected* + Unexpected Active(s)	10	
Cocaine Base*	1	
Cocaine HCI*	9	
2C-H	1	
Acetaminophen	1	
Amphetamine	1	
Benzocaine	2	
Fentanyl	2	
Levamisole	3	
Phenacetin	3	

Methamphetamine	N Samples
Expected Active Only	11
Methamphetamine	11

Benzodiazepines N Sam	
Unexpected Active(s) Only	11
Etizolam	8
Flubromazolam	2
Flualprazolam	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. as unexpected components of note, such as those with the potential for unexpected effects or that impact the effectiveness of naloxone. \*Expected active component. <sup>2</sup>Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.

### Vancouver Island

## **Drug Checking Project**

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Psychedelics	N Samples	
Expected Active Only	25	
2C-B	3	
DMT	1	
LSD	3	
MDMA	14	
MDA	3	
Mescaline	1	
Expected* + Unexpected Active(s)	1	
MDA*	1	
MDMA	1	
Unexpected Active(s) Only	5	
MDA	4	
MDMA	1	

Dissociatives	N Samples	
Expected Active Only	7	
Ketamine	7	
Expected* + Unexpected Active(s)	1	
2-Fluorodeschloroketamine	1	
Ketamine*	1	
Unexpected Active(s) Only	1	
Methamphetamine	1	

Opioid Other N Sam	
Expected Active Only	9
Hydromorphone	8
Morphine	6
Oxycodone	1

Other	N Samples
Unexpected Active(s) Only	2
Ketamine	1
Methamphetamine	1

Unknown/Missing	N Samples	
Unexpected Active(s) Only	16	
4-HO-MET	1	
Acetaminophen	1	
Benzodiazepine (undifferentiated) <sup>2</sup>	1	
Cocaine Base	4	
Cocaine HCl	1	
Fentanyl	7	
Flualprazolam	1	
Fluorofentanyl	1	
GHB	1	
MDMA	1	
Methamphetamine	2	
Phenacetin	2	
W-19	1	
Xylazine	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.

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### Quantification

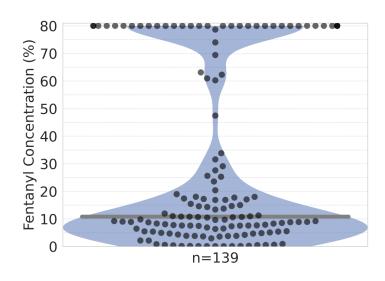
Using paper spray mass spectrometry (PS-MS) data, we were able to quantify low level actives. These aggregate values are inclusive to all expected drug categories in which the active drugs are found. Weight percentage is reported below.

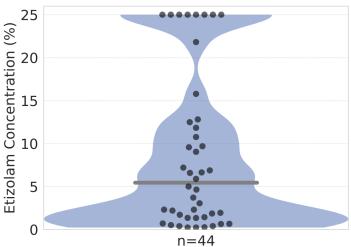
Substance	# quant	median	min	max
Fentanyl	139	10.8%	0.1%	> 80%*
Etizolam	44	5.5%	0.2%	> 25%*
Flualprazolam	19	0.4%	0.1%	7.7%
Fluorofentanyl	6	1.5%	0.2%	46.0%
Carfentanil	3	0.2%	0.2%	0.7%
Heroin	2	56.2%	32.4%	> 80%*
Xylazine	2	13.6%	2.1%	25.0%

<sup>\*</sup>There is a maximum concentration limit for each compound of interest that the PS-MS can report. If a sample contains a higher percentage of a compound than the PS-MS's limits, then only the 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%".

### **Distribution of Concentrations**

The concentrations of fentanyl and etizolam for every sample quantified are illustrated below to highlight the local variability in the unregulated drug market. **Black Dots** are individual samples, **Grey Lines** mark the median concentration of the fentanyl/etizolam positive samples checked, and the width of the colored regions is proportional to the number of samples in a concentration range.





Preliminary Results for January 2022

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**



Agilent Technologies



**AVI Health and Community Services** 



BC Ministry of Health



BC Ministry of Mental Health and Addictions



BC Support Vancouver Island Centre



Canadian Institute for Substance Use Research



Compute Canada



IBM Canada



Island Health Authority



**Lantern Services** 



PerkinElmer Inc





ProSpect Scientific



Westgrid

STS Pain STS Pharmacy

SOLID Outreach

University of Victoria

Vancouver Island University

#### **Our Funders**



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