

Vancouver Island

Drug Checking Project

Preliminary Results for July 2022

The Vancouver Island Drug Checking Project delivers drug checking services in Campbell River, Port Alberni, and Victoria, BC. Our service has been operating in partnership with SOLID Outreach, AVI Health and Community Services, Port Alberni Shelter Society, Vancouver Island Mental Health Society, 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.

575

Samples Tested
1 - 31 July 2022

Highlighted findings:

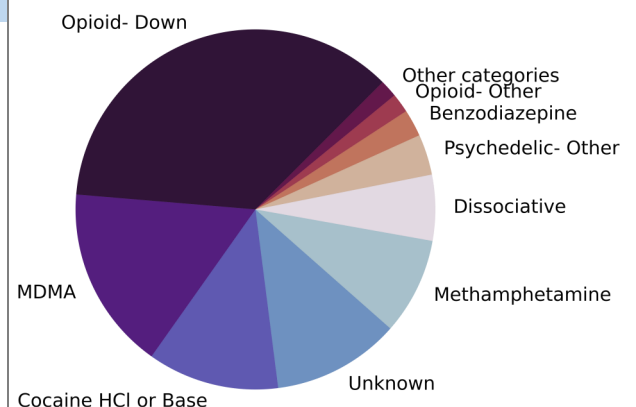
- The median fentanyl concentration found, across all expected drug categories, was 11.7%, with a maximum of over 80%
- Carfentanil was found in 5 (2%) expected opioid-down samples, with a median concentration of 0.22% and maximum concentration of 0.41%
- Benzodiazepines and/or etizolam were found in 46% of expected opioid-down samples
- The maximum concentration of etizolam found was >25%, in an expected opioid-down sample
- Xylazine, a veterinary sedative, was found in 32 (15%) of expected opioid-down samples with a median concentration of 1.0% and a maximum concentration of 15.8%

[Read our blog](#) for further interpretations of our July 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)	208
Psychedelic (MDMA, MDA, LSD, 2C-B)	116
Cocaine (HCl or Base)	68
Methamphetamine	50
Dissociative (ketamine)	34
Benzodiazepine (alprazolam, diazepam, etizolam)	14
Other Opioids (Dilaudid, oxycodone)	10
Other (GHB, cannabinoids, “research chemicals”)	9
Unknown/Missing	66



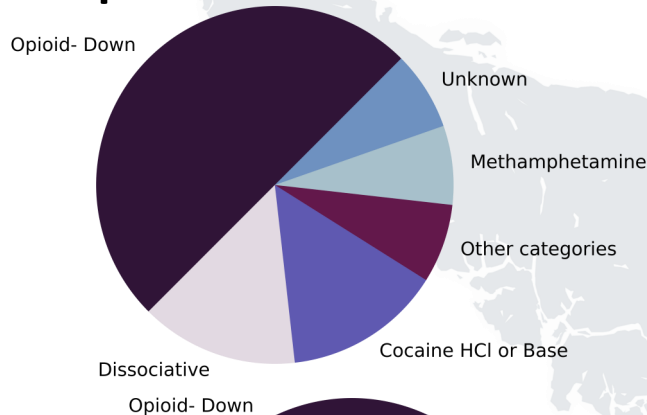
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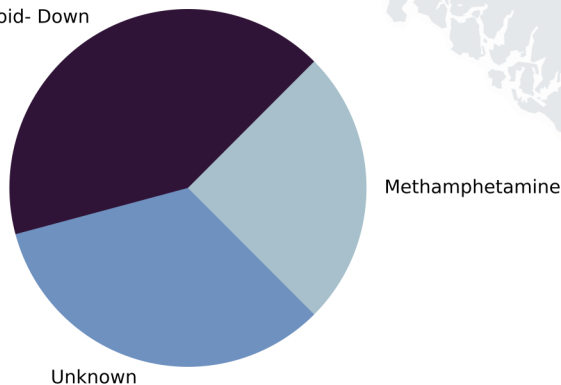
What were people bringing to be tested by service model?

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 Victoria storefront, “Campbell River” and “Port Alberni” are samples received through our distributed drug checking model, and “Outreach” samples are those collected at other supported housing sites, at overdose prevention and supervised consumption locations, through no contact drop-off envelopes, and via mail-in

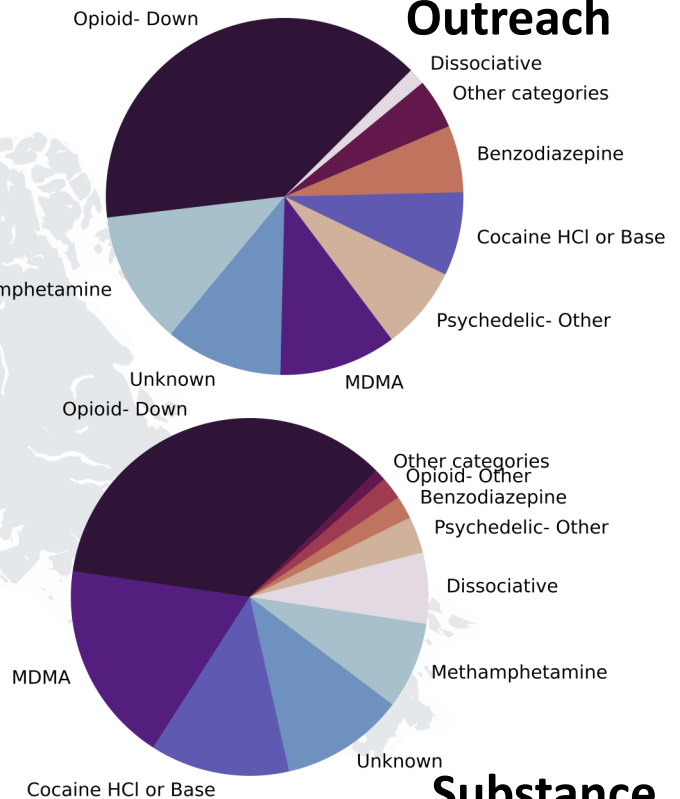
Campbell River



Port Alberni



Outreach



Substance

Expected substance	Campbell River	Port Alberni	Substance	Outreach	Overall
Opioid Down (fentanyl and/or heroin)	7	5	170	26	208
Psychedelic (MDMA, MDA, LSD, 2C-B)			104	12	116
Cocaine (HCl or Base)	2		61	5	68
Methamphetamine	1	3	38	8	50
Dissociative (ketamine)	2		31	1	34
Benzodiazepine (alprazolam, diazepam, etizolam)			10	4	14
Other Opioids (Dilaudid, oxycodone)			10		10
Other (GHB, cannabinoids, “research chemicals”)	1		5	3	9
Unknown/Missing	1	4	54	7	66
Total samples checked	14	12	483	66	575

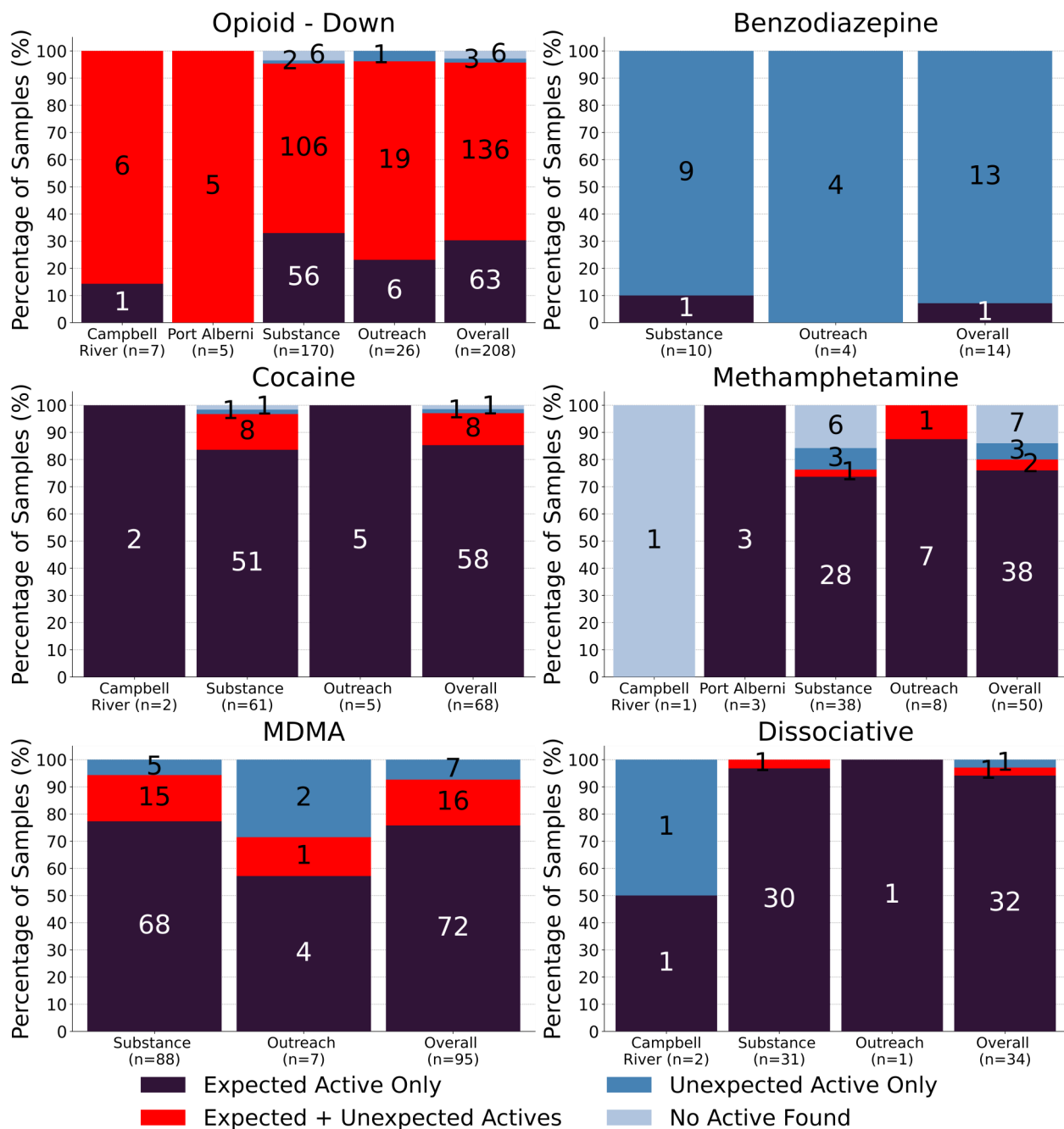
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What did we find?

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.

Opioid Down	Campbell River	Port Alberni	Substance	Outreach
Expected Active Only	1		56	6
Fentanyl	1		56	6
Expected* + Unexpected Active(s)	6	5	106	19
Fentanyl*	6*	5*	106	19*
Heroin*			4	1*
Acetylcodeine			4	
Acetylfentanyl			4	1
Acetylmorphine			3	3
Alprazolam			1	1
Benzodiazepine (undifferentiated) ¹	5		21	1
Bromazolam		1	23	6
Carfentanil		1	4	
Cocaine Base			1	
Etizolam	1		15	4
Flualprazolam			5	1
Flubromazepam		1	20	3
Fluorofentanyl		2	30	5
Lidocaine		1	3	2
Methamphetamine				1
Xylazine	1		22	9
Unexpected Active(s) Only			2	1
Etizolam			1	
Hydromorphone				1
Methamphetamine			1	
Morphine				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. ¹Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.

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Cocaine (HCl or Base)	Campbell River	Substance	Outreach
Expected Active Only	2	51	5
Cocaine Base		46	2
Cocaine HCl	2	5	3
Expected* + Unexpected Active(s)		8	
Cocaine Base*		2	
Cocaine HCl*		6	
Benzocaine		1	
Levamisole		6	
Phenacetin		2	
Unexpected Active(s) Only		1	
Bromazolam		1	
Fentanyl		1	
Fluorofentanyl		1	
Xylazine		1	

Methamphetamine	Port Alberni	Substance	Outreach
Expected Active Only	3	28	7
Methamphetamine	3	28	7
Expected* + Unexpected Active(s)		1	1
Methamphetamine*		1	1
Etizolam			1
Fentanyl		1	
Unexpected Active(s) Only		3	
Cocaine Base		1	
Fentanyl		2	

Dissociatives	Campbell River	Substance	Outreach
Expected Active Only	1	30	1
Ketamine	1	30	1
Expected* + Unexpected Active(s)		1	
Ketamine*		1	
Methamphetamine		1	
Unexpected Active(s) Only	1		
Methamphetamine	1		

Psychedelics	Substance	Outreach
Expected Active Only	79	7
2C-B		1
DMT	3	
LSD	7	1
Mescaline	1	1
MDA	2	
MDMA	66	4
Expected*+ Unexpected Active(s)	15	1
Ketamine	1	
Levamisole	1	
Methamphetamine	1	
MDA	13	1
MDMA	15	1*
Unexpected Active(s) Only	8	2
4-AcO-MiPT	1	
Diphenhydramine		1
Cocaine HCl	1	
Fentanyl	1	
Fluorofentanyl	1	
MDA	3	1
MDMA	1	
THC	1	

Benzodiazepines	Substance	Outreach
Expected Active Only	1	
Alprazolam	1	
Unexpected Active(s) Only	9	4
Adinazolam	1	
Benzodiazepine (undifferentiated) ¹	2	
Etizolam	5	3
Fentanyl	1	
Flualprazolam	2	1

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Opioid Other	Substance
Expected Active Only	1
Hydromorphone*	1
Morphine	1
Unexpected Active(s) Only	9
Acetaminophen	1
Amphetamine	1
Fentanyl	7

Other	Substance	Outreach
Expected Active Only	2	2
3-MMC	1	
6-APB		1
MAPB		1
Unexpected Active(s) Only	1	
MDA	1	

Unknown/Missing	Campbell River	Port Alberni	Substance	Outreach
Unexpected Active(s) Only	1	4	41	5
Acetaminophen				1
Acetylcodeine			1	
Acetylmorphine			1	
Alprazolam		2		
Amphetamine			1	
Benzocaine			2	
Benzodiazepine (undifferentiated) ¹			2	
Cocaine Base			2	
Cocaine HCl	1		5	
Etizolam			4	
Fentanyl		4	23	1
Flubromazepam			1	
Fluorofentanyl			4	1
Heroin			1	
Hydromorphone			1	
Ketamine			4	
Levamisole			1	
Methamphetamine			7	2
MDA				1
MDMA			1	
Morphine			1	
Xylazine		3	7	

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.

¹Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.

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Quantification

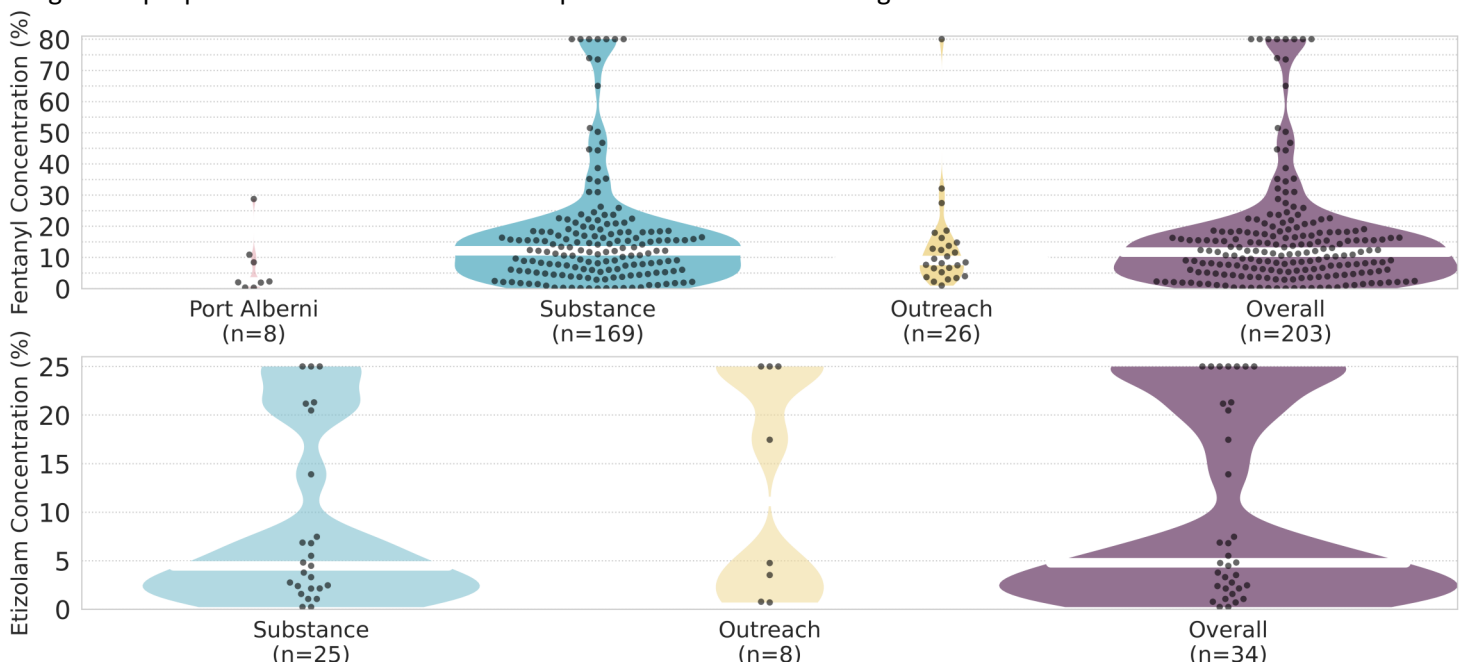
Using paper spray mass spectrometry (PS-MS) data, we were able to quantify low concentration compounds. These aggregate values are inclusive to all expected drug categories in which the active drugs are found. Weight percentage is reported below.

Substance	# Quant.	Median	Min	Max
Fentanyl	203	11.7%	0.1%	>80%*
Fluorofentanyl	45	0.7%	0.2%	20.9%
Xylazine	43	1.0%	0.1%	18.1%
Etizolam	34	4.8%	0.2%	>25%*
Bromazolam	31	1.3%	0.1%	16.6%
Flubromazepam	26	1.6%	0.1%	9.3%
Flualprazolam	9	0.4%	0.1%	4.7%
Carfentanil	5	0.22%	0.10%	0.41%
Heroin	5	>80%*	14.3%	>80%*

*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%".

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 colored regions is proportional to the number of samples in a concentration range.



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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 Campbell River, Port Alberni, and 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



Our Funders

