Substance Drug Checking

Preliminary Results for May 2025

Substance Drug Checking on Vancouver Island offers free and confidential drug checking services in Victoria, Port Alberni, Comox Valley, Campbell River, Duncan, Port Hardy, and at local events. This report presents data about the drug supply on Vancouver Island for May 2025.

595

Samples Tested
1 - 31 May 2025

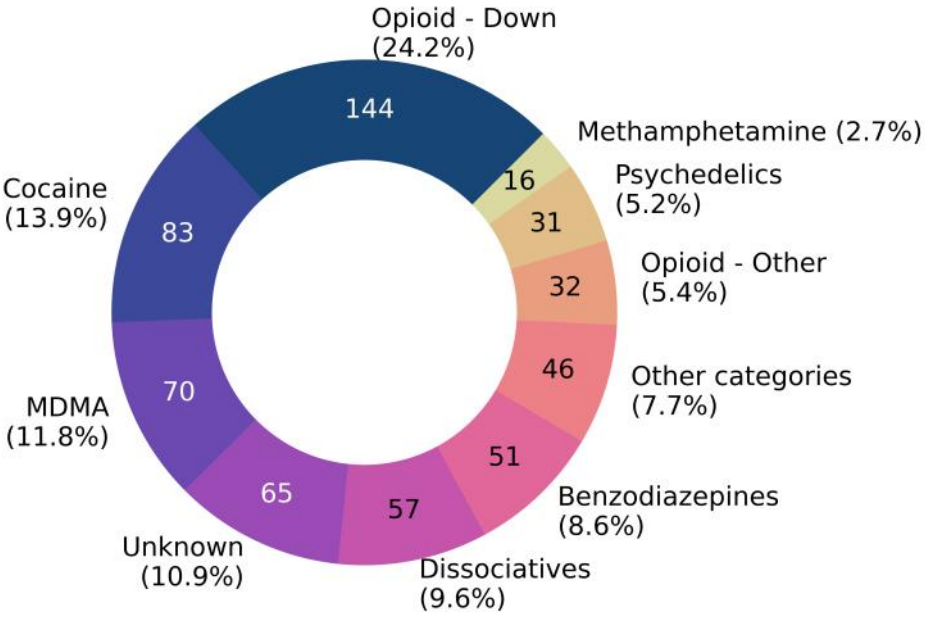
Highlighted findings:

- The median fentanyl concentration found across all drug categories was 8.6%
- The median fluorofentanyl concentration found across all drug categories was 6.7%
- The median ortho-methyl fentanyl concentration found across all drug categories was 1.0%
- Benzodiazepines were found in 37.5% (54/144) of expected Opioid - Down samples
- Bromazolam was found in 23 Opioid - Down samples with a median concentration of 2.5% and maximum concentration of 6.1%
- Xylazine was found in 4 expected Opioid - Down samples with a median concentration of 3.3% and a maximum concentration of 7.8%
- Medetomidine was found in 18 expected Opioid - Down samples with a median concentration of 1.4% and a maximum concentration of 3.7%

Read our blog for further interpretations of our May data.

What were people bringing to be checked?

Service users bring us a wide variety of substances that can be grouped into different drug classes. This pie chart aggregates the samples we checked by their "expected" substance (i.e. the drug category reported by the service user). The number of samples checked in each class is included inside each slice and the relative proportion of all samples checked is given in parentheses. These data are separated by collection location/method on the following page.

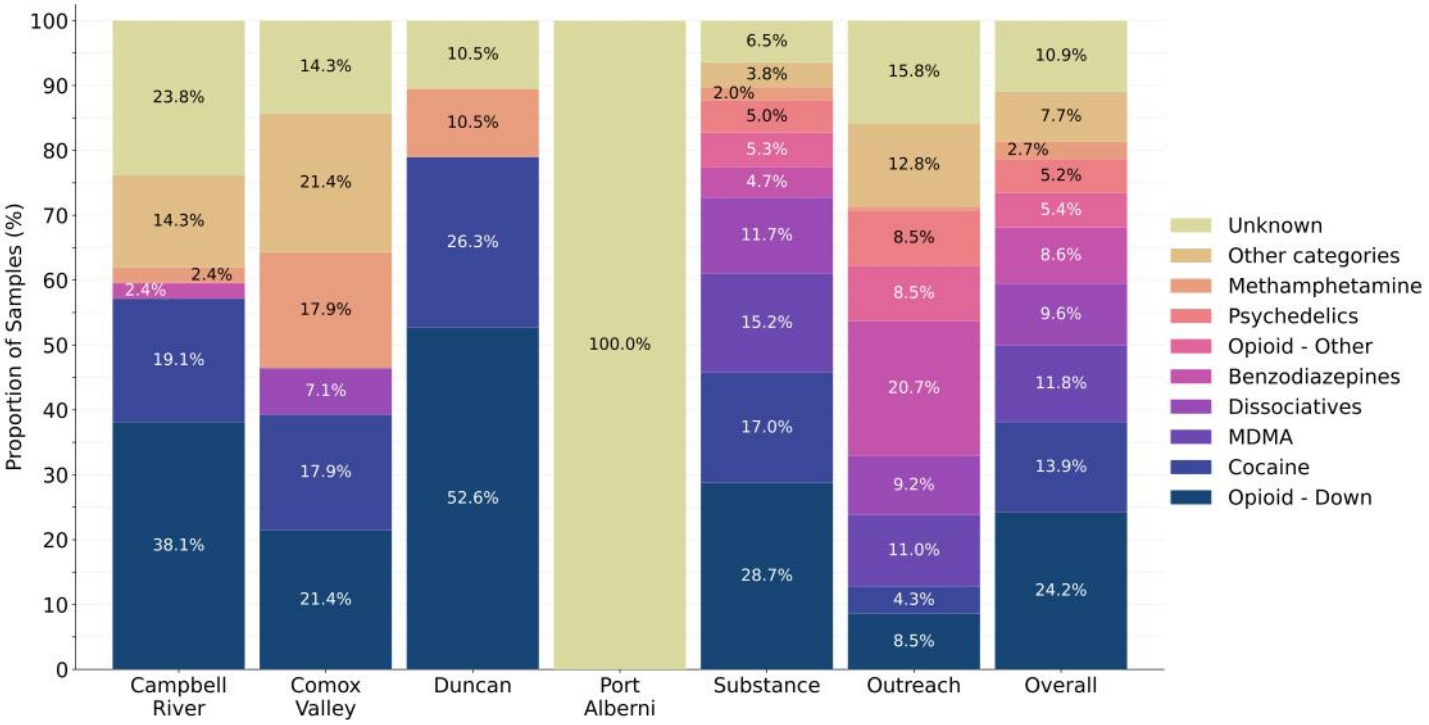


Substance Drug Checking

Preliminary Results for May 2025

What were people bringing to be checked by service model?

The “expected substance” data presented on the previous page can be separated by sample collection location/ method, where “Substance” samples are those brought directly to our Victoria storefront, “Campbell River”, “Comox Valley”, “Duncan”, “Port Alberni”, and “Port Hardy” are samples received through our distributed drug checking model, and “Outreach” samples are those collected at supported housing sites, at overdose prevention and supervised consumption locations, and through drop-off envelopes. The relative proportions of samples checked by expected class and location are shown in the figure below; sample counts are listed in the table at the bottom of this page.



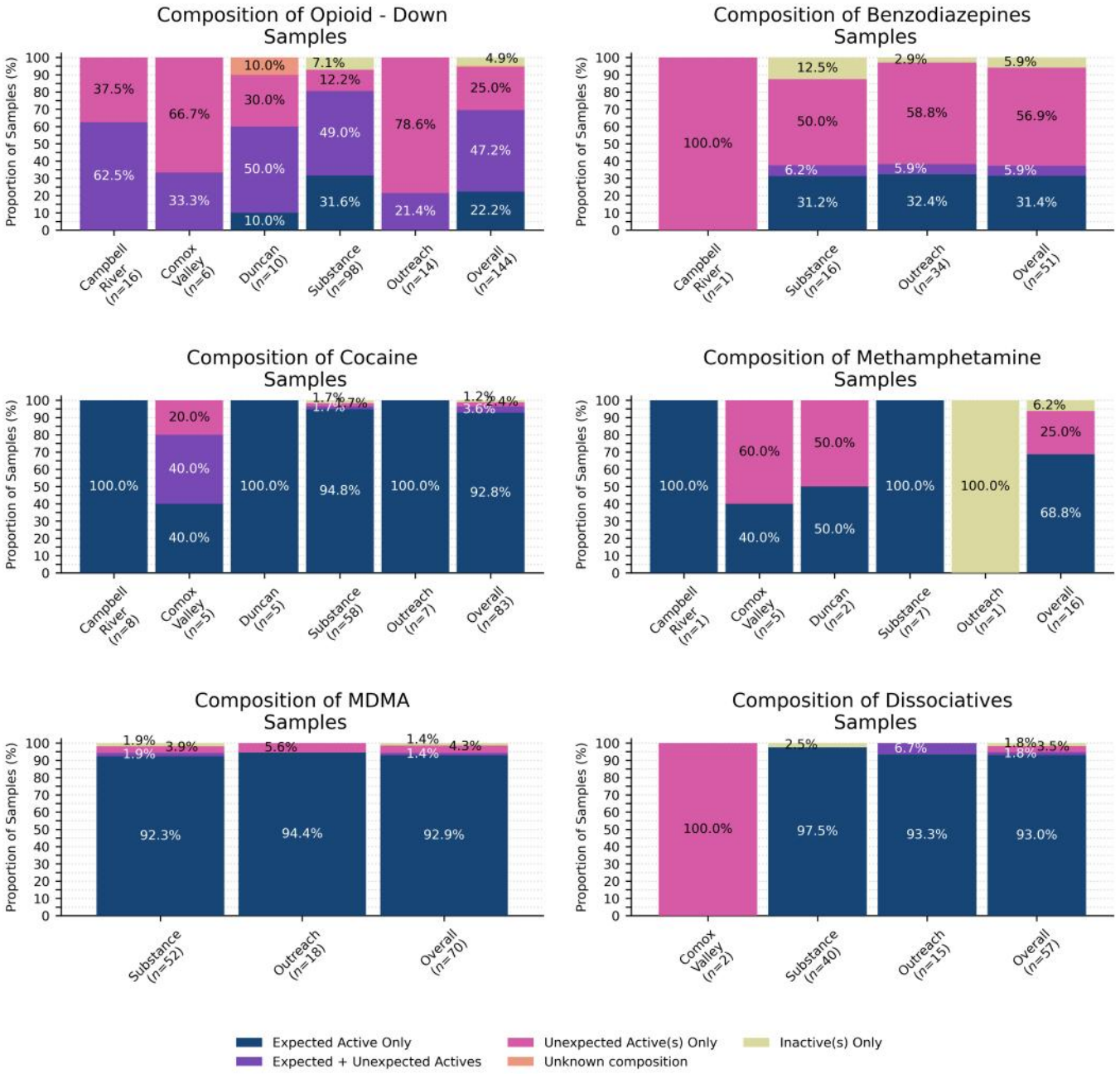
Expected Substance Class	Campbell River	Comox Valley	Duncan	Port Alberni	Port Hardy	Substance	Outreach	Overall
Opioid - Down	16	6	10	0	0	98	14	144
Cocaine	8	5	5	0	0	58	7	83
MDMA	0	0	0	0	0	52	18	70
Dissociatives	0	2	0	0	0	40	15	57
Benzodiazepines	1	0	0	0	0	16	34	51
Opioid - Other	0	0	0	0	0	18	14	32
Psychedelics	0	0	0	0	0	17	14	31
Methamphetamine	1	5	2	0	0	7	1	16
Other categories	6	6	0	0	0	13	21	46
Unknown	10	4	2	1	0	22	26	65
Total	42	28	19	1	0	341	164	595

Substance Drug Checking

Preliminary Results for May 2025

What did we find?

We checked each sample to determine what active compounds and cutting agents were present. While a majority of samples contained the expected active drug, we also detected a number of other notable compounds that may cause unexpected effects. The figures below illustrate the proportions and numbers of samples checked in each drug category, separated by collection location/method, colour coded by their composition. **Dark Blue** groups samples that were "as expected" with no other notable compounds *detected*, **Purple** groups samples that contained the expected drug *and* other unexpected active(s), **Magenta** groups samples that only contained unexpected active(s) (the expected drug was not found), **Salmon** groups samples where we were unable to determine the composition, and **Lime** displays samples where no active compounds were detected.



Substance Drug Checking

Preliminary Results for May 2025

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. Samples where no detected actives have been excluded for brevity.

Expected Opioid - Down data continued on next page

Opioid - Down	Campbell River	Comox Valley	Duncan	Substance	Outreach
Expected Active Only			**1**	**31**	
Fentanyl			1	31	
Methamphetamine				1	
Expected* + Unexpected Active(s)	**10**	**2**	**5**	**48**	**3**
Acetylcodeine					1
Acetylmorphine (MAM, 6-MAM)				2	1
Benzodiazepine (unknown type)[1]	5		4	8	
Bromazolam	4	1	1	14	
Carfentanil				6	
Cocaine HCl (powder)	1			2	
Desalkylgidazepam	2	2		7	
Dimethocaine				1	
Fentanyl	10	2	5	48	2
Flubromazepam	1				
Fluorofentanyl	7		1	20	2
Heroin				3	1
MDMA				1	
Medetomidine	5			1	
Methamphetamine				2	
Morphine					1
Xylazine		1		1	
ortho-Methyl fentanyl				3	

*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. [1] "Benzodiazepine (unknown type)" results are based on a positive strip test and are unconfirmed by paper spray.*

Substance Drug Checking

Preliminary Results for May 2025

Opioid - Down (Continued)	Campbell River	Comox Valley	Duncan	Substance	Outreach
Unexpected Active(s) Only	**6**	**4**	**3**	**12**	**11**
Acetaminophen (Tylenol)					1
Acetylcodeine					8
Acetylmorphine (MAM, 6-MAM)					10
Benzocaine				1	
Benzodiazepine (unknown type)[1]	1		2		
Bromazolam		1		2	1
Carfentanil				3	
Cocaine Base (crack, rock, hard)	2				
Desalkylgidazepam	1	1		1	
Despropionyl para-fluorofentanyl		1			
Fentanyl or analogue[1]			1	1	
Flubromazepam	2				
Fluorofentanyl	2	1	1	3	11
Fluorofentanyl Base	2		1	2	
Heroin					9
Ketamine		2			
MDMA				1	
Medetomidine	2				10
Morphine					3
Phenacetin	1				
Unknown		1			
Xylazine		1		1	
ortho-Methyl fentanyl		1		2	
Unknown Composition			**1**		
Unknown			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. [1] "Fentanyl or analogue" and "Benzodiazepine (unknown type)" results are based on a positive strip test and are unconfirmed by paper spray.*

Substance Drug Checking

Preliminary Results for May 2025

MDMA/MDA	Substance	Outreach
Expected Active Only	**48**	**17**
MDA	6	
MDMA	42	17
Expected* + Unexpected Active(s)	**1**	
MDMA* + Ketamine	1	
Unexpected Active(s) Only	**2**	**1**
Fentanyl	1	
MDA (MDMA Expected)		1
MDMA (MDA Expected)	1	
Methamphetamine	1	

Cocaine	Campbell River	Comox Valley	Duncan	Substance	Outreach
Expected Active Only	**8**	**2**	**5**	**55**	**7**
Cocaine Base (crack, rock, hard)	6		2	12	
Cocaine HCl (powder)	2	2	3	43	7
Expected* + Unexpected Active(s)		**2**		**1**	
Cocaine Base (crack, rock, hard))* + Phenacetin		1		1	
Cocaine HCl (powder)* + Phenacetin		1			
Unexpected Active(s) Only		**1**		**1**	
Fentanyl Base		1			
Gabapentin				1	

Dissociatives	Comox	Substance	Outreach
Expected Active Only		**39**	**14**
DMXE (Deoxymethoxetamine)			1
Ketamine		39	13
Expected* + Unexpected Active(s)			**1**
Ketamine* + Cathinone (unknown type)			1
Unexpected Active(s) Only	**2**		
Cocaine HCl (powder)	2		

*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.*

Substance Drug Checking

Preliminary Results for May 2025

Benzodiazepines	Campbell	Substance	Outreach
Expected Active Only		**5**	**11**
Alprazolam (Xanax)		2	
Bretazenil			1
Bromazolam		1	4
Clonazepam (Klonopin)			1
Diazepam (Valium)		2	3
Etizolam			2
Expected* + Unexpected Active(s)		**1**	**2**
Alprazolam (Xanax)			1
Bromazolam		1	1
Desalkylgidazepam		1	1
Etizolam			1
Unexpected Active(s) Only	**1**	**8**	**20**
Alprazolam (Xanax)			1
Benzodiazepine (unknown type)[1]		1	4
Bromazolam	1	7	13
Delorazepam			2
Etizolam			1
Flubromazolam			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. [1]"Benzodiazepine (unknown type)" results are based on a positive strip test and are unconfirmed by paper spray.*

Substance Drug Checking

Preliminary Results for May 2025

Opioid - Other	Substance	Outreach
Expected Active Only	**13**	**10**
Acetaminophen (Tylenol)	2	1
Hydromorphone (Dilaudid)	8	
Morphine		6
Oxycodone (Oxycontin)	5	3
Expected* + Unexpected Active(s)	**1**	
Acetaminophen (Tylenol)	1	
Codeine (T3's / T4's)	1	
Unexpected Active(s) Only	**2**	**4**
Nitazene (unknown type)[1]	1	4
Oxybutynin	1	

Methamphetamine	Campbell	Comox	Duncan	Substance
Expected Active Only	**1**	**2**	**1**	**7**
Methamphetamine	1	2	1	7
Expected* + Unexpected Active(s)		**3**	**1**	
Cocaine HCl (powder)			1	
Fentanyl or analogue[1]		1		
Ketamine		2		

*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. [1] "Fentanyl or analogue" and "Nitazene (unknown type)" results are based on a positive strip test and are unconfirmed by paper spray.*

Substance Drug Checking

Preliminary Results for May 2025

Psychedelics	Substance	Outreach
Expected Active Only	**13**	**13**
2C-B	4	2
4-HO-MET (Metocin, Colour)	4	2
4-PrO-DMT		2
5-MeO-DMT		3
5-MeO-DMT Base		2
DMT (Dimethyltryptamine)	3	
DOC		1
Ketamine		1
LSD (acid)	3	
MDMA		1
Mescaline		1
Expected* + Unexpected Active(s)	**1**	**1**
4-AcO-DMT (O-Acetylpsilocin)		1
4-AcO-DPT		1
Ketamine	1	
MDA	1	
MDMA	1	
Unexpected Active(s) Only	**1**	
MDA	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.*

Substance Drug Checking

Preliminary Results for May 2025

Other	Campbell River	Comox Valley	Substance	Outreach
Expected Active Only	**1**	**1**	**12**	**12**
4-MMC (Mephedrone)		1	1	4
5-MAPB				1
Amphetamine				2
Cardarine			1	
GHB			4	
Lisdexamfetamine dimesylate (Vyvanse)			1	
Methylmethylphenidate (4-MeTMP)				1
Oxandrolone			4	
Sildenafil (Viagra)				2
Tadalafil (Cialis)			1	2
Tamoxifen	1			
Expected* + Unexpected Active(s)	**2**	**4**		
Drostanolone enanthate		1		
Nandrolone decanoate		1		
Oxandrolone	2			
Testosterone cypionate		2		
Trenbolone enanthate		4		
Unknown	2			
Unexpected Active(s) Only		**1**		**8**
2-MMC				5
Dextroamphetamine (Dexedrine)				1
Methamphetamine				1
Trenbolone enanthate		1		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.*

Substance Drug Checking

Preliminary Results for May 2025

Expected Unknown data continued on next page

Unknown	Campbell River	Comox Valley	Duncan	Port Alberni	Substance	Outreach
Unexpected Active(s) Only	**7**	**4**	**2**		**15**	**25**
2-MMC						1
4-HO-MET (Metocin, Colour)					2	
Acetaminophen (Paracetamol, Tylenol)						3
Adinazolam						1
Amoxicillin trihydrate	1					
Amphetamine						2
Benzodiazepine (unknown type)					4	3
Bromazolam	1	1			2	1
Cocaine Base (crack, rock, hard)	1					
Cocaine HCl (powder)	2		1			
Codeine (T3's / T4's)						1
Desalkylgidazepam	1				1	
Despropionyl para-fluorofentanyl		1				
Diphenhydramine (Benadryl)						4
Etizolam						2
Fentanyl	3		1		1	
Fluorofentanyl	3	1			1	
Gabapentin					1	
Hydromorphone (Dilaudid, Dillies)						1
Ibutamoren						1
Ketamine		1			2	
Lisdexamfetamine dimesylate (Vyvanse)						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.*

Substance Drug Checking

Preliminary Results for May 2025

Unknown (Continued)	Campbell River	Comox Valley	Duncan	Port Alberni	Substance	Outreach
Unexpected Active(s) Only	**7**	**4**	**2**		**15**	**25**
MDMA		2			4	
Methamphetamine					1	2
Methylphenidate (Ritalin)						1
Metonitazene						1
Morphine						1
Oxycodone (Oxycontin)						1
Phenacetin					1	
Unknown	1					
Zopiclone					1	
ortho-Methyl fentanyl					1	
Unknown Composition	1			1		
Unknown	1			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.*

Substance Drug Checking

Preliminary Results for May 2025

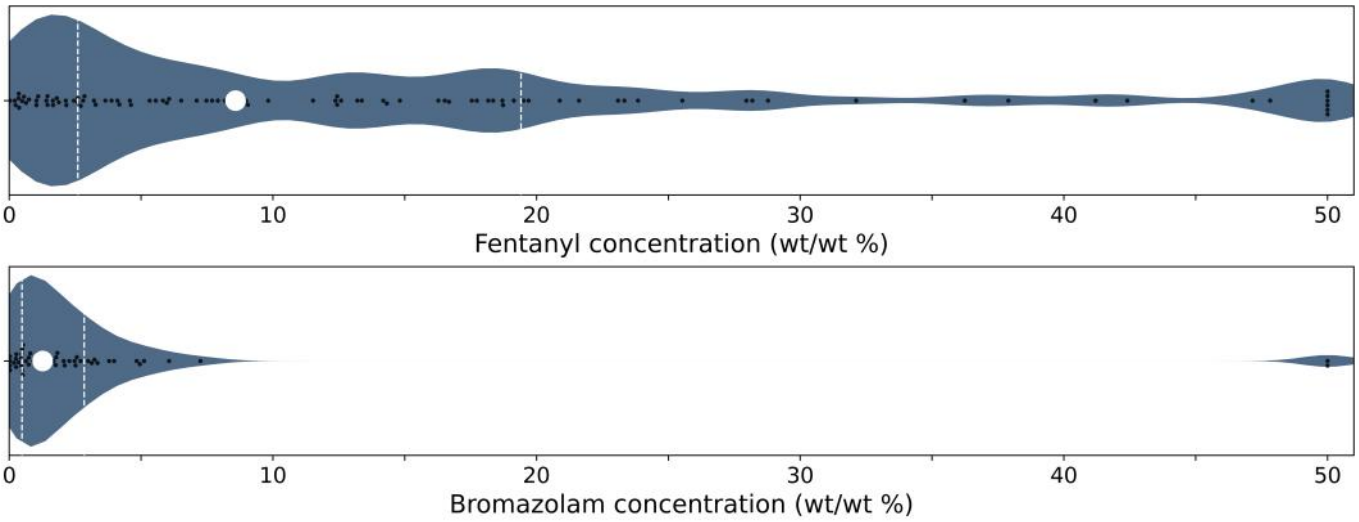
Quantification

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. "IQR" is the interquartile range: the concentration range that contains half of the quantified samples.

Compound	# Quant.	Median	Min	Max	IQR
Fentanyl	94	8.6%	<0.1%	>50.0%*	2.6% - 19.4%
Bromazolam	51	1.3%	<0.1%	>50.0%*	0.5% - 2.8%
Fluorofentanyl	49	6.7%	0.2%	47.4%	2.2% - 10.8%
Medetomidine	18	1.4%	0.3%	3.7%	0.5% - 2.5%
Desalkylgidazepam	17	2.0%	0.3%	37.6%	1.0% - 7.4%
Acetylmorphine (MAM, 6-MAM)	13	11.3%	0.2%	25.9%	0.3% - 17.2%
Heroin	13	6.6%	0.2%	>50.0%*	2.3% - 12.0%
Carfentanil	9	0.4%	0.2%	6.7%	0.3% - 1.7%
Acetylcodeine	9	0.7%	0.4%	3.5%	0.6% - 0.9%
Oxycodone (Oxycontin)	8	3.3%	0.0%	33.2%	1.5% - 7.0%
Hydromorphone (Dilaudid)	8	4.5%	3.1%	7.8%	4.3% - 5.1%
ortho-Methyl fentanyl	6	1.0%	0.6%	6.3%	0.7% - 2.5%
Etizolam	5	18.6%	0.4%	36.9%	8.4% - 24.1%

Distribution of Fentanyl and Bromazolam Concentrations

The concentrations of fentanyl and bromazolam for every sample quantified across *all expected drug categories and service models* are illustrated below to highlight the variability in the unregulated drug market. **Black Dots** are individual samples, the large **white dot** marks the median concentration, the **dashed white lines** bound half of the quantified samples (IQR), and the **width** of the coloured region is proportional to the number of samples in a concentration range.



**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. Not all samples can be quantified.*

Opioid - Down Quantification by Service Model

Here we examine the regional variability in the unregulated market. The table below expands on the data presented on the previous page (*inclusive to all expected drug categories*) and focuses only on fentanyl, fluorofentanyl, carfentanil, bromazolam, and xylazine within *expected opioid-down samples*, separated by collection location/model. Weight percentage is reported; "IQR" is the interquartile range: the range that contains half of the quantified samples.

Service Model	Compound	# Quant.	Median	Min	Max	IQR
Campbell River 16 total down samples 88% (14/16) benzo-positive	Bromazolam	4	2.4%	1.4%	5.0%	1.7% - 3.5%
	Fentanyl	10	9.3%	2.9%	42.4%	3.8% - 16.9%
	Fluorofentanyl	9	6.7%	0.4%	28.1%	6.3% - 8.7%
Comox Valley 6 total down samples 67% (4/6) benzo-positive	Bromazolam	1		1.1%		
	Fentanyl	1		37.9%		
	Fluorofentanyl	1		34.1%		
	Xylazine	2		0.2%	6.3%	
Duncan 10 total down samples 70% (7/10) benzo-positive	Bromazolam	1		3.2%		
	Fentanyl	1		8.2%		
	Fluorofentanyl	1		2.8%		
Port Alberni 0 total down samples	No down samples were submitted during the month of May					
Port Hardy 0 total down samples	No down samples were submitted during the month of May					
Substance 98 total down samples 29% (28/98) benzo-positive	Bromazolam	15	2.5%	0.5%	6.1%	1.9% - 3.7%
	Carfentanil	9	0.4%	0.2%	6.7%	0.3% - 1.7%
	Fentanyl	76	10.7%	<0.1%	>50.0%*	2.2% - 21.1%
	Fluorofentanyl	22	7.9%	0.2%	47.4%	2.1% - 14.5%
	Xylazine	2		0.1%	7.8%	
	ortho-Methyl fentanyl	5	1.2%	0.6%	6.3%	0.8% - 2.9%
Outreach 14 total down samples 7% (1/14) benzo-positive	Bromazolam	1		2.6%		
	Fentanyl	2		2.8%	5.6%	
	Fluorofentanyl	12	5.5%	0.8%	20.3%	2.7% - 14.2%

**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. Not all samples can be quantified.*

Substance Drug Checking

Preliminary Results for May 2025

Additional Services

At Substance we provide access to other services in addition to drug checking. These include but are not limited to access to harm reduction supplies (bubble pipes, naloxone, test strip kits, etc.), general support, referrals to substance use programs and to other agencies. During the month of May, our staff handled 463 of these interactions, in addition to, checking 595 samples.

Substance Drug Checking is based out of the University of Victoria and operates community-wide drug checking services within Campbell River, the Comox Valley, Duncan, Port Alberni, Port Hardy, 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 works on Indigenous land. We provide drug checking, harm reduction education and support across many territories on what is colonially known as 'Vancouver Island.' We also act as a resource for these services across the province colonially known as 'British Columbia.' We honour and offer respect to many nations for their stewardship, care and leadership on these lands.

Our project originated on the territories of the lək̓ʷəŋən speaking peoples, including the Songhees and Xwsepsum (Esquimalt) Nations, and the W̱SÁNEĆ (Saanich) Nations on whose land the University of Victoria is located. Some of the territories we are honoured to work across specifically include: Halalt, Lyackson, Meluxulh (Malahat), Puneluxutth', Quw'utsun, Stz-uminus, and Ts'uubaa-asatx; Hupačasath and Tseshaht; K'ómoks; and Laich-kwil-tach.

We acknowledge the inextricable links between research, colonization and racism against Indigenous peoples, which continue to this date. Ending the violence faced by people who use drugs cannot be achieved without actively working on decolonization.

For more information please visit: substance.uvic.ca

We gratefully acknowledge our partners on this project

Agilent Technologies
AVI Health and Community Services
BC Ministry of Health
BC Ministry of Mental Health and Addictions
BC SUPPORT Unit Vancouver Island Centre
Canadian Institute for Health Research
Canadian Institute for Substance Use Research
Digital Research Alliance of Canada
Island Health Authority
NSERC Canada
SOLID Outreach
University of Victoria
Vancouver Island University
Victoria Hospitals Foundation
Vancouver Foundation
Westgrid