

Vancouver Island Drug Checking Project

Preliminary Results for April 2021

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:

- Fentanyl analogues found in 24% of opioid-down samples, including fluorofentanyl (7), carfentanil (5), and chloroisobutyl fentanyl (1)
- 98% of expected opioid-down samples contained fentanyl
- Benzodiazepines and/or etizolam found in 69% of expected opioid-down samples
- The maximum concentration of etizolam found was >20 % in an expected opioid-down sample
- Ephedrine was found in three expected ketamine samples

213

Samples Tested
1 - 30 April 2021

[Read our blog](#) for further interpretations of our April data.

What were people bringing to be tested?

Expected substance	n
Opioid Down (fentanyl and/or heroin)	54
Stimulant (cocaine HCl or base, methamphetamine)	48
Psychedelic (MDMA, MDA, LSD, psilocybin)	28
Dissociative (ketamine)	26
Benzodiazepine (alprazolam, etizolam, flualprazolam)	25
Other Opioid (OxyContin, Dilaudid)	5
Other Stimulant (Adderall, amphetamine)	2
Other Depressant (GHB)	2
Polysubstance (cocaine with ketamine)	1
Other (baking soda)	1
Unknown/Missing	21

Vancouver Island

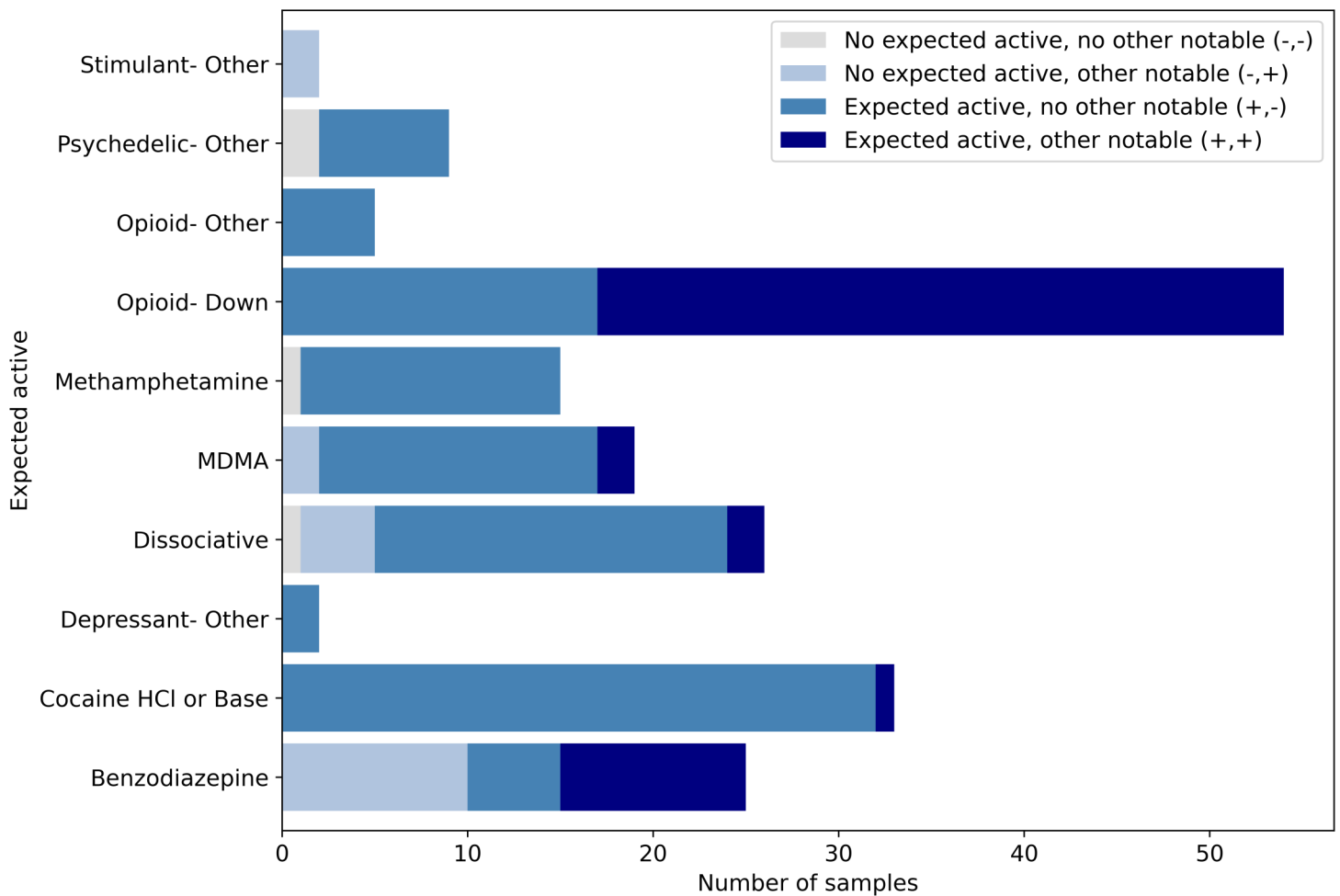
Drug Checking Project

Preliminary Results for April 2021

What did we find?

We tested each sample to determine what active ingredients, adulterants, and cutting agents were present. The majority of samples did contain an active that fit into each expected category. However, we also detected a number of other notable components that may cause unexpected effects or impact the effectiveness of naloxone.

Number of samples containing expected active or other notable component



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. Notable components: Includes all expected actives as well as unexpected components of note, such as those with the potential for unexpected effects or that impact the effectiveness of naloxone.

Vancouver Island

Drug Checking Project

Preliminary Results for April 2021

What did we find?

For each expected category we list the number of samples that contained the expected active or other notable components according to the following categorizations:

(-,-) no expected active, no other notable component	(-,+) no expected active, other notable component
(+,-) expected active, no other notable component	(+,+) expected active, other notable component

Opioid Down	54
(+,-) Expected active, no other notable	17
Fentanyl	17
Heroin	2
(+,+) Expected active*, other notable	37
Fentanyl*	36
Etizolam	30
Benzodiazepine (undifferentiated)	9
Fluorofentanyl	7
Carfentanil	5
Heroin*	4
Flualprazolam	2
Chloroisobutyryl fentanyl	1
Cocaine	1
Methylenedioxycathinone	1

Methamphetamine	15
(+,-) Expected active, no other notable	14
Methamphetamine	14
(-,-) No expected active, no other notable¹	1

Cocaine HCl or Base	33
(+,-) Expected active, no other notable	32
Cocaine HCl	26
Cocaine Base	6
(+,+) Expected active*, other notable	1
Cocaine HCl*	1
Phenacetin	1

Dissociative	26
(+,-) Expected active, no other notable	19
Ketamine	19
(-,-) No expected active, no other notable¹	1
(-,+) No expected active, other notable	4
Ephedrine	3
Methamphetamine	1
(+,+) Expected active*, other notable	2
Ketamine*	2
Cocaine HCl	1
Methamphetamine	1

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Vancouver Island Drug Checking Project

Preliminary Results for April 2021

Psychedelic		28
(+,-)	<i>Expected active, no other notable</i>	22
	MDMA	13
	LSD	7
	MDA	2
(-,-)	<i>No expected active, no other notable¹</i>	1
(-,+)	<i>No expected active, other notable</i>	2
	MDA	1
	Fentanyl	1
	Etizolam	1
(+,+)	<i>Expected active*, other notable</i>	2
	MDMA*	2
	MDA	2

Benzodiazepine		25
(+,-)	<i>Expected active, no other notable</i>	5
	Benzodiazepine (undifferentiated)	2
	Etizolam	2
	Alprazolam (Xanax)	1
(-,+)	<i>No expected active, other notable</i>	10
	Etizolam	9
	Midazolam	1
(+,+)	<i>Expected active, other notable</i>	10
	Benzodiazepine (undifferentiated) ²	10
	Etizolam	10

Other Depressant		2
(+,-)	<i>Expected active, no other notable</i>	2
	GHB	2

Polysubstance		1
(+,-)	<i>Expected active, no other notable</i>	1
	Cocaine (no expected ketamine)	1

Other Opioid		5
(+,-)	<i>Expected active, no other notable</i>	5
	Hydromorphone (Dilaudid)	3
	Oxycodone (Oxycontin)	2

Other		1
(+,-)	<i>Expected component, no other notable</i>	1
	Sodium bicarbonate	1

Other Stimulant		2
(-,+)	<i>No expected active, other notable</i>	2
	Methamphetamine	2

Unknown / Missing		21
	Fentanyl	11
	Etizolam	6
	Methamphetamine	4
	Cocaine	3
	Heroin	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. For these samples, etizolam was also present at low concentrations that are not believed to have caused of the positive strip result. We acknowledge there are limitations to these results, which we hope to improve upon with further method development.

Vancouver Island Drug Checking Project

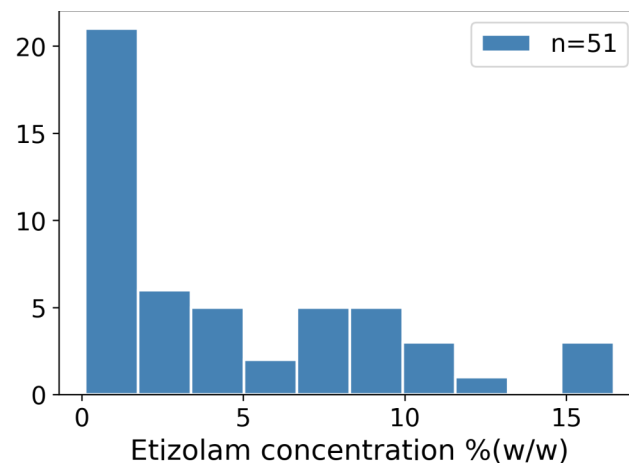
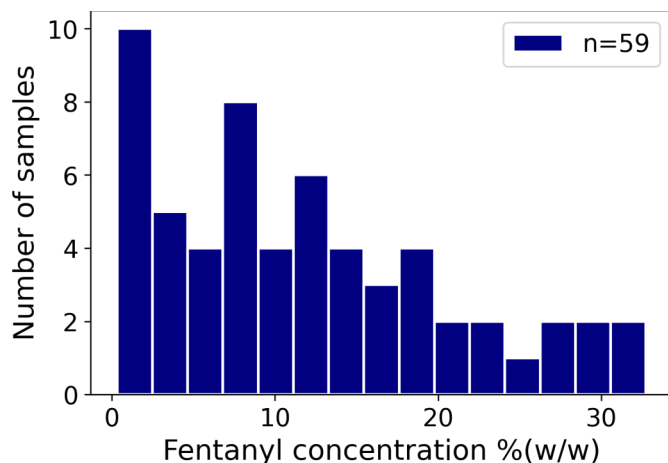
Preliminary Results for April 2021

Quantification

Using paper spray mass spectrometry data included by our collaborators at Vancouver Island University, 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.

Substance	# quant	median	min	max
Fentanyl	59	11.1 %	0.3 %	32.1 %
Etizolam	52	3.1 %	0.1 %	> 20 % ¹
Fluorofentanyl	7	3.2 %	0.9 %	8.8 %
Heroin	6	6.7 %	0.2 %	92 %
Carfentanil	5	0.2 %	0.06 %	0.5 %

Distribution of concentrations.



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. ¹Etizolam concentrations are only accurate up to 20 %(w/w), anything above this cut off is reported as >20 %(w/w) etizolam.

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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 now partnered with Dr. Chris Gill and the team at Vancouver Island University to improve detection and reporting using their 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	Compute Canada	SOLID Outreach
AVI Health and Community Services	IBM Canada	STS Pharmacy
BC Ministry of Health	Island Health Authority	University of Victoria
BC Ministry of Mental Health and Addictions	Lantern Services	Vancouver Island University
BC Support Vancouver Island Centre	PerkinElmer Inc	Westgrid
Canadian Institute for Substance Use Research	ProSpect Scientific	

Our Funders

Health Canada Substance Use and Addictions Program	Natural Sciences and Engineering Research Council
Vancouver Foundation	Canadian Institutes of Health Research
Michael Smith Foundation for Health Research	