Vancouver Island Drug Checking Project

Preliminary Results for September 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.

262

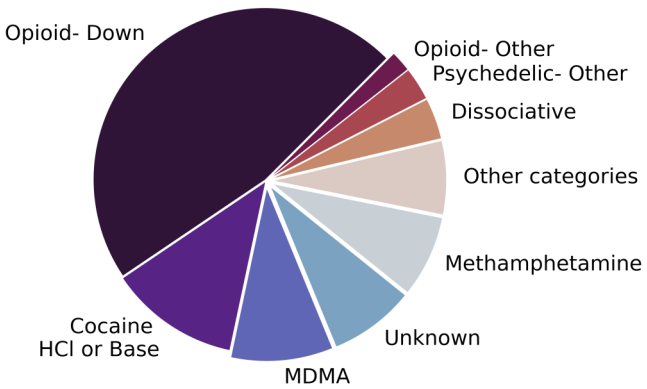
Samples Tested
1 - 30 September
2021

Highlighted findings:

- Carfentanil found in seven samples, six expected to be opioid-down and one unknown
- 95% of expected opioid-down samples contained fentanyl
- Median fentanyl concentration found was 10.5%, with a maximum of 72.9% found in an expected opioid-down sample
- Benzodiazepines and/or etizolam found in 68.3% of expected opioid-down samples
- The maximum concentration of etizolam found was 64.4%, in an expected opioid-down sample
- 86% (6/7) of expected heroin samples contained etizolam; 71% (5/7) of expected heroin samples contained carfentanil.

What were people bringing to be tested?

Expected substance	n
Opioid Down (fentanyl and/or heroin)	123
Stimulant (cocaine HCl or base, methamphetamine)	52
Psychedelic (MDMA, MDA, LSD, 2C-B)	33
Dissociative (ketamine)	10
Benzodiazepine (alprazolam, diazepam, etizolam)	1
Other Opioid (Dilaudid, oxycodone)	5
Other Depressant (GHB)	2
Other (cannabinoids, “research chemicals”)	14
Unknown/Missing	22



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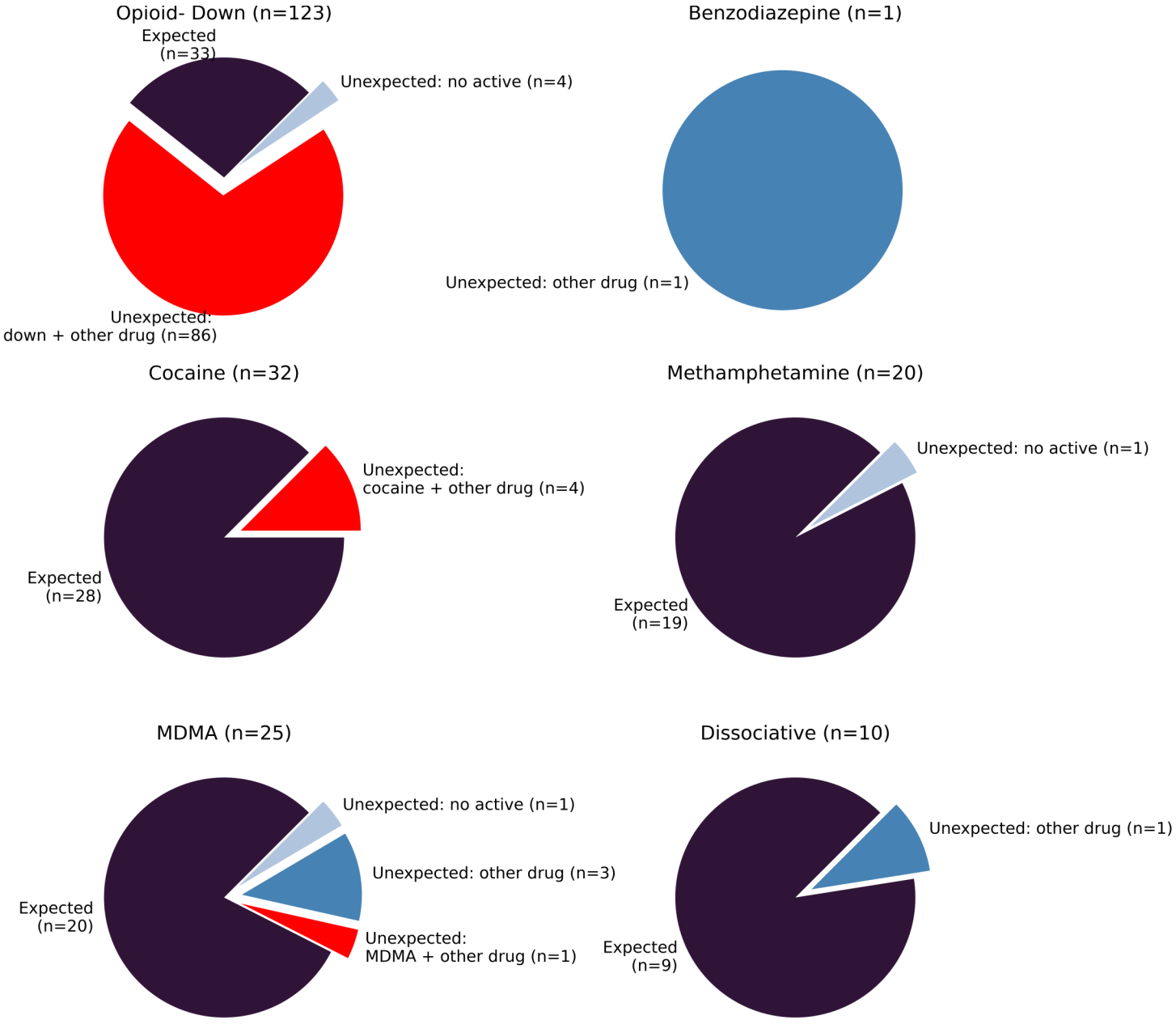
What did we find?

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 or impact the effectiveness of naloxone. The figure below demonstrates the proportion of samples that were as expected (dark purple) or contained an unexpected component for each drug category. When unexpected, the sample was either misrepresented, with no active found (light blue) or only another drug found (dark blue), or it was contaminated, with an unexpected other drug in addition to the expected (red).



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.

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Preliminary Results for September 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		
(+,-)	***Expected active, no other notable***	***33***
	Fentanyl	32
	Heroin	1
(+,+)	***Expected active*, other notable***	***86***
	Fentanyl*	86
	Etizolam	62
	Benzodiazepine (undifferentiated)[2]	20
	Flualprazolam	9
	Carfentanil	6
	Heroin*	6
	Fluorofentanyl	5
	Methamphetamine	3
(-,-)	***No expected active, no other notable***	***4***

Methamphetamine		
(+,-)	***Expected active, no other notable***	***19***
	Methamphetamine	19
(-,-)	***No expected active, no other notable***	***1***

Cocaine HCl or Base		
(+,-)	***Expected active, no other notable***	***28***
	Cocaine HCl	26
	Cocaine Base	2
(+,+)	***Expected active*, other notable***	***4***
	Cocaine HCl*	3
	Phenacetin	2
	Cocaine Base*	1
	Levamisole	1
	Methamphetamine	1

Other Opioid		
(+,-)	***Expected active, no other notable***	***3***
	Oxycodone	2
	Hydromorphone (Dilaudid)	1
(-,+)	***No expected active, other notable***	***1***
	Cocaine	1
(-,-)	***No expected active, no other notable***	***1***

Benzodiazepine		
(-,+)	***No expected active, other notable***	***1***
	Etizolam	1

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Vancouver Island Drug Checking Project

Preliminary Results for September 2021

Psychedelic		33
(+,-)	***Expected active, no other notable***	***25***
	MDMA	20
	LSD	3
	2C-B	1
	2C-B-FLY	1
(-,+)	***No expected active, other notable***	***5***
	MDA	3
	3,4,5-Trimethoxyamphetamine	1
	4-HO-MiPT	1
(+,+)	***Expected active, other notable***	***1***
	MDMA	1
	MDA	1
(-,-)	***No expected active, no other notable***	***2***

Dissociative		10
(+,-)	***Expected active, no other notable***	***9***
	Ketamine	8
	O-PCE	1
(-,+)	***No expected active, other notable***	***1***
	Methoxetamine	1
	Ketamine	1

Other Depressant		2
(+,-)	***Expected active, no other notable***	***2***
	GHB	2

Other		14
(+,-)	***Expected active, no other notable***	***6***
	3-MMC	1
	4-CMC	1
	5-MAPB	1
	A-PHP	1
	alpha-PHiP	1
	Tadalafil	1
(-,+)	***No expected active, other notable***	***1***
	Ketamine	1
(-,-)	***No expected active, no other notable***	***7***

Unknown / Missing		22
	Cocaine HCl	4
	Fentanyl	3
	MDMA	3
	Etizolam	2
	2C-B	1
	3-Fluorophenmetrazine	1
	4-ANPP	1
	Carfentanil	1
	Cocaine Base	1
	Ketamine	1
	Methamphetamine	1
	Tadalafil	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]May be due to limitations of technology to detect certain substances. [2]Benzodiazepine (undifferentiated) results are based on a positive benzo strip test and are unconfirmed by paper spray.*

Vancouver Island Drug Checking Project

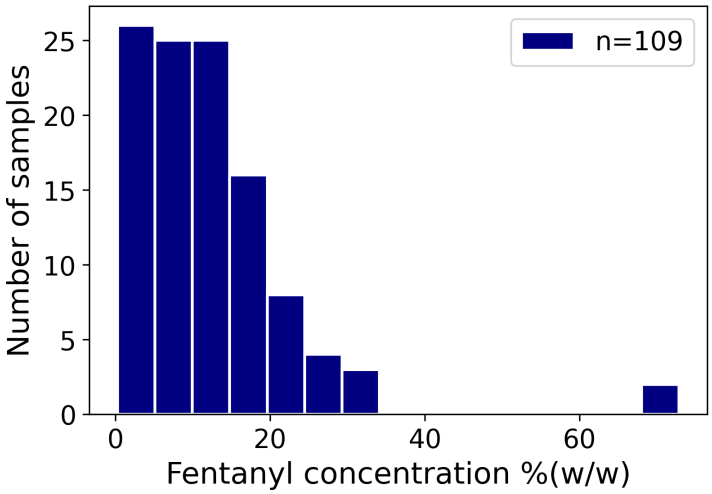
Preliminary Results for September 2021

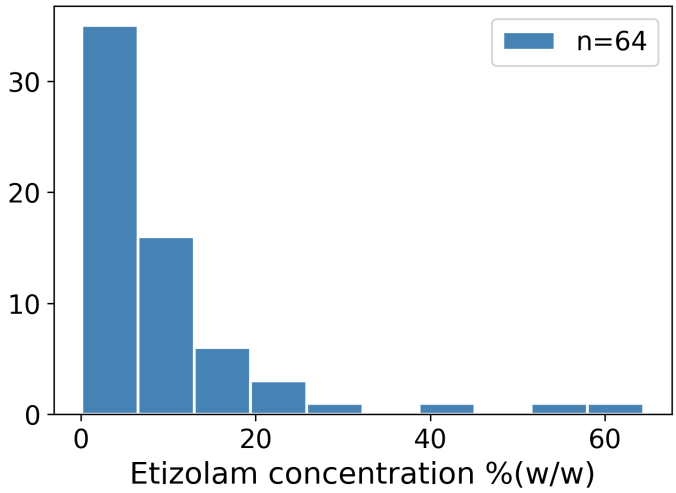
Quantification

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	109	10.5 %	0.3 %	72.9 %
Etizolam	64	5.3 %	0.1 %	64.4 %
Heroin	7	42.9 %	28.3%	60.0 %
Carfentanil	6	0.3 %	0.2 %	0.5 %
Fluorofentanyl	5	0.6 %	0.2 %	3.1 %

Distribution of concentrations.





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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
- 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
- SOLID Outreach
- STS Pharmacy
- University of Victoria
- Vancouver Island University
- Westgrid

Our Funders

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