

Inclusion Criteria: This report is a companion report to the Illicit Drug Toxicity report (<http://www2.gov.bc.ca/gov/content/safety/public-safety/death-investigation/statistical-reports>) to summarize the drugs detected among suspected illicit drug toxicity deaths.^[1] In the majority of deaths, fentanyl or its analogues,^[2] whether alone or in combination with other drugs, was detected. Deaths were excluded if there were no illicit substances identified or the death was suspected to be due to intentional self-harm. The detection of a drug does not necessarily indicate that it contributed to death. The final cause of death and the role of the drug will be determined by the coroner based on the full investigation.

Data has been added to this report to report on all drugs detected, along with fentanyl – see page 4 of this report.

This data has been compiled to better understand the types of drugs being detected in recent illicit drug toxicity death in British Columbia and to inform other agencies' public safety strategies in a timely manner.^[1] *Note that fentanyl-detected data is subject to change as further test results become available.*

Fentanyl Results:

- Preliminary data in 2022 has found that fentanyl or its analogues have been detected in 82% of all illicit drug toxicity deaths. In 2021, fentanyl or its analogues have been detected in 86% of deaths.
- Post-mortem toxicology results suggest that there has been a greater number of cases with extreme fentanyl concentrations in Apr 2020-Nov 2022 compared with previous months (concentrations exceeding >50ug/L (micrograms/litre).
 - From Apr 2020-Nov 2022, approximately 14% of cases had extreme fentanyl concentrations as compared to 8% from Jan 2019 to Mar 2020.
- Between Apr 2020-Nov 2022, 18% of fentanyl-detected illicit drug toxicity deaths in Vancouver Coastal Health had extreme fentanyl concentrations (>50ug/L).
- Carfentanil has been detected in 126 suspected illicit drug toxicity deaths in 2022 and 192 in 2021.

Figure 1: Percent of Illicit Drug Deaths with Fentanyl Detected

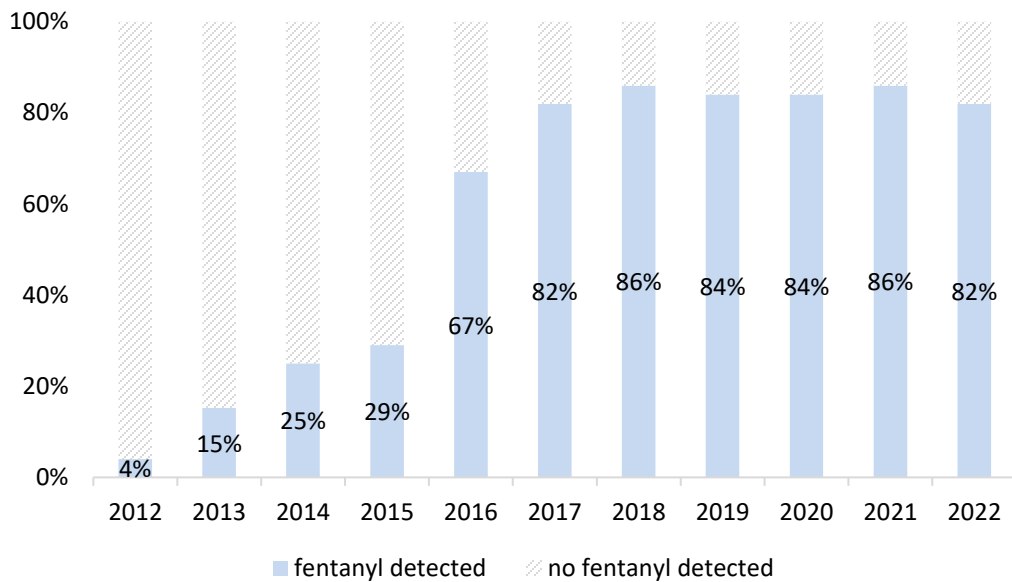
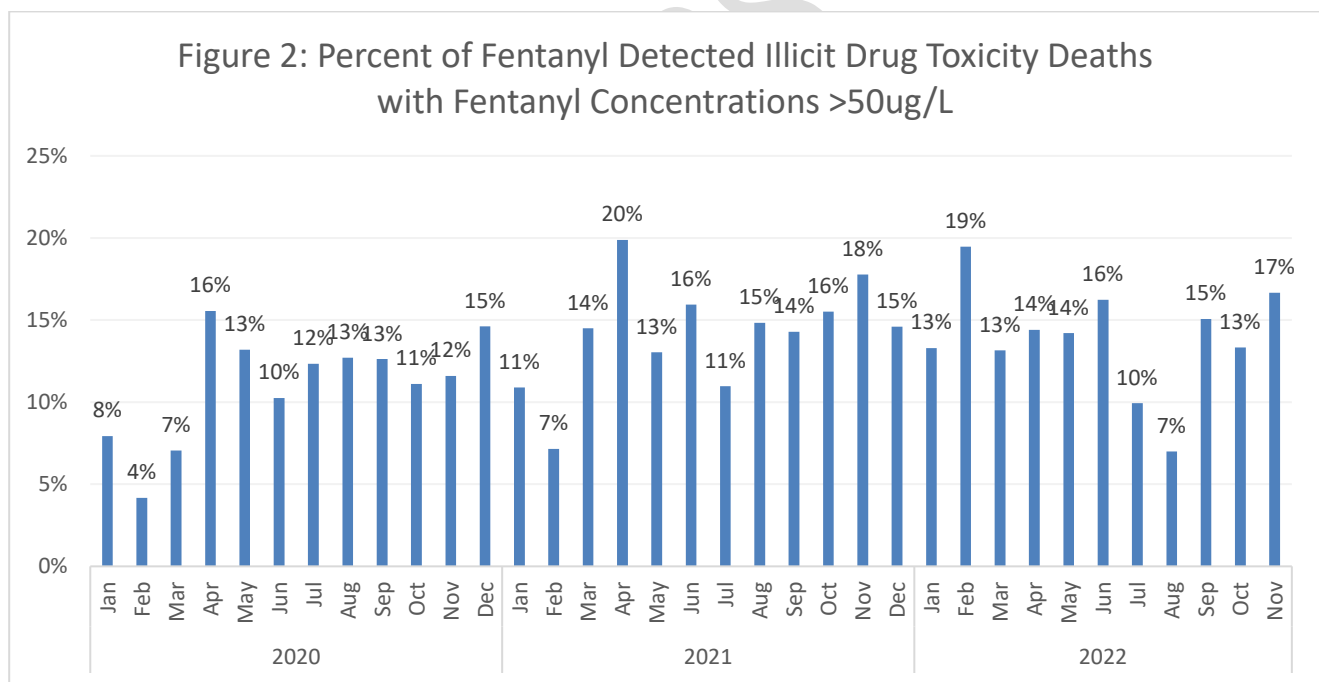
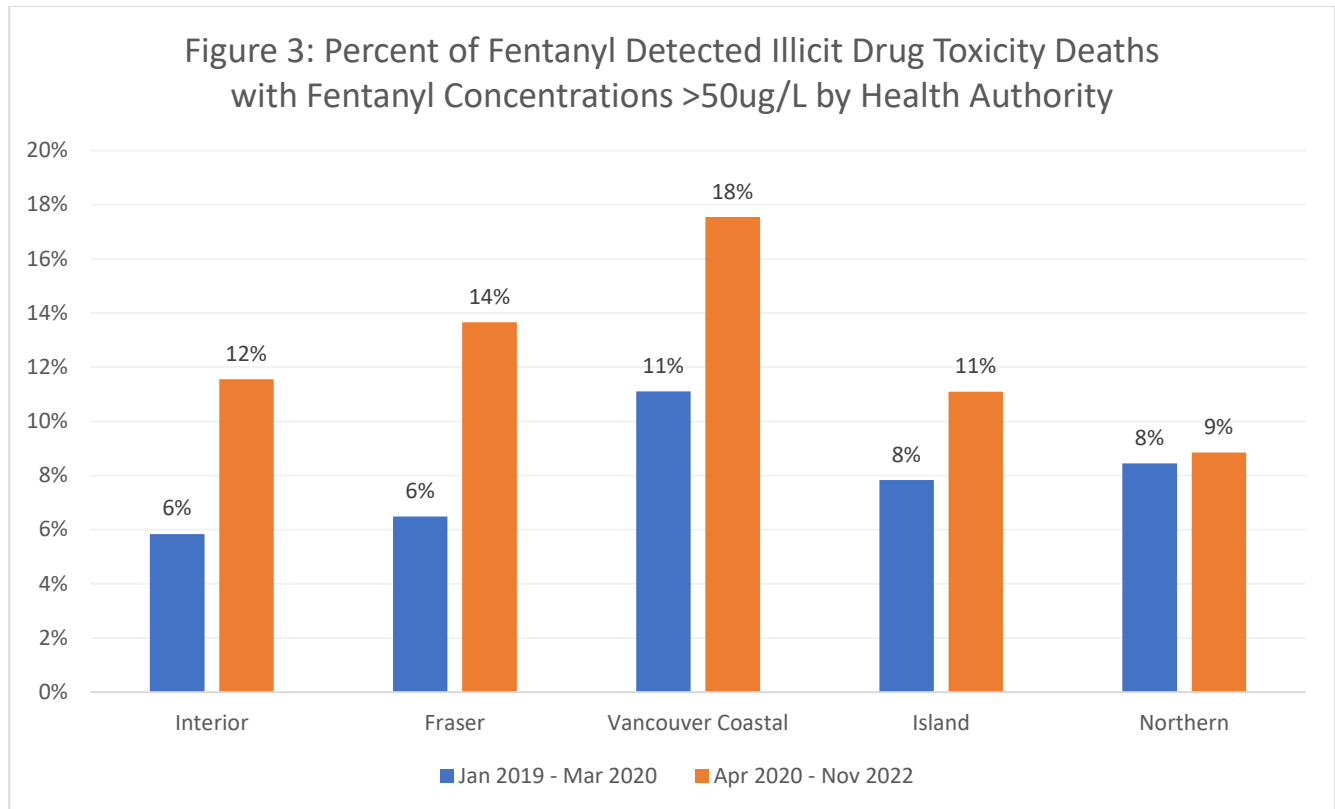


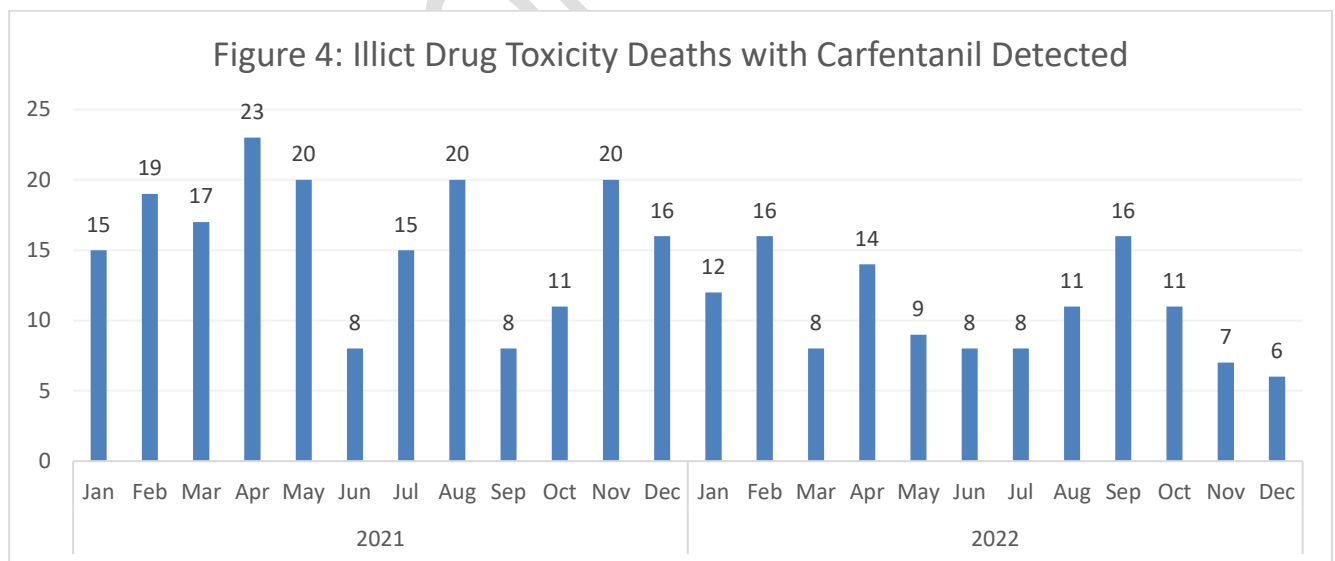
Figure 2: Percent of Fentanyl Detected Illicit Drug Toxicity Deaths with Fentanyl Concentrations >50ug/L



*Data from most recent months are considered preliminary and are subject to change as more tests are completed. December numbers are not available at time of reporting. Based only on cases where fentanyl concentrations were available.



*Data from most recent months are considered preliminary and are subject to change as more tests are completed. Based only on cases where fentanyl concentrations were available.



Other Drug Types - Expedited Toxicology Results:

As of July 1, 2020, the B.C. Coroners Service implemented a new expedited testing protocol that tests 21 drugs in a semi-quantitative manner and results are generated within a few days of samples being received.^[4] Samples from suspected drug toxicity deaths are sent for expedited testing and reported presumptively prior to completing confirmatory testing.

- Results from the new expedited testing protocol have found that about 90% of submitted samples have detected fentanyl and/or its analogues, 73% have detected at least one stimulant, 18% have detected at least one other opioid, and 38% have detected at least one benzodiazepine. *Note that samples sent for expedited testing are a subset of all illicit drug toxicity deaths (reported on page 1) where the initial investigation indicates a drug toxicity related death.*
- The detection rate of benzodiazepines has rapidly increased from 15% of samples in July 2020 to 52% of samples in Jan 2022. It has since gone down to 19% in December 2022.
- From Jul 2020–Dec 2022, etizolam has been found in 35% of illicit drug toxicity deaths that have undergone expedited testing.
- Among health authorities, Vancouver Coastal has the highest percentage of other opioids detected (22%), and Fraser has the highest percentage of benzodiazepines detected (46%). The percentage of fentanyl & analogues and stimulants detected was similar across all health authorities.

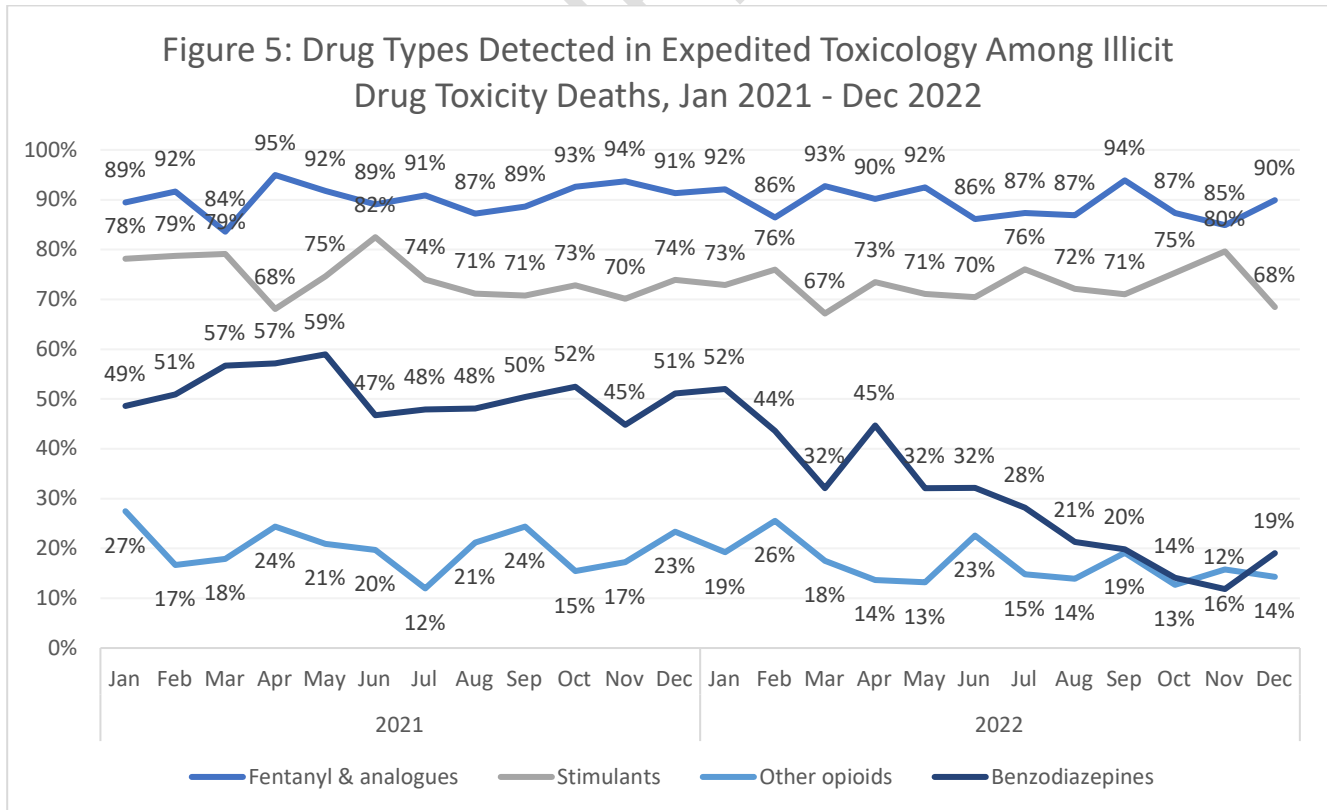


Figure 6: Drug Types Detected in Expedited Toxicology Among Illicit Drug Toxicity Deaths by Health Authority, Jul 2020 - Dec 2022

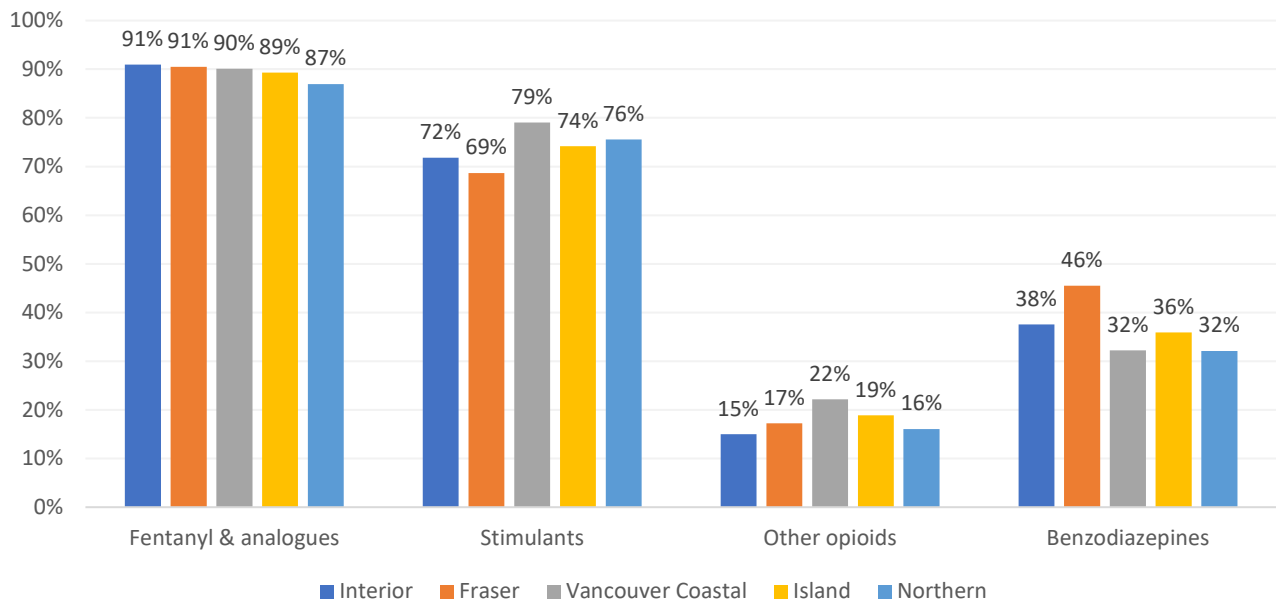
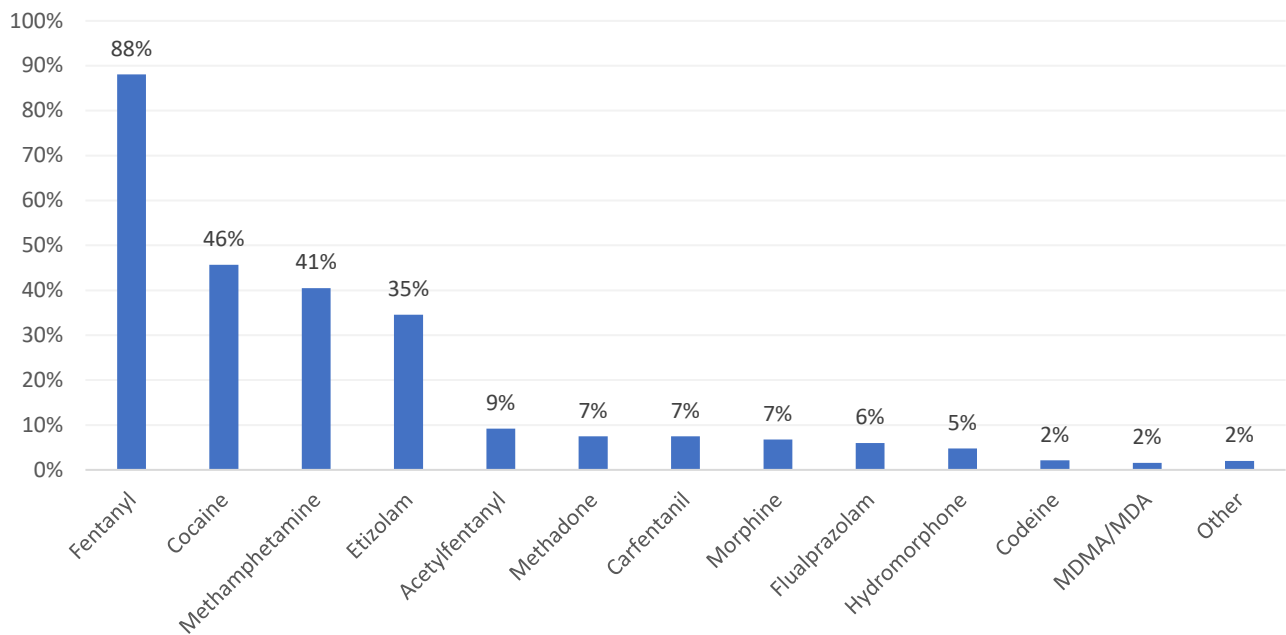


Figure 7: Substances Detected in Expedited Toxicology Among Illicit Drug Toxicity Deaths, Jul 2020 - Dec 2022



Notes: presence of acetylfentanyl is mostly likely due to an impurity of illicit fentanyl; concentrations of this drug are low and are unlikely to contribute to toxicity. The presence of morphine indicates prior administration of morphine itself or can arise as a metabolite of codeine or heroin. The number of cases where the decedent actually used morphine is likely much lower.

Notes:

1. The BCCS operates in a live database environment. Some data for more recent years are based on preliminary circumstances and are subject to change as investigations are concluded. Data are not directly comparable to published counts from previous years.
2. Toxicology testing includes acetylfentanyl as of November 2015. Standard testing for carfentanil, 3-methylfentanyl, furanylfentanyl, and W-18 began in June 1, 2017. Fentanyl-detected data is derived from testing conducted by the BC Coroners Service.
3. More information about the health regions can be found at <http://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/administrative-boundaries/health-boundaries>
4. Tests expanded to include screening for the following substances:

Fentanyl & analogues

- acetylfentanyl
- carfentanil
- norfentanyl

Stimulants

- Cocaine (inc. cocaethylene, benzoylecgonine)
- Methamphetamine/amphetamine
- MDMA/MDA

Other Opioids

- 6-Monoacetylmorphine
- Codeine
- Hydromorphone
- Methadone (inc. EDDP)
- Morphine
- Oxycodone

Benzodiazepines & analogues

- Alprazolam
- Etizolam
- Flualprazolam