

## Results from 111 samples checked

March 11 – 24, 2023

### Key findings

- 11% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> were known to be **associated with an overdose**: all contained fentanyl and half contained benzodiazepine-related drugs
- 61% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained benzodiazepine-related drug(s) and/or xylazine**. Of those:
  - 14% contained benzodiazepine-related drug(s) and xylazine
  - 82% contained benzodiazepine-related drug(s) (but no xylazine)
  - 5% contained xylazine (but no benzodiazepine-related drug(s))
- 22% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained fluorofentanyl** (roughly as strong as fentanyl)
- 14% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained carfentanil** (up to 100 times stronger than fentanyl) – this is a very high proportion of fentanyl samples to contain carfentanil
- 6% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained a nitazene opioid** (up to 10 times stronger than fentanyl)
- 39% of the expected<sup>1</sup> fentanyl samples<sup>5</sup> **contained multiple high-potency opioids**, including fentanyl, fluorofentanyl, nitazene opioids, and/or carfentanil. Using high-potency opioids in combination may result in extreme sedation and dangerous suppression of the respiratory system. Since these drugs are so strong, the risk of overdose is increased, and greater than normal doses of naloxone may be required to rouse individuals experiencing an overdose.
- **We are unable to quantify samples at this time, meaning we cannot report the average<sup>3</sup> amount of fentanyl found or the range<sup>4</sup> of fentanyl found in expected<sup>1</sup> fentanyl substances.**<sup>2</sup> The reason for this change to our service is that our pilot program funding is coming to an end, and we are without a long-term funding commitment to continue to operate. While we wait for more funding, we are down to just one instrument for analysis. The limitations of that instrument are the reason we cannot provide quantity-based information. We know many groups rely on our quantity-based information, and sincerely apologize for this inconvenience.

## Expected fentanyl substances

- 83% (15) of the expected<sup>1</sup> fentanyl substances<sup>6</sup> **contained fentanyl and other drugs**, including:
  - 93% (14) contained caffeine
  - 67% (10) contained at least one benzodiazepine-related drug (!):
    - 40% (6) contained flubromazepam (!)
    - 27% (4) contained bromazolam (!)
    - 13% (2) contained flualprazolam (!)
    - 7% (1) contained desalkylgidazepam (!)
    - 7% (1) contained deschloroetizolam (!)
    - 7% (1) contained etizolam (!)
  - 40% (6) contained at least one additional high-potency opioid (!):
    - 33% (5) contained fluorofentanyl (!)
    - 7% (1) contained carfentanil (!)
  - 27% (4) contained cocaine
  - 27% (4) contained xylazine (!)
  - 20% (3) contained bromofentanyl (!)
  - 13% (2) contained despropionyl fentanyl (4-ANPP) (!)
  - 7% (1) contained benzyl fentanyl (!)
  - 7% (1) contained phenacetin (!)

## Unexpected noteworthy drugs found in other expected substances

- 19% (10) of the remaining substances,<sup>6</sup> meaning substances<sup>2</sup> that weren't expected<sup>1</sup> to be fentanyl, **contained an unexpected noteworthy drug**, including:
  - 17% (3) of **expected<sup>1</sup> cocaine substances<sup>2</sup>** contained phenacetin (!)
  - 11% (2) of **expected<sup>1</sup> cocaine substances<sup>2</sup>** contained levamisole (!)
  - 8% (1) of **expected<sup>1</sup> MDMA substances<sup>2</sup>** contained phenacetin (!)
  - 50% (1) of **expected<sup>1</sup> crack cocaine substances<sup>2</sup>** contained phenacetin (!)
  - 50% (1) of **expected<sup>1</sup> heroin substances<sup>2</sup>** contained fentanyl (!), fluorofentanyl (!), and xylazine (!)
  - 50% (1) of **expected<sup>1</sup> carfentanil substances<sup>2</sup>** contained fentanyl (!) and xylazine (!)
  - 50% (1) of **expected<sup>1</sup> carfentanil substances<sup>2</sup>** contained fluorofentanyl (!)

**Not sure what some of these drugs are? View our drug dictionary:** [www.drugchecking.cdpe.org/drug-dictionary](http://www.drugchecking.cdpe.org/drug-dictionary)

## Notes

**1 | Expected (drug):** When a sample is submitted to be checked, the drug that sample was bought or got as is recorded. We call it the "expected drug". Knowing the expected drug helps us tailor our harm reduction advice. It also helps us understand

contamination to drugs rather than combinations of drugs (e.g., fentanyl was found in a cocaine sample rather than fentanyl and cocaine were found together).

**2 | Substances:** Could be a small amount of powder, crystals, rocks, blotter, or liquid, or a crushed bit of a pill.

**3 | Average amount:** We arrange the amount of fentanyl found in expected fentanyl substances in ascending or descending order, determine the median (i.e., the middle number), and use that number as the “average”. More information about the amounts of fentanyl, cocaine, carfentanil, etizolam, and caffeine found as a proportion of the total sample submitted for expected opioid, cocaine, crack cocaine, and some other powder substance samples can be found on [our website](#).

**4 | Range:** Represents the amount of fentanyl found in 50% of the expected fentanyl substances checked. More information about the amounts of fentanyl, cocaine, carfentanil, etizolam, and caffeine found as a proportion of the total sample submitted for expected opioid, cocaine, crack cocaine, and some other powder substance samples can be found on [our website](#).

**5 | Samples:** Includes both substances and used drug equipment. Substances could be a small amount of powder, crystals, rocks, blotter, or liquid, or a crushed bit of a pill. Used equipment could be a used cooker or filter, or leftover liquid from a syringe.

**6 | Reason for reporting only substance samples:** While Toronto’s Drug Checking Service checks both substances and used equipment, drug equipment – like cookers – are often re-used. The mass spectrometry technologies used for this drug checking service are so sensitive that very trace amounts of drugs may be found. This means that when equipment is re-used, drugs from past use may present in the results for the sample that is being checked. This can interfere with up-to-date drug supply monitoring, so we’ve noted when we exclude used equipment from this report.

**7 | Isotonitazene/protonitazene:** Because isotonitazene and protonitazene have a very similar chemical structure, it is not currently possible for Toronto’s Drug Checking Service to differentiate between the two. For this reason, we report the two drugs together.

**8 | Substances that unexpectedly contain high-potency opioids or benzodiazepine-related drugs and not the expected drug:** Our reports highlight unexpected noteworthy drugs found in all checked substances. When high-potency opioids or benzodiazepine-related drugs are found unexpectedly in a substance sample and the expected drug is not present, we flag it but are hesitant to consider it contamination of the expected drug. Instead, we assume there is an issue with the expected drug: the person who sold or provided the drugs accidentally mixed up their drugs, the service user accidentally mixed up their drugs, or the expected drug was recorded incorrectly during sample collection. These samples require special consideration.

**(!) | Unexpected noteworthy drug:** “Noteworthy drugs” are drugs that (i) are linked to overdose or other adverse effects, (ii) are highly potent or related to highly potent drugs, or (iii) may not be desired by some service users. Noteworthy drugs are flagged when they are unexpectedly found in checked samples.

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***Toronto's Drug Checking Service** is a public health service that aims to reduce the harms associated with substance use and, specifically, to prevent overdose by offering people who use drugs timely and detailed information on the contents of their drugs. Beyond educating individual service users, results for all samples are combined, analyzed, and publicly disseminated every other week to communicate drug market trends and inform care for people who use drugs, advocacy, policy, and research. [Sign up](#) to receive reports, alerts, and other information on Toronto’s unregulated drug supply.*

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