Toronto's Drug Checking Service

Results from 153 samples checked

March 8 – 21, 2025

Key findings

- 4% of the expected[1] fentanyl samples[2] were known to be **associated with an overdose** – all of these samples contained at least one high-potency opioid[3] (an opioid considered to be as strong as or stronger than fentanyl), and all combined with a veterinary tranquilizer
- 28% of the expected[1] fentanyl samples[2] **contained multiple high-potency opioids**[3], including fentanyl, fluorofentanyl, a methylfentanyl-related drug, and/or protodesnitazene
- 76% of the expected[1] fentanyl samples[2] **contained a veterinary tranquilizer** – 49% contained xylazine and 42% contained medetomidine
- 31% of the expected[1] fentanyl samples[2] **contained a methylfentanyl-related drug** (at this time, we believe ortho-methylfentanyl is circulating, which is considered to be as strong as fentanyl)
- 30% of the expected[1] fentanyl samples[2] **contained a benzodiazepine-related drug**, namely, bromazolam, desalkylflurazepam, desalkylgidazepam, diazepam (Valium), nordiazepam, as well as a "new" benzodiazepine-related drug, ethylbromazolam
- 22% of the expected[1] fentanyl samples[2] **contained fluorofentanyl** (at this time, we believe para-fluorofentanyl is circulating, which is considered to be as strong as fentanyl)
- 12% of the expected[1] fentanyl samples[2] **contained a "new" high-potency[3] nitazene opioid**, protodesnitazene (considered to be as strong as fentanyl)
- 31% of the expected[1] fentanyl samples[2] **did not contain fentanyl** – many of these samples instead contained a methylfentanyl-related drug, fluorofentanyl, and/or protodesnitazene
- Amount of drugs found in expected[1] fentanyl drug samples[4]:

In 41 expected[1] fentanyl drug samples[4]:			
1.5%	was the **average amount[5] of fentanyl found**	**1.0 – 2.2%**	was the **range[6] of fentanyl found** in half of the drug samples[4]

In 10 expected[1] fentanyl drug samples[4]:

1.8%	was the **average amount**[5] **of fluorofentanyl found**	**1.3 – 6.4%**	was the **range**[6] **of fluorofentanyl found** in half of the drug samples[4]
In 16 expected[1] fentanyl drug samples[4]:			
5.5%	was the **average amount**[5] **of methylfentanyl-related drugs found**	**0.6 – 8.2%**	was the **range**[6] **of methylfentanyl-related drugs found** in half of the drug samples[4]
In 22 expected[1] fentanyl drug samples[4]:			
0.4%	was the **average amount**[5] **of medetomidine found**	**0.1 – 0.9%**	was the **range**[6] **of medetomidine found** in half of the drug samples[4]
In 29 expected[1] fentanyl drug samples[4]:			
0.5%	was the **average amount**[5] **of xylazine found**	**0.3 – 4.1%**	was the **range**[6] **of xylazine found** in half of the drug samples[4]
In 6 expected[1] fentanyl drug samples[4]:			
1.1%	was the **average amount**[5] **of bromazolam found**	**0.4 – 1.4%**	was the **range**[6] **of bromazolam found** in half of the drug samples[4]

Expected fentanyl drug samples

- 67% (41) of the expected[1] fentanyl drug samples[7] **contained fentanyl and other drugs**, including:
  - 100% (41) contained caffeine
  - 83% (34) contained a veterinary tranquilizer:
    - 54% (22) contained xylazine **(!)**
    - 41% (17) contained medetomidine **(!)**
  - 32% (13) contained at least one additional high-potency opioid[3]:
    - 20% (8) contained a methylfentanyl-related drug **(!)**
    - 15% (6) contained fluorofentanyl **(!)**
    - 5% (2) contained protodesnitazene **(!)**
  - 27% (11) contained at least one benzodiazepine-related drug:
    - 12% (5) contained ethylbromazolam **(!)**
    - 10% (4) contained bromazolam **(!)**
    - 7% (3) contained desalkylgidazepam **(!)**
    - 2% (1) contained nordiazepam **(!)**
  - 22% (9) contained **phenacetin** **(!)**
  - 2% (1) contained **furanyl UF-17** (opioid-related) **(!)**

Unexpected noteworthy drugs found in other expected drug samples

- 3% (2) of the remaining drug samples[7], meaning drug samples[4] that weren't expected[1] to be fentanyl, **contained an unexpected noteworthy drug**, including:
    - 25% (1) of **expected[1] crack cocaine drug samples[4]** contained phenacetin **(!)**
    - **One expected[1] cocaine drug sample[4] that did not contain[9] cocaine** contained fentanyl **(!)** and caffeine

Not sure what some of these substances are? View our drug dictionary: www.drugchecking.community/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 heroin sample rather than fentanyl and heroin were found together).

2 | Samples: Includes both drugs and used drug equipment. Drugs 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. For more information, view our terms of service.

3 | High-potency opioids: We classify an opioid "high-potency" if it is considered to be as strong as or stronger than fentanyl.

4 | Drug samples: Could be a small amount of powder, crystals, rocks, blotter, or liquid, or a crushed bit of a pill.

5 | Average amount: We arrange the amounts of a substance found as a proportion of the total fentanyl drug sample from smallest to largest, determine the median (i.e., the middle number), and use that number as the "average". For more information, view our amount of drugs found graph.

6 | Range: Known as the interquartile range, represents the middle 50% of the amounts of a substance found as a proportion of the total fentanyl drug sample. For more information, view our amount of drugs found graph.

7 | Reason for reporting only drug samples: While Toronto's Drug Checking Service checks both drugs 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 substances may be found. This means that when equipment is re-used, substances from past use may present in the results for the sample that is being checked. This can interfere with up-to-date drug market monitoring, so we've noted when we exclude used equipment from this report. For more information, view our service and technology limitations.

8 | Reporting similar substances together: These substances have a very similar chemical structure, and it is not currently possible for Toronto's Drug Checking Service to differentiate between them. For this reason, we report these substances together. For more information, view our drug dictionary.

9 | Drug samples that unexpectedly contain noteworthy drugs and not the expected drug: Our reports highlight unexpected noteworthy drugs found in all checked drug samples. When noteworthy drugs are found unexpectedly in a drug 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.

10 | High-potency opioid contamination: Based on the information we have about this sample, we are reporting it as contaminated with a high-potency opioid. However, it is very unusual that our program finds high-potency opioids unexpectedly in samples expected to be stimulants, psychedelics, and depressants, and these samples always require special consideration. There is increasing consensus in the drug checking community that the unexpected presence of high-potency opioids in other drug types is the product of accidental cross contamination rather than intentional adulteration. Cross contamination may result from poorly cleaned scales, storing drugs together (e.g., storing LSD in a baggie that was originally used for storing cocaine), or using drug equipment with different batches of drugs.

(!) | 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.

About Toronto's Drug Checking Service: **Toronto's Drug Checking Service** is a free and anonymous community-based 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 and analyzed to perform unregulated drug market monitoring, then translated and **publicly disseminated every other week** to communicate unregulated drug market trends and drug education to those who cannot directly access the service, as well as to inform care for people who use drugs, advocacy, policy, and research.

Participating collection sites: Casey House | Parkdale Queen West Community Health Centre (Parkdale and Queen West sites) | Regent Park Community Health Centre | South Riverdale Community Health Centre (KeepSix and Moss Park sites) | Street Health | The Neighbourhood Group (Kensington Market Overdose Prevention Site) | The Works at Toronto Public Health | Toronto Shelter and Support Services (Seaton House Overdose Prevention Site)

Participating analysis sites: Centre for Addiction and Mental Health (Clinical Laboratory and Diagnostic Services) | St. Michael's Hospital (Department of Laboratory Medicine and Drug Checking Unit)

Toronto's Drug Checking Service is coordinated by a small central team that operates from within the Drug Checking Unit at St. Michael's Hospital. The central team is also responsible for conducting unregulated drug market monitoring and developing and disseminating relevant drug information.

Our work is only possible because people who use drugs access our service and directly contribute to our understanding of the unregulated drug supply. We thank the community of people who use drugs throughout Toronto for their trust and leadership.

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