

### Harm Reduction Section

# Adulterant Checking Program Monthly Snapshot



NMHarmReduction.org

## January 2025



#### Samples by Type (Expected Substance)



Sample type is determined by what the individual bringing the sample believes they purchased or received it as. Substances are tested using Fourier-transform infrared spectroscopy (FTIR) machines. It uses a laser and infrared light to scan and identify the different "ingredients" in a sample. It can identify well known drugs, common cuts, and other substances. It can give a rough estimate of the amount of each substance.

The following results show the various substances detected in 28 samples collected by the four Adulterant Checking Pilot Program sites through the New Mexico Department of Health. The contents of the samples are not mutually exclusive and there may be variations from sample to sample. The expected drug, or what it was sold to the individual as, is demarked with an  $\times$ . A glossary of terms can be found at the end of the document.



#### Graph 1: Fentanyl Powder/Rock/Tar Formulations (n=11)

The results from **Graph 1** show that of the 11 samples submitted that were fentanyl powder, rock, tar, or other formulations, all 11 contained fentanyl. The amount of fentanyl present in each sample can vary. There were 14 different substances found in the samples.

#### Graph 2: Counterfeit M30 Fentanyl Pills "Blues" (n=6)



The results of **Graph 2** shows that of the 6 different pill samples expected to be fentanyl, only 4 of them contained fentanyl. However, 3 samples did test positive for carfentanil, a synthetic analogue of fentanyl.





The results of **Graph 3** display that in all 4 samples of crack cocaine, the only substance that was detected was cocaine freebase.

#### Graph 4: Cocaine (n=2)



Of the 2 samples of cocaine that were submitted, **Graph 4** shows that both samples contained cocaine. Addtionally, lidocaine and methylecgone were also detected.

#### Graph 5: Heroin (n=2)



**Graph 5** shows the results for 2 submitted samples expected to be heroin. Both samples contained heroin and 6-aceylcodine, a metabolite of heroin.

#### Graph 6: Ketamine (n=1)



The results of **Graph 6** display that in the 1 sample of expected ketamine, the only substance detected was ketamine.

#### Graph 7: Alprazolam (Xanax) (n=1)



In the one sample submitted that was expected to be alprazolam (Xanax), **Graph 7** shows that the sample did not contain any alprazolam. It did contain a different benzodiazepine, bromazolam, which is illegally manufactured. Sucrose and microcrystalline cellulose were also detected.

#### Graph 8: Unknown (n=1)



**Graph 8** was a sample where the expected drug was unknown. The sample results show that it was baking soda.

\*\*\*Samples are collected and analyzed by trained technicians with the Adulterant Checking Pilot Programs. Samples are tested with FTIR spectroscopy and test strip technologies at the Point-of-Care and sent for complimentary GCMS spectrometry testing at the University of North Carolina Chapel Hill's Street Drug Analysis Lab. Please contact Phillip Fiuty, Adulterant Checking Program Technical Advisor with NM Health, with further questions. Email: phil.fiuty@doh.nm.gov Phone: (646) 581-052

#### **Glossary of Words, Drugs and Chemicals**

**Counterfeit M30 Blue Pills, known as "blues" or "the blues":** Sometimes there is confusion created using the words "cut" or "laced" which often leads people to believe that ordinary prescription drugs are somehow being adulterated with fentanyl. Counterfeit pills are just that, counterfeit.

They are not cut or laced with anything nor do they contain crushed medications mixed with fentanyl, but rather they are counterfeit pills that are made to look like common prescription pills, such as the fake M30's that often contain fentanyl and look like a 30 mg oxycodone pill, fake blue or white Adderall pills that contain methamphetamine, and fake alprazolam ("Xanax") pills that contain illicitly manufactured bromazolam (benzodiazepine).

Counterfeit pills began showing up in the wake of the crackdown on prescription pain pills (the "pill mills"), which inadvertently drove up the dollar value of prescription drugs and created a market for the illicit pills. Very few, if any, of the people that we serve with the Harm Reduction Program think that these are real oxycodone pills and know that they are likely to contain fentanyl.

Occasionally, it has been reported that either due to a mix-up by a seller or accidental crosscontamination somewhere in the supply chain, that someone bought something that wasn't supposed to contain fentanyl, like a counterfeit Adderall or Xanax, and then experienced an accidental overdose. Although unfortunate, this doesn't mean that the substance was intentionally cut or laced with fentanyl. Fentanyl Test Strips are one tool that can help minimize the risks of an illicit and unregulated drug supply.

**4-ANPP:** Used in the synthesis of pharmaceuticals and is a precursor to fentanyl, often left behind from the synthesis and inadequate "washing", or purification, of the final product. 4-ANPP is not known to have any psychoactive effects, but many precursors, intermediaries, and metabolites commonly found with illicitly manufactured substances do have psychopharmacological effects of their own and may contribute to an overdose and other adverse effects.

6-monoacetylmorphine: A metabolite of heroin left over from the manufacturing process.

6-acetylcodine: A metabolite of heroin left over from the manufacturing process.

**Acetaminophen:** An NSAID ("Tylenol") commonly found with fentanyl in the USA as a bulking agent and "excipient" (an inactive substance that serves as the "vehicle" for a drug), likely due to both its availability and having some similar chemical properties to fentanyl, including both a high "melting point" and a high "boiling point." These properties help to facilitate the vaporizing of fentanyl for inhalation without burning, commonly known as "smoking" fentanyl.

**Acetyl Fentanyl:** A slightly weaker analogue of fentanyl that appears from time to time in the illicit drug supply.

**Baking Soda:** Used to base cocaine to make crack cocaine. The drug itself is more stable in this base state and is easier to smoke.

**Bromazolam:** An illicitly manufactured benzodiazepine not approved for use in humans. It is more potent than alprazolam ("Xanax") and its effects are described as more euphoric and longer lasting

**BTMPS:** An industrial plastics additive that provides UV light protection and is also used in boat sealants. Since 2024, BTMPS has become a commonly found adulterant with fentanyl, though the reason for this is poorly understood as it is unlikely that it can be used as a precursor for manufacturing fentanyl, nor does it have any enhancing effects. Also known by its chemical name bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate, individuals using fentanyl that contains BTMPS have reported a harsh taste, coughing, vomiting, and blurry vision after use, and have described an odor like fish, bug spray, or chlorine. BTMPS is a known nicotinic acetylcholine receptor antagonist in rats and may cause effects like ingesting too much nicotine might cause.

**2,2,6,6-tetramethyl-4-piperidinol:** A research chemical with no medical or household uses, and is likely a cheaper alternative to the BTMPS, though, again, the reason for it remains unclear.

**Carfentanil:** A potent analogue of fentanyl known to be much stronger and have a significantly longer half-life than fentanyl. Because Carfentanil has a slightly different molecular structure than fentanyl, and can be present in such small quantities, it often may not be detectable with the fentanyl test strips. It's re-emergence nationally in 2024 is primarily categorized as being in "trace abundance", meaning that it is often the smallest component of a sample, unlike in 2017 and 2018 when it was associated with a high number of fatal overdoses.

**Lidocaine:** A common numbing agent that may cause vein damage and collapse when injected intravenously, with accompanying wounds like those caused by xylazine. Lidocaine is also known to cause "false positive" test results with the xylazine test strips.

**Mannitol:** A type of sugar alcohol commonly used as a sweetener, a supplement, and a medication. It has very low "hygroscopicity" which means it does not absorb water from the air and is used as a coating for hard candies, gum, and counterfeit pills. Mannitol is commonly sold at smoke shops and used as a cutting, or bulking agent for cocaine, heroin, powdered methamphetamine, and fentanyl, and as an excipient when manufacturing counterfeit pills.

**Methylecgonine:** A tropane alkaloid found in coca leaves and the roots of datura plants (Jimson, or "loco" weed). It is a metabolite of cocaine and may also be used as a precursor for manufacturing cocaine. Methylecgonine forms as the last step in the biosynthesis of turning coca leaves into cocaine

**Microcrystalline Cellulose:** A fine, white powder derived from plant matter that is commonly used in food, supplements, pharmaceuticals, and cosmetics. In pharmaceuticals it is used as an excipient, and it easily presses into hard tablets that can also quickly dissolve. Some common medications that contain microcrystalline cellulose are alprazolam (Xanax), hydrocodone, oxycodone, tramadol, and dextroamphetamine (Adderall), and it is frequently used for the manufacturing of counterfeit pills.

N-phenylpropanamide (NPAA): A leftover impurity from the synthesis of fentanyl.

**N-Propionyl norfentanyl:** Known to be a common precursor used in fentanyl synthesis, it is easily available online as an analytical reference standard that is similar to other known opioids, though its chemical structure is easily manipulated and can be used to manufacture many different fentanyl analogues. The DEA added it to the "Special Surveillance List" in 2023.

**Para-Fluoro fentanyl**: A fentanyl analogue made with different precursor chemicals and known to sometimes be more potent than fentanyl, even appearing at times as the primary substance in a sample.

**Sucrose:** Composed of naturally occurring glucose and fructose, which when refined produces sucrose, or "white sugar."

**Vegetable Oil:** Vegetable oil is commonly used as a coating in the manufacture of counterfeit pills.

**Xylazine, also known as "Tranc":** A potent sedative used in veterinary medicine that is sometimes added to fentanyl to enhance and extend its effects. Repeated use sometimes leads to serious wounds that are difficult to heal.



