2019 Connecticut Epidemiological Profile: Fentanyl

A product of the State Epidemiological Outcomes Workgroup (SEOW)

Fentanyl, like heroin, is an opioid. In Connecticut, the use of heroin often involves the use of fentanyl, either intentionally or not. This profile, where appropriate, describes the concurrent and overlapping use of fentanyl and heroin.

Prevalence and Use

In 2019, more than 8 in 10 (82%) unintentional overdose deaths that occurred in Connecticut involved fentanyl, yet there is very little data specific to fentanyl *use* in Connecticut. Fentanyl can be injected, snorted, smoked, taken orally as a pill, or spiked onto blotter paper. Pharmaceutical fentanyl products may be diverted to illicit markets; however, most fentanyl that is used non-medically is illicitly manufactured (non-pharmaceutical).[1] According to the DEA, fentanyl availability is high and increasing across New England. It may be available either mixed with white powder heroin or alone, and may be sold in powder form as heroin or as fentanyl. Fentanyl is often sold under the same or similar "brand' names as heroin, creating confusion and uncertainty among buyers. Fentanyl may also be pressed into counterfeit prescription pills.[1]

In Connecticut, since 2017, deaths involving fentanyl have outnumbered deaths involving heroin, suggesting that much of the heroin consumed in Connecticut may contain fentanyl. Thus, all individuals who use heroin are at risk of fentanyl exposure. While prevalence estimates are not available specific to fentanyl misuse, due to the intertwined nature of fentanyl and heroin in Connecticut, heroin use statistics provide valuable information. According to the 2017-2018 National Survey on Drug Use and Health (NSDUH), less than one percent (0.4%) of Connecticut residents 12 or older have used heroin in the past year, a rate slightly higher than the national average (0.3%).[2] The highest prevalence of heroin use is among young adults aged 18-25 years old (0.6%), followed by adults aged 26 or older (0.4%), and then adolescents (0.04%).

According to the 2019 Connecticut School Health Survey (CT's Youth Risk Behavior Surveillance survey), an estimated 1.8% of high school students in Connecticut reported heroin use in their lifetime. The Connecticut data show that black non-Hispanics and Hispanics reported the highest overall rate (3.0% each) compared to white non-Hispanics (1.1%). Almost three percent of males (2.7%) and .9% of females reported ever use of heroin. Use among high school students in general is of particular concern, as youth use is often linked to continued use and substance use disorder in the future.

Who is at risk?

- Individuals who are using heroin or illicitly obtained prescription pills, which may be counterfeit.
- Individuals who use cocaine, since fentanyl overdose outbreaks have been linked to fentanyl-contaminated cocaine in Connecticut.[3]
- People who are addicted to other substances are more likely to meet criteria for heroin use disorder; compared to people without an addiction, those who are addicted to alcohol are 2 times, marijuana 3 times, cocaine 15 times and prescription pain medications 40 times more likely to become addicted to heroin.[4]
- Other groups at risk include:[5]
  - Non-Hispanic whites, although recent trend data in overdose fentanyl deaths show that blacks and Hispanics are increasingly at risk of fentanyl and heroin overdose death;
  - Males;
  - 18 to 25 year olds;
  - People without insurance or enrolled in Medicaid; and
  - People living in large metropolitan areas.

[1] US DOJ- DEA, 2018 National Drug Threat Assessment (October 2018)
[2] NSDUH (2017-2018)
[3] Tomassoni AJ. MMWR 2017;66:107-111.
[4] CDC. Overdose: Heroin. https://www.cdc.gov/drugoverdose/opioids/heroin.html

CPES Center for Prevention Evaluation and Statistics

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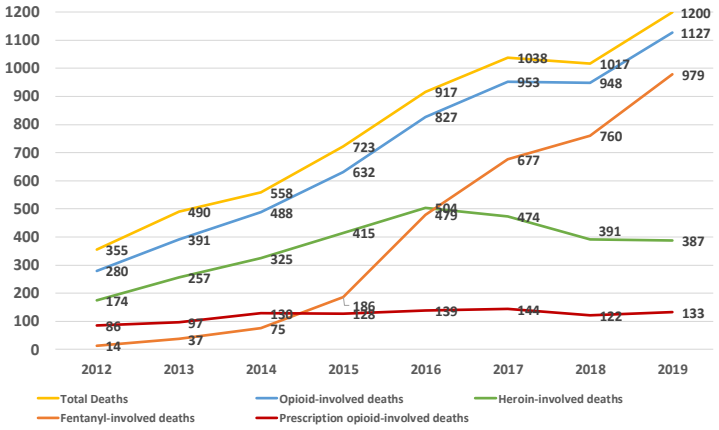
Overdose

- Fentanyl is about 50 times more potent than heroin and thus its use may increase risk of overdose. Overdose warning signs include stupor or non-responsiveness, pinpoint pupils, altered breathing or not breathing, foaming from the mouth or nose, blue lips or nails, blue or grayish skin color, and indications of opioid use (such as needles or pills). Respiratory failure may lead to death, and overdose and death may occur more quickly with fentanyl use compared to heroin or other opioids due to fentanyl's higher potency.
- People who inject fentanyl and those who use multiple substances, including other opioids, benzodiazepines, alcohol, and cocaine have an increased risk of overdose.
- Narcan® (naloxone), available as nasal spray or for injection, can effectively reverse a fentanyl or other opioid overdose. However, due to fentanyl's potency, multiple doses of naloxone may be required to reverse a fentanyl overdose.
- Recent data from the Office of the Chief Medical Examiner (OCME) suggests an increasingly unpredictable illicit opioid supply across the state. Substances such as xylazine and etizolam, which can induce central nervous system and respiratory depression that is unable to be reversed by naloxone, may be added to fentanyl or heroin, increasing overdose mortality risk.

Impact

- According to OCME data, in 2019, fentanyl was involved in 979 overdose deaths (Figure 1), the highest number since 2012.[5]
- Since 2012 there has been a consistent increase in fentanyl-involved deaths, reaching the highest rate in 2019 with a death rate of 27.4 per 100,000 population.
- Fentanyl-involved deaths have occurred throughout the state, although the highest rate of fentanyl-involved deaths is in Connecticut's urban areas.

Figure 1. Fentanyl- and Heroin- Involved Deaths in Connecticut, 2012-2019



- The municipalities in Connecticut with the most resident deaths involving fentanyl overdose in 2019 were Hartford with 87, Waterbury 78, Bridgeport 44, New Haven 38, and New Britain 32.
- Of all Connecticut treatment admissions in 2019, 30.4% were for heroin as the primary substance. Of these, 68% were male, and 62.5% were White, non-Hispanic. [6]
- People who inject drugs are at risk for Hepatitis B virus (HBV) and Hepatitis C virus (HCV) infection through the sharing of needles and drug-preparation equipment.[7] It is estimated that injection drug use has been a factor in one-third of all HIV and more than half of all hepatitis C cases in the United States.
- Opioids such as fentanyl and heroin are highly addictive, and their misuse has multiple medical and social consequences including increased risk for HIV/AIDS, property and violent crime, arrest and incarceration, unemployment, disruptions in family environments, and homelessness.
- Chronic opioid misuse may lead to serious medical consequences such as fatal overdose, scarred and/or collapsed veins, bacterial infections of the blood vessels and heart valves, abscesses and other soft-tissue infections, and liver or kidney disease. Poor health conditions and depressed respiration

[5] Office of the Chief Medical Examiner, https://portal.ct.gov/OCME/Statistics

[6] DMHAS, 2019 Treatment Admissions

[7] https://www.cdc.gov/hepatitis/populations/idu.htm

from heroin use can cause lung complications, including various types of pneumonia and tuberculosis.

- Opioid misuse during pregnancy can result in a miscarriage or premature delivery, as well as neonatal abstinence syndrome (NAS), and exposure in utero can increase a newborns' risk of sudden infant death syndrome (SIDS).

Connecticut SEOW Prevention Data Portal

For more data and information on fentanyl and opioid use in Connecticut, visit the
Connecticut SEOW Prevention Data Portal
http://preventionportal.ctdata.org/