

Feb. 13, 2019

# Fentanyl: A Briefing

Gary Dawson, PhD, BCPP  
Pharmacology and Forensic Toxicology

February 13, 2019

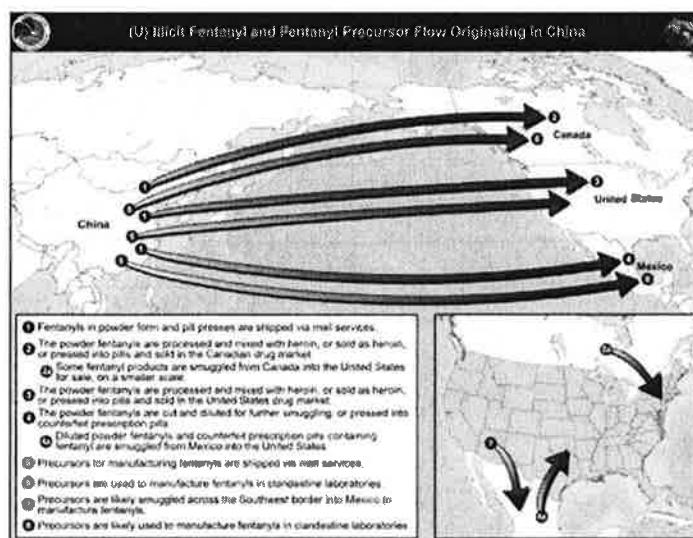
## What is fentanyl?

- Fentanyl is a synthetic (man-made) opioid 50 times more potent than heroin and 100 times more potent than morphine.
- It is in CSA Schedule II due it potential for abuse and dependence
- It is typically seen as injection, transdermal patches and lozenges

## What is fentanyl?

- Pharmaceutical fentanyl is primarily prescribed to manage severe pain, such as with cancer and end-of-life palliative care
- Non-pharmaceutical fentanyl (i.e. clandestine) is often mixed with heroin and/or cocaine or pressed into counterfeit pills—often without the user's knowledge

Centers For Disease Control and Prevention



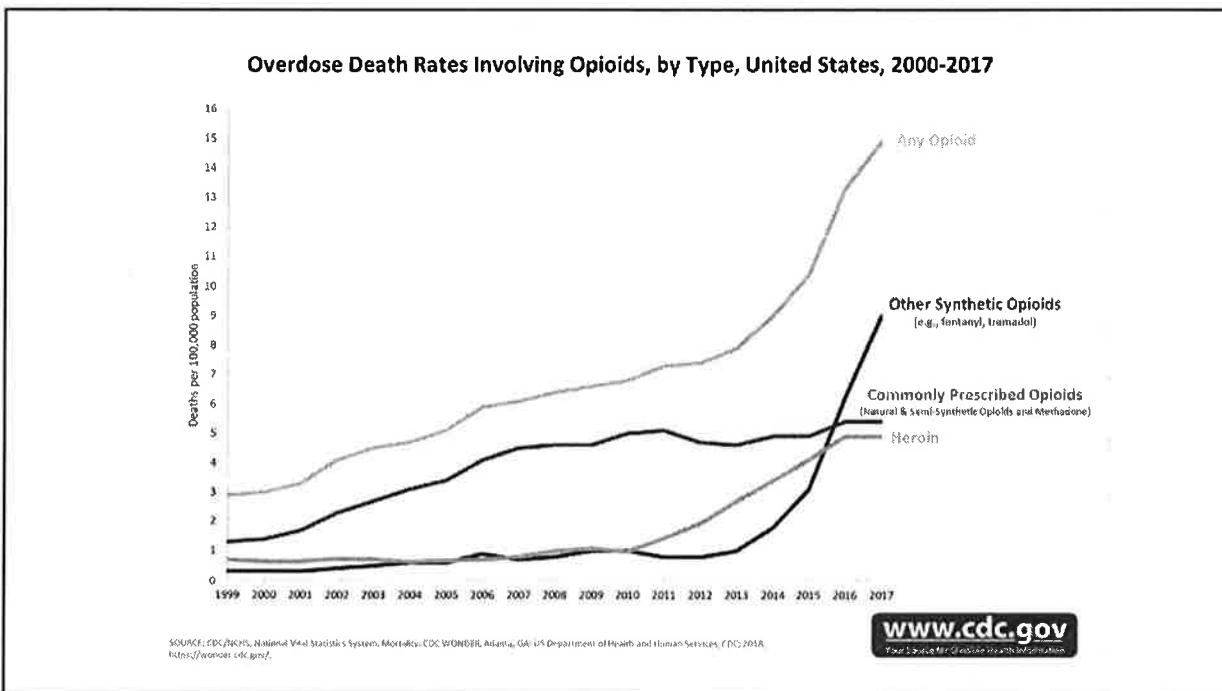
**Drug Enforcement Administration**

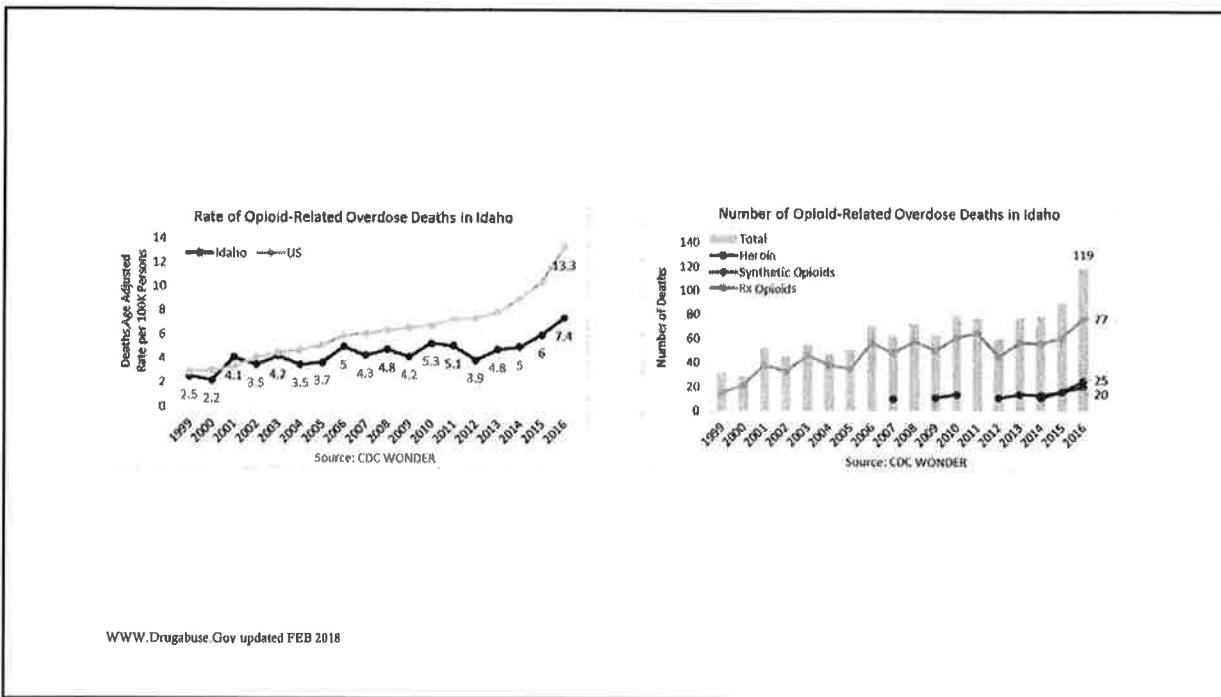


## Lethal Doses of Heroin, Fentanyl & Carfentanil



Law Enforcement Sensitive





Fentanyl Analogs	Compared to Morphine
Fentanyl	80 to 100x
Acetyl fentanyl	15x
Valeryl fentanyl	< 20x
Furanyl fentanyl	20x
Butyryl fentanyl	20 to 25x
Acrylfentanyl	100x
3-Methylfentanyl	400x trans and 6000x cis isomers
Carfentanil	10 000 to 100 000x

Schueler, HE. Emerging synthetic fentanyl analogs. Acad forensic Pathol. 2017; 7:36-40.