



Philadelphia Department of Public Health  
**Division of Disease Control**

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## **Health Advisory**

### **Sharp Increases in Overdoses Involving Fentanyl**

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Unintentional drug overdose deaths have increased significantly in Philadelphia, and fentanyl is a large and increasing contributor to these deaths. Overdose deaths increased 53% from 2013 through 2015, from approximately 460 to approximately 700. In this time period, overdose deaths involving fentanyl increased 636%. The first four months of 2016 saw a continued growth in deaths from overdoses involving fentanyl, with the drug contributing to about 38% of all overdose deaths, compared to 20% during the same period in 2015.\*

Fentanyl is a synthetic, short-acting opioid analgesic with a potency 50 to 100 times that of morphine. Fentanyl carries a high risk of overdose. Recently, other areas of the U.S. have noted drug-related morbidity and mortality increasingly linked to illegally-manufactured fentanyl and fentanyl analogues. These drugs are sold illicitly for their heroin-like effects and may be mixed with heroin and/or cocaine as a combination product, with or without the user's knowledge.

The Philadelphia Department of Public Health is alerting medical personnel that: (1) a higher dose or multiple doses of naloxone may be required to revive patients with overdoses involving fentanyl; (2) patients presenting to emergency departments with symptoms of opioid intoxication may be unaware that they have taken fentanyl. *Providers should be mindful that fentanyl is not detected by standard urine toxicology screens.*

#### **Clinical Information:**

- Fentanyl is an opioid analgesic. The biological effects of fentanyl are indistinguishable from those of heroin.
- Symptoms of overdose are characteristic of central nervous system depression: lethargy, respiratory depression, pinpoint pupils, change in consciousness, seizure, and/or coma.
- Treatment is the same as for overdose from other opioids; however, larger than usual doses of naloxone (2-10 mgs) may be required for reversal of opioid effects.
- Fentanyl is not detected by standard urine opioid immunoassays, and as a result opioid exposure should not be ruled out based on toxicology screen results.

**You can help patients who are substance users avoid overdose.** All patients regularly using oral or injected opioids are at risk for overdose. You can help them reduce that risk by referring them to drug treatment, especially medication-assisted treatment with methadone or buprenorphine. In addition, all patients regularly using opioids should obtain naloxone for overdose reversal. Fatal overdoses are often preceded by nonfatal overdoses, so it is especially important that patients successfully treated for drug overdose be provided access to naloxone for rescue treatment should another overdose occur.

*\*Preliminary data; several cases are pending for this time period.*

### **SUMMARY POINTS**

#### **Fentanyl's Role in Drug Overdoses**

- Overdoses involving fentanyl increased 636% from 2013 through 2015
- In January through April 2016, 38% of drug overdoses in Philadelphia involved fentanyl

#### **Treatment Required for Opioid Overdose**

- Drug users may not be aware that they have taken fentanyl
- Fentanyl may require higher or repeated doses of naloxone to reverse overdose

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