

Center for Policy, Planning and Evaluation Administration  
Division of Epidemiology-Disease Surveillance and Investigation

November 10, 2015

## **Health Notice for Health Care Providers, First Responders and Medical Examiners**

### **Increases in Fentanyl Drug Confiscations and Fentanyl-Related Overdose Fatalities**

#### **Summary**

The Centers for Disease Control and Prevention (CDC) and the Drug Enforcement Administration (DEA) are investigating recent increases in fentanyl-related unintentional overdose fatalities in multiple states across the U.S. Fentanyl is a synthetic analgesic. The District of Columbia Department of Health (DOH) encourages increased vigilance among health care providers, first responders and medical examiners to the possibility of similar increases in the District.

#### **Background**

Fentanyl, a synthetic and short-acting opioid analgesic, is 50-100 times more potent than morphine and approved for managing acute or chronic pain associated with advanced cancer.<sup>1</sup> Although pharmaceutical fentanyl can be diverted for misuse, most cases of fentanyl-related morbidity and mortality have been linked to illicitly manufactured fentanyl and fentanyl analogs, collectively referred to as non-pharmaceutical fentanyl (NPF).<sup>2</sup> NPF is sold via illicit drug markets for its heroin-like effect and often mixed with heroin and/or cocaine as a combination product—with or without the user’s knowledge—to increase its euphoric effects. While NPF-related overdoses can be reversed with naloxone, a higher dose or a multiple number of doses per overdose event may be required to revive a patient due to the high potency of NPF.<sup>3,4</sup>

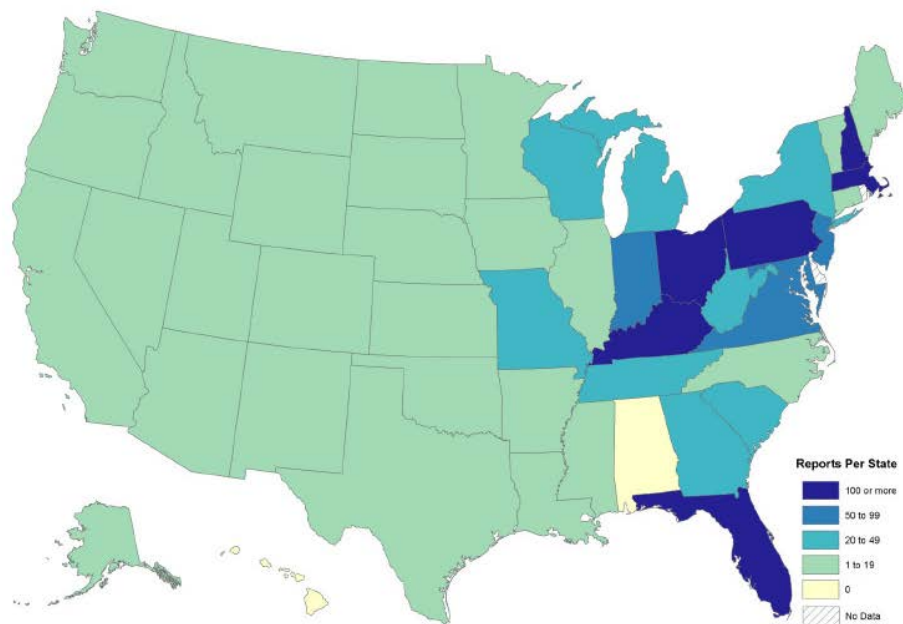
In March 2015, DEA issued a nationwide alert identifying fentanyl as a threat to public health and safety.<sup>5</sup> This was followed by a DEA National Heroin Threat Assessment Summary, which noted that “beginning in late 2013 and throughout 2014, several states have reported spikes in overdose deaths due to fentanyl and its analog acetyl fentanyl.”<sup>6</sup> Similar to previous fentanyl overdose outbreaks, most of the more than 700 fentanyl-related overdose deaths reported to DEA during this timeframe were attributable to illicitly-manufactured fentanyl—not diverted pharmaceutical fentanyl—and either mixed with heroin or other diluents and sold as a highly potent form (sometimes under the street name “China White”). The DEA report noted that the “true number is most likely higher because many coroners’ offices and state crime laboratories do not test for fentanyl or its analogs unless given a specific reason to do so.”<sup>6</sup>

Reports on state drug confiscations from the National Forensic Laboratory Information System (NFLIS), a program of the DEA’s Office of Diversion Control, indicate a significant increase in the total number of fentanyl drug confiscations reported by forensic laboratories around the country from 2012 to 2014 (618 in 2012; 945 in 2013; 4,585 in 2014).<sup>7</sup> More than 80% of drug confiscations in 2014 were concentrated in 10 states (**Table 1**). The number of states reporting 20 or more fentanyl confiscations every six months is increasing. From July to December 2014, 18 states reported 20 or more fentanyl drug confiscations (**See Figure 1**). Previously, six states reported 20 or more fentanyl drug confiscations from July to December 2013.

**Table 1:** Top 10 states by total Fentanyl Confiscations, 2014, unpublished NFLIS data

Rank	State	Number of Fentanyl Confiscations
1	Ohio	1245
2	Massachusetts	630
3	Pennsylvania	419
4	Maryland	311
5	New Jersey	238
6	Kentucky	232
7	Virginia	222
8	Florida	183
9	New Hampshire	177
10	Indiana	133

**Figure 1: Fentanyl reports in NFLIS by State, July — December 2014**



Drug Enforcement Administration, Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit

09-15-2015

These increases raise serious concerns for public health if fentanyl confiscations serve as a proxy for increased overdose risk. Recent fentanyl-related fatal overdose data from several of the top 10 states with highest confiscation counts suggest fatalities have increased in states reporting large increases in fentanyl confiscations. Two of the top five states, Ohio and Maryland, both reported sharp increases in fentanyl-related deaths in 2014—Ohio reported 514 fentanyl-related fatal overdoses in 2014 compared to 92 in 2013,<sup>8</sup> and Maryland reported 185 fentanyl-related fatal overdoses in 2014 compared to 58 in 2013.<sup>9</sup> Massachusetts, another top-five state, is currently investigating whether an abnormally sharp increase in opioid-related deaths in 2014 is attributable to fentanyl.<sup>10</sup> Florida, a state reporting increases in fentanyl-related drug confiscations, recently reported 397 fatal overdoses attributable to fentanyl in 2014, up from 185 in 2013<sup>11</sup>.

Fentanyl poses a significant danger to public health workers, first responders, and law enforcement personnel that may unwittingly come into contact with it either by absorbing through the skin or accidental inhalation of airborne powder. In August 2015, New Jersey law enforcement officers conducting a narcotics field test on an illicit substance experienced shortness of breath, dizziness, and

respiratory distress after coming into contact with an unknown substance. Forensic laboratory testing determined this substance to be a mix of cocaine, heroin, and fentanyl.

## Recommended Actions

### 1. Improve detection of fentanyl outbreaks to facilitate effective response

- Health Care Providers and Emergency Room Staff: Ask emergency room patients about any recent drug use, and document the specific types of drugs used in the chief complaint. Chief complaint data are an important source of information used by DOH for surveillance activities.
- First Responders: Carefully document the types of drug used (or suspected to have been used) and the person reporting the information on drug use (e.g., self-report, family member, bystander).

### 2. Expand use of Naloxone: Naloxone is a safe and effective antidote to all opioid-related overdoses, including heroin and fentanyl, and is a critical tool in preventing fatal opioid overdoses.<sup>17,18</sup>

- Health Care Providers and First Responders: Multiple doses of naloxone may need to be administered per overdose event because of fentanyl's increased potency relative to other opioids.<sup>3</sup>
  - Increase the amount of naloxone immediately available for use given the increased amount needed and rate of use during a fentanyl outbreak<sup>4</sup>
  - Recognize and treat opioid overdose patients, with particular focus on how to respond to fentanyl and acetyl fentanyl overdose.<sup>4</sup>

### 3. Improve detection of fentanyl outbreaks to facilitate effective response:

- Medical Examiners: Screen for fentanyl in suspected opioid overdose cases.
  - Screen specimens from fatal drug overdose deaths using an enzyme-linked immunosorbent assay (ELISA test) with the capacity to detect fentanyl. If an ELISA test is positive for fentanyl, conduct confirmatory testing by gas chromatography/mass spectrometry (GC/MS). If no fentanyl is detected by GC/MS, then fentanyl analogs should be suspected and subsequent testing considered.<sup>15</sup>
  - Implement standardized mechanisms for determining cause of death and methods of reporting to ensure death reports are complete and accurate.<sup>16</sup> SAMHSA has published consensus recommendations for uniform standards and case definitions for classifying opioid-related deaths (See Consensus Recommendations or <http://www.tandfonline.com/doi/pdf/10.1080/10550887.2013.824334>). It is especially important to include the word "fentanyl" on the death certificate when the drug is a contributing cause of death.

**For more information or to report potential clusters of fentanyl-related cases, please contact the District of Columbia Department of Health, Center for Policy, Planning, and Evaluation, Division of Epidemiology–Disease Surveillance and Investigation at 202-442-9065 or [doh.epi@dc.gov](mailto:doh.epi@dc.gov).**

## Additional Resources

- *CDC Health Advisory: Recommendations for Laboratory Testing for Acetyl Fentanyl and Patient Evaluation and Treatment for Overdose with Synthetic Opioid* at <http://emergency.cdc.gov/han/han00350.asp>
- *DEA Issues Nationwide Alert on Fentanyl as Threat to Health and Public Safety* at <http://www.dea.gov/divisions/hq/2015/hq031815.shtml>
- *Fentanyl SAMHSA letter to physicians* and fact sheet at:

<http://buprenorphine.samhsa.gov/20130715114030811.pdf>

- *Special Report: Opiates and Related Drugs Reported in NFLIS, 2009-2014* at [http://www.deadiversion.usdoj.gov/nflis/spec\\_rpt\\_opioids\\_2014.pdf](http://www.deadiversion.usdoj.gov/nflis/spec_rpt_opioids_2014.pdf)
- *SAMHSA Opioid Overdose Toolkit* at: [http://store.samhsa.gov/shin/content/SMA13-4742/Overdose\\_Toolkit\\_2014\\_Jan.pdf](http://store.samhsa.gov/shin/content/SMA13-4742/Overdose_Toolkit_2014_Jan.pdf)
- Call Poison Control at 1-800-222-1222 or use the webPOISONCONTROL® online tool for guidance

## References

1. Algren D, Monteilh C, Rubin C, et al. Fentanyl-associated fatalities among illicit drug users in Wayne County, Michigan (July 2005-May 2006). *Journal Of Medical Toxicology: Official Journal of the American College Of Medical Toxicology* [serial online]. March 2013; 9(1):106-115.
2. U. S. Department of Justice, Drug Enforcement Administration, DEA Investigative Reporting, January 2015
3. Centers for Disease Control and Prevention. Notes from the field: Acetyl fentanyl overdose fatalities - Rhode Island, March-May 2013. *MMWR: Morbidity & Mortality Weekly Report* [serial online]. August 30, 2013; 62(34):703-704. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6234a5.htm>
4. Centers for Disease Control and Prevention. Recommendations for Laboratory testing for Acetyl Fentanyl and Patient Evaluation and Treatment for Overdose for Synthetic Opioids. *HAN Health Advisory*. June 20, 2013. <http://stacks.cdc.gov/view/cdc/25259>
5. DEA Issues Nationwide Alert on Fentanyl as Threat to Health and Public Safety. March 8, 2015. <http://www.dea.gov/divisions/hq/2015/hq031815.shtml>
6. National Heroin Threat Assessment Summary. DEA Intelligence Report. April 2015. [http://www.dea.gov/divisions/hq/2015/hq052215\\_National\\_Heroin\\_Threat\\_Assessment\\_Summary.pdf](http://www.dea.gov/divisions/hq/2015/hq052215_National_Heroin_Threat_Assessment_Summary.pdf)
7. Drug Enforcement Administration (DEA). Unpublished Data provided to CDC
8. <http://www.healthy.ohio.gov/~media/HealthyOhio/ASSETS/Files/injury%20prevention/2014%20Ohio%20Preliminary%20Overdose%20Report.pdf>
9. Maryland Department of Health. (2014). Drug and Alcohol Related Intoxication Deaths in Maryland, 2014 [http://bha.dhmh.maryland.gov/OVERDOSE\\_PREVENTION/Documents/2015.05.19%20-%20Annual%20OD%20Report%202014\\_merged%20file%20final.pdf](http://bha.dhmh.maryland.gov/OVERDOSE_PREVENTION/Documents/2015.05.19%20-%20Annual%20OD%20Report%202014_merged%20file%20final.pdf)
10. Personal communication between CDC and Massachusetts Department of Public Health
11. <https://www.fde.state.fl.us/Content/Medical-Examiners-Commission/MEC-Publications-and-Forms/Documents/2014-Annual-Drug-Report-FINAL.aspx>
12. Centers for Disease Control and Prevention. Nonpharmaceutical fentanyl-related deaths--multiple states, April 2005-March 2007. *MMWR: Morbidity & Mortality Weekly Report* [serial online]. July 25, 2008; 57(29):793-796. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5729a1.htm>
13. Mercado-Crespo M, Sumner S, Spelke M, Sugeran D, Stanley C. Notes from the field: Increase in fentanyl-related overdose deaths - Rhode Island, November 2013-March 2014. *MMWR: Morbidity & Mortality Weekly Report* [serial online]. June 20, 2014; 63(24):531. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6324a3.htm>
14. Levy B. Undetermined risk factors associated with drug overdose deaths, New Mexico – New Mexico, Feb.2014 (Epi-Aid 2012-022).
15. Centers for Disease Control and Prevention. Notes from the field: Acetyl fentanyl overdose fatalities - Rhode Island, March-May 2013. *MMWR: Morbidity & Mortality Weekly Report* [serial online]. August 30, 2013; 62(34):703-704. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6234a5.htm>
16. Centers for Disease Control and Prevention. Nonpharmaceutical fentanyl-related deaths--multiple states, April 2005-March 2007. *MMWR: Morbidity & Mortality Weekly Report* [serial online]. July 25, 2008; 57(29):793-796. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5729a1.htm>
17. U.S. Department of Health and Human Services. Opioid Abuse in the United States and Department of Health and Human Services Actions to Address Opioid-Drug-Related Overdoses and Deaths. *Journal of Pain & Palliative Care Pharmacotherapy* [serial online]. June 2015; 29(2):133-139. [http://aspe.hhs.gov/sp/reports/2015/OpioidInitiative/ib\\_OpioidInitiative.pdf](http://aspe.hhs.gov/sp/reports/2015/OpioidInitiative/ib_OpioidInitiative.pdf)
18. SAMHSA opioid overdose toolkit. [https://store.samhsa.gov/shin/content/SMA13-4742/Overdose\\_Toolkit\\_2014\\_Jan.pdf](https://store.samhsa.gov/shin/content/SMA13-4742/Overdose_Toolkit_2014_Jan.pdf)