

NDEWS *Special Report*

A publication of the National Drug Early Warning System (NDEWS)

Funded at the Center for Substance Abuse Research, University of Maryland by the National Institute on Drug Abuse

UPDATED:
DECEMBER 7, 2015

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FENTANYL AND FENTANYL ANALOGS

- ▶ Fentanyl is a Schedule II short-acting synthetic opioid that is often used to treat chronic pain. It is 25 to 40 times more potent than heroin and 50 to 100 times more potent than morphine by weight (DEA, 2015b, 2015c; NIDA, 2012).
- ▶ Fentanyl and fentanyl analogs are abused for their "intense, albeit short-term high and temporary feelings of euphoria" (DEA, 2015c).
- ▶ Pharmaceutical fentanyl can be illegally diverted for abuse. It comes in a variety of forms, including patches, lozenges, tablets, and films (CDC, 2015; DEA, 2015c).
- ▶ Illicitly-produced, non-pharmaceutical fentanyl and fentanyl analogs, such as acetyl fentanyl, are emerging in the illicit drug market. They can be snorted or injected in powder form or swallowed as a pill (DEA, 2015a, 2015b, 2015c).



The National Drug Early Warning System (NDEWS) monitors emerging drug use trends to enable health experts, researchers, policymakers, and concerned citizens across the country to respond quickly to potential outbreaks of illicit drugs. The purpose of this report is to provide a more comprehensive understanding of current fentanyl trends, using findings from four key NDEWS components: 1) national indicators of availability and consequences; 2) NDEWS community sites, 3) Twitter scans, and 4) news scans.

FENTANYL: OVERVIEW

- ▶ Non-pharmaceutical fentanyl and its analogs have been sold in several forms: as fentanyl, as an adulterant in street heroin (to produce a stronger product), or disguised as another drug entirely (DEA, 2015c; DEA, 2015e).
- ▶ Non-pharmaceutical fentanyl is primarily manufactured in Mexico while fentanyl analogs (e.g., acetyl fentanyl) and precursors are primarily from China. The Chinese Ministry of Public Security imposed new controls on 116 chemical compounds including acetyl fentanyl on October 1, 2015 (DEA, 2015c).

Known Fentanyl Analogs

- | | |
|---------------------------------|------------------------|
| ▶ 3-methylfentanyl (TMF) | ▶ beta-hydroxyfentanyl |
| ▶ 3-methylthiofentanyl | ▶ butyrfentanyl |
| ▶ acetyl fentanyl | ▶ carfentanyl |
| ▶ acetyl-alpha-methylfentanyl | ▶ para-fluorofentanyl |
| ▶ alfentanyl | ▶ remifentanyl |
| ▶ alpha-methylfentanyl | ▶ sufentanyl |
| ▶ alpha-methylthiofentanyl | ▶ thiofentanyl |
| ▶ beta-hydroxy-3-methylfentanyl | ▶ ocfentanyl* |

*not currently a controlled substance in the United States.

ACETYL FENTANYL

Acetyl fentanyl, also known as desmethyl fentanyl, is a fentanyl analog that has been linked to a number of overdose deaths in the U.S. According to the DEA, there have been "at least 52 confirmed fatalities involving acetyl fentanyl in the United States in 2013-2015" (DEA, 2015a).

The analog "has been detected in tablets that mimic pharmaceutical opiate products, in powder form and spiked on blotter papers" (DEA, 2015a).

In July 2015, the DEA used its emergency scheduling authority to temporarily place acetyl fentanyl into Schedule I of the Controlled Substances Act (Schedules of Controlled Substances, 2015).



FENTANYL: NATIONAL TRENDS

Fentanyl-Related Deaths

- ▶ There were more than 700 overdose deaths related to fentanyl and its analogs nationwide from late 2013 through 2014, and the deaths have continued into 2015. The true number is most likely higher because "many coroners and crime laboratories do not test for fentanyl specifically, unless given a reason to do so. Further, some fentanyl deaths have been attributed to heroin" (DEA, 2015c, p. 42).
- ▶ The DEA reports that the recent surge in overdose deaths in the U.S. is largely due to clandestinely-produced fentanyl, although there is some diversion of pharmaceutical fentanyl for illicit use (DEA, 2015e).
- ▶ Because fentanyl is often mixed with or sold disguised as white powder heroin, the areas most affected by the fentanyl overdoses are in the eastern U.S. where white powder heroin is used (DEA, 2015e).

"Fentanyl will remain a significant threat to law enforcement personnel and first responders as minute amounts--equivalent to a few grains of salt--of fentanyl can be lethal, and visually, can be mistaken for cocaine or white powder heroin" (DEA, 2015c p. 43).

FENTANYL ALERTS

Increases in fentanyl-related overdose deaths and law enforcement seizures have prompted public health and law enforcement authorities in the U.S. to issue alerts about fentanyl.

On March 18, 2015, the Drug Enforcement Administration (DEA) issued a press release and a nationwide alert to all U.S. law enforcement (DEA, 2015d; EPIC, 2015).

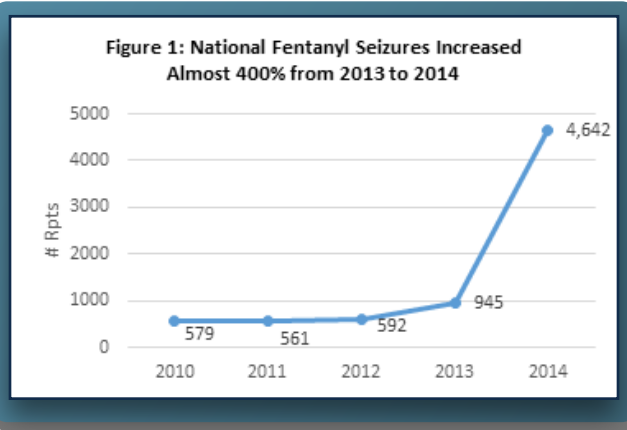
On October 26, 2015, the Centers for Disease Control (CDC) released an official health advisory (CDC, 2015).



FENTANYL: NATIONAL TRENDS

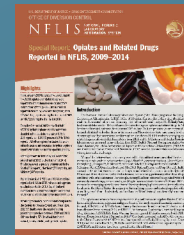
Fentanyl Law Enforcement Seizures

- ▶ According to the DEA's National Forensic Laboratory Information System (NFLIS), the estimated number of items positive for fentanyl seized by law enforcement nationwide increased by almost 400% from 2013 (945) to 2014 (4,642) (Figure 1) (DEA, 2015f).
- ▶ More than 80% of fentanyl seizures in the U.S. in 2014 were reported in 10 states, predominantly in the eastern U.S.: Ohio, Massachusetts, Pennsylvania, Maryland, New Jersey, Kentucky, Virginia, Florida, New Hampshire, and Indiana (CDC, 2015).
- ▶ A review of NFLIS data provided to the NDEWS Coordinating Center reveals that fentanyl and/or fentanyl analogs were found in drug items seized by law enforcement in 11 of the 12 NDEWS Sentinel Community Sites (SCS) and in 8 of the 10 NDEWS Community Sites. Fentanyl was one of the top 10 most frequently found drugs in three NDEWS sites: Boston, Baltimore, and Hamilton County (Cincinnati Area). However, the percentage of total reports positive for these drugs was less than 1% in all sites but Boston (2.9%), Maine (2.3%), and Hamilton County (Cincinnati Area) (1.1%) (Table 1) (DEA, personal communication, 2015).



Source: DOJ, DEA. NFLIS 2010, 2011, 2012, 2013, & 2014 Annual Report.

RELATED PUBLICATIONS



**NFLIS SPECIAL REPORT:
OPIATES AND
RELATED DRUGS
REPORTED IN
NFLIS,
2009-2014**

2015 NATIONAL DRUG THREAT ASSESSMENT SUMMARY

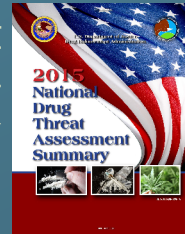


Table 1: Drug Reports* for Fentanyl and Fentanyl Analogs Among Items Seized by Law Enforcement in Selected Sites^ Across the U.S., 2014

(National Forensic Laboratory Information System (NFLIS), Number and Percent of Total Analyzed Drug Reports)

NDEWS Sites by Region (n=Total Drug Reports)	Fentanyl and/or Fentanyl Analogs (%=Percent of Total Drug Reports)
US Total (n=1,367,232)	4,411** (0.3%)
Northeast Region	
Boston^ (n=12,930)	372 (2.9%)
Maine (n=1,236)	28 (2.3%)
New York City^ (n=43,954)	59 (0.1%)
Philadelphia (n=18,187)	24 (0.1%)
Midwest Region	
Chicago Metro^ (n=64,781)	22 (<0.1%)
Hamilton County (Cincinnati Area) (n=13,156)	141 (1.1%)
Minneapolis/St. Paul^ (n=3,391)	0 (0.0%)
St. Louis^ (n=14,325)	44 (0.3%)
Wayne County (Detroit Area) (n=7,762)	7 (0.1%)
South Region	
Atlanta Metro^ (n=16,925)	23 (0.1%)
Maryland (n=58,709)	317 (0.5%)
Baltimore City (n=22,180)	148 (0.7%)
Southeastern Florida (Miami Area)^ (n=23,047)	117 (0.5%)
Texas (n=97,017)	29 (<0.1%)
Washington, DC (n=1,455)	7 (0.5%)
West Region	
Denver Metro^ (n=8,794)	4 (<0.1%)
Honolulu (n=3,634)	0 (0.0%)
King County (Seattle Area) (n=1,407)	2 (0.1%)
Los Angeles County (n=34,743)	10 (<0.1%)
Maricopa County (Phoenix Area) (n=18,415)	3 (<0.1%)
San Diego County (n=11,018)	7 (0.1%)
San Francisco (n=309)	0 (0.0%)

Link to PDF
of table with
footnotes.

TABLE 1: NOTES & SOURCE

***Drug Report:** drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database.

^**Atlanta Metro:** Atlanta MSA (29 counties)

^**Minneapolis/St. Paul** (7 counties)

^**Boston:** Boston MSA (7 counties)

^**New York City:** NYC MSA (5 boroughs) & NYC Police Department Laboratory

^**Chicago Metro:** Chicago MSA (14 counties)

^**St. Louis:** St. Louis MSA (16 counties)

^**Denver Metro:** Denver Metro Area (9 counties)

^**Southeastern Florida:** Miami MSA (3 counties)

**US Total: This number is NOT the national estimate of Fentanyl/Fentanyl Analog Reports as published in NFLIS annual reports; rather it is the US total submitted to NDEWS as of May 7, 2015.

Bolded and italicized sites are NDEWS Sentinel Community Sites. Other sites are NDEWS Community Sites.

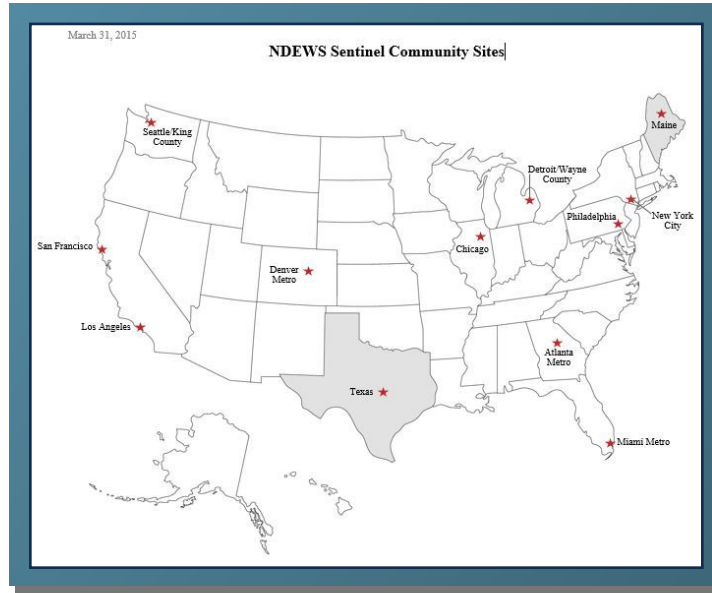
The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed. Counts are based on testing and reporting protocols of each participating lab.

Source: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) May 2015.

FENTANYL: NDEWS COMMUNITIES

The recently released *NDEWS Annual Sentinel Community Site Profiles* and reports from other NDEWS sites provide information on fentanyl from local communities across the country. The NDEWS Coordinating Center works with local community epidemiologists to monitor drug trends in 12 Sentinel Community Sites (SCS) and seven additional sites.

Maine, Philadelphia, Atlanta, Wayne County (Detroit), San Francisco, and Maryland reported increases in fentanyl-related deaths. Some sites (Philadelphia, Cincinnati, and Los Angeles) reported evidence of heroin being mixed with fentanyl, while other sites, such as Texas, reported this practice as extremely rare.



Additional data and information for the Sentinel Community Sites are available in the complete SCS Profiles on the NDEWS website.

NDEWS COMMUNITIES

Sentinel Community Sites (SCS)

Atlanta Metro
Chicago Metro
Denver Metro
Wayne County (Detroit Area)
Los Angeles County
Maine
Southeastern Florida (Miami Area)
New York City
Philadelphia
San Francisco
King County (Seattle Area)
Texas

Community Sites

Boston
Cincinnati
Maryland/Washington, DC
Minneapolis/St. Paul
Phoenix
St. Louis
San Diego

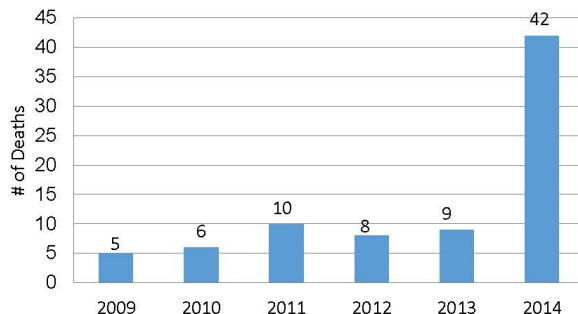


FENTANYL: NDEWS COMMUNITIES (NORTHEAST)

NORTHEAST

Maine: “Non-pharmaceutical powdered fentanyl has emerged as a very serious mortality risk, comprising the vast majority of ‘fentanyl’ overdoses. . . . In 2013, there were 9 [non-pharmaceutical] fentanyl cases, but in 2014, this number increased sharply to 42 [Figure 2]. Most of those 42 cases involved injection drug use. Five of the 42 included heroin as a co-intoxicant, and four included cocaine. Based on the frequency of fentanyl present in decedent toxicology tests during the first four months of 2015, the fentanyl surge appears to be

Figure 2: Number of Deaths in Maine Due to Fentanyl Alone or in Combination Increased 367% from 2013 to 2014



continuing, including two cases with acetyl fentanyl; one of these cases had both fentanyl and acetyl fentanyl” (NDEWS, 2015e).

UPDATE

Based on the number of fentanyl and/or acetyl-fentanyl deaths from January through September 2015 (51), there will be a projected 71 deaths by the end of December, a projected overall increase of 689% in two years. Approximately one-quarter (26%) of the 2015 fentanyl deaths included both fentanyl and acetyl fentanyl, and 10% had acetyl fentanyl without fentanyl. About one-third (34%) of the 2015 fentanyl/acetyl fentanyl deaths included heroin/morphine as a co-intoxicant cause of death (M. Sorg, personal communication, November 11, 2015).

NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

Maine

Marcella H. Sorg, PhD, RN

*NDEWS Sentinel Community
Site Profile 2015: Maine*

*Maine Drug Deaths Involving
Heroin/Morphine and Fentanyl
(May 15, 2015)*



FENTANYL: NDEWS COMMUNITIES (NORTHEAST)

NORTHEAST

Philadelphia: Fentanyl was in the top 10 drugs detected in drug intoxication deaths in Philadelphia in 2014 (Table 2). The Sentinel Community Epidemiologist reports that, “In the past several years, fentanyl, a powerful synthetic opioid, has re-emerged as a drug threat in Pennsylvania and in Philadelphia. Two primary types of fentanyl have been observed in Philadelphia: illicitly-produced fentanyl, most commonly available in powder form and traditionally used with other illicit drugs such as heroin and cocaine, and pharmaceutical fentanyl in the form of tablets, patches, and lozenges prescribed by a physician. Philadelphia’s MEO [Medical Examiner’s Office] reported 24 fentanyl-related overdose deaths in 2013, while the MEO reported 100 fentanyl-related overdose

Table 2: Fentanyl is the Fifth Most Frequently Detected Drug Among Alcohol and/or Drug Intoxication Deaths in Philadelphia, 2014

Drug	Number of Cases with Identified Drug
Morphine	350
Cocaine	273
Alprazolam	172
Ethanol	125
Fentanyl	100
Clonazepam	100
Oxycodone	93
Diazepam	83
Methadone	62
Citalopram	62

deaths in 2014...The largest spike in fentanyl-related overdose deaths occurred between March 3rd and May 17th 2014, with 44 deaths certified by Philadelphia MEO during that time period.” (NDEWS, 2015f).

NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

Philadelphia

Suet T. Lim, PhD

NDEWS Sentinel Community Site Profile 2015: Philadelphia

UPDATE

The number of Philadelphia fentanyl-related deaths in 2015 (115 as of 11/2/15) have now exceeded the number of deaths in 2014 (S. Lim, personal communication, November 5, 2015).

FENTANYL: NDEWS COMMUNITIES (MIDWEST)

MIDWEST

Wayne County (Detroit Area): “The most dramatic finding with regards to opioids was the increase in drug-associated deaths with laboratory confirmed fentanyl detected. Over the 3 year period of 2012-2014, the number of deaths increased 160%. However, the actual number of deaths is much lower (52) than the number of deaths with heroin (265)” (NDEWS, 2015j).

Cincinnati: “In Cincinnati and surrounding communities, we have fentanyl powder being sold as heroin alone and mixed with heroin (and/or other pharmaceuticals). There have been several drug busts where the only drug found was fentanyl” (Scaglione, 2015).

UPDATE

In Cincinnati, the number of deaths with fentanyl found increased from 4 in 2013 to 124 in 2014, including 31 in the month of December alone (J. Scaglione, personal communication, November 6, 2015).

NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

Wayne County (Detroit Area)
Cynthia L. Arfken, PhD

*NDEWS Sentinel Community
Site Profile 2015: Detroit*

COMMUNITY EPIDEMIOLOGISTS

Cincinnati
Jan Scaglione, RPh, PharmD

FENTANYL: NDEWS COMMUNITIES (MIDWEST)

MIDWEST

St. Louis: “Fentanyl, methadone, oxycodone, and hydrocodone continued to be reported in ME [medical examiner] and treatment admissions data. Heightened availability of prescription narcotic analgesics were reported in the more rural areas of the metropolitan statistical area (MSA).

Fentanyl was found in combination with heroin in ME data, and occasionally alone in decedents that also were using cocaine or methamphetamine, which may indicate that they expected to use heroin in conjunction with these drugs. Fentanyl was identified in 27 deaths in St. Louis City and County and the 4 targeted rural counties (St. Charles, Jefferson, Franklin, and St Francois) in 2014” (Israel, 2015).

Chicago: “There were 21 reports of fentanyl [in items seized by law enforcement] in 2014, up from 1 report each in 2012 and 2013” (NDEWS, 2015b).

UPDATE

“Based on ethnographic reports, the locations of overdoses, and location where police have seized heroin/fentanyl [in Chicago], it appears that heroin combined with fentanyl is being used across the city. Between late September and early October officials estimate that 118 people were successfully treated for what was believed to be heroin/fentanyl overdoses, most on Chicago’s west side. In at least 3 of 7 recent overdose deaths in suburban (predominately white and middle class) DuPage County, fentanyl has been confirmed. Will County (part of Chicago metro) documented its first fatal OD (Aug 29, 2015) connected to acetyl fentanyl. Two other collar counties suspect that recent fatal overdoses may be fentanyl related. Heroin users in these counties often buy the drug in Chicago neighborhoods where the heroin/fentanyl was being sold” (L. Ouellet, personal communication, November 12, 2015).

NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

Chicago

Lawrence J. Ouellet, PhD

*NDEWS Sentinel Community
Site Profile 2015: Chicago*

COMMUNITY EPIDEMIOLOGISTS

St. Louis

Heidi Israel, PhD, APN, FNP, LCSW

*Drug Abuse Trends in
St. Louis: 2014 Update*



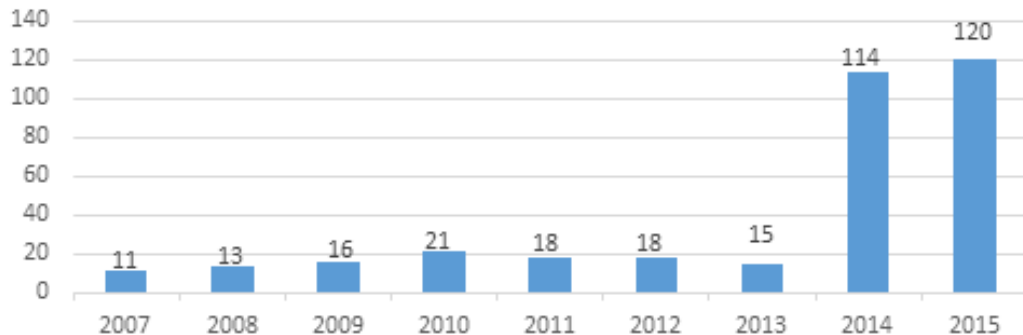
FENTANYL: NDEWS COMMUNITIES (SOUTH)

SOUTH

Atlanta Metro: "...since 2010, the annual number of deaths in Fulton County with heroin on board has increased from 4 to 77. Over half of all deaths with heroin on board also reported fentanyl use at the time of death" (NDEWS, 2015a).

Maryland: According to the 2nd Quarter 2015 intoxication deaths report from the Maryland Department of Health and Mental Hygiene, fentanyl intoxication deaths in Maryland increased from 15 in January-June of 2013 to 120 in January-June of 2015 (Figure 3). More than half (72) of the 2015 deaths occurred in Baltimore City or Baltimore County

Figure 3: Fentanyl-Related Intoxication Deaths in Maryland Increased 700% from January-June 2013 to January-June 2015



NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

Atlanta Metro
Brian J. Dew, PhD

*NDEWS Sentinel Community
Site Profile 2015:
Atlanta Metro*

COMMUNITY EPIDEMIOLOGISTS

Maryland/Washington, DC
Eleanor Erin Artigiani, MA

*Drug- and Alcohol-Related
Intoxication Deaths
in Maryland*

*The Real Deal on Synthetic
Drugs: Recent Findings
from Washington, DC*



FENTANYL: NDEWS COMMUNITIES (SOUTH)

SOUTH

(MDHMH, 2015).

Southeastern Florida (Miami Area):

“Seventy percent of the 2014 deaths are related to 5 of the 11 opioids tracked by the Florida Medical Examiners Commission. Those 5 are morphine, oxycodone, hydrocodone, methadone, and fentanyl, totaling 1,778 medical examiner occurrences in the first six months of 2014 across Florida and 368 in the 3 Southeastern Florida counties, including 144 in Palm Beach County, 120 in Miami-Dade, and 104 in Broward” (NDEWS, 2015h).

Texas: “Mixing fentanyl with black tar [heroin] is extremely rare.” “[F]entanyl abuse and misuse involves the transdermal patches, not fentanyl powder which is being mixed with the white South American heroin on the east coast” (NDEWS, 2015i).

UPDATE

In Florida, the number of deaths in which fentanyl was detected increased from 292 in 2013 to 538 in 2014. Deaths with fentanyl considered to be a cause of death increased 115%, from 185 to 397. The highest numbers of fentanyl-related deaths in 2014 occurred in Palm Beach County, the Orlando area, the Sarasota area, and Broward County. Each had more than 50 deaths (J. Hall, personal communication, 11/3/2015).

NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

Southeastern Florida (Miami Area)

James N. Hall, BA

*NDEWS Sentinel Community
Site Profile 2015:
Southeastern Florida
(Miami Area)*

Texas

Jane C. Maxwell, PhD

*NDEWS Sentinel Community
Site Profile 2015: Texas*



FENTANYL: NDEWS COMMUNITIES (WEST)

WEST

King County (Seattle Area): “In 2014, hydrocodone, methadone, buprenorphine, morphine, and fentanyl were all at similar, low levels in police evidence, slightly below oxycodone” (NDEWS, 2015c).

Los Angeles County: “A portion of Mexican white heroin seized by the LA HIDTA [High Intensity Drug Trafficking Area] has been tested and found to be mixed with fentanyl” (NDEWS, 2015d).

San Francisco: “Among opioid overdose deaths in CCSF [City and County of San Francisco] from 2010-2012, 90.3% were due to prescription opioids without the presence of heroin; only 31 of 331 deaths involved heroin. . . . Fentanyl was detected and considered causal in 17 (5.7%) of [the prescription opioid overdose] deaths” (NDEWS, 2015g).

UPDATE

The San Francisco Department of Public Health released Health Advisories on fentanyl in August and October 2015 after a spike in the number of opioid overdose cases involving fentanyl in July and a cluster of cases in October.

In the August Advisory, the SF Drug Overdose Prevention and Education (DOPE) program reported that there had been more than 75 opioid overdoses in July 2015. Most involved a fine white powder found (in small sampling) to be pure fentanyl (SFDPH, 2015a).

The October Advisory highlights three overdoses and one fatality caused by mixed intoxicants, including fentanyl in a pill inscribed and sold on the street as Xanax® (SFDPH, 2015b).

NDEWS CONTACTS

SENTINEL COMMUNITY EPIDEMIOLOGISTS

King County (Seattle Area)

Caleb Banta-Green, MSW, MPH,
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*NDEWS Sentinel Community
Site Profile 2015:
King County
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San Francisco

Phillip O. Coffin, MD, MIA

*NDEWS Sentinel Community
Site Profile 2015:
San Francisco*

Los Angeles County

Mary-Lynn Brecht, PhD

*NDEWS Sentinel Community
Site Profile 2015:
Los Angeles County*



FENTANYL: SOCIAL MEDIA SCANS

Analysis of Fentanyl-Related Tweets Suggests Users Seek Fentanyl

Since early 2015, NDEWS has been monitoring tweets for a variety of drug terms including fentanyl. Preliminary analysis of a number of tweets conveying a positive sentiment about fentanyl suggest that some people are seeking fentanyl specifically, not just using fentanyl

combined with or disguised as other drugs. Many of the 200 tweets reviewed for this analysis were links to news stories and reports on specific topics but others, such as those listed below, were from users describing their use of fentanyl.

Sample Tweets About Fentanyl Use

- ▶ man if i could marry fentanyl i would but fentanyl has nothing interesting to say. just kinda sits there and agrees with me about everything
- ▶ love me, love me, that fentanyl it numb me
- ▶ Hubs & daughter are watching the most annoying show EVER. I put my Fentanyl patches on with hopes they'll knock me right the fxxx out.
- ▶ i found true love yall. im goin steady, no more hundreds of girlfriends. she was there for me when no one else was. ima marry you fentanyl
- ▶ @FXXXXX remember mw2 with fentanyl? Those were the days

NDEWS Twitter Scan Methodology

The NDEWS Twitter Scan will be used to track the usage of drug terms over time and geography as well as to follow up on specific drugs and topics. GPS-coded tweets in the US are collected from the Twitter 1% stream. From those tweets, those that match the term or terms of interest are selected. Irrelevant tweets (i.e., those that are not drug related) are automatically filtered out.



Fentanyl-Related News Articles Peak in August 2015

- ▶ The number of news articles related to fentanyl peaked during August, with 220 articles during the four-week period from July 27 through August 23, 2015 (Figure 4).
- ▶ These articles were based on events in eight countries (US, Canada, Australia, New Zealand, UK, France, Scotland, and India) and 20 US states, 15 of which are east of the Mississippi River. Approximately half of the stories were about events or activities in Canada and approximately one-third were about events or activities in the US.
- ▶ The stories primarily highlighted legislative or policy actions, law enforcement activities (e.g., arrests, indictments), and overdoses.
- ▶ Multiple outlets picked up on information in a Canadian Center on Substance Abuse report, a new bill introduced in Massachusetts, the arrest of a legislator's son in Canada, and a new initiative announced by the White House.
- ▶ Other stories focused on statistics about fentanyl overdoses, policy or program announcements, individual overdose cases, law enforcement actions resulting in arrests and seizures, and health announcements or alerts released by local agencies.
- ▶ Overall, approximately 47% of the 220 articles reviewed were about specific arrests/ indictments or overdose events (individual or groups).

NDEWS News Scan Methodology

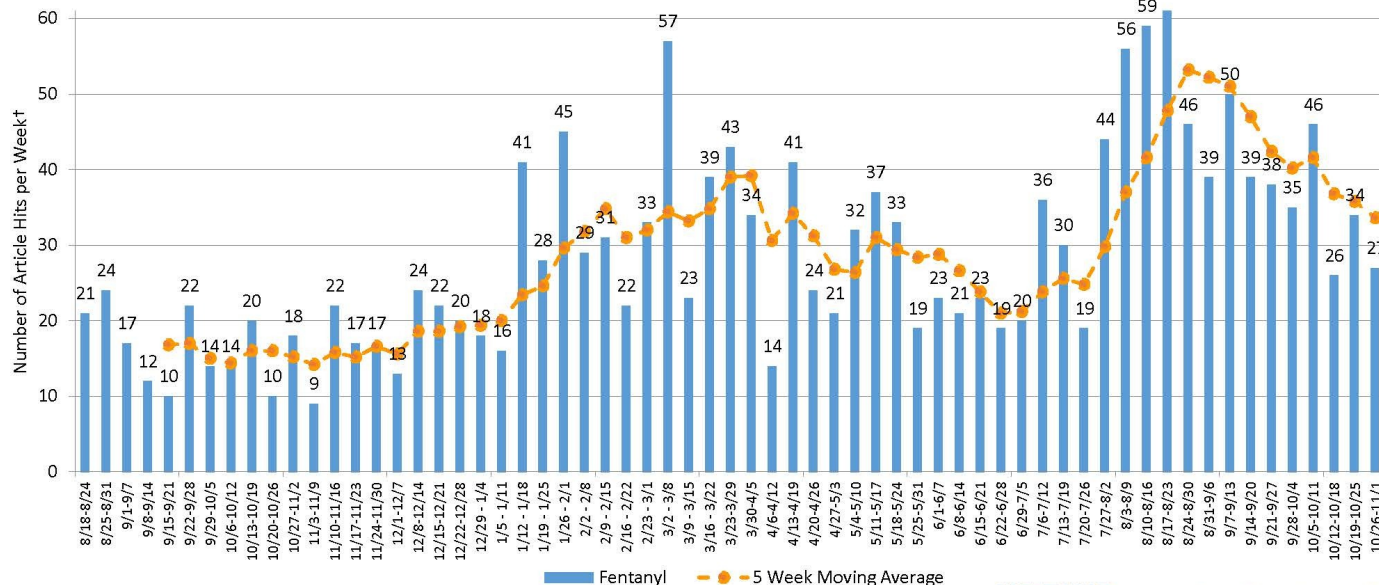
The NDEWS News Scan is used as a part of ongoing detecting and monitoring of emerging drugs as well as to follow up on specific drugs and topics. Scans for new stories related to fentanyl were conducted weekly starting 8/18/14 in more than 2,200 national and international English language newspapers and web news sources using LexisNexis Academic. Trend analyses are conducted to monitor changes over time in the number of stories about emerging drugs, such as fentanyl. For this report, a content analysis to assess the types of articles appearing during a four week period was also conducted.



FENTANYL: NEWS SCANS

Fentanyl-Related News Articles Peak in August 2015

Figure 4: Number of Fentanyl-Related News Articles per Week, 8/18/2014 to 11/1/2015
(searching the LexisNexis ALLNEWS* database for 'Fentanyl')



*ALLNEWS = a database of article references from over 22,500 national and international English language newspapers. Searches were performed 11/9/15-11/11/15

†Duplicates removed with "moderate similarity" filter in LexisNexis.

NDEWS National Drug Early Warning System
Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse



FENTANYL: INTERNATIONAL TRENDS

EUROPEAN UNION (EU)

- ▶ The European drug monitoring system conducted a wide investigation and analysis of fentanyl in the EU. They identified approximately 13 fentanyl analogs and have concluded that the fentanyl analogs are “low use but high risk/harm” substances (EMCDDA, 2015a).
- ▶ The *European Drug Report 2015* indicates that illegally diverted fentanyl is rare in the most of EU except for Estonia and Germany. The majority of people entering treatment in Estonia who reported an opioid as their primary drug, reported fentanyl. The highest rate of overdose deaths in the EU in 2013 was reported by Estonia (127 per million) and most of these were related to the injection of fentanyl analogs (EMCDDA, 2015b).
- ▶ A more recent article, however, notes that both fentanyl and fentanyl analogs are marketed in countries that have experienced heroin shortages, such as Bulgaria and

Slovakia. Fentanyl-related deaths have now also been reported in Germany, Finland, and the United Kingdom (Mounteney, et. al., 2015).

CANADA

In August, the Canadian Center on Substance Abuse released a report on the increase in deaths involving fentanyl in Canada from 2009-2014.

- ▶ During this time there were at least 1,019 fentanyl-detected deaths and more than half occurred in 2013 and 2014; 655 fentanyl-implicated deaths involved fentanyl as a cause or contributing cause between 2009 and 2014.
- ▶ These deaths increased markedly in Canada's four largest provinces: British Columbia, Alberta, Ontario, and Quebec.
- ▶ Seizures of diverted pharmaceutical and illicitly-produced fentanyl combined increased more than 30 times from 29 in 2009 to 894 in 2014 (CCSA, 2015).

RELATED PUBLICATIONS

EUROPEAN UNION

European Drug Report 2015: Trends and Developments. (2015)

Fentanyls: Are we missing the signs? Highly potent and on the rise in Europe (July 2015)

EMCDDA Trendspotter study on fentanyl in Europe (November 2012)

CANADA

Deaths Involving Fentanyl in Canada, 2009–2014 (August 2015)

Fentanyl-Related Overdoses (February 2015)

Increasing Availability of Counterfeit Oxycodone Tablets Containing Fentanyl (February 2014)

Illicit Fentanyl (June 2013)



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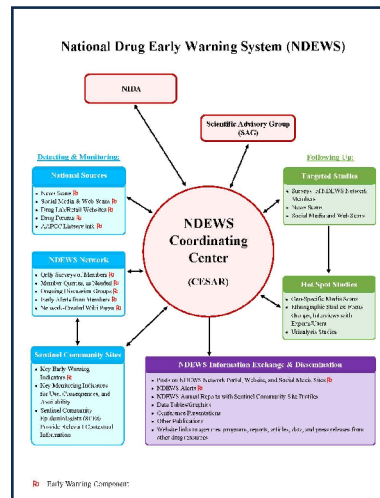
NATIONAL DRUG EARLY WARNING SYSTEM (NDEWS)

Launched in 2014 with the support of the National Institute on Drug Abuse, the National Drug Early Warning System (NDEWS) monitors emerging drug use trends to enable health experts, researchers, and concerned citizens across the country to respond quickly to potential outbreaks of illicit drugs, such as heroin, and to identify increased or changing use of synthetic compounds.

Sentinel Community Epidemiologists (SCEs) in 12 Sentinel Community Sites (SCSs) monitor indicators of drug use, consequences, and availability within their site. Community Epidemiologists (CEs) are the point of contact for an additional seven sites across the U.S.

Other NDEWS components for detecting, monitoring, and following up on emerging drug use trends include:

- collaborations with agencies on the front line of substance use consequences, such as the American Association of Poison Control Centers (AAPCC)
- social media scans
- news scans
- site visits to local communities experiencing emerging drug problems or changes in drug use trends,



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NDEWS NETWORK

The NDEWS Network is a virtual community of more than 500 researchers, practitioners, and concerned citizens across the country. The Network offers a forum to share and discuss information about emerging drugs and changing drug use trends, as well as to assist with local NDEWS research.

Click here for to join the
NDEWS Network!

NDEWS is funded under NIDA Cooperative Agreement DA038360 awarded to the Center for Substance Abuse Research at the University of Maryland, College Park. Opinions expressed in this report may not represent those of NIH or NIDA.