NDEWS National Drug Early Warning System

Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse

# Southeastern Florida (Miami Area) Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018

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NDEWS Coordinating Center



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# National Drug Early Warning System (NDEWS) Southeastern Florida Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018

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## Highlights

- **Cocaine**-related deaths nearly doubled between 2015 and 2016 in the southeastern Florida three-county region while increasing 57% statewide before stabilizing at high levels in the first half of 2017. Most of these deaths also involved one or more opioids including fentanyl analogs.

- **Methamphetamine** deaths more than doubled statewide between 2015 and 2016 and continued to increase in the first half of 2017 with the highest number of deaths reported in the central part of Florida and the Northwestern Panhandle as well as along the Gulf Coast. Although the number of methamphetamine deaths remained low in the southeastern Florida region, they have been steadily increasing in recent years.

- Of all **heroin** deaths in the three-county region and across the state of Florida during 2017, most involved at least one or more other drugs detected in the decedents demonstrating the polysubstance abuse patterns of the opioid epidemic.

- Although **heroin** primary treatment admissions rose from 7% of all clients in 2014 to 22% in 2017, primary admissions for **prescription opioid** declined from 12% to 9% in the southeastern Florida region.

- **Nonpharmaceutical fentanyl** from foreign clandestine labs has been the major factor over the past two years for the dramatic escalation in opioid deaths related to adulterated heroin, counterfeit medications, and contaminated other street drugs. These occurrences appear to have stabilized at very high levels in the first half of 2017.

- **Marijuana** was the primary drug cited by 86% of addiction treatment *patients younger than 18 years of age* during calendar year 2017 across the southeastern Florida region.

- The most prevalent **synthetic cathinone** in the region is N-Ethylpentylone sold as “Mollys” followed by a return of *Alpha-PVP* or “flakka.”

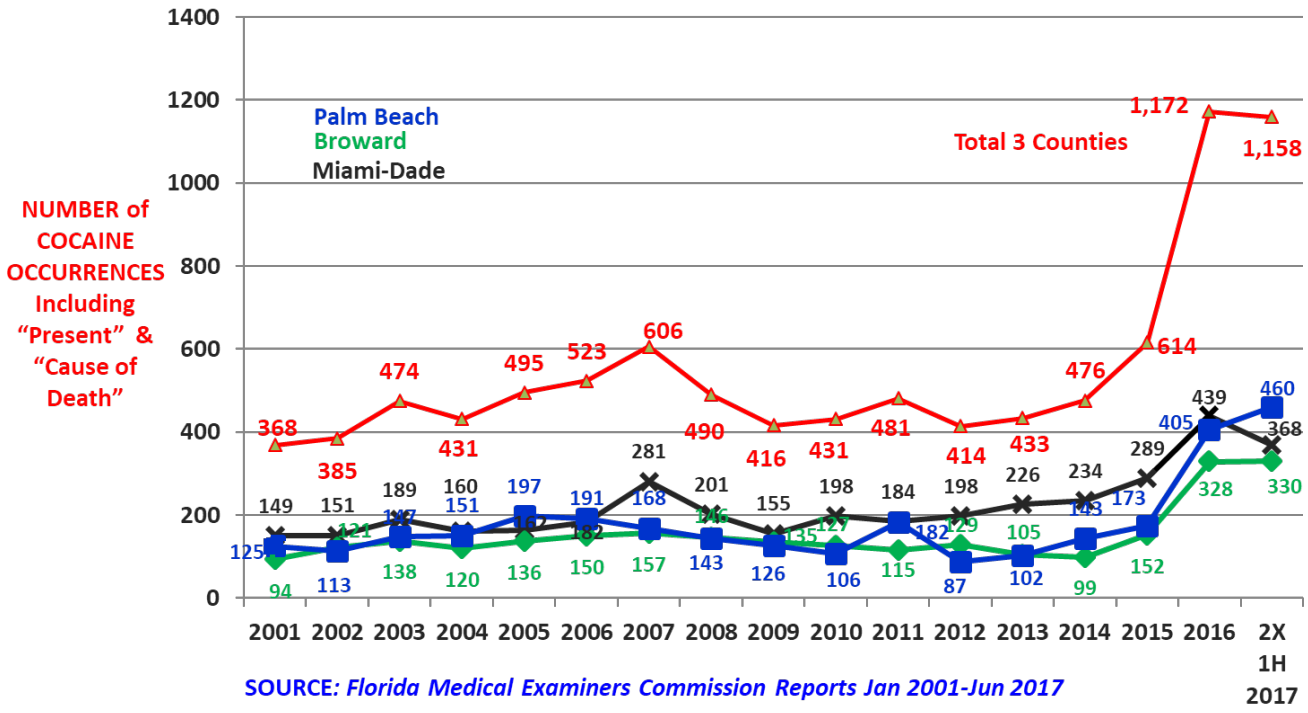
# NDEWS Priority Substances

## COCAINE/CRACK

### Key Findings

Cocaine-related deaths increased 91% between 2015 and 2016 in the southeastern Florida region with the sharpest rise reported in Palm Beach County that continued to increase there in the first half of 2017 while stabilizing in Broward County and declining in Miami-Dade County (Figure 1). The drug was considered the cause of death in 77% of the Palm Beach County cases during the first half of 2017 as well as in 74% of those in Broward and in 60% of those in Miami-Dade County. Many deaths involved polydrug use with 88% of the 2017 cases having one or more other substances present at the time of death. There were only three cocaine-related decedents younger than 18 years of age, 14% were 18–25, 25% were 26–34, 34% were 35–50, and 26% were older than 50 years of age.

**Figure 1. Number of Cocaine Reports Detected Among Decedents in Southeast Florida, 2001–2017**



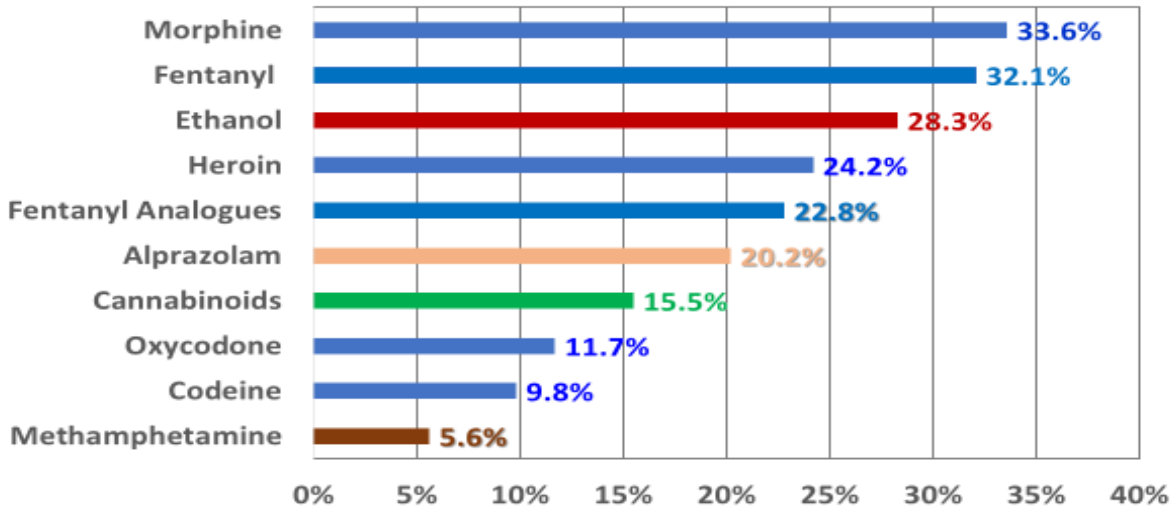

SOURCE: *Florida Medical Examiners Commission Reports Jan 2001-Jun 2017*

Primary addiction treatment admissions for cocaine totaled 2,812 patients in the three-county region during 2016, accounting for 10.5% of all admissions. Males totaled 58% of these clients with crack cocaine specified by 59% of all cocaine patients. Only 10, or less than 1%, of the admissions were for someone younger than 18, 13% were 18–25, 26% were 26–34, and 60% were age 35 or older. Smoking was the route of administration reported by 48% of the clients with intranasal sniffing cited by 37% and injection cited by 5%. The remaining 10% reported oral or other/unknown routes of administration.

**Polydrug Use**

Polysubstance abuse of opioids with cocaine either knowingly or unintentionally with nonpharmaceutical fentanyl-adulterated cocaine is considered a key factor in the rise of cocaine-related deaths nationally and in Florida over the past three years. A review of deaths *caused* by cocaine in Florida during 2016 revealed 34% were also found with morphine, which most likely was heroin along with another 24% where heroin itself was identified. Fentanyl was found in 32% of the 2016 Florida cocaine-induced deaths plus 23% with a nonpharmaceutical fentanyl analog. Other opioids detected included oxycodone in 12% of the cases and codeine in 10%. Nonopioid drugs found present in the 2016 cocaine-caused deaths included ethanol in 28% of the cases, alprazolam in 20%, cannabinoids in 16%, and methamphetamine in 6% (Figure 2).

**Figure 2. Top 10 Co-Occurring Substances Among Florida Cocaine-Caused Deaths in 2016**




***Sources:*** **Florida Medical Examiners Commission 2016 Report and Florida drug-Related Outcomes Surveillance and Tracking (FROST) System**

**Additional Findings**

The 7,359 cocaine crime lab cases in the southeastern Florida counties during 2017 accounted for 35% of all drug reports in the three-county region with cocaine maintaining the number one ranking of crime lab reports it has held for more than three decades.

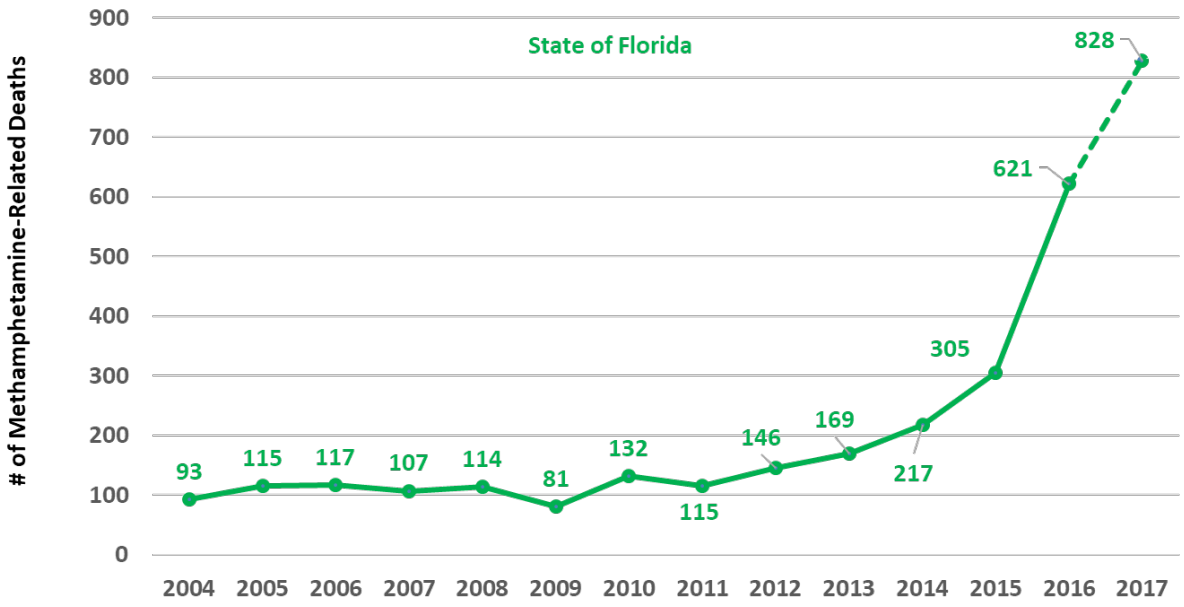
## METHAMPHETAMINE

### Key Findings

Significantly higher rates of methamphetamine treatment admissions and crime lab cases are reported in other areas of Florida than in the southeastern region, particularly in the Tampa Bay, western panhandle, and Orlando areas. According to the Florida Department of Law Enforcement and the South Florida High Intensity Drug Trafficking Area, most methamphetamine being used in Florida is produced in Mexico. Domestic laboratory production in Florida primarily appears to be in the northern and central parts of the state where the 2-liter soda bottle "shake and bake" method is used to yield a small amount of methamphetamine for personal use by the "cook" and for sharing with those who may have helped supply the precursor, pseudoephedrine.

Methamphetamine was detected among 414 deceased persons during the first half of 2017 statewide in Florida, compared with 237 in the first half of 2016 and 130 in the first half of 2015 and 621 for the full year of 2016 and 305 all of 2015, which was up from 217 in 2014 (Figure 3). Only the state totals of methamphetamine- and amphetamine-related deaths are available and are not reported for counties or regions. Methamphetamine was considered a cause of death in 213 (51%) of the cases during the first half of 2017.

**Figure 3. Number of Methamphetamine-Related Deaths in Florida, 2000–2017***




*Projection for 2017 based on 2 x 1st Half of 2017

*Source:* Florida Medical Examiners Commission Jan 2004-Jun 2017 Reports

There were 93 primary treatment admissions for methamphetamine in Palm Beach County, 72 in Miami-Dade County, and 70 in Broward County during 2017. These totals represent 1% of the 22,567 treatment clients across the three-county region as compared with 5% of all clients statewide in 2017. Males

accounted for 57% of the 235 methamphetamine clients across the region, and 49% were between 18 and 34 years of age, whereas 52% were age 35 and older. Smoking methamphetamine was the route of administration reported by 48% of these clients with intranasal sniffing cited by 16% and injection cited by 27%. The remaining 9% reported oral or other/unknown routes of administration. Private treatment counselors continued to report serious methamphetamine abuse problems among men who have sex with men and who are often not included in the number of clients from treatment programs receiving public funding. These clients are at high risk of infectious disease transmission related to both unprotected sexual activity and injecting drug use.

### Polydrug Use

There were also 400 reports of amphetamine detected among decedents across Florida in the first 6 months of 2017, compared with 266 such reports in the first half of 2016 and 179 such occurrences in the first six months of 2015. Amphetamine was considered the cause of death in 114 (or 29%) of the cases in the first half of 2017.

A total of 16 primary treatment admissions for amphetamine were reported in Broward County, 15 in Miami-Dade County, and 6 in Palm Beach County during 2017. Males accounted for 51% of the 37 amphetamine clients across the region in 2017, and 68% were between 18 and 34 years of age, whereas 31% were age 35 and older.

### Additional Findings

There were 692 methamphetamine crime laboratory reports, or 3.3% of the 21,289-total primary, secondary, and tertiary National Forensic Laboratory Information System (NFLIS) reports for Miami-Dade, Broward, and Palm Beach counties combined in 2017, which was up from 539 in 2016. Methamphetamine ranked eighth among all substances analyzed in the three counties in 2017 as it has in the previous two years. Also, 199 amphetamine crime laboratory reports were filed, or 1% of the 2017 total ranking 12th among all substances.

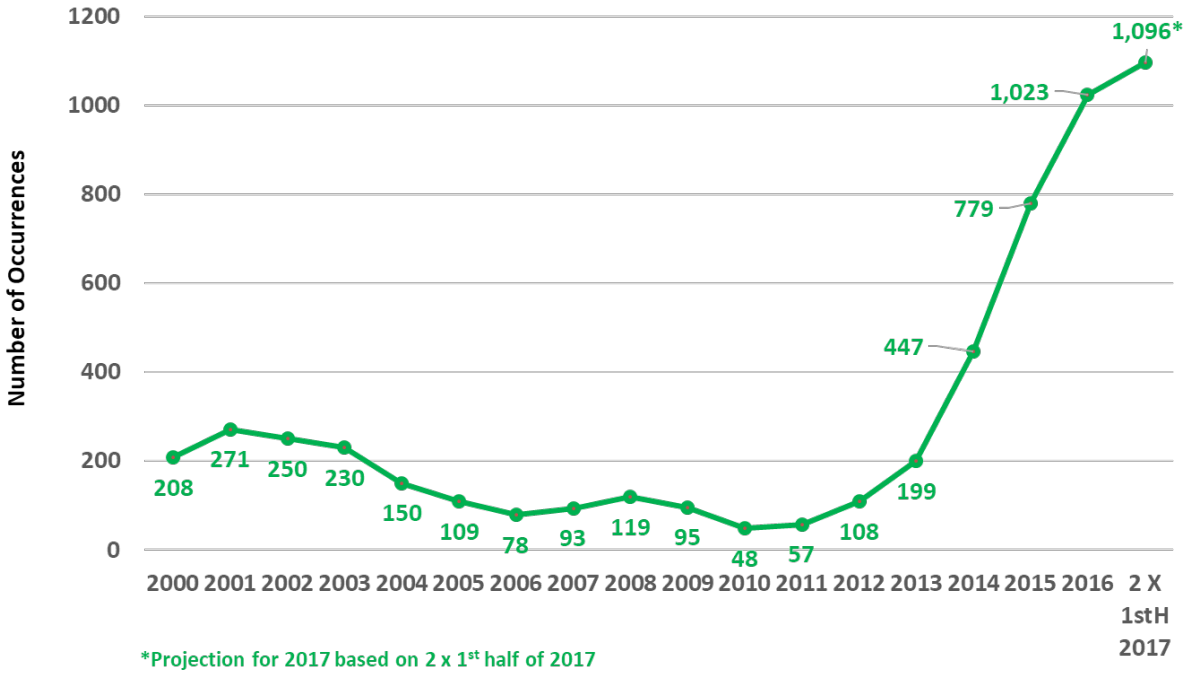
## HEROIN

### Key Findings

The number of heroin-related deaths increased sharply from 2011 to 2017 across Florida, rising 1,823% from 57 in 2011 to a projected 1,096 in 2017 based on the first half of that year (Figure 4). Heroin was considered “a cause of death” in 93% of the fatalities in which it was detected in 2017. In the three southeastern Florida counties, heroin deaths increased 1,647% from 30 in 2011 to 524 during 2016 prior to stabilizing at a projected 524 deaths in 2017 (Figure 5).

Heroin was considered the cause of death in 94% of the heroin-related cases in southeastern Florida in 2017. There was one heroin-related decedent younger than 18 years of age in the region, 15% were 18–25, 32% were 26–34, 29% were 35–50, and 23% were older than 50 years of age.

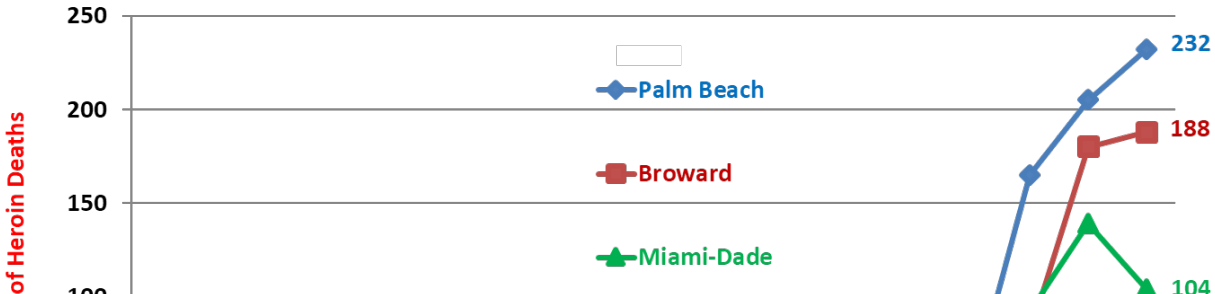
**Figure 4. Number of Heroin-Related Deaths in Florida, 2000–2017***




*Projection for 2017 based on 2 x 1st half of 2017

*Source:* Florida Medical Examiners Commission Reports

**Figure 5. Number of Heroin Deaths in Three Southeastern Florida Counties, 2000–2017**

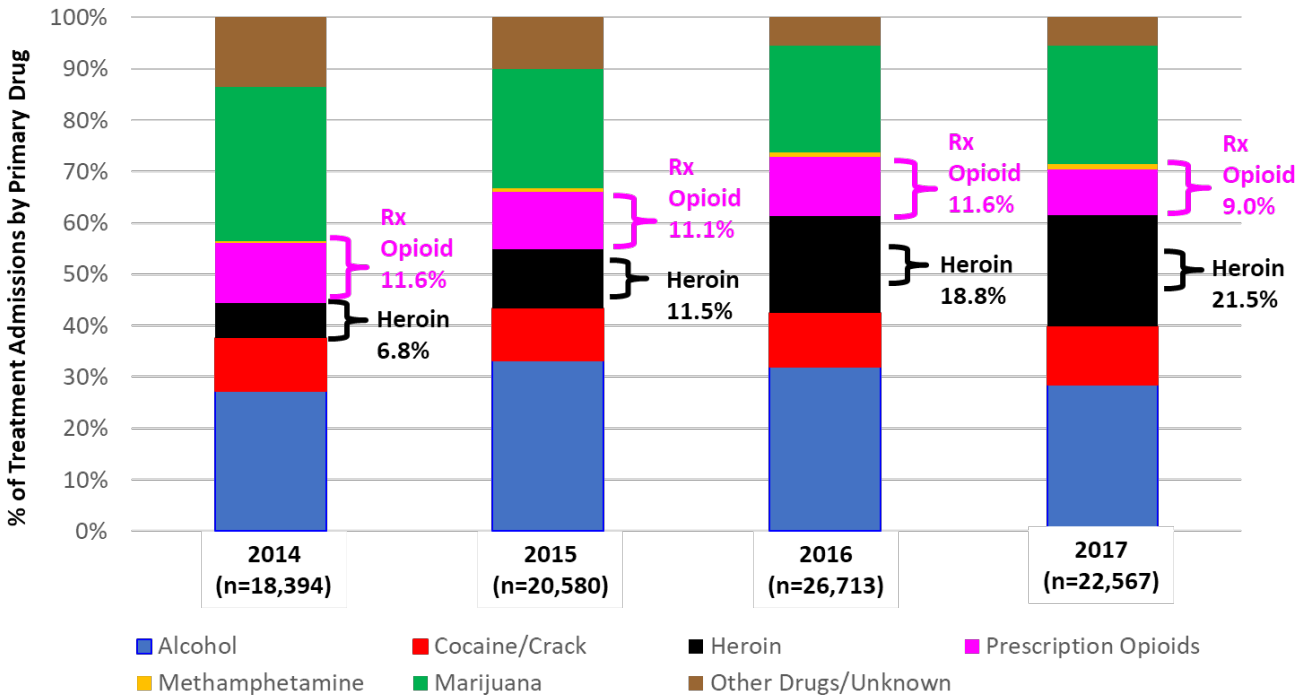



| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2 X 1stH 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Palm Beach | 15 | 57 | 36 | 27 | 26 | 17 | 8 | 10 | 6 | 6 | 4 | 12 | 6 | 20 | 51 | 165 | 205 | 232 |
| Broward | 17 | 53 | 50 | 49 | 35 | 17 | 13 | 4 | 17 | 8 | 5 | 3 | 9 | 11 | 28 | 80 | 180 | 188 |
| Miami-Dade | 61 | 39 | 46 | 32 | 18 | 22 | 20 | 26 | 38 | 30 | 26 | 15 | 33 | 40 | 60 | 92 | 139 | 104 |

*SOURCE:* Florida Medical Examiners Commission Reports 2000-2017

Primary addiction treatment admissions for heroin totaled 4,857 patients across the three-county region in 2017 accounting for 21.5% of all admissions. In 2014, heroin was the primary drug cited by 6.8% of treatment clients in the region and by 11.5% in 2015 and 18.8% in 2016 (Figure 6). Males accounted for 63% of the 2017 clients. There were 4 heroin treatment clients younger than 18 years of age, 13% were 18–25, 47% were 26–34, and 40% were age 35 or older. Injecting heroin was reported by 60% of clients, but that rate is probably higher because the route of administration was recorded as unknown for 17%. Intranasal snorting was reported by 13% of clients, and 2% reported smoking heroin. The county totals for heroin treatment primary admissions were 1,029 for Miami-Dade, 1,180 for Broward, and 2,648 in Palm Beach County.

**Figure 6. Percentage of Treatment Admissions by Primary Drug in Three Southeastern Florida Counties (Palm Beach, Broward, and Miami-Dade), 2014–2017**




***Source:*** **Florida Department of Children and Families - SAMH**

Between calendar years 2016 and 2017, the number of primary heroin addiction treatment admissions in the three southeastern Florida counties decreased a modest 3% from 5,011 to 4,857 while primary prescription opioid (including fentanyl) treatment admissions decreased 34% from 3,092 to 2,040. Because the total number of treatment admissions for all substance declined 15.5% from 26,713 in 2016 to 22,567 in 2017, the percentage of primary admissions for heroin rose slightly from 18.8% to 21.5% while primary prescription opioid admissions decreased from 11.6% to 9.0%.

In summary, heroin and other opioid use disorder treatment admissions stabilized in 2017 at high levels in the three southeastern Florida counties after steadily increasing over the previous three years. This trend parallels the stabilization of heroin and other opioid-related deaths while still at the highest levels

between the second half of 2016 and the first half of 2017, halting the steadily increasing heroin and other opioid fatalities since 2013.

It is vital to remember that a single data point does not constitute a trend. Nonetheless, the 2017 treatment and death data raise the possibility that southeastern Florida's opioid epidemic may be transitioning from its escalation phase to a plateau phase prior to an eventual period of decline.

### Polydrug Use

Most all heroin deaths involved polydrug use with 99% of the 2017 cases both statewide and in the three southeastern Florida counties having one or more other substances present at the time of death. Polysubstance abuse of heroin with other opioids either knowingly or unintentionally with nonpharmaceutical fentanyl-adulterated street drugs is considered a key factor in the rise of opioid deaths nationally and in Florida over the past four years. A review of deaths *caused* by heroin in Florida during 2016 revealed 85% were also found with morphine and 51% with cocaine. Fentanyl was found in 39% of the 2016 Florida heroin-induced deaths plus in 22% with a nonpharmaceutical fentanyl analog. Other opioids detected included codeine in 34% of the cases and oxycodone in 12%. Other drugs found present in the 2016 heroin-caused deaths included ethanol in 28% of the cases, alprazolam in 25%, and cannabinoids in 17%.

### Additional Findings

There were 1,716 heroin crime laboratory reports, or 8.1%, of the 21,289 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach counties combined in 2017. Heroin reports increased 45% between 2015 and 2016 but decreased 15% between 2016 and 2017.

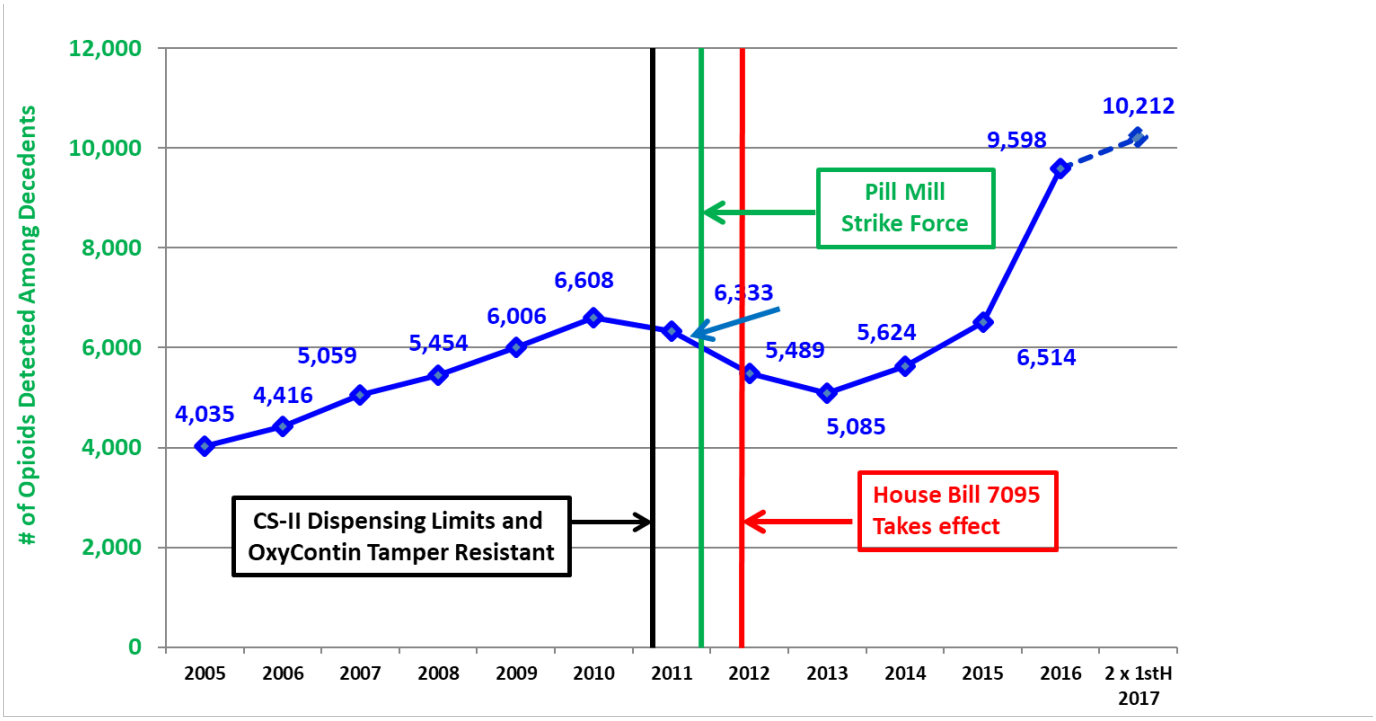
## PRESCRIPTION OPIOIDS

### Key Findings

In the first decade of the 21st century, there was a dramatic increase in the availability of diverted pharmaceutical opioids and deaths linked to their nonmedical misuse as well as primary addiction treatment admissions for prescription opioids. Numerous new laws and regulations took effect beginning in 2010 along with the abuse-deterrent reformulation of high-dose, extended-release opioids. The collective impact of these supply-reduction strategies as well as a pill mill law enforcement strike force and funding of the state's Prescription Drug Monitoring Program (PDMP; House Bill 7095) was seen in declining opioid deaths beginning in 2011.

In 2010, there were 6,608 opioids detected in deceased persons in Florida. That toll steadily declined 23% to 5,085 by 2013 and then increased to 5,624 opioid occurrences in 2014 and then to 6,514 in 2015 before escalating to 9,598 in 2016. The projected number of opioid occurrences (not including heroin) among deceased persons in 2017 is 10,212 based on the first six months of the year (Figure 7). The projected total includes 2,064 occurrences for morphine, many of which are believed to actually be heroin, and 3,092 fentanyl occurrences including most that are nonpharmaceutical fentanyl from foreign clandestine labs used to adulterate street heroin or sold as counterfeit medications.

**Figure 7. Number of Nonmedical Prescription Opioid Occurrences Detected Among Deceased Persons in Florida, 2005–2017**



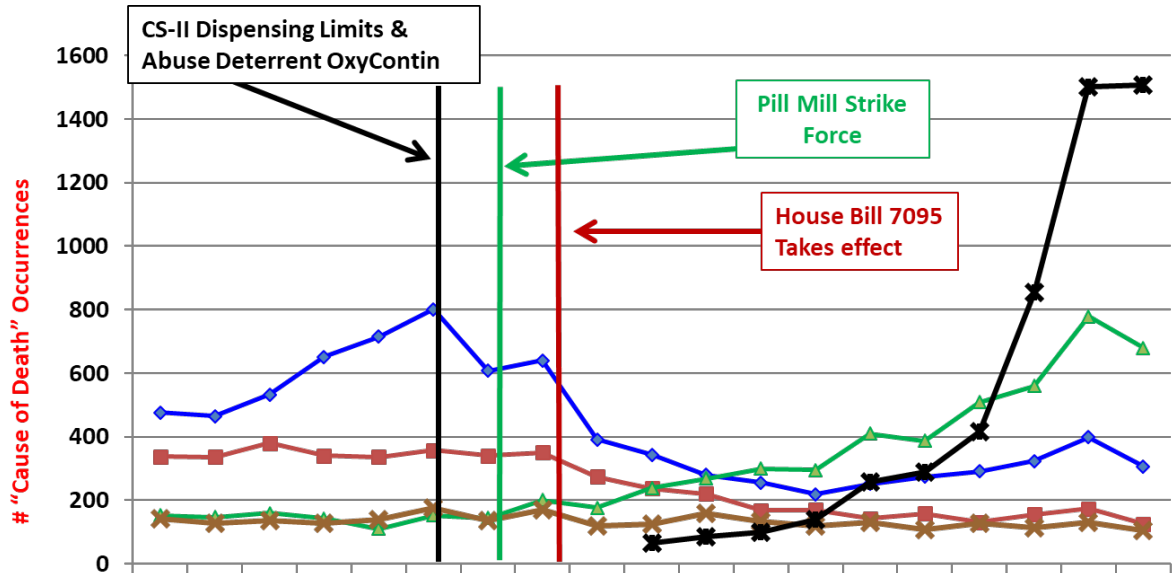

*Source:* **FDLE –** ***Drugs Identified In Deceased Persons by Florida Medical Examiners*** **Jan 2005-June 2017 Reports**

Seventy-one percent of the 2017 Florida opioid deaths (not including heroin) are related to 5 of the 11 opioids tracked by the Florida Medical Examiners Commission. Those five are morphine, oxycodone, hydrocodone, methadone, and fentanyl totaling 3,951 medical examiner occurrences in just the first six months of 2017 in all of Florida. Most of the fentanyl reports from 2014 to 2017 are believed to be nonpharmaceutical fentanyl analogs from foreign labs and that most of the morphine cases are considered to be heroin. The state total for occurrences of those five opioids during the first half of 2017 includes 1,214 reports in the three southeastern Florida counties representing a 47% increase from the 827 occurrences for the same five opioids during the first half of 2015. The total opioid occurrences for the first six months of 2017 includes 501 in Palm Beach County, 340 in Miami-Dade, and 373 in Broward County. Eighty-one percent of these occurrences were considered to be a cause of death.

Figure 8 tracks the number of lethal opioid occurrences in Florida where the named drugs were classified as “a cause of death” for the 5 most prevalent opioids (not including heroin) by semi-annual reporting periods. The total for the first half of 2017 for the state of Florida was 2,721, which includes 980 lethal reports from the three southeastern Florida counties composed of 424 in Palm Beach County, 301 in Broward, and 255 in Miami-Dade County.

In the three southeastern Florida counties, opioid occurrences (not including heroin) detected in deceased persons during the first half of 2017 totaled 1,214 including 158 for oxycodone, 39 for hydrocodone, 32 for methadone, 320 for morphine, and 665 for fentanyl including nonpharmaceutical fentanyl analogs (Figures 9, 10, and 11).

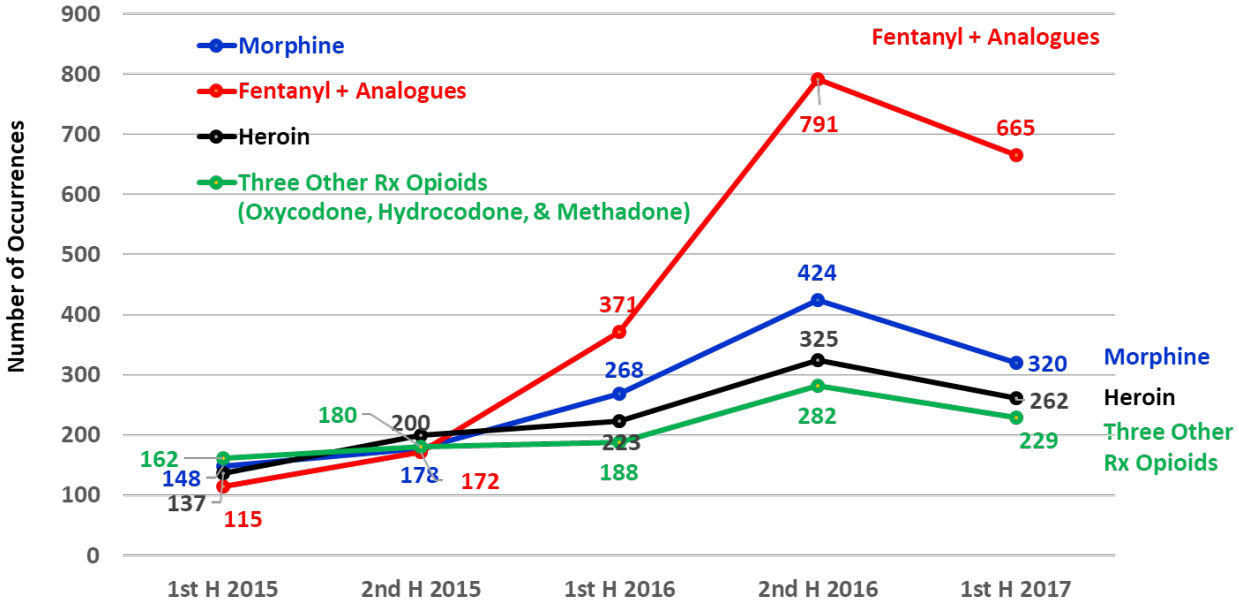
**Figure 8. Number of Selected Lethal Opioid Occurrences Among Deceased Persons in Florida, 2008–2017**




| | 1H'08 | 2H'08 | 1H'09 | 2H'09 | 1H'10 | 2H'10 | 1H'11 | 2H'11 | 1H'12 | 2H'12 | 1H'13 | 2H'13 | 1H'14 | 2H'14 | 1H'15 | 2H'15 | 1H'16 | 2H'16 | 1H'17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oxycodone | 476 | 465 | 533 | 652 | 715 | 801 | 607 | 640 | 392 | 343 | 279 | 255 | 219 | 251 | 274 | 291 | 324 | 399 | 306 |
| Methadone | 337 | 336 | 380 | 340 | 336 | 358 | 341 | 350 | 274 | 238 | 221 | 168 | 170 | 142 | 158 | 132 | 156 | 174 | 125 |
| Morphine | 153 | 147 | 160 | 142 | 110 | 152 | 144 | 201 | 176 | 239 | 268 | 300 | 295 | 410 | 387 | 508 | 559 | 779 | 679 |
| Hydrocodone | 141 | 129 | 136 | 129 | 139 | 176 | 136 | 171 | 118 | 126 | 158 | 133 | 119 | 131 | 108 | 128 | 113 | 132 | 104 |
| Fentanyl+Analogues | | | | | | | | | | 65 | 85 | 100 | 139 | 258 | 289 | 416 | 853 | 1,502 | 1,507 |

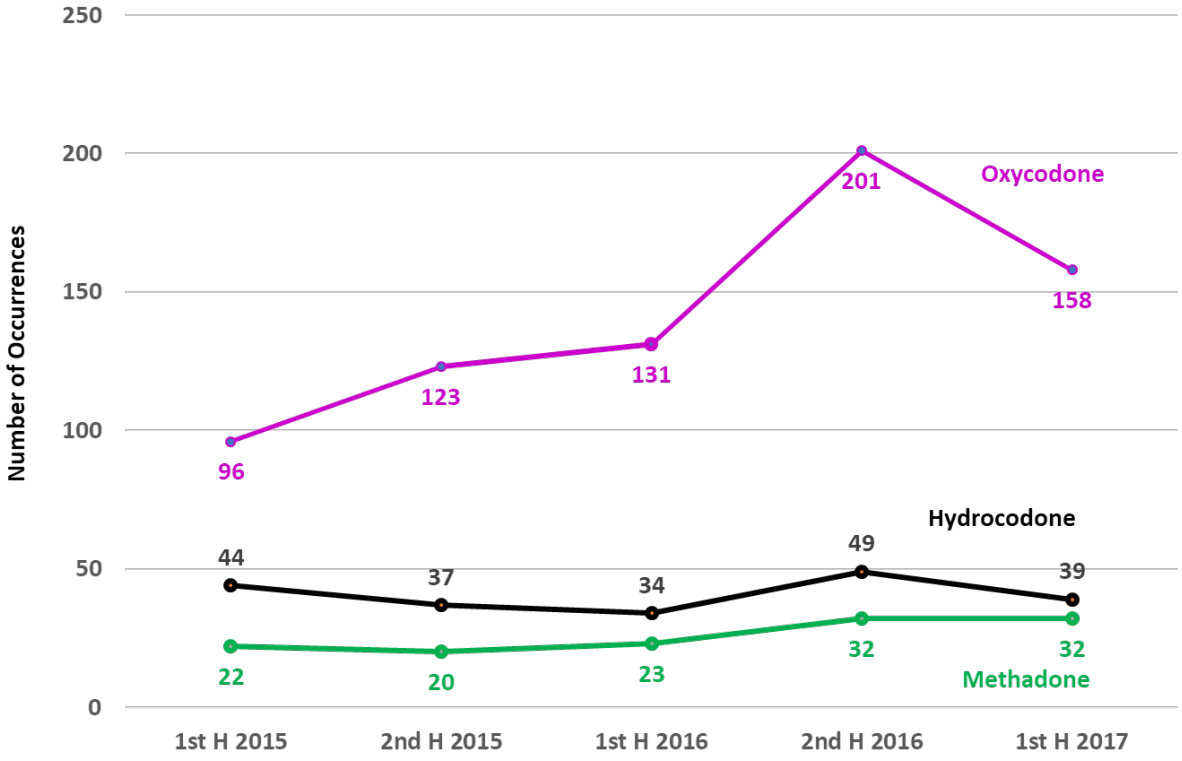
*Source:* FDLE – *Drugs Identified in Deceased Persons by Florida Medical Examiners,* Jan 2008-Jun 2017 reports

**Figure 9. Number of Heroin and Opioid Occurrences Among Deceased Persons in Southeastern Florida, January 2015–June 2017**




*Source:* FDLE - Florida Medical Examiners Commission

**Figure 10. Number of Selected Prescription Opioid Occurrences (Oxycodone, Hydrocodone, and Methadone) Among Deceased Persons in Three Southeastern Florida Counties, January 2015–June 2017**




*Source:* FDLE - Florida Medical Examiners Commission

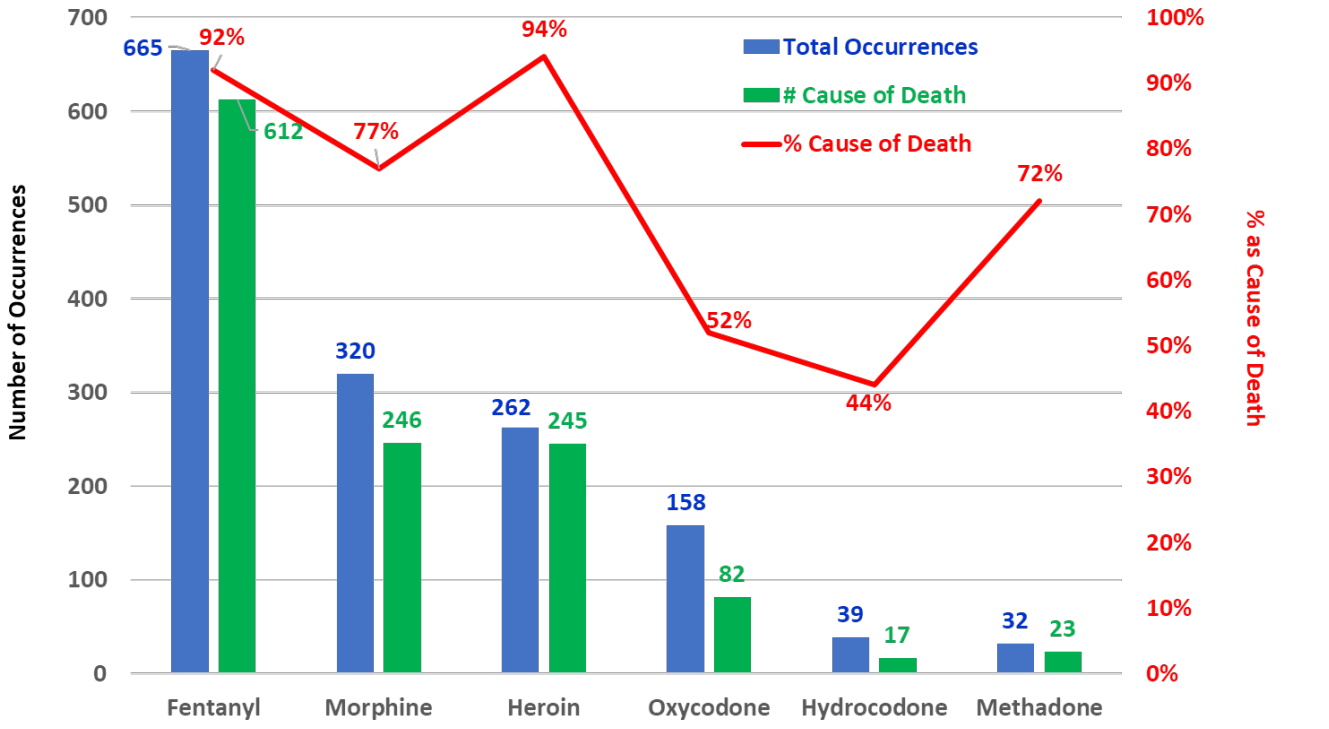
**Figure 11. Number of Heroin and Selected Opioid Occurrences Among Deceased Persons in Southeastern Florida, January 2015–June 2017**

| Opioid | 1st H 2015 | 2nd H 2015 | 1st H 2016 | 2nd H 2016 | 1st H 2017 |
|---|---|---|---|---|---|
| Fentanyl + Analogues | 115 | 172 | 371 | 791 | 665 |
| Morphine | 139 | 178 | 268 | 424 | 320 |
| Heroin | 137 | 200 | 223 | 325 | 262 |
| Oxycodone | 96 | 123 | 131 | 201 | 158 |
| Hydrocodone | 44 | 37 | 34 | 49 | 39 |
| Methadone | 22 | 20 | 23 | 32 | 32 |

*Source:* FDLE - Florida Medical Examiners Commission

Figure 12 tracks (1) the number of drug occurrences during the first half of 2017 from the three southeastern Florida counties in Figure 11 for the various opioids shown in the blue bars, (2) the number of those cases considered to be "a cause of death in the green bars, and (3) the percentage of each opioid's occurrences that are "a cause of death" on the red line graph.

**Figure 12. Number of Heroin and Selected Opioid Occurrences and Number and Percentage as Cause of Death Among Deceased Persons in Three Southeastern Florida Counties, January 2017–June 2017**




*Source:* 2017 FL Medical Examiners Commission Interim Report

In 2017, there were 2,040 admissions for opioids other than heroin reported as primary treatment admissions in the three southeastern Florida counties representing a 34% decrease from the 3,092 such admissions in 2016. Included in the 2017 total were 1,141 clients in Palm Beach County, 564 in Broward County, and 335 in Miami-Dade County. Females accounted for 57% of the 2017 opioid clients across the region, and 59% were between 18 and 34 years of age and 40% were aged 35 or older. Injecting drug use was reported by 31% of the prescription opioid clients.

### Polydrug Use

A review of deaths *caused* by the prescription opioid oxycodone in Florida during 2016 revealed 43% were also found with alprazolam and 41% with oxymorphone. Cocaine was found in 22% of the 2016 Florida oxycodone-induced deaths plus 22% each with ethanol and morphine. Fentanyl was detected in 17% of the oxycodone cases. Other drugs found present in the 2016 oxycodone-caused deaths included diazepam in 13% of the cases as well as cannabinoids in 13%, nordiazepam in 13%, and clonazepam in 10%.

### Additional Findings

A total of 2,385 prescription opioid primary, secondary, and tertiary NFLIS crime laboratory reports were filed in the three southeastern Florida counties during 2017 representing 11% of all substances analyzed. This category of drugs ranked third among all crime lab reports from the three counties in 2017. Fentanyl was the most frequently reported prescription opioid as shown in Figure 13; nevertheless, it is not known how many of those items may have been nonpharmaceutical opiate analogs from foreign clandestine laboratories.

**Figure 13. Number of NFLIS Pharmaceutical Opioid Crime Lab Cases in Southeastern Florida, 2017**

| Pharmaceutical Opioid Crime Lab Cases in Southeastern Florida in 2017 | # of Cases |
|---|---|
| FENTANYL plus Nonpharmaceutical Analogues | 1,188 |
| OXYCODONE | 759 |
| HYDROMORPHONE | 93 |
| BUPRENORPHINE | 85 |
| HYDROCODONE | 84 |
| MORPHINE | 90 |
| CODEINE | 45 |
| METHADONE | 13 |
| TRAMADOL | 19 |
| OXYMORPHONE | 8 |
| MEPERIDINE | 1 |
| TOTAL | 2,385 |

*Source:* US DEA - National Forensic Laboratory System Data Queried June 13, 2018

## FENTANYL AND OTHER NONPRESCRIPTION SYNTHETIC OPIOIDS

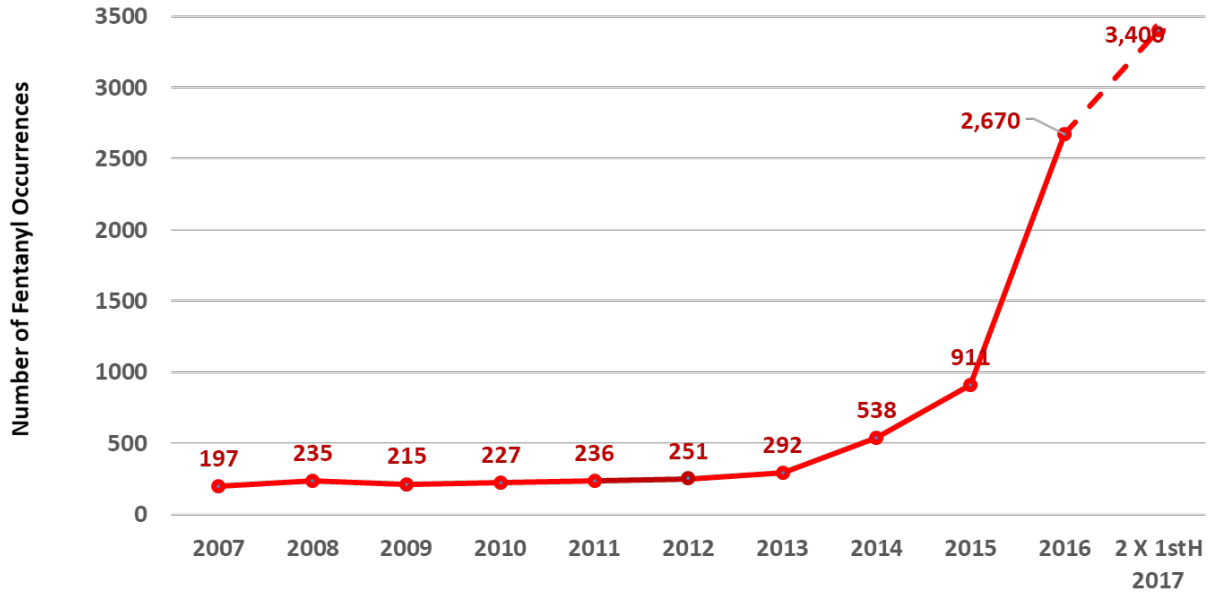
### Key Findings

The increasing availability of poisonous fentanyl analogs and their distribution are critical issues related to the escalation of deaths from the opioid epidemic. These novel psychoactive opioids are found not only as adulterated street heroin, cocaine, or methamphetamine but also as counterfeit medications

including fake "Xanax®" pills and as oxycodone and hydrocodone tablets. Other opioid analogs include U-47700, which also has been reported in Florida.

The key measure of fentanyl consequences is the number of deaths attributed to it. In previous years, medical examiner reports in Florida included both pharmaceutical fentanyl as well as its nonpharmaceutical analogs from clandestine labs mostly produced in China, Mexico, and Canada. Beginning in early 2016, some Florida medical examiner officers have been able to identify specific fentanyl analogs in their toxicology reports. Figure 14 illustrates the escalation of fentanyl-related deaths in Florida beginning in 2014 with the introduction of the drug's analogs into the illicit drug market. Between 2007 and 2013, fentanyl deaths total from 200 to nearly 300 per year. Most of those deaths are believed to have been related to nonmedical use of pharmaceutical fentanyl. Yet the sharp rise in fentanyl occurrences detected in deceased persons in Florida from 2014 to 2017 is a result of nonpharmaceutical fentanyl analogs. The projected 3,400 fentanyl deaths for all of 2017 are based on doubling the 1,700 occurrences in the first six months of that year, which includes 875 reports of substances specifically identified as fentanyl analogs (Figure 14). Several Florida medical examiners advise that the most dramatic rise of opioid deaths and particularly those from poisonous fentanyl analogs occurred in the second half of 2016 in part because of the arrival of carfentanil, the most toxic of opioids considered to be 10,000 more potent than morphine.

**Figure 14. Number of Fentanyl- and Fentanyl Analog-Related Deaths in Florida, 2007–2017**




*Projection for 2017 based on 2 x 1st half of 2017

*Source:* Florida Medical Examiners Commission Reports

**Polydrug Use**

A review of the 1,391 deaths *caused* by the prescription opioid fentanyl in Florida during 2016 revealed 46% were also found with cocaine and 37% with morphine. Heroin was found in 27% of the 2016 Florida fentanyl-induced deaths plus 25% with alprazolam and 24% with ethanol. Other fentanyl analogs were detected in 21% of the pharmaceutical fentanyl cases. Other drugs found present in the 2016 fentanyl-caused deaths included cannabinoids in 19%, oxycodone in 13% of the cases, as well as codeine in 10%, and clonazepam in 7%.

**Additional Findings**

A total of 504 fentanyl analogs and other synthetic opioid primary, secondary, and tertiary NFLIS crime laboratory reports were filed in the three southeastern Florida counties during 2017 representing 2.3% of all substances analyzed. Carfentanil was the most frequently reported synthetic opioid as shown in Figure 15 with 308 or 61% of the synthetic opioid crime lab reports.

**Figure 15. Number of NFLIS Pharmaceutical Opioid Crime Lab Cases in Southeastern Florida: 2017**

| Fentanyl Analogues and Other Synthetic Opioid Crime Lab Cases in Southeastern Florida in 2017 | # of Cases |
|---|---|
| CARFENTANIL | 308 |
| FURANYL FENTANYL | 67 |
| CYCLOPROPYL/CROTONYL FENTANYL | 51 |
| U-47700 | 32 |
| METHOXYACETYL FENTANYL | 27 |
| FLUOROISOBUTYRLFENTANYL | 12 |
| ACETYL FENTANYL | 2 |
| BUTYRL FENTANYL | 2 |
| BENZYLFENTANYL | 1 |
| FLUOROFENTANYL | 1 |
| CYCLOPENTYL FENTANYL | 1 |
| TOTAL | 504 |

*Source:* US DEA - National Forensic Laboratory System Data Queried June 13, 2018

# Other Priority Substances in Southeastern Florida

## MARIJUANA

### Key Findings

Primary addiction treatment admissions for marijuana totaled 5,187 patients across the three-county region in 2017 accounting for 23% of all admissions. In 2014, marijuana was the primary drug cited by 30% of treatment clients in the three counties of the region. Then in 2015, it accounted for 23% of clients. The declining proportion of marijuana treatment admissions is a result of increasing rates of primary heroin admissions and fewer adolescent clients referred by the juvenile justice system with the institution of civil citations in lieu of arrests.

### Additional Findings

The 3,553 cannabis crime lab cases in the southeastern Florida counties during 2017 accounted for 17% of all drug reports, which meant cannabis was ranked second among all other drugs.

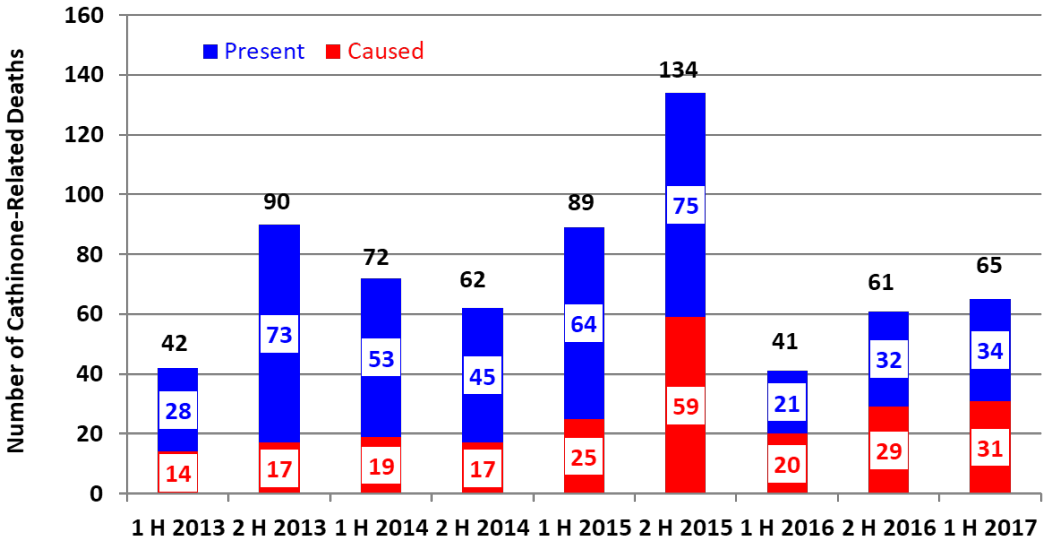
## SYNTHETIC CATHINONES

### Key Findings

Substituted cathinones, also known as synthetic cathinones, are potent stimulants with varying degrees of hallucinogenic properties. Cathinones are chemically designed to mimic but be more potent than the stimulant in the khat plant found in East Africa and the Middle East. The first substituted cathinones to appear were often referred to as “bath salts” and have been banned nationally and in Florida as well as in many other nations. The most prevalent substituted cathinones in Florida have been methylone, ethylone, and diButylone, all of which have been falsely sold as “pure MDMA” or “Mollys” for several years. The most dramatic problems associated with synthetic cathinones were with *alpha*-PVP or “flakka” particularly in Broward County from late 2014 and throughout 2015.

There were 132 synthetic cathinone deaths in all of Florida during 2013, 134 in 2014, 223 in 2015, and 102 in 2016. There were an additional 65 synthetic cathinone medical examiner occurrences statewide in the first half of 2017 with 31 attributed as being a cause of death (Figure 16).

**Figure 16. Number of Synthetic Cathinone Deaths in Florida, January 2013–June 2017**




*Source:* **Florida Medical Examiners Commission 2017 Interim Report**

An epidemic of the synthetic cathinone, *alpha*-PVP, the drug sold as "flakka" erupted in Broward County in September 2014. Consequences of its abuse rapidly escalated in 2015, fueling the increase of cathinone deaths that year with the drug also linked to thousands of hospital emergency cases, many of which were from excited delirium syndrome. Broward County had more crime lab cases of *alpha*-PVP compared with any other county in the nation.

In part because of worldwide negative media coverage about flakka, as well as diplomatic efforts, the government of China banned *alpha*-PVP and 115 other novel psychoactive substances on October 1, 2015. By the end of 2015, hospital emergency department cases, arrests, and treatment admissions related to *alpha*-PVP abuse dramatically declined. By early 2016, it had practically disappeared from street drug sales. However, there have been several medical emergencies related to "flakka" use in 2018 and increased amounts of the drug seized in law enforcement activity over the past two years.

**Additional Findings**

There were 1,284 crime lab reports for synthetic cathinones during 2017 in the three southeastern counties of Florida. Among the 2017 crime lab reports there were 845 for N-Ethylpentylone, 270 for *alpha*-PVP, 99 for dibutylone, as well as 7 each for ethylone and pentylone. *Alpha*-PVP is usually sold as "flakka" and the other cathinones are sold as "Mollys" in capsule or powder form. There were also 169 crime lab cases for MDMA in 2017.

# Infectious Diseases Related to Substance Use

With 29% of the state's population, the three southeastern Florida counties have 49% of the number of people living with HIV (PLWH) in the state. With per capita rates exceeding 1,000 per 100,000 population, Broward County (rate per 100,000 = 1,096.3) and Miami-Dade County (rate per 100,000 = 1,015.3) have led the nation in HIV infections. The rate in Palm Beach County is 601.5, contributing to a rate for the three-county region of 944 PLWH per 100,000 population (Figure 17).

Combining the two modes of transmission categories of (1) only injecting drug use (IDU)and (2) the dual risk of IDU among men who have sex with other men (IDU + MSM), Broward County has a rate of 94.8 per 100,000 compared with 87 for Miami-Dade County and 54.9 for Palm Beach County. The combined rate for the three-county region is 81.9 and 65.1 for the entire state (Figure 18).

**Figure 17. Number and Rate per 100,000 of Persons Living with HIV (PLWH) in Three Southeastern Florida Counties as of June 30, 2017**

| County | Population | # PLWH | Rate per 100,000 |
|---|---|---|---|
| Miami-Dade | 2,754,749 | 27,969 | 1,015.3 |
| Broward | 1,884,545 | 20,661 | 1,096.3 |
| Palm Beach | 1,411,054 | 8,488 | 601.5 |
| Total 3 County Region | 6,050,348 | 57,118 | 944.0 |
| State of Florida | 20,555,728 | 116,944 | 568.9 |

***Source:*** **Florida Department of Health – Florida CHARTS online**

**Figure 18. Number of Persons Living with HIV (PLWH) by Injecting Drug Use (IDU) Modes of Transmission as of June 30, 2017**

| County | # by IDU | # by IDU + MSM | Total IDU | Rate per 100K |
|---|---|---|---|---|
| Miami-Dade | 1,634 | 763 | 2,397 | 87 |
| Broward | 1,147 | 639 | 1,786 | 94.8 |
| Palm Beach | 561 | 213 | 774 | 54.9 |
| Total 3 County Region | 3,342 | 1,615 | 4,957 | 81.9 |
| State of Florida | 9,044 | 4,344 | 13,388 | 65.1 |

***Source:*** **Florida Department of Health – Florida CHARTS online**

# New Substance-Related Legislative and Policy Updates

Major legislation addressing Florida's opioid epidemic and other substance use disorders were passed by the 2018 Florida Legislature as House Bill 21, which went into effect on July 1, 2018. The new law limits Schedule II opioid prescriptions for acute pain to a three-day supply and, when deemed medically necessary, to a seven-day supply. The law allows an exception for certain patients, such as those suffering cancer and other forms of chronic pain who will not be affected by the new prescription limits.

House Bill 21, now Florida law, requires physicians and other prescribers as well as pharmacists to consult with the state's PDMP, e-FORCE, prior to prescribing or dispensing controlled substances. The law provides a series of citations for failing to check with the PDMP, and if those failures are determined to be willful, punishment escalates as misdemeanor offenses.

The new law also requires continuing medical education for practitioners on the responsibility of prescribing opioids. The law also includes a $53 million appropriation for substance use prevention, treatment, and updating the state's PDMP. That amount is part of an overall $65 million budgeted to address the opioid epidemic including $11 million for medication-assisted treatment.

# Treatment Tables

**Table 1: Trends in Admissions* to Programs Treating Substance Use Disorders, Southeastern Florida (Miami Area)^ Residents, 2013-2017**

Number of Admissions and Percentage of Admissions with Selected Substances Cited as Primary Substance at Admission, by Year and Substance

| | Calendar Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2013** | | 2014 | | 2015 | | 2016 | | 2017 | |
| | (#) | (%) | (#) | (%) | (#) | (%) | (#) | (%) | (#) | (%) |
| **Total Admissions (#)** | **9,500** | **100%** | **18,394** | **100%** | **20,580** | **100%** | **26,713** | **100%** | **22,567** | **100%** |
| **Primary Substance of Abuse (%)** | | | | | | | | | | |
| Alcohol | 2,318 | 24.4% | 5,006 | 27.2% | 6,830 | 33.2% | 8,539 | 32.0% | 6,415 | 28.4% |
| Cocaine/Crack | 1,161 | 12.2% | 1,906 | 10.4% | 2,088 | 10.1% | 2,812 | 10.5% | 2,588 | 11.5% |
| Heroin | 422 | 4.4% | 1,249 | 6.8% | 2,366 | 11.5% | 5,011 | 18.8% | 4,857 | 21.5% |
| Prescription Opioids | 767 | 8.1% | 2,142 | 11.6% | 2,298 | 11.2% | 3,092 | 11.6% | 2,040 | 9.0% |
| Methamphetamine | 45 | 0.5% | 76 | 0.4% | 166 | 0.8% | 216 | 0.8% | 235 | 1.0% |
| Marijuana | 3,875 | 40.8% | 5,532 | 30.1% | 4,779 | 23.2% | 5,582 | 20.9% | 5,187 | 23.0% |
| Benzodiazepines | 154 | 1.6% | 343 | 1.9% | 483 | 2.3% | 0 | 0.0% | 0 | 0.0% |
| MDMA | 18 | 0.2% | 50 | 0.3% | 17 | <0.1% | 0 | 0.0% | 0 | 0.0% |
| Synthetic Stimulants | 2 | <0.1% | 23 | 0.1% | 464 | 2.3% | 0 | 0.0% | 0 | 0.0% |
| Synthetic Cannabinoids | 0 | 0.0% | 0 | 0.0% | 2 | <0.1% | 0 | 0.0% | 0 | 0.0% |
| Other Drugs/Unknown | 738 | 7.8% | 2,067 | 11.2% | 1,087 | 5.3% | 1,461 | 5.5% | 1,245 | 5.5% |

**NOTES:**

**^Southeastern Florida:** Includes the three counties of the Miami MSA—Broward, Miami-Dade, and Palm Beach counties.

***Admission:** Includes all admissions to programs receiving any public funds. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

****2013:** Data for Palm Beach County is not available for 2013, therefore 2013 only includes data for Broward and Miami-Dade counties.

**SOURCE:** Data provided to the Southeastern Florida NDEWS SCE by the Florida Department of Children and Families.

**Table 2: Demographic and Drug Use Characteristics of Treament Admissions* for Select Primary Substances, Southeastern Florida (Miami Area)^ Residents, 2017**

Number of Admissions, by Primary Substance and Percentage of Admissions with Selected Demographic and Drug Use Characteristics

| | Primary Substance | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Alcohol | | Cocaine/Crack | | Heroin | | Prescription Opioids | | Methamphetamine | | Marijuana | | Benzo-diazepines | | Synthetic Stimulants | | Synthetic Cannabinoids | |
| | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % |
| **Number of Admissions (#)** | **6,415** | **100%** | **2,588** | **100%** | **4,857** | **100%** | **2,040** | **100%** | **235** | **100%** | **5,187** | **100%** | **0** | **0%** | **0** | **0%** | **0** | **0%** |
| **Sex (%)** | | | | | | | | | | | | | | | | | | |
| Male | 4,293 | 66.9% | 1,481 | 57.2% | 3,052 | 62.8% | 869 | 42.6% | 133 | 56.6% | 3,471 | 66.9% | n/a | n/a | n/a | n/a | n/a | n/a |
| Female | 2,122 | 33.1% | 1,107 | 42.8% | 1,805 | 37.2% | 1,171 | 57.4% | 102 | 43.4% | 1,716 | 33.1% | n/a | n/a | n/a | n/a | n/a | n/a |
| **Race/Ethnicity (%)** | | | | | | | | | | | | | | | | | | |
| White, Non-Hisp. | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| African-Am/Black, Non-Hisp | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Hispanic/Latino | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Asian | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Other | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| **Age Group (%)** | | | | | | | | | | | | | | | | | | |
| Under 18 | 180 | 2.8% | 4 | 0.2% | 4 | 0.1% | 6 | 0.3% | 0 | 0.0% | 2,232 | 43.0% | n/a | n/a | n/a | n/a | n/a | n/a |
| 18-25 | 385 | 6.0% | 332 | 12.8% | 619 | 12.7% | 236 | 11.6% | 44 | 18.7% | 1,389 | 26.8% | n/a | n/a | n/a | n/a | n/a | n/a |
| 26-34 | 1,476 | 23.0% | 800 | 30.9% | 2,300 | 47.4% | 975 | 47.8% | 70 | 29.8% | 987 | 19.0% | n/a | n/a | n/a | n/a | n/a | n/a |
| 35+ | 4,374 | 68.2% | 1,452 | 56.1% | 1,934 | 39.8% | 823 | 40.3% | 121 | 51.5% | 579 | 11.2% | n/a | n/a | n/a | n/a | n/a | n/a |
| **Route of Administration (%)** | | | | | | | | | | | | | | | | | | |
| Smoked | 35 | 0.5% | 1,297 | 50.1% | 102 | 2.1% | 86 | 4.2% | 113 | 48.1% | 4,738 | 91.3% | n/a | n/a | n/a | n/a | n/a | n/a |
| Inhaled | 3 | 0.0% | 934 | 36.1% | 607 | 12.5% | 281 | 13.8% | 38 | 16.2% | 13 | 0.3% | n/a | n/a | n/a | n/a | n/a | n/a |
| Injected | 8 | 0.1% | 41 | 1.6% | 2,936 | 60.4% | 635 | 31.1% | 64 | 27.2% | 4 | 0.1% | n/a | n/a | n/a | n/a | n/a | n/a |
| Oral/Other/Unknown | 6,369 | 99.3% | 316 | 12.2% | 1,212 | 25.0% | 1,038 | 50.9% | 20 | 8.5% | 432 | 8.3% | n/a | n/a | n/a | n/a | n/a | n/a |
| **Secondary Substance (%)** | | | | | | | | | | | | | | | | | | |
| None | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Alcohol | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Cocaine/Crack | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Heroin | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Prescription Opioids | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Methamphetamine | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Marijuana | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Benzodiazepines | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Synthetic Stimulants | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |
| Synthetic Cannabinoids | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | unavail | n/a | n/a | n/a | n/a | n/a | n/a |

**NOTES:**

**^Southeastern Florida:** Includes the three counties of the Miami MSA—Broward, Miami-Dade, and Palm Beach counties.

***Admission:** Includes all admissions to programs receiving any public funds. Each admission does not necessarily represent a unique individual because some individuals are admitted to treatment more than once in a given period.

****Age Group:** Categories for Southeastern Florida are not the same categories presented for other NDEWS sites.

**unavail:** Data not available; **n/a:** Not Applicable; **Percentages** may not sum to 100 due to missing data, rounding, and/or because not all possible categories are presented in the table. Category frequencies may not sum to drug total due to missing data and/or not all possible categories are presented in the table.

**SOURCE:** Data provided to the Southeastern Florida NDEWS SCE by the Florida Department of Children and Families.

# Sources

## DATA FOR THIS REPORT WERE DRAWN FROM THE FOLLOWING SOURCES:

**Data on drug-related deaths** are from the Florida Department of Law Enforcement: Florida Medical Examiners Commission Interim and Annual reports on Drugs Detected in Deceased Persons in Florida January 2010—June 2017. The Florida Medical Examiners Commission uses a statewide classification of drugs detected among deceased persons as being either (1) "a cause of death" determined by one of the state's 24 local medical examiners or (2) merely found as "present at the time of death." Thus, the terms "drug-related," "drug reports detected," "number of drug occurrences," and "drugs identified in a decedent." The number of drug occurrences exceeds the number of drug deaths for a specific drug because of multiple drugs detected in most decedents.

**Treatment data** are for primary drug admissions in calendar year 2017 of all clients in programs receiving any public funding located in Miami-Dade, Broward, and Palm Beach counties as provided by the Florida Department of Children and Families Office of Substance Abuse and Mental Health. Each admission does not necessarily represent a unique individual as some persons are admitted to treatment more than once in the same calendar year.

**Data on crime lab cases** are from the U.S. Drug Enforcement Administration: National Forensic Laboratory Information System (NFLIS): Southeast Florida crime lab cases 2017 data. Queried: June 13, 2018.

**Information on emerging drug issues** are from the United Way of Broward County Commission on Behavioral Health and Drug Prevention – Surveillance Support Committee and the Florida Department of Children and Families Statewide Epidemiology and Outcome Measures Workgroup.

**Data on polysubstance use detected in drug-related deaths** are from the University of Florida College of Medicine's Florida drug-Related Outcomes Surveillance and Tracking (FROST) System.

*For additional information about the drugs and drug use patterns discussed in this report, please contact James N. Hall, Senior Epidemiologist, Center for Applied Research on Substance Use and Health Disparities, Nova Southeastern University, 7255 NE 4th Avenue, Suite 112, Miami, FL 33138, Phone: 786–547–7249, E-mail: upfrontin@aol.com.*