

PATTERNS AND TRENDS OF SUBSTANCE USE

WITHIN AND ACROSS
THE REGIONS OF FLORIDA

MAY 2018





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Patterns and Trends of Substance Use Within and Across the Managing Entity Regions of Florida

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SECTION I. INTRODUCTION

This report provides a statewide and regional overview of substance abuse issues and trends in Florida. The information provided is from multiple sources available as of December 2017. Florida's 2017 population was estimated to be slightly more than 20,484,000 residents (20,363,867 when inmates are excluded), according to the Bureau (BEBR). This is an increase of nearly 9% since the 2010 census. Approximately 4.1 million Floridians were born in another country (20%) and even more were born in another U.S. State, according to the U.S. Census Bureau. Thus, Florida's population is a cultural sample of the Americas and serves as a sentinel site for observing emerging issues and changing patterns of substance abuse.

This report combines information from existing data sources that have been calculated to provide an overview of recent patterns and trends of substance use in various regions of the State and across all of Florida. The Florida Department of Children and Families recognizes six multi-county regions and provides behavioral health services to Florida's diverse population through its seven Managing Entities. Where possible, data have been broken down into geographical regions by Managing Entity.

In 2017, historic declines in alcohol use, binge drinking, and cigarette smoking among Florida middle and high school students continued mirroring national trends (Florida Youth Substance Abuse Survey, 2016). About one of every thirteen students reported "vaping" (using electronic cigarettes or similar devices that produce an aerosol) during the past 30 days, three times the frequency of cigarette use, but a decline from 2016. The aerosol produced by vaping devices is often mistaken for tobacco but contains fine particles, many of which contain toxic chemicals.

The <u>Florida Medical Examiners Commission</u> 2017 report found that consequences of Novel Psychoactive Substances (NPS) such as synthetic cathinones (e.g., "flakka" and "Molly's") and fake marijuana synthetic cannabinoids significantly declined again from 2015 to 2016. There was a 42% decrease in deaths caused by cathinones.

Conversely, the opioid epidemic continued to worsen dramatically in Florida and across the nation during 2016 and 2017. The most lethal component of this epidemic has been the rapid spread of illicitly manufactured non-pharmaceutical opioids mostly from foreign clandestine labs, especially fentanyl analogs that often are extraordinarily potent.

Carfentanil, sold as a large animal tranquilizer, has a potency approximately 10,000 times that of morphine and 100 times that of fentanyl, with activity in humans starting at about 1 microgram. Even tiny amounts of these fentanyl analogs can be deadly. They are increasingly detected as adulterants in street heroin or sold as heroin or counterfeit pills. Fentanyl analogs more recently have been detected as adulterants in cocaine. The Drug Enforcement Administration's Intelligence Brief of August 2017 said, "Columbian coca cultivation and cocaine production in 2016 reached the highest levels ever observed." It also said that national data showed "the most significant increase in domestic cocaine usage since at least 2009" and that trend "is likely to amplify through at least 2018." In Florida, the Medical Examiners Report released in 2017 found that cocaine-caused deaths increased by 83% in 2016, faster than in previous years.

Report Highlights

- Continuing declines in underage alcohol use are confirmed by multiple surveys across all regions of Florida over the past decade. (<u>National Survey on Drug Use</u> and Health, <u>Youth Risk Behavior Surveillance System</u>, <u>Florida Youth Substance</u> <u>Abuse Survey</u>).
- One in five Florida high school students who reported any alcohol use in the past month also reported binge drinking in the past two weeks and roughly one of every 8 high school students reported at least one occasion of drinking that led to blacking out. (Florida Youth Substance Abuse Survey)
- More than twice as many Florida students report current use of e-cigarettes rather than smoking tobacco cigarettes. Use of tobacco cigarettes has reached historic low levels. (Florida Youth Substance Abuse Survey)
- Alcohol was found to be present in 44% of all drug-related deaths in Florida in 2016. It was determined to be a cause of death for 18% of the decedents in which it was detected. (Florida Medical Examiners Commission 2017 report)
- Vaporizing devices such as e-cigarettes are increasingly reported for use of marijuana, methamphetamine, and novel psychoactive substances. (Varlet in <u>Toxics</u>, 2016)
- There was an 80% increase in the number of fentanyl-related deaths between 2015 (n=911) and 2016 (n=1,644). In 2016 the Medical Examiners began employing a separate category for fentanyl analogs. These mostly illicit analogs were involved in another 1,026 deaths. Fentanyl and its analogs fueled the dramatic escalation of deaths related to Florida's opiate epidemic in 2016. (Florida Medical Examiners Commission 2017 report)
- Heroin deaths escalated dramatically across Florida in 2016, totaling 1,023. That
 was more than five times as many as the 199 heroin deaths in 2013 when the rapid
 rise in such deaths began. The 2016 heroin death total was almost 18 times as that
 reported in 2011 (n=57). (Florida Medical Examiners Commission 2017 report)
- Nearly half of Florida's heroin decedents in 2016 were <u>below</u> the age of 35, but only two individuals were under the age of 18. (<u>Florida Medical Examiners</u> <u>Commission</u> 2017 report)
- Cocaine deaths also increased at a faster rate in 2016 than in previous years.
 Among the 2,882 cocaine-related deaths, cocaine was identified as a cause of death in 61% (n=1,769). (Florida Medical Examiners Commission 2017 report)
- Methamphetamine-related deaths increased dramatically in Florida in 2016.
 There were 305 such deaths in 2015. In 2016, there were 621 such deaths, more

than five times as many deaths as occurred in 2011. (<u>Florida Medical Examiners</u> <u>Commission</u> 2017 report)

 While there are some variations, most patterns and trends of substance abuse continue to be relatively similar within and across the seven managing entity regions of Florida. (<u>Florida Youth Substance Abuse Survey</u>, <u>Florida Medical Examiners</u> <u>Commission</u> 2017 report)

Florida's Managing Entity Regions

The total population of Florida as of April 1, 2017 was estimated to be 20,484,142, an increase of 1,682,810 from the 2010 census. Population estimates in this report are based on the <u>Bureau of Economic and Business Research</u> (BEBR) estimates published in December 2017.

The Department of Children and Families provides behavioral health services to Florida's diverse population through its seven Managing Entities shown on Figure 1 below. When possible, data in this <u>report</u> have been broken down into these same seven geographical regions. Some data is reported based on judicial circuits. There are 20 judicial circuits in Florida.

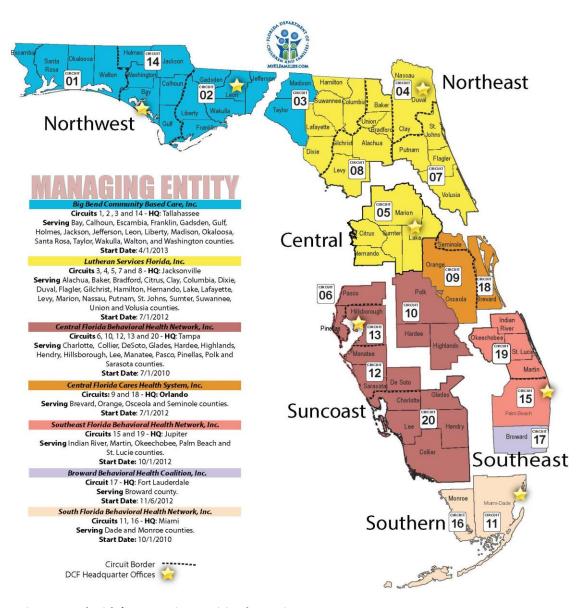


Figure 1 - Florida's managing entities by region

Florida's Managing Entity Regions with counties and judicial circuits

Northwest Region: Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Madison, Okaloosa, Santa Rosa, Taylor, Wakulla, Walton, and Washington Counties

Northeast Region: Alachua, Baker, Bradford, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Lafayette, Lake, Levy, Marion, Nassau, Putnam, St. Johns, Sumter, Suwannee, Union and Volusia Counties

Central Region: Brevard, Orange, Osceola, and Seminole Counties

Suncoast Region: Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Hillsborough, Lee, Manatee, Pasco, Pinellas, Polk, and Sarasota Counties

Southeast Region: Indian River, Martin, Okeechobee, Palm Beach, and St. Lucie Counties

Broward Region: Broward County

Southern Region: Miami-Dade and Monroe Counties

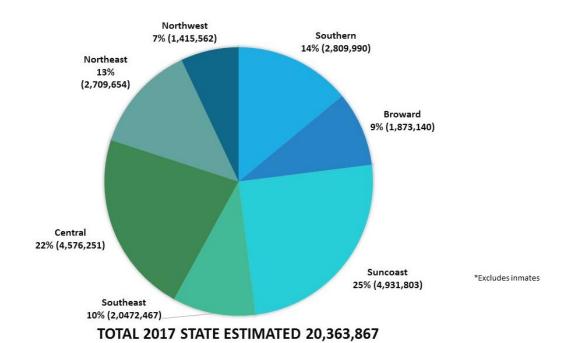


Figure 2 - 2017 Estimated Total Populations in Florida's DCF Regions

December 2017 - Bureau of Economic and Business Research

SECTION II. PATTERNS AND TRENDS OF SUBSTANCE USE

Alcohol

The two areas of concern as it relates to alcohol consumption are underage drinking and problematic adult drinking.

Underage Alcohol Use

As depicted in Figure 3, the <u>National Survey on Drug Use and Health (NSDUH)</u> reports decrease in alcohol use in the past month between 2014-15 and 2015-16 for all age groups but this change was statistically significant for the middle and high school age Floridians (ages 12-17). Reported use in this age group dropped from 10.72% to 9.15% between the two surveys.

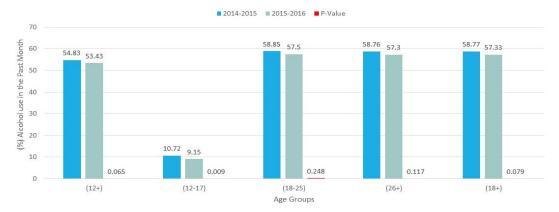


Figure 3 - Florida alcohol use in the past month by age group for 2014-2015 and 2015-2016

National Survey on Drug Use and Health (NSDUH) Comparison of 2014-2015 and 2015-2016

Figure 4 depicts when the survey data specified the age group as 12-20. No significant change was reported with one in five reporting past 30-day alcohol use.

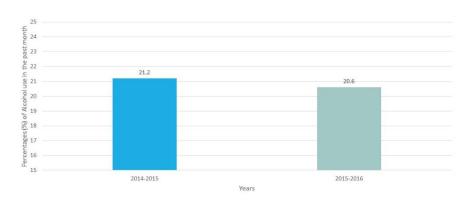


Figure 4 - Florida alcohol use in the past month among individuals age 12 to 20

National Survey on Drug Use and Health (NSDUH) Comparison of 2014-2015 and 2015-2016

Various years of the same survey revealed reductions in any current alcohol use and binge drinking since 2002 among national and Florida youth. The declining trend lines of underage drinking rates for both the state and nation parallel one another closely.

The continuing decline in the prevalence of underage alcohol use particularly among the 12-17 age group is among the most positive outcomes of this report. As reflected in Figure 5, the findings of the <u>National Survey on Drug Use and Health</u> are consistent with the <u>Youth Risk Behavior Surveillance System Survey</u> (YRBSS) and the <u>Florida Youth Substance Abuse Survey</u> (FYSAS).

Figure 5 compares findings from the <u>YRBSS</u>, conducted statewide among high school students in odd-numbered years, with those of the <u>FYSAS</u> for Florida middle and high school students. The most recent published YRBSS data are for <u>2015</u>, with 2017 data expected to be published in spring 2018.

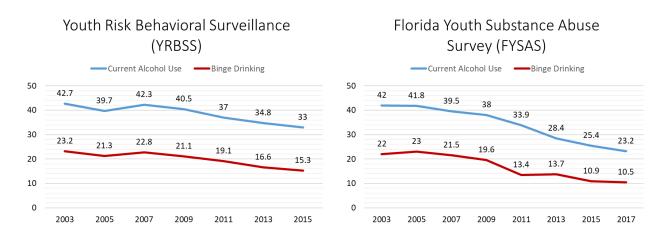


Figure 5 - Comparison of alcohol use and binge drinking among Florida high school students

Youth Risk Behavioral Surveillance Survey (YRBSS) and Florida Youth Substance Abuse Survey (FYSAS)

The FYSAS data are collected to be representative at the county level in even-numbered years. A smaller sample provides state-level estimates for middle school and for high school in odd-numbered years. Statewide FYSAS data shows a continuing decline in both current use and binge drinking from 2016 to 2017.

The declining trends in any current underage alcohol use and binge drinking within the past two weeks, are also observed in rates for middle school students in the FYSAS (Figure 6).

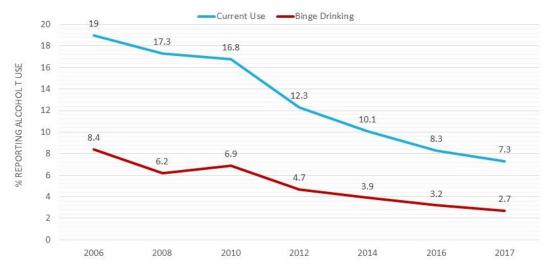


Figure 6 - Any current alcohol use and binge drinking among Florida middle school students 2004-2017 Florida Youth Substance Abuse Surveys 2000-2017

As depicted in Figure 6, the <u>2017 FYSAS</u> reveals the downward trends in alcohol consumption for middle and high school students. Of the middle school students surveyed, 7.3% reported some current alcohol use. This is a decline of almost 12 percentage points from 2006 when 19% of middle schoolers reported such use. The 2017 survey also reflects a decrease in binge drinking reported by middle schoolers. In the 2017 survey, 2.7% of middle school students reported binge drinking while 8.4% of middle schoolers reported such use in 2006.

The percentage of Florida high school students reporting in the FYSAS survey that daily use of alcohol presents a "great risk of harm" has increased slightly from 38% in 2002 to 44% in 2017. In the same survey, the percentage of Florida high school students disapproving of underage alcohol use who responded that it was "wrong" or "very wrong" for someone their age to drink alcohol regularly increased from 51% in 2004 to 64% in 2017.

FYSAS 2016 <u>data</u>, the most recent for which county estimates were available, showed underage alcohol prevalence rates were relatively consistent across the seven managing entity regions of the state as shown in Figures 7 and 8. The Central Region has the lowest rates for both middle and high school students reporting binge drinking on at least one occasion in the past two weeks.

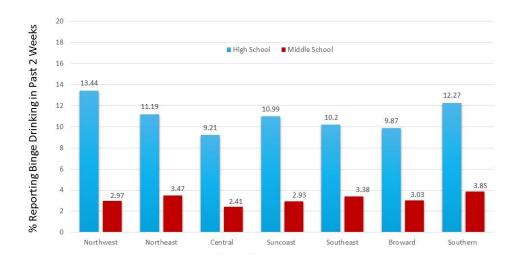


Figure 7 - Current alcohol use in the past 30 days among Florida middle and high school students by Managing Entity regions
2016 Florida Youth Substance Abuse Survey

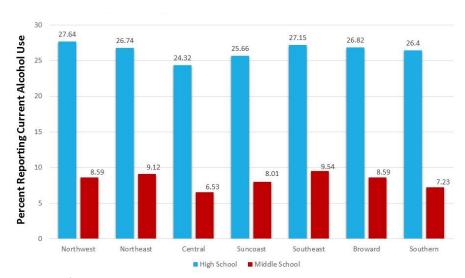


Figure 8 - Percent of Florida middle and high school students reporting binge alcohol drinking on at least one occasion in the past two weeks by Managing Entity regions

2016 Florida Youth Substance Abuse Survey

Excessive drinking by underaged Floridians remains a serious concern. In the <u>2017 FYSAS</u>, about one in five Florida high school students who reported *any* alcohol use in the past month also reported binge drinking in the past two weeks. About one in eight high school students reported at least one occasion of drinking that led to their blacking out.

Figure 9 shows the percentages of Florida middle and high school students who reported having had their first drink of alcohol (defined as more than a sip or two) by age 13 or younger according to 2016 FYSAS <u>data</u>. About one in five students admitted to early initiation of alcohol across the seven managing entity regions of the state. This applies to both middle and high school students.

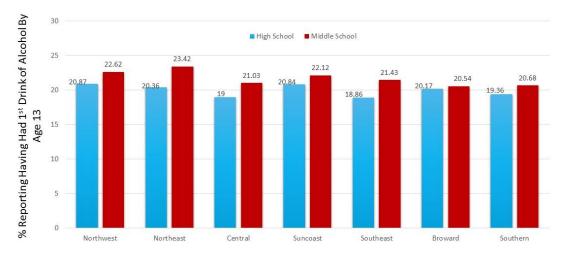


Figure 9 - Percent of Florida middle and high school students reported having first drink of alcohol by 13 or younger by Managing Entity regions

2016 Florida Youth Substance Abuse Survey

Most underage drinking appears to occur in homes. Of the students surveyed by FYSAS in 2016, 78.2% said that they consumed the alcohol in their home or a friend's home.

Adult Problematic Alcohol Use

As depicted in Figure 10, most (52.7%) surveyed adults in Florida reported in the 2016 BRFSS <u>surveys</u> that they had consumed one or more alcoholic drinks during the preceding 30 days. This included 59% of men and 46.9% of women.

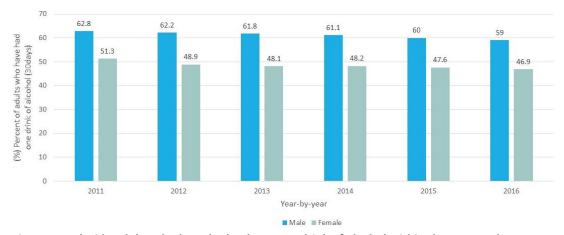


Figure 10 - Florida adults who have had at least one drink of alcohol within the past 30 days Behavior Risk Factor Surveillance System (BRFSS)

Of these drinkers, a subset engages in binge drinking, a drinking behavior that is problematic due to its association with many health problems including cancers, sexually transmitted diseases and unintentional injuries such as car crashes (Centers for Disease Control and Prevention). The 2014-15 Projections of the National Survey on Drug Use and Health (NSDUH) estimated that 3,269,335 or 22.5% of adult Floridians age 21 and over engaged in binge alcohol use. Such use was defined as having had five or more drinks at the same time or within a couple of hours of each other on at least one day in the past 30 days. Using a slightly different definition of binge drinking (four drinks in one sitting for women), the Behavioral Risk Factor Surveillance System (BRFSS) implemented by the Centers for Disease Control and Prevention estimated 2016 binge drinking for the age 18 and overpopulation of Florida at 15.5% (20.1% of men versus 11.3% of women). This is illustrated in Figure 11.

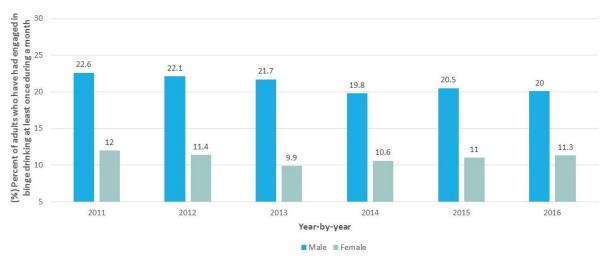


Figure 11 - Florida adults who have engaged in binge drinking on at least one occasion in the last month Behavior Risk Factor Surveillance System (BRFSS)

BRFSS also provides estimates of the economic cost to each state of this excessive drinking. These costs result from losses in workplace productivity (72% of the total cost), health care expenses (11%), and other costs due to a combination of criminal justice expenses, motor vehicle crash costs, and property damage. The estimate for Florida is a staggering \$15.3 billion or \$815 per capita. About 6% of Floridians age 18 and older were classified by the 2016 NSDUH as having "Alcohol Use Disorder" as defined by the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).

The most recent substate data shows that the highest rate of past year alcohol dependence or abuse in Florida was 7.48% in the area that includes Circuit Two (Gadsden, Leon, Jefferson, Liberty, Wakulla, Franklin Counties, and Madison and Taylor Counties of the Northwestern Management Region. The lowest Florida rate was 5.01% for the Southern Managing Entity Region (Miami-Dade and Monroe Counties). In the same data report, NSDUH estimated that 973,020 or 5.85% of Floridians age 12 and above needed but did not receive treatment for alcohol problems in the past year. The highest rate of alcohol treatment need was 7.18% in the Northwestern Managing Entity Region. The lowest Florida rate was 5.02% in the Suncoast Managing Entity Region.

The Florida Medical Examiners Commission reported that in 2016 there were 5,218 occurrences of ethanol alcohol detected among the 11,910 deaths in Florida in which a drug was determined through postmortem toxicology tests to be present at the time of death. In other words, alcohol was detected as being present in 44% of all drug-related deaths in Florida. The number of alcohol occurrences in 2016 represented a 22.2% increase over the 4,270 such occurrences in 2014 and an 11.7% increase over 2015. Of the 2016 ethanol cases, 948 or 18% were deaths considered to be caused by alcohol. This was an increase of 138 deaths caused by alcohol compared to 2015 and represented 376 more deaths than were reported caused by alcohol in 2010, an increase of 66% in deaths classified as caused by alcohol during this time.

According to the Florida Uniform Crime Reports, there were 35,042 arrests in Florida for Driving Under the Influence (DUI) during 2016 representing a 10.2% increase over the 31,784 arrests in 2015, but nevertheless lower than the 42,745 such arrests in 2014. The substances involved in the DUI arrest are not specified but most are for alcohol intoxication. The reports said the following: Judicial Circuit 13 (Hillsborough County) had the most DUI arrests in 2016 with 4,196 up substantially from 3,103 in 2015. The fewest number of 2015 DUI arrests was in Circuit 3 (Madison and Taylor Counties) with 351 arrests, up from 2015 but below their 2014 total of 397. Year to year changes in DUI arrests are thought to be in part due to temporal changes in enforcement activity. The number of DUI arrests in other Florida Judicial Circuits may be found in an Appendix to this report from the Florida Department of Law Enforcement Uniform Crime Report databank.

Tobacco

The most significant decline in adolescent drug use nationally and in Florida has been the dramatic reduction in reporting of past 30-day use of cigarettes. National Institute on Drug Abuse's Monitoring the Future survey that was released in 2017 shows that nationally each of the age groups that it follows has posted dramatic declines over the past two decades. In Florida, past 30-day use of cigarettes has declined from 14.1% of high school students in 2006 to 3.7% in 2017 according to the Florida Youth Substance Abuse Survey (FYSAS) as shown in Figure 12. The 2017 FYSAS rate of 30-day cigarette use for middle school students was 1.2%, down 68% from 6.0% in 2006. Data from the Florida Department of Health's 2016 Florida Youth Tobacco Survey show a slightly higher percentage of use than the FYSAS with 6.2% of high school students and 2.3% of middle school students reporting smoking one or more cigarettes in the past 30 days. Both surveys show similar patterns of declining use.

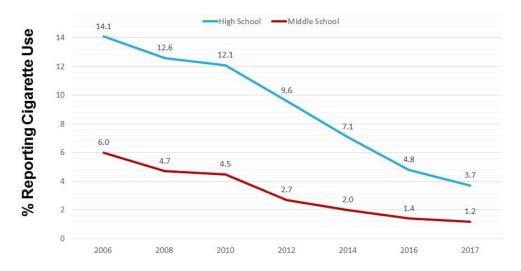


Figure 12 - Current cigarette use among Florida middle and high school students 2006-2017 Florida Youth Substance Abuse Surveys

For 2016, when county-level data were available, the prevalence rates of current cigarette use varied across the seven managing entity regions as shown in Figure 13. The 2016 FYSAS highest rate of cigarette smoking was 7.46% among Northwest Region high school students with the lowest rate reported by Central Region high school students at 2.87%. The Northwest Region also had the highest middle school rate of cigarette use, 2.24% as compared to a low of 0.75% among the Broward Region middle schoolers. When reviewing the differences among the regions, it is important to consider the difference in population among them. For example, the Northwest region is mostly rural while the Broward region has high population density. The Northwest Region also is less populated than other Florida regions.

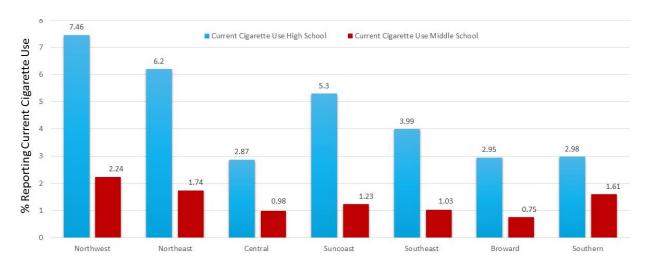


Figure 13 - Current cigarette use among Florida middle and high school students by Managing Entity regions 2016 Florida Youth Substance Abuse Surveys

Paralleling the reduction in youth tobacco use, the adult tobacco use reported in BRFSS surveys has dropped from 19.3% in 2011 to 15.5% in 2016. The 2016 percentage reflects tobacco use being reported by 17.8% of males and 13.3% of females. In 2016 the lowest adult prevalence was in persons aged 65 and over (8.4%) followed closely by the 18-24 age group (11.2%) with other age groups roughly twice as likely to be current smokers.

Electronic Vaporizers

In 2016 new questions about the use of e-cigarettes and other vaporizing alternatives to cigarette smoking were added to the FYSAS. Approximately one in four students surveyed in 2017 reported lifetime use of these products. About one in eight Florida middle school students and nearly one of three high school students reported one or more uses in their lifetime. Thirty-day prevalence rates were lower with 4.3% of middle schoolers and 10.1% of high school students reporting such use. Both rates of use were notably higher proportions than those for cigarette smoking. Perhaps the most positive finding is that 30-day use of electronic vaporizers among all students dropped from 9.6% in 2016 to 7.7% in 2017. That reflects a reduction from 5.1% to 4.3% for middle schoolers and from 31.5% to 10.1% for high schoolers. Figure 14 shows the proportion of Florida middle and high school students in each managing entity region who reported past 30-day use of ecigarettes in the 2016 FYSAS. County-level estimates for regional comparisons will be collected and updated in the 2018 FYSAS.

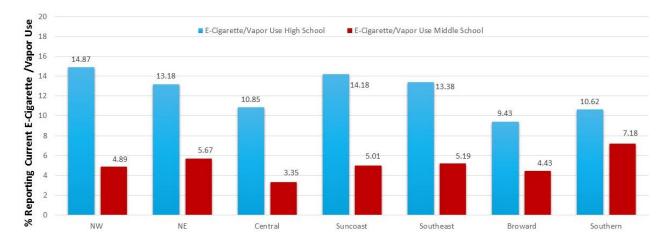


Figure 14 - Current E-cigarette or vaporizer use among Florida middle and high school students by Managing Entity regions

2016 Florida Youth Substance Abuse Surveys

Adult use of e-cigarettes as reported in the 2016 BRFSS survey showed that use of e-cigarettes decreased as the age of the adults surveyed increased. Of the 18-24 age group,

9.8% reported current e-cigarette use. By comparison, 1.4% of the 65 and over age group. BRFSS reports age in six categories. Each ascending category reported a current use rate that was lower than the next younger category. It will be important in the future to assess whether this is an age effect or whether this represents a cohort effect in which a relatively new product will continue to be used at a higher rate by the current young adult population as they age.

Concerns have been expressed about the negative health effects of e-cigarettes and other vaporizing products. Clinical studies about the safety and efficacy of these products have **not** been submitted to the Food and Drug Administration (FDA) for the over 400 brands of electronic smoking devices that are on the market. Consequently, consumers have no way of knowing whether electronic smoking devices are safe or what potentially harmful chemicals the products contain. While we await better data on the long-term effects of "vaping" it is prudent to discourage use, especially among teens.

Marijuana

The FYSAS reveals that marijuana use among Florida high school students remained relatively stable from 2004 to 2008 prior to increasing and peaking in 2010 – 2014. In the past three years, marijuana use has declined to levels comparable to the pre-2010 period. As shown in Figure 15, marijuana use among Florida middle school students peaked in 2010 and has since decreased to the lowest level measured in FYSAS surveys.

According to the 2017 FYSAS, 23.5% of high school students and 52.6% of middle school students report that the regular use of marijuana presents a "great risk of harm". These percentages changed little since 2016. However, both are down markedly from FYSAS data reported a decade ago, probably reflecting broader societal attitude changes. Students responding that it was "wrong" or "very wrong" for someone their age to smoke marijuana once or twice a week totaled 61.2% among high school students and 89.3% of middle schoolers.



Figure 15 - Current marijuana use among Florida middle and high school students 2004-2017 Florida Youth Substance Abuse Surveys

Past decade trends in FYSAS marijuana prevalence rates based on the 2016 FYSAS are shown in Figures 15 and 16 for each of the seven entity regions of the state. Increases in marijuana prevalence rates among Florida students occurred in most managing entity regions from 2006 to 2010 or 2012 before declining by 2016 across most all regions except among Broward high school students who reported the lowest rate in 2014.



Figure 16 - Current marijuana use among Florida high school students by Managing Entity regions 2000-2016 Florida Youth Substance Abuse Surveys

Rates of current marijuana use by middle and high school students in 2016 across the seven managing entity regions are displayed in Figure 17.

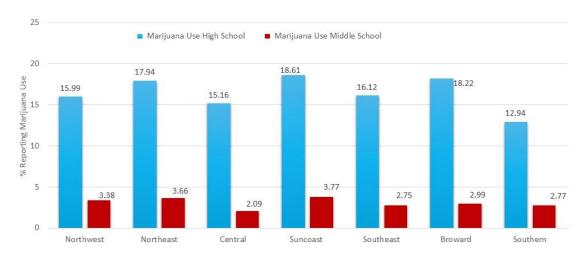


Figure 17 - Current marijuana use among Florida middle and high school students by Managing Entity regions
National Survey on Drug Use and Health NSDUH Substate Reports

Figure 18 reports the percentage of Florida middle and high school students in 2016 who acknowledged having first used marijuana by age 13 or younger with approximately one (1) in eight (8) high school students and one (1) in 16 middle schoolers reporting early initiation of marijuana in the five (5) managing entity regions of the State for which there is data. Data from Broward and Southern regions was not available.

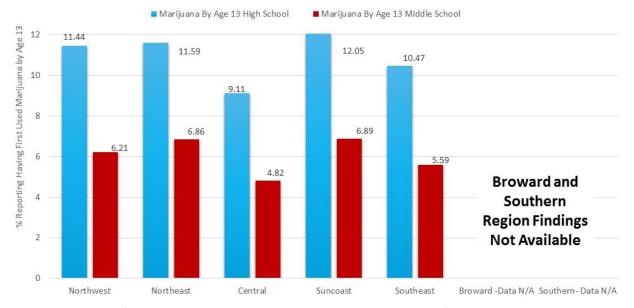


Figure 18 - Percent of Florida middle and high school students reported having first used marijuana by age 13 by Managing Entity regions

2016 Florida Youth Substance Abuse Surveys

The trends shown in the FYSAS data are consistent with data from the Youth Risk Behavior Surveillance System Survey (YRBSS) among Florida high school students from 2003 until 20017. Figure 19 compares findings from the YRBSS which is conducted statewide among high school students in odd-numbered years with those of the FYSAS for Florida high school students that is conducted in even-numbered years. While the prevalence rates are consistently higher in the YRBS findings, both surveys identified the rise in adolescent marijuana use around 2009 and 2010 with a relatively stable use or even a slight decline in reported use since then.



Past 30 days Marijuana Use (FYSAS)

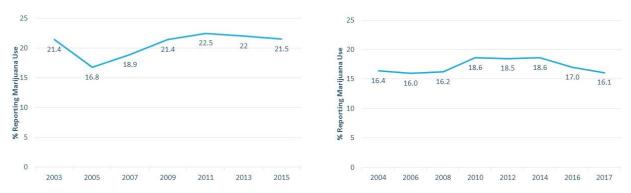


Figure 19 - Comparison of current marijuana use among Florida high school students

Youth Risk Behavioral Surveillance Survey (YRBSS) and Florida Youth Substance Abuse Survey (FYSAS)

The most recent NSDUH substate <u>report</u> showed an estimated 1,204,216 Floridians aged 12 and above (or 7.24%) who were current users of marijuana had used the drug at least one time in the 30-days prior to taking the Survey (Figure 17). From 2012 to 2014, when NSDUH collected data on marijuana use by persons aged 12 or over, 7.73% of people surveyed said they were current users of marijuana. Figure 20 shows statewide national and Florida trend lines for 30-day marijuana use based on past substate data and recently published state-level estimates for 2015-16. The slight increase probably reflects a larger proportion of mid-life and older adults who have begun using marijuana in recent years.

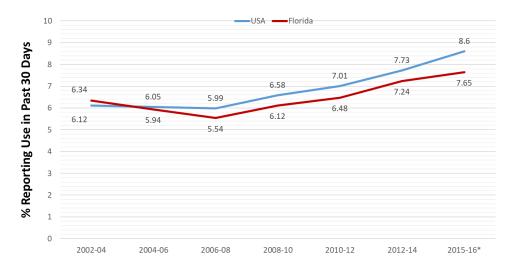


Figure 20 - Percent of any marijuana use in the past 30 days among persons age 12 and above 2015-2016 National Survey on Drug Use and Health (NSDUH) Substate Data – Model-Based Prevalence

Figure 21 reflects the FYSAS's findings of synthetic cannabinoid lifetime and past 30-day prevalence among Florida High School Students from 2011-2017. Lifetime use peaked at 13% in 2012 and declined to 3.5% in 2017. Past 30-day use peaked at 4.3% in 2012 and declined to .8% in 2017.

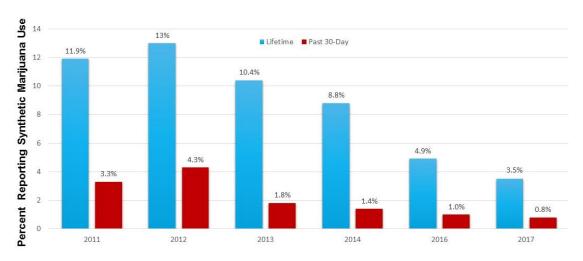


Figure 21 - Synthetic cannabinoid prevalence among Florida high school students 2011-2016 Florida Youth Substance Abuse Surveys

The <u>Florida Medical Examiners Commission</u> reported there were 2,292 occurrences of cannabinoids detected among the 11,910 deaths in Florida during 2016 in which a drug was determined through postmortem toxicology tests to be present at the time of death. Thus, cannabinoids were detected as being present in 19.2% of all drug-related deaths in Florida. The number of occurrences in 2016 represented a 33% increase over the 1,720 cases in 2015 and was more than double the reported figure of 1,092 such occurrences in 2014. However, the Commission notes that this increase in positive cannabinoid findings is, at least in part, due to increased surveillance by medical examiner offices and not a direct reflection of the increased use of cannabis. The <u>Medical Examiners Commission</u> said that cannabinoids were the cause of death of 8 of the people who died in whom a drug was determined to be present at the time of death.

While the most prevalent use of vaporizing devices is for liquid nicotine, illicit drugs are increasingly being vaped including marijuana, methamphetamine, novel psychoactive substances, as well as crushed and liquefied pharmaceuticals (Varlet in Toxics, 2016). An advanced vaping delivery system for marijuana wax, (aka, butane hash oil (BHO) or "budder") is called dabbing and uses a special water pipe with a metal plate on which the drug is smeared that can withstand extreme temperatures from a propane torch. Marijuana wax is produced by soaking leftover marijuana leaves and stems of plants in a solvent such as butane which extracts various components of the plant including any number of cannabinoids that are the active drugs in the marijuana. This process extracts THC from the marijuana in a highly concentrated form that produces a substance that is highly hallucinogenic. This residue is then allowed to dry, resulting in a sticky paste ranging in color from brown to dark green or yellow. It can be smeared onto a marijuana joint or

tobacco cigarette, placed in a water pipe, or most often melted in a vaporizer or electronic cigarette device. The inhaled wax vapors have a much higher dose level of not only THC but other cannabis ingredients. Several risks have been identified related to this substance. Preparation of the wax inherently risks fire and explosion and preparations are often adulterated with contaminants. Of course, the extreme hallucinogenic nature of the substance poses a risk to users.

Novel Psychoactive Substances

A critical issue impacting substance abuse in Florida and the U.S. over the past several years has been the emergence of new *synthetic* drugs of abuse. These are laboratory derived chemicals typically designed to mimic drugs of abuse derived from natural substances such as mushrooms, opium, coca, or the khat plant. They were first detected in Australia or New Zealand followed by Eastern and then Western Europe around 2006 before arriving in North America about 2010. By 2016 these drugs are reported globally and found on every continent.

The United Nations and major national government agencies have adopted the term, "Novel Psychoactive Substances" or NPS, to describe these drugs. Some of these substances are new. Some may have been around for 20-30 or more years but not used as drugs of abuse until recently. The term "emerging" is not always appropriate to describe the problem as these substances often arrive in various locations in different years. Thus, what may be an emerging drug problem in Florida may have already come and gone in Great Britain. The classes of Novel Psychoactive Substances include:

Tryptamines

These are typically serotonin-affecting psychedelics/hallucinogens such as LSD, DMT, and Psilocybin (the active ingredient of psychedelic mushrooms), or 5-MeO-DiPT ("foxy methoxy").

Piperazines

These drugs are stimulants such as BZP or TFMPP that were frequently sold as "ecstasy" up until 2013 and just prior to the appearance of cathinones that were sold as "Molly's."

Synthetic Cathinones

These 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 substitute cathinones to appear were often referred to as "bath salts" and have been banned in the US and many other nations. The most prevalent substitute cathinones in Florida have been: (1) methylone, (2) ethylone, and (3) di-butylone which have been sold as "Molly's" for several years and (4) alpha-PVP ("flakka").

The 2016 report, <u>Patterns and Trends of Substance Abuse within and across the Regions of Florida</u>, said that an epidemic of the synthetic cathinone, alpha-PVP, or "flakka", erupted in Southeastern Florida (particularly Broward County) in September of 2014.

Consequences of its abuse rapidly escalated in 2015 when the drug was linked to 63 deaths in Florida and thousands of hospital emergency cases - many related to excited delirium syndrome. The 2016 report also indicated the following: Broward County had more crime lab cases of alpha-PVP than any other county in the nation; Palm Beach County also experienced "flakka" problems but fewer than Broward County; Miami-Dade had less alpha-PVP consequences than the two counties to its north but higher levels of ethylone, sold as "Molly, cases. Sold in quantities as small as 1/10th of a gram and for as little as \$3.00 to \$5.00, "flakka" was highly profitable for the dealers whose actual cost was very low. With a retail price of \$5.00, most anyone could afford it, and with it being a highly addictive drug, repeat business was assured. Thus, low-income communities, the homeless population, and crack cocaine users were targeted as customers.

On October 1, 2015, the Chinese government banned the production and sale of alpha-PVP. Since that ban, there appears to have been a reduction in the overall use and harmful consequences of this substance and of synthetic cathinones statewide.

As Figure 22 depicts, there were 102 cathinone deaths in Florida in 2016 according to the Medical Examiners Commission Report for that year. This number is down markedly from the 223 cathinone deaths reported during 2015 and the lowest number since the Medical Examiners began reporting on these drugs in 2013. Among the 2015 cases, in 49 cases, or 48%, the Florida Medical Examiners Commission considered the cathinone a cause of death according to the Florida Medical Examiners Commission Report for that year.

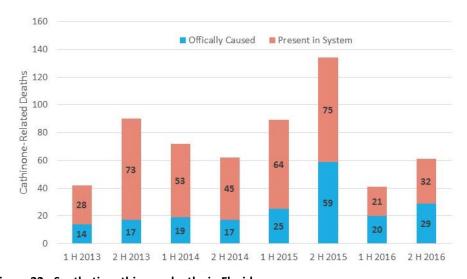


Figure 22 - Synthetic cathinone deaths in Florida
2016 Florida Medical Examiners Commission Final Report

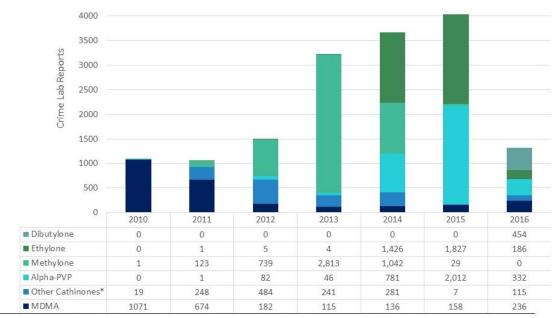
Phenethylamines

This category includes methamphetamine and the drug that is most often called "ecstacy": 3,4-methylenedioxymethamphetamine (MDMA). Both drugs have been around for decades. Phenethylamines are also sometimes considered to include substitute

cathinones which are potent stimulants with varying degrees of hallucinogenic properties and are discussed separately above.

Across all of Florida, there were 172 Poison Information Center exposure calls for hallucinogenic amphetamines during 2016 compared to 199 in 2015 and 321 in 2014. Hallucinogenic amphetamines include drugs sold as "ecstasy" (Substance Use Trends Data Report Update, 2017)

While apparent reductions in use and harm are encouraging, data from the National Forensic Laboratory Information System's Florida crime lab reports that were included in the <u>Substance Use Trends Data Report Update</u>, 2017 show that street drugs are being reformulated. This is illustrated in Figure 23. Dibutylone, now sold as "Molly," is a stimulant drug of the amphetamine, phenethylamine, and cathinone drug classes. Manufactured in China, it is structurally related to butylone, a Schedule 1 Controlled Substance, that has been sold as "bath salts." Dibutylone is currently marketed on the internet as a "research chemical." Continued evolution of drug scheduling by the Drug Enforcement Administration (DEA) may be necessary to prevent the growth of the use of this drug.



*Note: The 115 Other Cathinones in 2016 were all N-Ethylpentylone

Figure 23 - Breakdown of Synthetic cathinones in Florida crime lab reports 2010 – Mid 2016 2017 Substance Use Trends Data Report Update – US DEA National Forensic Laboratory System Data Queried May 22, 2017

Synthetic Opioids - Fentanyl Analogs

Fentanyl analogs such as carfentanil are also considered to fit the NPS category. These drugs, far more powerful and lethal than heroin, have no medical use. Because of their lethality and prevalence, they are discussed in detail in the opioids section that follows.

The Opioids

This category of drugs includes those derived directly from opium, often called opiates, (e.g. morphine, codeine) as well as semi-synthetic drugs such as oxycodone and hydrocodone, and completely synthetic drugs like fentanyl and its analogs.

According to the <u>Florida Medical Examiners Commission</u> reports, from 2000 to 2010 there was a dramatic increase in deaths linked to the nonmedical misuse of opioids. As a result, new laws and regulations took effect beginning in 2010 along with the tamper-resistant reformulation of high dose extended-release opioids. Actions taken by the State of Florida to reduce the prescription drug abuse problem included:

- July 2010 Senate Bill 2272 is passed providing legal authority to close "pill mills" and limit practitioner direct dispensing of Schedule II opioids to a 3-day supply
- August 2010 Replacement of crushable high dose OxyContin® with the tamperresistant formulation preventing methods to consume the full dose all at once or inject the drug for a rapid onset of its effects
- March 2011 Law Enforcement Strike Force created to close "pill mills"
- July 2011 House Bill 7095 goes into effect banning direct dispensing by practitioners of Schedule II medications and establishing new regulations for pain management clinics and pharmacies. It also provided for the startup operation of the State's first Prescription Drug Monitoring Program.

The collective impacts of these efforts are reflected in declining prescription opioid deaths beginning in 2011. At the same time, Florida Medical Examiners Commission <u>reports</u> show that heroin deaths began to increase sharply from 2012 to 2016 across Florida, rising nearly 18 times (1,795%) from 57 in 2011 to 1,023 in 2015.

Nonmedical Use of Prescription Opioids

The Florida Medical Examiners Commission reported that in <u>2010</u> there were 6,608 opioids (excluding heroin) detected in deceased persons in Florida. Subsequently, the Florida Medical Examiners Commission indicated that toll steadily declined 23% to 5,085 by <u>2013</u>, but then increased to 5,624 opioid occurrences in <u>2014</u> and 8,572 in <u>2016</u> (Figure 24).

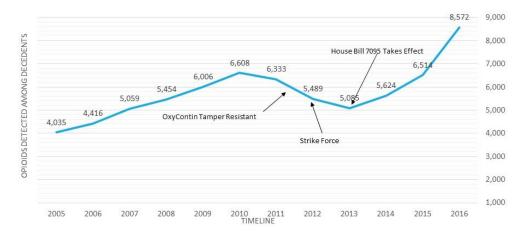


Figure 24 - Number of nonmedical Rx Opioids (excluding fentanyl analogs) occurrences detected among Florida decedents

2005-2016 FDLE Drugs Identified in Deceased Persons by Florida Medical Examiners Annual Reports

Table 1 shows the number of prescription opioid medical examiner occurrences by managing entity region for 2016. About three-quarters of occurrences were for traditional prescription opioids and a quarter for fentanyl. However, the proportion of fentanyl occurrences was higher in the Northeast Region (one-third) and in the coastal areas of the Southeastern Region.

Region	Oxycodone	Hydrocodone	Methadone	Morphine	Fentanyl	TOTAL
Northwest	78	68	34	97	34	311
Northeast	215	171	76	240	343	1,045
Central	290	162	139	471	296	1,358
Suncoast	400	176	179	485	230	1,470
Southeast	181	58	38	305	394	976
Broward	109	21	14	193	154	491
Southern	109	36	19	249	193	606
All Florida	1,382	692	499	2,040	1,644	6,257

Table 1 - Rx Opioid medical examiner occurrences by Florida Managing Entity regions 2016 Florida Medical Examiners Commission Annual Report

Fentanyl Analogs

Among the most lethal opioids currently available are recently introduced analogs of the pharmaceutical opioid, fentanyl, which are classified as novel psychoactive substances (NPS). Carfentanil, the best known of these analogs, was originally marketed as a

tranquilizer for large animals like elephants. It is 100 times as potent as the same amount of fentanyl, 5,000 times as potent as a unit of heroin and 10,000 times as potent as a unit of morphine (<u>DEA</u>, 2016). Consequently, exposure to very small amounts is a hazard to users, but also to first responders and drug detection dogs.

Other fentanyl analogs are now being seen in various formulations from clandestine laboratories in China, Mexico, Canada and perhaps the United States. The NPS fentanyl analogs are often used as a booster narcotic adulterant to street heroin or are merely sold as heroin or found in counterfeit pills and recently have been reported as detected in street cocaine in Florida. These illicitly manufactured, non-pharmaceutical opiate analogs are specifically linked to the increasing number of heroin-related deaths in Florida and across the nation beginning in 2014 and significantly escalating in 2016 and 2017. Toxicology screening for the presence of these analogs has continued to improve and in 2016 the Florida Medical Examiners Commission Report added a separate category for fentanyl analogs, which appeared more frequently than heroin. Nevertheless, some experts have expressed concern that occasionally these analogs may not be recognized as the cause of death when mixed with heroin because the lethal dose is so minute and toxicology screens may not always detect them.

According to the Florida Medical Examiners Commission, every category of opioids showed an increased presence in occurrences in deaths from 2015 to 2016. The 2016 Florida Medical Examiners Commission Report added a new category for fentanyl analogs - accounting for 1,026 additional occurrences of deaths. Because they have no medical use, these NPS fentanyl analogs, to some extent, occupy a status closer to heroin than to prescription opioids. When added to the 8,572 cases of prescription opioid occurrences, the number jumps to 9,598 as shown in Figure 25. Finally, heroin accounted for 1,023 death occurrences in 2016 bringing total opioid/opiate death occurrences to 10,621 for that year (Florida Medical Examiners Commission Report released in 2017). Excluding deaths and occurrences from heroin and fentanyl analogs, over half or 4,641 of the 8,572 prescription opioid occurrences among decedents in 2016 were considered by the Florida Medical Examiners Commission to be "a cause of death."

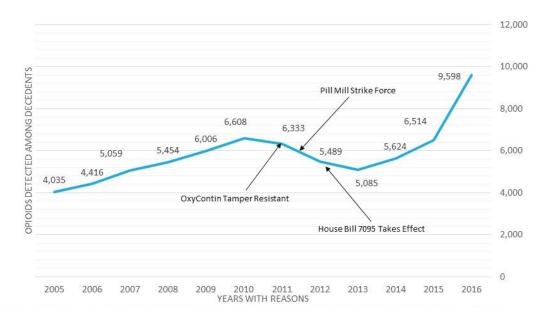


Figure 25 - Nonmedical Rx Opioids (including fentanyl analogs) occurrences detected among decedents in Florida 2005-2016 FDLE Drugs Identified in Deceased Persons by Florida Medical Examiners Annual Reports

Heroin

The Florida Medical Examiners Commission reported that there were 1,023 heroin-related deaths across Florida in 2016 representing a 31% increase over the 779 such deaths in 2015 and a 228% increase over the 447 such deaths in 2014. This reflects nearly 18 times as many heroin-related deaths compared to 57 heroin deaths statewide in 2011. This dramatic rate of increase began in 2014 and showed no sign of abating as of the end of 2016. (Figure 26). Heroin was considered the cause of death in 93% of the 2016 heroin deaths (n=952), and at least one other drug was detected in all but 13 (or 98.7%) of the heroin decedents.



Figure 26 - Heroin related deaths in Florida
2016 Florida Medical Examiners Commission Annual Report

Nearly half (47%) of the heroin deaths occurred among those below the age of 35 but only two such deaths occurred among persons under the age of 18. National studies reveal the rapid growth of new heroin users is occurring among young adults 18-34 years of age with most being addicted to a prescription opioid prior to initiation of heroin use (National Institute on Drug Abuse, 2018).

Heroin has been a statewide issue since 2013, according to the Florida Medical Examiners Commission. Deaths in the seven managing entity regions, as tracked in Figure 27 and Table 2, parallel the overall state trend with a rapid increase in every region since that time. Only Florida's Suncoast region showed a decrease between 2015 and 2016.

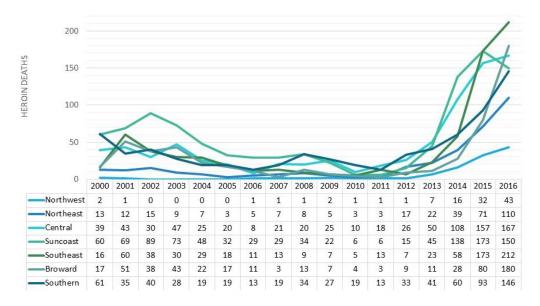


Figure 27 - Heroin related deaths by Florida Managing Entity regions
2016 FDLE Drugs Identified in Deceased Persons by Florida Medical Examiners Annual Report

Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Northwest	1	0	0	0	0	1	1	1	2	1	1	1	7	16	32	43
Northeast	12	15	9	7	3	5	7	8	5	3	3	17	22	39	71	110
Central	43	30	47	25	20	8	21	20	25	10	18	26	50	108	157	182
Suncoast	69	89	73	48	32	29	29	34	22	6	6	15	45	138	173	150
Southeast	60	38	30	29	18	11	13	9	7	5	13	7	23	58	173	212
Broward	51	38	43	22	17	11	3	13	7	4	3	9	11	28	80	180
Southern	35	40	28	19	19	13	19	34	27	19	13	33	41	60	93	146
Total All Florida	271	250	230	150	109	78	93	119	95	48	57	108	199	447	779	1023

Table 2 - Number of heroin-related deaths by Florida Managing Entity regions

2016 FDLE – Drugs Identified in Deceased Persons by Florida Medical Examiners Annual Report

The Florida Medical Examiners Commission notes that heroin rapidly metabolizes to morphine in the body and that it is possible that some or even many of the 1,338 morphine deaths in 2016 may be related to heroin abuse. The numbers of deaths attributed to morphine rose steadily in recent years but have declined while heroin, fentanyl, and fentanyl analog deaths have escalated. It is not known how many of the heroin deaths also had a fentanyl analog present.

Figure 28 shows the number of lethal opioid occurrences over time from 2008 to 2016. Particularly striking is the advent and rapid rise of fentanyl as a cause of death starting in 2014. While there has been some increase in deaths caused by morphine or oxycodone in the last three years, the rapid emergence of fentanyl clearly is the major story. This is mirrored in Table 3 which shows the increase in numbers of deaths for various opioids during 2015 and 2016 (Florida Medical Examiners Commission).

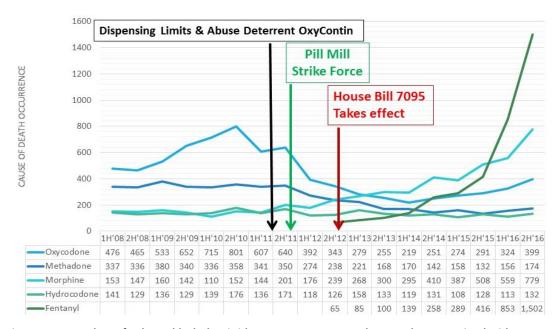


Figure 28 - Number of selected lethal opioid occurrences among deceased persons in Florida

Jan 2008 -Dec 2016 FDLE – Drugs Identified in Deceased Persons by Florida Medical Examiners

Opioid	1st H 2015	2nd H 2015	1st H 2016	2nd H 2016
Fentanyl & Analogues	397	514	988	1,682
Morphine	670	813	878	1,162
Oxycodone	525	556	632	750
Heroin	343	436	434	589
Hydrocodone	353	327	325	367
Hydromorphone	240	281	273	322
Methadone	239	214	240	259
Oxymorphone	171	218	240	322
Codeine	209	269	236	271
Tramadol	239	200	210	300
Buprenorphine	29	42	55	80
Meperidine	5	3	4	2

Table 3 - Increase in deaths with occurrences of various opiates 2016 FDLE Florida Medical Examiners Commission

In contrast to this rapid rise in deaths from fentanyl, Figure 29 shows only modest changes in opioid occurrences among deceased persons for most common prescription opiates during 2015-2016. Only oxycodone shows a substantial increase in occurrences during this time.

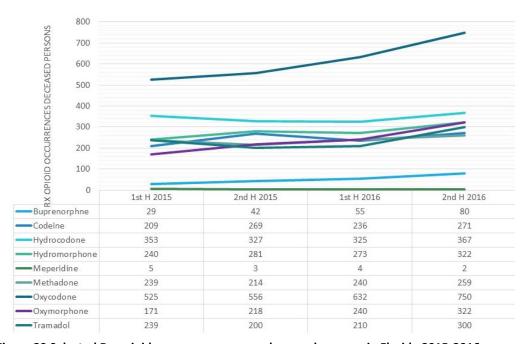


Figure 29 Selected Rx opioid occurrences among deceased persons in Florida 2015-2016 2016 FDLE Florida Medical Examiners Commission

Finally, Figure 30 shows the varying lethality of common opioids. While heroin is most likely to be a cause of death when it is present, the most lethal drugs are fentanyl and its analogs which combine wide exposure to the drugs with a high likelihood of being the cause of death.

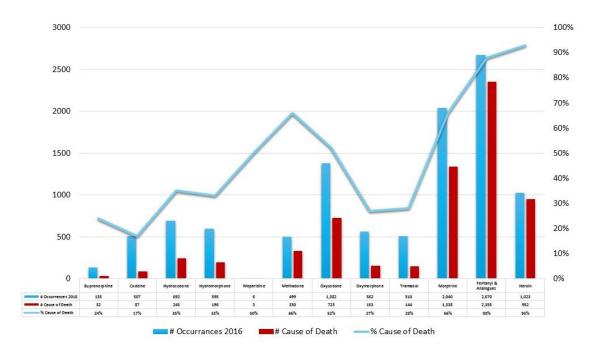


Figure 30 - Opioid occurrences, number and percent as cause of death among deceased persons in Florida 2016 FDLE Florida Medical Examiners Commission

The sharp escalation in heroin deaths in Florida, the rapid rise of deaths from fentanyl analogs, and a rebound in the levels of prescription opioid indicators in the past two years point to the presence of an ongoing opioid problem in the state.

Cocaine

The NSDUH reports a statistically significant decrease in yearly cocaine use among Floridians from 2014-15 (1.90%) to 2015-16 (1.63%) as compared to a moderate increase of 1.76% in 2014-15 and 1.84% in 2015-16 nationally. The 2017 FYSAS reported that 0.3% of middle school students and 0.6% of high school students reported current cocaine or crack use within the last 30-days. Despite these relatively low estimates of the prevalence of use, this drug causes great harm to many of its users.

As reflected in Figure 31's representation of Florida Medical Examiners Commission data reported in 2017, the relatively steady decline in Florida cocaine deaths from 2007 to 2010 stabilized through 2012 and has increased since then with a particularly abrupt increase from 2015 to 2016. Cocaine-related deaths increased from 2015 to 2016 in all managing entity regions of Florida except for the Northwest Region. This increase may be linked to

poly-drug use particularly with opioids. Cocaine laced with deadly fentanyl analogs was identified in Florida in 2016 and has become more prevalent in the past year. There were 2,882 cocaine-related deaths in Florida in 2016, an increase of over 1,000 deaths from the preceding year. (Figure 31).

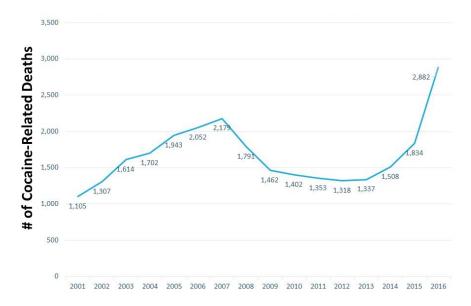


Figure 31 - Number of cocaine deaths in Florida

2016 Florida Medical Examiners Commission Annual Report

According to the <u>Florida Medical Examiners Commission 2016 Report</u>, cocaine was considered the cause of death in 39% of the 2016 cocaine deaths (n=1,113), and at least one other drug was detected in 87% of the cocaine decedents. Nearly two-thirds of the cocaine deaths (62%) occurred among those aged 35 and older; less than 1% (n=19) of the 2016 cocaine decedents were under 18 years of age; 11% were aged 18-25; 26% were 26-34; 37% were 35-50; and 25% were over 50 years of age <u>(Florida Medical Examiners Commission)</u>.

Cocaine deaths in the seven managing entity regions, as tracked in Figure 32 and Table 4, parallel the overall state trend (Figure 31 above) with only the Northwest Managing Entity Region currently showing a downward trend since 2007.

Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Northwest	79	101	133	141	170	177	157	113	99	79	87	82	75	95	113	94
Northeast	202	268	351	380	404	395	452	342	297	273	253	242	253	234	228	391
Central	144	177	203	209	271	278	287	273	236	201	182	191	204	265	392	574
Suncoast	259	327	409	488	527	618	604	511	365	387	394	352	334	382	425	560
Southeast	164	146	180	194	255	236	214	190	161	126	222	111	139	193	222	476
Broward	94	121	138	120	136	150	157	146	135	127	115	129	102	99	152	328
Southern	163	167	200	170	180	198	308	213	169	209	191	211	230	240	302	459
Total	1,105	1,307	1,614	1,702	1,943	2,052	2,179	1,791	1,462	1,402	1,444	1,318	1,337	1,508	1,834	2,882

Table 4 - Number of cocaine-related deaths by Florida Managing Entity regions 2016 Florida Medical Examiners Commission Annual Report

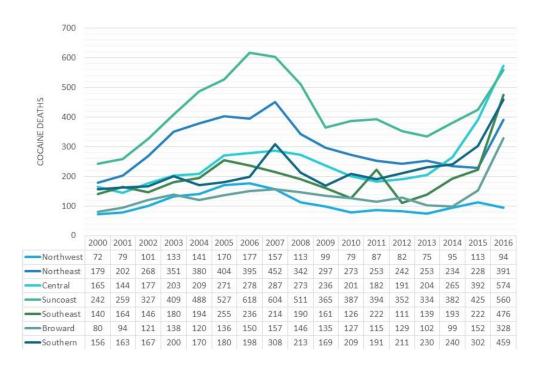


Figure 32 - Cocaine deaths in Florida by Managing Entity regions 2016 Florida Medical Examiners Commission Annual Report

According to the <u>2017 Substance Use Trends Data Report Update</u>, primary addiction treatment admissions for cocaine totaled 6,640 patients in Florida during 2016 - accounting for 7% of all admissions. Of those admissions, males accounted for 52% of these clients with crack cocaine specified by 59% of all the cocaine patients. Fifty-two or 1% of the admissions were for someone under 18 years of age, 13% were 18-25, 30% were 26-34 and 57% were age 35 or older. Smoking cocaine was the route of administration reported by 52% of the cocaine clients with intranasal sniffing cited by 34% and 4% reported injecting cocaine. The remaining 10% reported oral or other or unknown routes of administration.

There were 17,960 cocaine Crime Laboratory reports or 33% of the 53,777-total primary, secondary, and tertiary National Forensic Laboratory Information System (NFLIS) reports for Florida in 2016 (2017 Substance Use Trends Data Report Update). Cocaine ranked first among all substances analyzed by the NFLIS.

Methamphetamine

It is suspected that most methamphetamine is now produced in Mexico. In Florida, the Florida Medical Examiners Commission has found that indicators of methamphetamine have been steadily increasing since 2011 with deaths related to the drug escalating 540% over the past six years (Figure 33). Indeed, the Commission found that methamphetamine-related deaths increased more rapidly than expected between 2015 and 2016, more than doubling from 305 in 2015 to 621 in 2016. Florida Medical Examiners considered methamphetamine the cause of death in 53% (n=327) of the 621 cases in 2016. A breakout of methamphetamine-related deaths by counties or state managing entity regions is not available (Florida Medical Examiners Commission Report released in 2017).



Figure 33 - Number of methamphetamine-related deaths in Florida

Jan 2004 – Jun 2016 Florida Medical Examiners Commission Reports

The Florida Medical Examiners Commission said there were also 640 reports of amphetamines detected among decedents across Florida in 2016 which was a 65% increase from the 387 such occurrences in 2015. Amphetamine was considered the cause of death in 199 (or 31%) of the cases in 2016 (Florida Medical Examiners Commission Report released in 2017).

Nonmedical Use of Prescription Benzodiazepines

Benzodiazepines, in general, and specifically alprazolam (Xanax®), continues as a substantial problem across Florida, particularly when used non-medically in combination with other pharmaceuticals, alcohol, and illicit drugs. Figure 34, which contains data from Florida Medical Examiners Commission reports from January 2004 to June 2016, illustrates this growth. There were 5,167 reports of a benzodiazepine present in deceased persons across Florida in 2016 - a 12% increase above the 4,604 benzodiazepine occurrences in 2015. Benzodiazepine-related deaths peaked at 6,188 in 2010 and then declined as the State's efforts to reduce diversion of controlled medications took effect but appear to be on the increase based on reports over the past two years.

In addition to prescription drugs, nonmedical use includes an unregulated benzodiazepine, etizolam. This drug is not from a pharmaceutical manufacturer but from clandestine laboratory production, which first appeared as a drug sold on the internet beginning in 2015. Of the benzodiazepine occurrences in 2016 reported by Florida Medical Examiners, 27.5% were considered "a cause of death." The five benzodiazepines causing the most deaths were alprazolam (813), diazepam (183), nordiazepam (124), temazepam. (101) and clonazepam (95). Among these five drugs, alprazolam was much more likely to be listed as a cause of death (813 deaths of 1851 cases or 43.9%). Among the other four listed above, the percentage of cases where the drug was listed as a cause of death was much lower. (diazepam 27.5%, nordiazepam 17.5%, temazepam (19.8%) and clonazepam 17.4%). (Florida Medical Examiners Commission Report released in 2017)

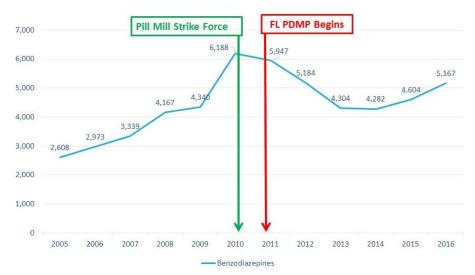


Figure 34 - Number of nonmedical Rx benzodiazepine reports detected among deceased persons in Florida 2005-2016 FDLE Florida Medical Examiners Commission Annual Reports

Table 5 displays Florida's death occurrences for alprazolam and diazepam cases for 2016 and the 2015-2016 percentage change in the seven managing entity regions based on <u>Florida Medical Examiners Commission 2016 Report</u>. Statewide increases in alprazolam cases seem to be primarily driven by increases in three regions, the Northeast, Southeast,

and Broward. Diazepam cases increased at a slower rate statewide and showed a modest decrease across the counties that make up the two northernmost managing entities.

Region	Alprazolam	% Change Alprazolam	Diazepam	% Change Diazepam	2016 Total
Northwest	118	+10.3	42	-6.7	160
Northeast	253	+51.5	102	-9.8	355
Central	355	+14.5	151	+23.7	506
Suncoast	486	+14.6	166	+1.2	652
Southeast	219	+79.5	106	+41.3	325
Broward	169	+81.7	37	+94.7	112
Southern	251	+16.2	60	+9.1	311
All Florida	1851	+28.6	664	+9.9	2,043

Table 5 - Number of occurrences and percent change of Alprazolam and Diazepam in deceased persons by Florida Managing Entity regions

2016 FDLE Drugs Identified in Deceased Persons Florida Medical Examiners Commission Annual Report

Emerging issues: Kratom - Mitragyna

Kratom, an Asian plant, is representative of substances that seem likely to continue to emerge in coming years. A November 2017 Food and Drug Administration (FDA) public health <u>advisory</u> said that kratom's increasing use as an alternative or adjunct to opioid use is "extremely concerning." The advisory said kratom is being actively marketed to treat serious medical conditions even though "evidence shows that kratom has similar effects to narcotics like opioids, and carries similar risks of abuse, addiction and in some cases, death."

Kratom products are sold in convenience stores in many parts of Florida. The actual content of these products may vary from high to low doses of the kratom drug mitragyna, which may be presented in combination with other dangerous substances. This lack of product standardization dramatically increases the risk of using these products, particularly because the effects of kratom are very dose specific. Users not only do not know what they are taking, but also they do not know the potency of the product they are ingesting (Federal Register, 2016). This lack of uniformity also complicates the assessment of harm caused by mitragyna.

The US Food and Drug Administration (FDA) has issued a ruling that allows for the seizure of imported kratom (FDA, 2018). To date, five states have made kratom illegal. However, it remains legal nationally and in Florida (except for Sarasota County which banned it in

2014). The DEA has begun the process to determine whether kratom should be classified as an illegal Schedule I Controlled Substance.

Continued monitoring and data collection on kratom and other emerging substances can help to mitigate harms before substances become established in Florida's population.

SECTION III. DATA SOURCES, APPENDICES WITH DATA TABLES

Data Sources

Bureau of Economic and Business Research, Florida Estimates of Population 2017.

Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System.

Prevalence and Trends Data Online.

Centers for Disease Control and Prevention, Fact Sheets – Binge Drinking, 2017.

Centers for Disease Control and Prevention: <u>2003 to 2015 Youth Risk Behavior Surveillance System (YRBSS) bi-annual Surveys.</u>

Drug Enforcement Administration, <u>Columbian Cocaine Production Expansion Contributes</u> to Rise in Supply in the United States, 2017.

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Statewide Judicial Circuit Arrest Report January - December 2016

January - December 2016	ı												
						Total		Forcible					Motor
			Total	Arrest Rate Total Adul	Total Adult	Juvenile		Sex		Aggravated			Vehicle
Judicial Circuit	Year	Population	Arrests	per 100,000	Arrests	Arrests	Murder	Offenses	Robbery	Assault	Burglary	Larceny	Theft
First Judicial Circuit	2015	722,454	37,327	5,166.7	34,618	2,709	33	87	209	1,191	827	4,047	297
01	2016	732,863	40,415	5,514.7	37,689	2,726	31	94	219	1,166	673	3,603	317
Second Judicial Circuit	2015	360,668	12,239	3,066.7	11,238	1,001	18	49	82	578	308	1,640	205
02	2016	402,906	11,698	2,903.4	10,598	1,100	17	49	103	489	296	1,490	237
Third Judicial Circuit	2015	194,401	7,434	3,824.1	6,995	439	10	6	45	474	288	545	62
03	2016	194,690	7,389	3,795.3	7,065	324	13	10	19	477	228	497	74
Fourth Judicial Circuit	2015	1,183,387	39,156	3,308.8	35,637	3,519	4	145	325	1,317	758	4,731	320
04	2016	1,206,809	38,392	3,181.3	34,978	3,414	49	131	363	1,317	723	3,914	446
Fifth Judicial Circuit	2015	1,091,751	37,995	3,480.2	35,213	2,782	32	129	223	1,148	1,007	4,618	304
05	2016	1,110,868	36,174	3,256.4	33,493	2,681	53	88	194	1,154	996	4,052	431
Sixth Judicial Circuit	2015	1,432,559	60,652	4,233.8	53,946	90,4	41	115	479	1,916	1,516	8,538	1,089
90	2016	1,450,437	57,509	3,964.9	51,872	5,637	25	118	396	1,841	1,426	7,146	985
Seventh Judicial Circuit	2015	898,169	42,829	4,768.5	40,692	2,137	56	72	288	1,714	1,229	3,590	355
0.7	2016	913,735	42,248	4,623.7	40,047	2,201	19	26	292	1,769	1,223	2,796	393
Eighth Judicial Circuit	2015	382,425	16,492	4,312.5	15,480	1,012	7	70	231	895	529	1,653	134
80	2016	384,755	15,179	3,945.1	14,211	968	14	88	143	946	525	1,554	165
Ninth Judicial Circuit	2015	1,560,723	61,373	3,932.3	56,012	5,361	0/	221	949	2,657	1,870	7,532	169
60	2016	1,603,249	54,241	3,383.2	49,424	4,817	80	261	170	2,485	1,746	6,160	822
Tenth Judicial Circuit	2015	761,445	32,368	4,250.9	28,566	3,802	32	82	189	1,029	869	3,177	262
10	2016	776,157	35,516	4,575.9	31,694	3,822	43	96	247	1,113	882	3,020	317
Eleventh Judicial Circuit	2015	2,653,934	94,809	3,572.4	90,486	4,323	113	218	1,448	3,568	2,051	12,046	991
11	2016	2,700,794	79,319	2,936.9	75,745	3,574	71	175	1,132	3,015	1,813	806'6	1,077
Twelfth Judicial Circuit	2015	776,201	29,039	3,741.2	27,262	1,777	33	114	228	1,075	9/9	3,184	204
12	2016	792,270	26,655	3,364.4	25,051	1,604	38	106	217	1,024	069	2,721	229
Thirteenth Judicial Circuit	2015	1,325,563	61,633	4,649.6	55,532	6,101	36	75	64 2	1,648	1,347	6,222	538
13	2016	1,352,797	55,973	4,137.6	50,173	5,800	32	62	618	1,587	1,289	5,120	199
Fourteenth Judicial Circuit	2015	299,540	20,461	6,830.8	18,957	1,504	17	33	93	889	908	3,013	185
14	2016	302,460	19,184	6,342.7	17,745	1,439	6	30	99	723	880	2,648	187
Fifteenth Judicial Circuit	2015	1,378,417	48,634	3,528.3	44,554	4,080	64	82	4 4	1,956	1,032	5,560	348
15	2016	1,391,741	44,300	3,183.1	40,956	3,344	48	74	476	1,807	1,054	5,192	435
Sixteenth Judicial Circuit	2015	74,206	6,279	8,461.6	6,067	212	0	9	15	149	100	347	78
16	2016	76,047	6,174	8,118.7	5,952	222	-	∞	13	134	89	282	23
Seventeenth Judicial Circuit	2015	1,827,367	57,784	3,162.1	54,168	3,616	26	7	209	1,876	1,690	7,299	609
17	2016	1,854,513	55,040	2,967.9	51,396	3,644	39	89	637	1,657	1,413	6,675	669
Eighteenth Judicial Circuit	2015	1,004,617	35,770	3,560.6	31,417	4,353	29	L9	218	1,561	904	4,266	305
18	2016	1,018,043	33,214	3,262.5	29,303	3,911	78	84	249	1,545	843	3,469	316
Nineteenth Judicial Circuit	2015	621,189	26,525	4,270.0	24,245	2,280	12	8	117	807	476	2,440	151
19	2016	630,912	25,568	4,052.5	23,116	2,452	19	65	117	827	200	2,167	179
Twentieth Judicial Circuit	2015	1,227,737	44,262	3,605.2	39,815	4,447	14	8	340	1,090	819	4,332	213
20	2016	1,252,608	42,306	3,377.4	38,134	4,172	37	84	250	1,061	799	3,725	218
Florida Totals	2015	19,815,183	773,061	3,901.4	710,900	62,161	029	1,803	7,192	27,337	18,931	88,780	7,291
FL	2016	20,148,634	7.26,494	3,605.7	249,899	27,852	245	1,747	6,521	26,137	18,037	76,139	8,211

SOURCE: Florida Department of Law Enforcement. 2017. Crime in Florida, Annual Report January - December 2016 Florida uniform crime report [Computer program]. Tallahassee, FL: FDLE

Statewide Judicial Circuit Arrest Report January - December 2016

Judicial Circuit	Year	Manslaughter	Kidnap/ Abduction	Arson	Simple Assault	Drug Arrest	Bribery 1	Embezzlement	Frand	Counterfeit/ Forgery	Extortion/ Blackmail	Intimidation
First Judicial Circuit	2015	1	75	9	3,762	4,481	-1	2		118	7	103
01	2016	9	99	12	3,788	6,160	0	S	- 1	128	E	87
Second Judicial Circuit	2015	4	15	5	1,232	1,960	0	18		26	7	16
02	2016	1	17	7	1,010	2,164	1	21		22	1	20
Third Judicial Circuit	2015	0	18	7	999	1,490	0	0		18	4	46
03	2016	2	6	5	629	1,497	0	0		52	3	49
Fourth Judicial Circuit	2015	80	10	10	4,982	5,534	_	143		81	1	69
04	2016	9	18	21	4,988	6,123	0	128		69	1	110
Fifth Judicial Circuit	2015	4	47	∞	3,944	4,770	-	16		122	8	54
05	2016	9	20	19	3,937	5,112	7	17		179	1	47
Sixth Judicial Circuit	2015	11	26	35	8,188	9,208	5	28		267	35	939
90	2016	10	39	33	7,839	8,986	1	48		246	17	896
Seventh Judicial Circuit	2015	4	59	∞	5,143	5,797	33	14		108	7	34
07	2016	4	62	14	5,218	6,212	0	14		90	3	46
Eighth Judicial Circuit	2015	0	15	6	1,444	2,603	2	9		09	1	21
80	2016	0	14	3	1,355	2,247	0	17		44	7	15
Ninth Judicial Circuit	2015	7	150	11	6,484	9,501	0	10	802	104	3	313
60	2016	က	149	6	6,217	9,253	0	31	- 1	126	1	263
Tenth Judicial Circuit	2015	-	30	10	4,849	5,945	-	2		92	-	14
10	2016	13	41	6	4,773	6,904	_	4		98	2	16
Eleventh Judicial Circuit	2015	6	93	<i>L</i> 9	6,640	12,397	5	46		273	21	518
11	2016	19	06	19	4,849	10,591	4	<i>L</i> 9	- 1	255	16	287
Twelfth Judicial Circuit	2015	9	37	12	3,766	3,849	7	20		104	S	74
12	2016	4	28	9	3,196	3,880	0	44		70	3	48
Thirteenth Judicial Circuit	2015	4	23	56	5,950	8,840	0	292		290	2	100
13	2016	4	22	21	5,582	7,678	0	278		232	0	92
Fourteenth Judicial Circuit	2015	E	37	12	2,201	3,948	0	90		140	7	42
14	2016	0	32	15	2,064	3,470	0	15		100	3	35
Fifteenth Judicial Circuit	2015	2	18	12	3,966	7,472	0	74		114	7	66
15	2016	2	20	11	3,680	7,333	0	52		129	9	116
Sixteenth Judicial Circuit	2015	0	5	0	490	579	0	Ŋ		5	0	7
16	2016	1	3	0	509	630	0	80		12	0	7
Seventeenth Judicial Circuit	2015	œ	0	12	3,745	8,991		120		223	S	22
17	2016	5	10	11	3,626	7,888		120		195	8	13
Eighteenth Judicial Circuit	2015	9	49	15	4,271	5,583		48		LL	9	115
18	2016	4	61	14	4,626	5,885		32		73	7	81
Nineteenth Judicial Circuit	2015	7	10	9	2,616	4,575		10		40	1	11
19	2016	5	17	80	2,594	4,753		11		41	3	6
Twentieth Judicial Circuit	2015	9	6	19	3,738	7,461		132		84	0	51
20	2016	က	12	20	3,616	7,784		129	- 1	86	0	31
Florida Totals	2015	81	292	285	78,076	114,984	36	1,024		2,346	103	2,651
FL	2016	86	760	252	74,126	114,550		1,041		2,247	82	2,324

SOURCE: Florida Department of Law Enforcement. 2017. Crime in Florida, Annual Report January - December 2016 Florida uniform crime report [Computer program]. Tallahassee, FL: FDLE

Statewide Judicial Circuit Arrest Report January - December 2016

5	Ş	,	Non-Forcible	Stolen	Ē	Destruction/		Weapons	Liquor Law	
Direct Individe Chamit	2015	3.4	Sex Officiases	r10pc11y 81	1 278	361	20	175	1 538	17 K40
1 ust Judicial Cucuit	2012	<u> </u>	180	5 8	1 908	360		27.1	1,736	19.030
Second Indicial Circuit	2015	15	9	21	554	210		82	532	4 359
02	2016	9	3 49	: e	753	196	. 1	8	494	3.860
Third Judicial Circuit	2015	0	38	32	184	78		70	49	3,213
03	2016	0	23	19	351	65		9/	47	3,107
Fourth Judicial Circuit	2015	176	242	110	2,214	505		363	1,212	14,770
04	2016	256	226	137	2,299	522		440	1,028	14,030
Fifth Judicial Circuit	2015	9/	181	131	1,208	282		206	190	18,795
05	2016	17	143	149	1,565	354		201	185	16,627
Sixth Judicial Circuit	2015	328	205	443	2,924	575		332	2,224	20,307
90	2016	155	193	358	3,434	524		281	1,378	20,024
Seventh Judicial Circuit	2015	106	112	37	1,454	256		153	276	21,574
0.7	2016	80	116	50	1,582	279		183	516	20,727
Eighth Judicial Circuit	2015	2	117	53	654	183		101	621	908'9
08	2016	2	48	52	791	114		94	234	6,475
Ninth Judicial Circuit	2015	<i>LLL</i> 277	222	<i>L</i> 9	2,337	435		403	1,164	25,087
60	2016	251	214	38	2,587	406		477	873	20,311
Tenth Judicial Circuit	2015	157	162	58	909	243		189	250	13,915
10	2016	226	190	70	702	277		208	272	15,543
Eleventh Judicial Circuit	2015	357	360	177	2,656	16L		612	4,127	44,077
11	2016	314	321	134	1,935	704		627	3,507	37,342
Twelfth Judicial Circuit	2015	06	177	26	1,112	235		124	366	12,620
12	2016	108	189	81	1,480	206		164	236	11,162
Thirteenth Judicial Circuit	2015	237	116	43	3,103	446		749	484	29,138
13	2016	181	109	45	4,196	464		672	312	25,734
Fourteenth Judicial Circuit	2015	72	122	70	563	274		163	956	808'9
14	2016	30	123	86	725	295		188	725	6,415
Fifteenth Judicial Circuit	2015	336	139	147	1,987	382		327	1,240	22,306
15	2016	316	26	104	1,948	346		368	1,087	19,015
Sixteenth Judicial Circuit	2015	2	15	6	304	45		12	236	3,839
16	2016	0	12	5	374	37		10	41	3,903
Seventeenth Judicial Circuit	2015	219	161	219	1,930	384		248	257	28,190
17	2016	215	134	208	1,720	293		230	490	28,036
Eighteenth Judicial Circuit	2015	129	110	<i>L</i> 9	1,989	290		183	929	14,442
18	2016	86	108	09	2,083	257		217	999	11,956
Nineteenth Judicial Circuit	2015	31	115	63	1,837	260		159	369	11,868
19	2016	45	102	33	1,507	222		163	265	11,490
Twentieth Judicial Circuit	2015	102	119	55	2,891	325		228	784	20,639
20	2016	82	127	35	3,012	271	- 1	242	808	19,109
Florida Totals	2015	2,701	2,930	1,980	31,784	995'9		4,879	17,431	340,393
FL	2016	2,397	2,728	1,774	35,042	6,192		5,152	14,280	313,896

SOURCE: Florida Department of Law Enforcement. 2017. Crime in Florida, Annual Report January - December 2016 Florida uniform crime report [Computer program]. Tallahassee, FL: FDLE

Statewide Judicial Circuit Arrest Report January - December 2015

			Kidnap/		Simple	Drug				Counterfeit/	Extortion/	
Judicial Circuit	Year	Manslaughter	Abduction	Arson	Assault	Arrest	Bribery	Embezzlement	Frand	Forgery	Blackmail	Intimidation
First Judicial Circuit	2014	m	99	4	3,712	4,313	0	33	772	135	33	106
01	2015	1	75	9	3,762	4,481	1	2	811	118	2	103
Second Judicial Circuit	2014	8 4	22 15	4 v	1,221	2,148	00	15	245 248	27	7 7	14
Third Indivist Circuit	2014		0	, ,	680	1 320		: -	176	34	1 4	09
03	2015	. 0	18	27	665	1,490	0	• 0	84	18	4	46
Fourth Judicial Circuit	2014	9	25	12	4,491	5,667	۰,	160	1,031	99	2	45
U4	2012	o c	10	01	286,4	460,0	٦	143	1,0/1	110	-	60
Firm Judicial Circuit 05	2014	4	54 47	5 ∞	3,944	4,770	7 -	16	486	122	1 το	54 8
Sixth Judicial Circuit	2014	∞;	49	40	7,852	9,438		31	935	232	27	982
90	2015	11	90	35	8,188	9,208	2	28	844	267	35	939
Seventh Judicial Circuit 07	2014 2015	o 4	53	r «	4,883 5,143	5,841	C1 60	4 4	510 415	137	1	43 43
Fighth Indivisit Counit	2014	-	30	7	1 718	7.864		17	314	58	-	=
08	2015	• 0	12.5	0	1,444	2,603	2	9	280	8 %		21
Ninth Judicial Circuit	2014	en	172	14	6,454	10,355	2	11	289	143	1	386
60	2015	2	150	11	6,484	9,501		10	802	104	3	313
Tenth Judicial Circuit	2014	6	29	6	5,050	6,003	2	3	420	128	3	20
10	2015	1	30	10	4,849	5,945	1	2	375	92	1	14
Eleventh Judicial Circuit	2014	31	103	55	7,107	16,349	6	9	1,143	252	19	888
11	2015	6	93	29	6,640	12,397		46	1,097	273	21	518
Twelfth Judicial Circuit	2014	7	45	∞ :	3,733	4,304	0	26	808	86	10	94
12	2015	9	37	12	3,766	3,849		000	787	104	c	74
Thirteenth Judicial Circuit	2014	9	48	15	5,650	9,805	0 0	278	1,400	309	(84
13	2015	4	23	97	0066	8,840		767	1,266	290	7	100
Fourteenth Judicial Circuit	2014	4 (78	51 5	2,14	2,827	0	0.0	267	77.	(99
14	CI07	5	3/	71	7,201	5,948	0	×	000	140	7	74
Fifteenth Judicial Circuit	2014	9 (24	53	4,094	7,586	7	28	558	125	9 0	158
ID	C102	7 0	10	71	404,0	0/4"/		4,	100	ci i	٥	100
Sixteenin Junicial Circuit	2015	0	n vo	- 0	490	579	0	9 10	81	o v0	0	2 1-
Seventeenth Judicial Circuit	2014	00	27	13	3,959	9,490		88	746	285	4	25
17	2015	00	6	12	3,745	8,991	ю	120	814	223	5	25
Eighteenth Judicial Circuit	2014	æ	53	21	4,357	5,622		44	523	85	9	113
18	2015	9	46	15	4,271	5,583	5	48	476	77	9	115
Nineteenth Judicial Circuit	2014	m	15	oo.	2,635	4,418		9	419	80	'n	15
19	2015	2	10	9	2,616	4,575		10	462	40	1	11
Twentieth Judicial Circuit	2014		14	∞ !	3,772	7,614		116	206	93	0	56
20	2015	9	6	19	3,738	7,461	-	132	714	84	0	51
Florida Totals FL	2014 2015	120 81	842 765	289 285	77,911 78,074	122,353 114,988	31 36	954 1.024	12,245	2,486 2,345	103 104	3,224 2,652

SOURCE: Florida Department of Law Enforcement. 2016. Crime in Florida, 2015 Florida uniform crime report [Computer program]. Tallahassee, FL: FDLE.

Statewide Judicial Circuit Arrest Report January - December 2015

Indicial Circuit	Vest	Prostintion	Non-Forcible	Stolen	III	Destruction/	Sombling	Weapons	Liquor Law	Miss
First Indicial Circuit	2014	36	115	2 10petry 86	1 761	375	- Camoump	155	1 540	19 728
01	2015	34	76	81	1,278	361	10	175	1,538	17,640
Second Judicial Circuit 02	2014 2015	13 15	49 37	53 21	812 554	206 210	10	75 82	491 532	6,250 4,359
Third Judicial Circuit 03	2014 2015	0 1	22 30	39	397 184	77	00	68 70	79 49	4,797 3,213
Fourth Judicial Circuit 04	2014 2015	162 176	167 167	132 110	2,762 2,214	420 505	01 8	362 363	1,090	16,490 14,770
Fifth Judicial Circuit 05	2014 2015	38 76	140 131	195 131	2,233	429 282	8 10	187	296 190	20,447 18,795
Sixth Judicial Circuit 06	2014 2015	259 328	216 171	479 443	3,821 2,924	613 575	4 4	276 332	2,282	22,870 20,307
Seventh Judicial Circuit 07	2014 2015	181	97	102 37	1,849	282 256	10	159 153	438 276	23,925 21,574
Eighth Judicial Circuit 08	2014 2015	14 2	53 93	73 53	958 654	145 183	00	94 101	397 621	8,846 6,806
Ninth Judicial Circuit 09	2014 2015	495 277	206 148	65	3,430 2,337	387 435	5 11	387 403	1,589 1,164	29,166 25,087
Tenth Judicial Circuit 10	2014 2015	200 157	120 115	88	746 605	255 243	4 0	242 189	321 250	15,966 13,915
Eleventh Judicial Circuit	2014	619 357	327 296	206	3,902	835 797	199 45	635 612	5,905 4,127	51,440 44,077
Twelfth Judicial Circuit	2014 2015	136 90	238 159	158 97	1,781 1,112	197 235	11	163 124	512 366	15,819 12,620
Thirteenth Judicial Circuit 13	2014 2015	366 237	83	73 43	4,006 3,103	442 446	E1 E1	760 749	627 484	36,119 29,138
Fourteenth Judicial Circuit	2014 2015	26 27	102 93	78 70	1,009	260 274	10	149 163	1,661 956	7,638 6,808
Fifteenth Judicial Circuit 15	2014 2015	191 341	115 123	159 147	2,401	410 382	9 13	322 325	1,652 1,240	27,744 22,306
Sixteenth Judicial Circuit 16	2014	7 7	96	8 6	383 304	51 45	00	20 12	330 236	3,034 3,839
Seventeenth Judicial Circuit 17	2014 2015	364 219	153 140	183 219	2,390 1,930	328 384	21 EI	307 248	531 257	39,331 28,190
Eighteenth Judicial Circuit 18	2014 2015	106	116 93	129 67	2,809 1,989	224 290	9.60	219 183	775 556	18,220 14,442
Nineteenth Judicial Circuit 19	2014 2015	42 31	122 77	58	2,022 1,837	236 260	ر د 0	124 159	421 369	13,216 11,868
Twentieth Judicial Circuit 20	2014 2015	108	134 87	8 8	3,310 2,891	294 325	120 15	208 228	768 784	22,666 20,639
Florida Totals FL	2014 2015	3,359 2,706	2,585 2,243	2,406 1,980	42,782 31,783	6,466 6,566	416 157	4,912 4,877	21,705 17,431	403,712 340,393
SOURCE: Florida Department of Law Enfor	nforcement, 201	 Crime in Florids 	Crime in Florida, 2015 Florida unifor	m crime report [Computer prog	ram]. Tallahassee, I	T. FDLE.			

SOURCE: Florida Department of Law Enforcement. 2016. Crime in Florida, 2015 Florida uniform crime report [Computer program]. Tallahassee, FL: FDLE.

STATEWIDE JUDICIAL CIRCUIT OFFENSE REPORT	RCUIT													
January - December 2015			Total	% Index				Apprairated			Motor Vehicle	Crime Rate	% Rate	
Annual Report	Year	Population	Index	2014/2015	Murder	Rape	Robbery	Assault*	Burglary	Larceny	Theft	100,000	2014/2015	% Cleared
First Judicial Circuit	2014	714,151	23,810	;	29	327	534	2,513	4,672	14,710	1,025	3,334.0	,	31.7
10	2015	722,454	23,895	9.4	41	329	527	2,531	4,281	15,175	1,011	3,307.5	-0.8	32.1
Second Judicial Circuit 02	2014	399,098	16,615	4.8	19	313	354 464	2,128	3,608	9,494	912	4,198.5	3.9	23.3
Third Judicial Circuit	2014	193,632	5,470		7	84	95	895	1.550	2,698	141	2,824.9		38.3
03	2015	194,401	5,443	-0.5	17	52	95	1,079	1,370	2,652	178	2,799.9	6.0-	37.4
Fourth Judicial Circuit	2014	1,162,790	47,854		103	572	1,596	4,521	8,190	30,601	2,271	4,115.4		22.2
04	2015	1,183,387	45,238	-5.5	104	613	1,552	4,315	7,322	28,703	2,629	3,822.8	-7.1	22.2
Fifth Judicial Circuit	2014	1,074,069	24,927		41	367	403	2,686	5,339	15,033	1,058	2,320.8		37.7
05	2015	1,091,751	25,079	9.0	26	334	445	2,691	5,092	15,358	1,133	2,297.1	-1.0	35.7
Sixth Judicial Circuit	2014	1,412,598	52,094	ì	61	573	1,392	4,078	9,113	33,776	3,101	3,687.8	:	27.8
90	2015	1,432,559	53,424	2.6	48	630	1,410	4,I26	7,862	35,714	3,604	3,729.3	:	28.7
Seventh Judicial Circuit	2014	882,938	26,937		20	234	490	2,665	4,709	17,491	1,328	3,050.8	:	33.8
	2012	898,169	27,046	9.4	95	730	453	2,911	4,306	17,683	1,427	3,011.2	2	32.6
Eighth Judicial Circuit	2014	378,017	10,760		10	187	252	1,367	1,752	6,718	474	2,846.4		33.6
80	2015	382,425	11,082	3.0	9	206	340	1,628	1,744	6,678	480	2,897.8	1.8	35.1
Ninth Judicial Circuit	2014	1,523,548	67,059	,	96	875	2,400	6,455	13,345	40,281	3,607	4,401.5	·	26.5
60	2015	1,560,723	66,391	-1.0	101	880	2,250	6,798	13,222	39,057	4,083	4,253.9	-3.4	26.3
Tenth Judicial Circuit	2014	750,704	23,072	;	27	205	485	1,834	5,576	13,839	1,106	3,073.4	;	27.6
10	2015	761,445	21,419	-7.2	30	261	432	1,844	4,402	13,223	1,227	2,812.9	-8.5	28.0
Eleventh Judicial Circuit	2014	2,613,692	122,943		212	801	5,706	10,183	17,115	80,448	8,478	4,703.8		18.4
11	2015	2,653,934	116,311	-5.4	217	756	5,366	10,238	14,534	76,400	8,800	4,382.6	-6.8	18.4
Twelfth Judicial Circuit	2014	761,111	22,932		25	318	561	2,242	4,293	14,696	797	3,013.0		28.8
12	2015	776,201	21,943	4.3	31	321	507	2,475	3,912	13,879	818	2,827.0	-6.2	28.4
Thirteenth Judicial Circuit	2014	1,301,887	31,923		57	237	1,016	2,976	5,764	20,170	1,703	2,452.1		33.2
13	2015	1,325,563	31,390	-1.7	70	292	1,119	3,130	5,382	19,562	1,835	2,368.1	-3.4	33.1
Fourteenth Judicial Circuit	2014	297,131	10,248		20	114	163	979	1,777	6,718	477	3,449.0		55.3
14	2015	299,540	10,017	-2.3	15	105	180	1,044	1,722	6,464	487	3,344.1	-3.0	53.4
Fifteenth Judicial Circuit	2014	1,360,238	47,324		78	473	1,693	4,060	8,722	29,667	2,631	3,479.1		21.7
15	2015	1,378,417	47,769	6.0	26	523	1,650	4,269	7,645	30,386	3,199	3,465.5	-0.4	21.1
Sixteenth Judicial Circuit	2014	74,044	3,140		0	28	61	304	489	2,074	184	4,240.7		26.2
16	2015	74,206	2,838	9.6-	2	35	30	298	426	1,903	144	3,824.5	8.6-	27.3
Seventeenth Judicial Circuit	2014	1,803,903	65,579		75	614	2,619	4,426	11,886	42,114	3,845	3,635.4		21.2
17	2015	1,827,367	65,601	0.0	85	592	2,474	4,594	10,258	42,671	4,927	3,589.9	-13	21.5
Eighteenth Judicial Circuit	2014	989,513	28,755		29	381	654	3,191	5,068	18,293	1,139	2,906.0		29.4
18	2015	1,004,617	29,549	2.8	33	528	269	3,278	5,056	18,501	1,456	2,941.3	1.2	27.6
Nineteenth Judicial Circuit	2014	612,189	15,013		33	150	317	1,383	2,938	9,653	539	2,452.3		29.4
19	2015	621,189	14,881	-0.9	16	172	297	1,358	2,473	9,964	601	2,395.6	-2.3	27.3
Twentieth Judicial Circuit	2014	1,205,482	26,690		42	293	785	2,686	5,057	16,532	1,295	2,214.1		27.4
20	2015	1,227,737	25,648	-3.9	38	365	808	2,969	4,765	15,388	1,314	2,089.0	-5.6	29.1
Florida Totals	2014	19,507,369	673,145		984	7,102	21,576	61,403	120,963	425,006	36,111	3,450.7		26.1
FL	2015	19,815,183	662,372	-1.6	1,040	7,537	21,097	63,734	109,002	419,384	40,578	3,342.7	-3.1	25.9

* Aggravated Assault includes Aggravated Assault and Forcible Fondling Offenses.
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