

# Drug Abuse Trends in Miami-Dade and Broward Counties, South Florida: June 2013

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## ABSTRACT

Significant shifts in drug abuse patterns are underway. **Cocaine** consequences have stabilized or increased following several years of steady declines. **Heroin** indicators are rising while deaths related to **non-medical prescription** misuse declined sharply in the first half of 2012. The number of **synthetic cannabinoids** (e.g., “K2, Spice, Mr. Nice Guy”) and **substitute cathinones** (e.g., “bath salt” stimulants) detected by South Florida crime labs increased by ten-fold between 2011 and 2012. While local retail sales of these now mostly illegal drugs have diminished, new venues of illicit distribution are appearing ranging from online orders to courier delivery services as street and club sales also continue. Emergency Department (ED) reports for “**Ecstasy**” pills of unknown composition increased in the South Florida area as reports of methyldone sold as “Mollys” have increased. Consequences of **marijuana** use and addiction continued at high levels particularly among adolescents and young adults. Miniature vaporizers disguised as pens are widely available and used for heating glycerin cannabinoid cartridges whose smokeless vapor is inhaled. Numerous antidotal sources report increasing **methamphetamine** use particularly among men who have sex with other men (MSM) and heterosexual heavy club drug users.

The number one key change in drug trends for this reporting period is that deaths related to nonmedical misuse of **prescription opioids** declined 17-percent across Florida in the first half of 2012 as compared to the previous six months when numerous diversion control strategies were launched including the startup of the State’s Prescription Drug Monitoring Program. The decline translates to 8 fewer deaths per week across the State attributable to prescription drug overdoses. Opioid-related deaths declined in the Southeast Florida Counties as well. Overdose fatalities linked to other prescription medications also decreased locally and Statewide.

The number two key issue for South Florida from 2012 is the increase in **injecting drug use** among new, young adult cohort of prescription opioid injectors, heroin initiates, and methamphetamine users. Most of these new IDUs were born after 1990 and were only toddlers when the public learned about the high risk of infected syringes and works as well as how to clean them. Thus a public health threat of increased HIV and Hepatitis C transmission is already occurring.

This report also identifies a recent example illustrating that drug use prevalence and consequence trends do not always rise or fall together. In fact between 2008 and 2010 as Broward County experienced the highest rates among all other counties in the Nation of: prescription opioid diversion, “pill mill” retail sales, high-volume opioid dispensing practitioners, prescription drug deaths and medical emergencies it also reported the lowest prevalence rate in the Nation for nonmedical use of prescription pain relievers. The Broward County rate of 2.96 percent for residences reporting any past year use of a prescription pain reliever was the lowest percentage for any of the 362 substate regions within the 50 States and the District of Columbia as reported by the 2008-2010 National Survey on Drug Use and Health Substate Estimates of Substance Use and Mental Disorders released in 2012.

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## **INTRODUCTION**

This report reviews data from 2011 and 2012 for drug-related deaths, addiction treatment admissions, poison information center exposure calls (through April 2013), and crime laboratory analysis. Information is presented by primary substance of abuse, with topics including cocaine, heroin, nonmedical use of prescription opioids, benzodiazepines, methamphetamine/amphetamines, marijuana (including synthetic cannabinoids), emerging psychoactive substances, MDMA (3,4-methylenedioxymethamphetamine) or ecstasy, GHB (Gamma Hydroxy Butyrate), and muscle relaxants. While the information is classified by a single drug or category, the reader should note an underlying problem of polysubstance abuse as mentioned throughout this report.

### **Area Description**

The population of the State of Florida was 19,317,566 according to the 2012 U.S. Census Estimates of whom 22.9 percent are Latino/Hispanics. White persons of all ethnicities comprise 78.1 percent including 57.5 percent who are White, non-Hispanic; 16.5 percent are Black, and 2.6 percent are Asian. Foreign born persons account for 19.2 percent of the State's population.

Located in the extreme southern portion of the Florida peninsula, Miami-Dade County has the State's largest population, with 2,591,035 residents, according to the 2012 U.S. Census estimates. Latinos/Hispanics account for 64.5 percent of the population; White persons of all ethnicities comprise 77.5 percent including 16 percent who are White, non-Hispanic; 19.3 percent are Black; and 1.7 percent are Asian. Miami is the County's largest city, with 399,457 residents. Foreign born persons account for 51.1 percent of the County's population. More than 100,000 immigrants arrive in Florida each year; one-half establish residency in Miami-Dade County.

Broward County, situated due north of Miami-Dade, is composed of Ft. Lauderdale, plus 31 other municipalities and an unincorporated area. The County covers 1,197 square miles, including 25 miles of coastline. According to the 2012 U.S. Census, the Broward County population was 1,815,137. The population is 78.5 percent White including 43.1 percent who are White, non-Hispanic; 27.4 percent are Black; and 3.5 percent are Asian. Latino/Hispanics comprise 25.8 percent of the population. Foreign born persons account for 31.2 percent of the County's population. Broward County is the second most populated county in Florida and accounts for 9.4 percent of Florida's population.

Palm Beach County (population 1,356,545) is located due north of Broward County and is the third most populated county in the State. The County population is 77.4 percent White including 59.6 percent who are White non-Hispanic; 17.8 percent are Black; and 2.5 are percent Asian. Latino/Hispanics comprise 19.6 percent of the population. Twenty-two percent of the County's population is foreign born. Together, the 5.7 million people of these three counties constitute 30 percent of the State's 18.8 million population.

Since 2003, these three counties have constituted the federally designated Metropolitan Statistical Area (MSA) for South Florida, making it the sixth largest MSA in the Nation. Previously, the MSA included only Miami-Dade County. This means that the three counties are included in more national data sets tracking health-related conditions and criminal justice information.

South Florida is a hub of international transportation and the gateway to commerce between the Americas, accounting for sizable proportions of the Nation's trade. South Florida's airports and seaports remain among the busiest in the Nation for both cargo and international passenger traffic. These ports of entry make this region a major gateway for illicit drugs. The area's proximity to the Caribbean and Latin America exposes South Florida to the entry and distribution of illicit foreign drugs destined for all regions of the United States.

## Data Sources

This report describes current drug abuse trends in South Florida, using the data sources summarized below:

- **Data on Drug-related mortality** presented herein have been provided by the **Florida Department of Law Enforcement (FDLE) Medical Examiners Commission's 2012 Interim Report of Drugs Identified in Deceased Persons between January and June 2012**. The report provides information on the total number of various drugs detected in 4,126 decedents mostly for whom an autopsy was performed but not all of the 85,810 deaths that occurred in Florida during the first six months of 2012. The numbers of drugs detected are referred to as "occurrences" and should not be confused with the actual number of drug-related deaths. Medical Examiners reported the number of drug-related deaths (whether the drug was the cause of death or was merely found to be present) through toxicology reports submitted to the Medical Examiners Commission. In order for a death to be considered "drug-related" there needs to be at least one drug identified in the decedent, which is a drug occurrence. The vast majority of these deaths (or cases) had more than one drug occurrence. The State's local medical examiners were asked to distinguish between the drugs being a "cause" of death or merely "present" in the body at the time of death. A drug is only indicated as the cause of death when, after examining all evidence and the autopsy and toxicology results, the medical examiner determines the drug played a causal role in the death. It is not uncommon for a decedent to have multiple drugs listed as a cause of death. When a medical examiner determines a drug is merely present or detected in the decedent, the drug may not have played a causal role in the death. It is not uncommon for a decedent to have multiple drugs listed as present. Thus, the number of drug occurrences exceeds the number of decedents because of multiple drugs including alcohol identified in the same person. While this report provides the most current count of deaths in which substances have been detected, it is very likely that the numbers will increase for the first half of the year when the 12-month annual report is released due to cases finalized after the reporting deadline. The report for all of 2012 should be released by August 2013.
- **Weighted emergency department (ED) data** were derived for Miami-Dade and Broward Counties from the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Behavioral Health Statistics and Quality (CBHSQ). The data represent drug-related visits for illicit drugs (derived from the category of "major substances of abuse," excluding alcohol) and for the nonmedical use of selected prescription drugs (derived from the category of "other substances"). Drug reports exceed the number of ED visits because a patient may report use of multiple drugs (up to six drugs plus alcohol). Weighted DAWN data for calendar years 2004–2011 are included in this report and provide estimates of the total number of drug-related ED visits for selected substances for all of Miami-Dade County in those 7 years and the DAWN Ft. Lauderdale Division (Broward and Palm Beach Counties) for 2008-2011, the years for

which DAWN weighted estimates were provided in that division. The DAWN Trend Tables assess between-year changes by comparing estimates as follows: most current year to first year, most current year to year before last, and most current year to last year. In the DAWN data present herein, 2011 estimates are compared with those for 2004 (first year), 2009 (year before last), and 2010 (last year). No significant testing of data for 2005, 2006, 2007, and 2008 versus 2011 was available. A full description of the system can be found on the DAWN Web site at <http://dawninfo.samhsa.gov>.

- **Drug treatment data** on primary admissions to all publicly funded addiction treatment programs in Miami-Dade and Broward Counties during calendar years, 2010, 2011, and 2012 were provided by the Florida Department of Children and Families as of June 4, 2013.
- **Crime laboratory drug analyses reports** were queried from the Drug Enforcement Administration's (DEA's) National Forensic Laboratory Information System (NFLIS) Data Query System on May 7, 2013 for Miami-Dade, Broward, and Palm Beach Counties for the timeframe January through December 2012. A recent change in NFLIS methodology allows the accounting of up to three drugs per item submitted for analysis. Thus, the numbers of NFLIS reports now include primary, secondary, and tertiary substances for crime lab items analyzed and provide a more complete surveillance than when only the primary substance detected was reported. Because of this change it is now appropriate to compare the 2012 NFLIS data to those from 2011 as reported in the June 2012 South Florida CEWG Report. It should also be noted that the NFLIS data combine some, but not all, pharmaceutical items into the category of "controlled substance." This factor means that the numbers provided for reports of specific medications or categories (e.g., Prescription Opioids or Benzodiazepines) may be fewer than submitted to local crime labs. Further information on the NFLIS methodology is available at: [http://www.deadiversion.usdoj.gov/nflis/estimates\\_methodology\\_110711.pdf](http://www.deadiversion.usdoj.gov/nflis/estimates_methodology_110711.pdf)
- **Heroin price and purity information** came from the U. S. Drug Enforcement Administration (DEA) Heroin Domestic Monitor Program (HDMP) for 2011 published March 20, 2013.
- **Reports on poison exposure calls for emerging psychoactive substances** are from the Florida Poison Information Center–Miami for all of Florida for Calendar Years 2011 and 2012 and January to April 2013.
- **Prevalence of Substance Use** from the 2008-2010 National Survey on Drug Use and Health Substate Estimates of Substance Use and Mental Disorders by CBHSQ of SAMHSA released in 2012.

Other information on drug use patterns was derived from ethnographic research and callers to local drug information hotlines, as well as the United Way of Broward County's Commission on Substance Abuse's Surveillance Support Committee.

## **DRUG ABUSE PATTERNS AND TRENDS**

### **Cocaine/Crack**

The relatively steady decline in cocaine consequences since 2007 halted or reversed starting in 2011. Cocaine problems in South Florida continue to be at the highest rates in the nation. The numbers of cocaine-related deaths have declined since 2007 across the State of Florida with

a modest increase in 2011 which then continued to decline again in the first six-months of 2012 (exhibit 1). The number of cocaine deaths stabilized in 2011 and the first half of 2012 in Miami-Dade and Broward Counties. Treatment admissions for cocaine have declined sharply across the State since 2007 but stabilized in the South Florida counties between 2010 and 2012. The majority of cocaine-related deaths, emergency department reports, and addiction treatment admissions were among those older than 35 years of age. Many of the indicators reflected cocaine use in combination with other drugs including all of the 2012 cocaine-related deaths in the three South Florida Counties.

Throughout Florida, the number of cocaine-related deaths decreased 13-percent in the first half of 2012 (n=668) as compared to the last half of 2011 (n=765) continuing a general overall decline since 2007 with a modest increase in 2011 (exhibit 1). A cocaine-related death is defined as a death in which cocaine is detected in the decedent and may or may not be considered the cause of death. In all of 2011, there were 1,444 cocaine-related deaths in Florida compared with 1,402 in 2010 and 1,462 in 2009 and 1,791 in 2008. The 2007 total of 2,179 reports was the highest number since the drug has been tracked beginning in the late 1980s. The number of cocaine deaths increased 97-percent between 2001 and 2007; the key factor for that rise appears to be a corresponding 105-percent increase of deaths with cocaine-in-combination with other drugs, particularly prescription medications. Among the 668 cocaine-related deaths in Florida during the first half of 2012, 93 percent of the cases involved cocaine-in-combination with at least 1 other drug.

In Florida, a drug is considered to be a cause of death if it be detected in an amount considered a lethal dose by the local medical examiner (ME). Among the 668 cocaine-related deaths statewide in the first half of 2012, the drug was considered to be a cause of deaths in 274 (or 41 percent) of the cases. Among the decedents accounting for the cocaine-related deaths in the first half of 2011, 1.2 percent were less than age 18, 7.8 percent were 18-25 years of age, 21.2 percent were 26-34 years old, 43 percent were aged 35-50, and 27 percent were older than 50.

There were 93 deaths related to cocaine use in Miami-Dade County during the first half of 2012 for an annualized rate of 186 occurrences compared to 184 for all of 2011 (exhibit 1). Cocaine was detected at a lethal level in 34 percent of the cases in the first half of 2012. Cocaine was found in combination with another drug in 100 percent of the cases. One of the cocaine-related decedents in the first half of 2012 was younger than 18; 7.5 percent were age 18–25; 23.6 percent were 26–34; 35.5 percent were 35–50; and 32.3 percent were older than 50. Miami-Dade County had the highest number of cocaine-related deaths in the first half of 2012 among the State's 24 Medical Examiner Districts.

There were 58 deaths related to cocaine abuse in Broward County in the first half of 2012 for an annualized rate of 116 occurrences, compared to with the 115 for all of 2011 (exhibit 1). Cocaine was detected at a lethal level in 62 percent of the Broward County cases in the first half of 2012. Cocaine was found in combination with another drug in all of cases. None of the 2010 cocaine-related fatalities was younger than 18; 2 of the decedents were age 18–25; 19 percent were 26–34; 38 percent were 35–50; and 40 percent were older than 50. Broward County's number of cocaine-related deaths ranked fourth among the 24 ME districts in the State during the first half of 2012.

The St. Petersburg ME district reported the second highest number of cocaine-related deaths in the State during the first half of 2012, with 74 cases, followed by the Jacksonville ME district with 72 reports, then Broward County with 58, and the Orlando ME district with 52. Palm Beach County ranked sixth with 44 cocaine-related deaths.

The DAWN weighted estimate of 7,955 cocaine-involved ED visits for Miami-Dade County during 2011 accounted for 49 percent of the 16,385 ED drug reports involving 6 categories of substances (cocaine, cannabinoids, illicit stimulants, MDMA, as well as nonmedical use of prescription opioids and benzodiazepines). Between 2004 and 2011, the number of cocaine-involved ED visits declined by 16-percent in Miami-Dade County, from 9,469 to 7,955. No statistical changes were noted for 2009 and 2010 compared with 2011 and no significant testing of data for 2005, 2006, 2007, and 2008 versus 2011 was available. However, while the increase from 5,702 cocaine reports in 2010 to the 7,955 is not considered statistically significant because of high Relative Standard Error percentages, it was the first time since 2005 that cocaine ED reports increased. In 2011, the Miami-Dade rate of 311 cocaine ED visits per 100,000 compared with the national rate of 162 per 100,000 (exhibit 2). Those aged 29-34 had the highest rate cocaine ED reports among all age groups in Miami-Dade County at 596 per 100,000 population, and all age groups from 35 to 54 years had rates above 546.

The DAWN weighted estimate of 6,211 cocaine-involved ED visits for the Ft. Lauderdale Division, which includes Broward and Palm Beach Counties, during 2011 accounted for 33 percent of 18,738 estimated ED visits for 7 categories of substances (cocaine, heroin, cannabinoids, illicit stimulants, MDMA, as well as nonmedical use of prescription opioids and benzodiazepines). Between 2009 and 2011, the number of cocaine-involved ED visits increased by 39-percent in the Ft. Lauderdale Division, from 4,479 to 6,211. The increase was even greater between 2010 and 2011 at 52-percent, up from 4,081 that year. The 2011 rate of cocaine ED visits per 100,000 population in Broward and Palm Beach Counties was 199; this compares with the national rate of 162 per 100,000 and the Miami-Dade County rate of 311 per 100,000 (exhibit 2). Those age 35-44 had the highest rate of cocaine ED reports among all age groups in the Ft. Lauderdale Division, at 454 per 100,000 population.

There were 551 primary treatment admissions for cocaine smoking (crack), and an additional 390 for powder cocaine in Miami-Dade County during 2012 (exhibit 3). These cases accounted for a total of 941 (or 24 percent) of the 3,988 publicly-funded primary treatment admissions where a primary drug was cited (including 1,069 for alcohol) in Miami-Dade County during 2012, as reported by the Florida Department of Children and Families. These totals represent an increase in the proportion of cocaine primary admissions in 2011 ( $n=1,052$ ), when cocaine accounted for 20 percent of all admissions. Males accounted for 60 percent of the 2012 clients, and 63 percent ( $n=594$ ) were age 35 or older; only 6 were 17 or younger.

In Broward County, there were 472 primary admissions for cocaine smoking (crack), and an additional 135 for powder cocaine, accounting for a total of 607 (or 11 percent) of the 5,435 publicly-funded primary treatment admissions where a primary drug was cited (including 1,302 for alcohol) in 2012 (exhibit 4). These totals represent a modest increase in the proportion of cocaine primary admissions in 2011 ( $n=555$ ) when cocaine accounted for 9 percent of all admissions. Males accounted for 72 percent of the 2012 clients, and 68 percent ( $n=412$ ) of the 2011 cocaine clients were age 35 or older; while 2 were 17 or younger.

Cocaine continued to be the most commonly analyzed substance by local crime laboratories. It accounted for 11,411 NFLIS reports, or 48.2 percent of the 23,671 total primary, secondary, and tertiary crime lab reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5). This represents a 16-percent decline in the percentage of cocaine crime lab reports compared to 2011. There were also 246 reports for Phenylimidothiazole Isomer assumed to be Levamisole found along with cocaine in 2012.

## Heroin

Heroin consequences remain at low levels across Florida with deaths increasing during the most current 12-month reporting period. South American heroin has been entering the South Florida area over the past two decades. However, reports and seizures of Mexican heroin in South Florida have been noted since 2008. Primary treatment admissions for heroin declined in Miami-Dade but increased in Broward County between 2011 and 2012. Heroin purity increased in South Florida as the price per milligram pure decreased between 2010 and 2011 which is the most current data available from the US DEA. Many heroin consequences also involve the nonmedical use of prescription opioids.

Throughout the State, the number of heroin-related deaths increased 60-percent during the 12 months from July 2011 through June 2012 ( $n=77$ ) compared to the previous 12 months (48). There were 35 heroin-related deaths across Florida during the first half of 2012 down from 42 in the second half of 2011. Heroin continued to be the most lethal drug, with 94 percent ( $n=33$ ) of heroin-related deaths in the first half of 2012 caused by the drug. Polysubstance abuse was noted in all but one of the 2011 and in all the first-half of 2012 heroin-related deaths statewide. Deaths caused by heroin declined in Florida from 2001 to 2006, then increased between 2006 and 2008, before declining again in 2009 and 2010 then increasing in 2011. Substantial increases in abuse and consequences of narcotic analgesic use occurred as heroin problems were waning, but as prescription opioid deaths started to decline in 2011, heroin deaths began increasing.

There were 10 heroin deaths in Miami-Dade County during the first half of 2012 for an annualized rate of 20 occurrences compared to 15 in all of 2011. Lethal heroin deaths peaked in Miami-Dade County in 2000 with 61 fatalities. In the first half of 2012, heroin was found at a lethal dose level in all of the 10 deaths in which the drug was detected in the County. Other drugs were found in combination with heroin in all of the cases. One of the heroin-related fatalities was aged 18-25 and one was aged 26-34, while half ( $n=5$ ) of the heroin-related decedents were age 35-50, and 3 (30 percent) were older than 50.

There were 2 heroin deaths in Broward County during the first half of 2012 compared to 3 in all of 2011, 5 in 2010, 8 in 2009, and 17 in 2008. Lethal heroin deaths peaked in Broward County in 2001 with 51 fatalities. As with all 3 deaths in 2011, both of the heroin deaths in the first half of 2012 were considered to be caused by the drug and were found in combination with at least one other drug. One of the 2012 heroin decedent was in the aged group 26-34 while the other was over 50 years of age.

Weighted DAWN visit estimates for heroin were not available for Miami-Dade County in 2008, 2009, 2010, and 2011 because the sample numbers were not adequate to provide estimates. The last year for which heroin ED reports were provided in Miami-Dade County was 2006 when there were an estimated 1,058 heroin visits at a rate of 44 per 100,000.

The DAWN weighted estimate of 394 heroin-involved ED visits for Broward and Palm Beach Counties during 2011 accounted for 2 percent of all ED visits among 7 substances (cocaine, heroin, cannabinoids, illicit stimulants, MDMA, as well as nonmedical use of prescription opioids and benzodiazepines). The 2011 rate of heroin ED visits per 100,000 population in Broward and Palm Beach Counties was 12.6 compared with the national rate of 83 per 100,000.

There were 161 primary treatment admissions for heroin in Miami-Dade County during 2012 (exhibit 3). These cases accounted for 4 percent of the 3,988 publicly-funded primary treatment

admissions where a primary drug was cited (including 1,069 for alcohol) as reported by the Florida Department of Children and Families. This total is stable with the proportion of primary heroin admissions in 2011 ( $n=227$ ), when the drug also accounted for 4 percent of all admissions. Males accounted for 70 percent of the 2012 clients; none was 17 or younger, 20 percent were age 18-25, 30 percent were 26-34, and 50 percent ( $n=81$ ) were age 35 or older. Injecting drug use was the primary route of administration for 85 percent of the 2012 treatment clients.

In Broward County, there were 292 primary admissions for heroin (or 5 percent) of the 5,435 publicly-funded treatment admissions where a primary drug was cited (including 1,360 for alcohol) in 2012 (exhibit 4). This total represents an increase in the proportion of primary heroin admissions from 2010 ( $n=156$ ) and 2011 ( $n=169$ ), when the drug accounted for 3 percent of all admissions. Males accounted for 73 percent of the 2012 clients; none were under 18 years of age, 18 percent were age 18-25, 39 percent were 26-34, and 43 percent were age 35 or older. Injecting drug use was the primary route of administration for 90 percent of the 2012 treatment clients.

Heroin accounted for 696 crime lab reports, or 2.9 percent of the 23,671 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5), as reported by the NFLIS. Heroin ranked fifth among all substances analyzed in the three counties in both 2011 and 2012 but the percentage of heroin crime lab reports increased 21-percent between the two years.

In 2011, the Miami Field Division of the US DEA purchased 16 qualified Heroin Domestic Monitoring Program (HDMP) samples in the Miami area; 14 were classified as South American (SA) heroin. The SA exhibits purchased had an average purity of 22.1 percent, with an average price of \$2.27 per milligram pure as compared to the national average purity of 31.1 percent and price of \$ 1.18. Compared to 2010 HDMP data, the average purity for SA heroin in South Florida increased by 11.9 percentage points, while the average price per milligram pure decreased sharply by \$3.78. Of the 16 qualified South Florida HDMP samples purchased, 2 were Mexican heroin exhibits. These 2 exhibits had an average purity of 14.1 percent, and an average price of \$2.49 per milligram pure compared to the national average purity of 16.8 percent and price of \$1.35

## **Nonmedical Use of Prescription Opioids**

The nonmedical use of prescription opioids continues as Florida's most deadly and addictive drug problem, however consequences have declined in the first half of 2012. Numerous new laws and regulations took effect in the second half of 2011, the impact of which may first be reflected in data beginning in 2012. Injecting drug use is reported by most Broward County prescription opioid treatment clients as having been their primary method of use.

During the first half of 2012, 2,444 individuals died in Florida with 1 or more prescription drugs in their system, of which 43 percent ( $n=1,054$ ) had at least 1 prescription medication that was considered a cause of death. That means that an average of 40.3 persons died per week in Florida from a lethal prescription drug overdose in the first half of 2012; that average however represents a decrease of 8.5 deaths per week from the 2011 average of 48.8 deaths per week. In total there were 5,714 prescription drugs detected (including 2,759 opioids) during the first half of 2012, and 2,017 (or 35 percent of the total medication occurrences) were considered at a lethal dose and a cause of death, including 45 percent ( $n=1,257$ ) of the opioids (exhibit 6). The number of drug occurrences exceeded the number of deaths because many decedents had more than one substance detected, including another prescription medication, illicit drug, or alcohol.



Between the second half of 2011 and the first six months of 2012, statewide reports in Florida related to the category of prescription opioids detected among deceased persons decreased 17-percent, from 3,310 to 2,759. This followed a 3-percent decrease between 2010 and 2011 and a 10-percent rise between 2009 ( $n=6,006$ ) and 2010 ( $n=6,608$ ) and another 10-percent rise between 2008 ( $n=5,457$ ) and 2009 ( $n=6,006$ ). Reports of hydrocodone (Vicodin®, Lortab®), oxycodone (OxyContin®, Roxicodone®, and Percocet®), and methadone (Dolophine®) identified among decedents have been tracked in Florida since 2000. Beginning in 2003, morphine (MS Contin® and Roxanol®), propoxyphene (Darvon®), fentanyl (Fentora®), hydromorphone (Dilaudid® and Palladone®), meperidine (Demerol HCl®), tramadol (Ultram®), Buprenorphine (Buprenex® and Suboxone®) oxymorphone (Opana® and Numphan®) and other opioids were included in the Florida Medical Examiners Commission's surveillance monitoring program. Propoxyphene is no longer included as of the first half of 2011. Occurrences of 4 prescription opioids detected among deceased persons during the first half of 2012 totaled 116 in Broward County, 96 in Palm Beach County, and 81 in Miami-Dade County.

Across Florida, the 185 hydromorphone reports detected among deceased persons in the first half of 2011 represented a 22-percent increase over the 151 reports in the previous six months. The 411 medical examiner reports for morphine in the first half of 2012 represents a modest 2-percent increase over the previous semi-annual period. These were the only two prescription opioids with increasing reports in the first six months of 2012; 9 others had declining occurrences.

The most lethal prescription opioids statewide in the first half of 2012 were (1) methadone which was considered a cause of death for 69 percent ( $n=274$ ) of the decedents in which it was detected; as (2) fentanyl was a cause of death for 60 percent ( $n=65$ ) of the deaths related to it; and (3) oxycodone was a cause of death for 52 percent ( $n=392$ ) of its occurrences (exhibit 6). Most of the statewide ME prescription opioid cases were polydrug episodes, including 96 percent of the oxycodone reports, 92 percent of the methadone cases, 91 percent of morphine cases, and 90 percent of the hydrocodone reports.

Miami-Dade County recorded 34 oxycodone occurrences among deceased persons in the first half of 2012 (exhibit 7), 31 morphine reports, 17 for hydrocodone, and 5 for methadone. These 87 opioid occurrences during the first six months of 2012 compared equally to 175 combined reports in all of 2011 for the same four narcotic analgesics. Among reports for these 4 opioids in the first half of 2012, 37 percent were considered lethal doses, and 100 percent were found in combination with at least one other substance. Most of the deaths occurred among those age 35 and older; 32 percent of Miami-Dade oxycodone deaths in the first half of 2012 were aged 35-50 and 44 percent were over 50.

Broward County recorded 60 oxycodone occurrences among deceased persons in the first half of 2012 (exhibit 7), 35 reports for morphine, 12 for hydrocodone, and 11 for methadone. These 118 combined opioid occurrences during the first six months of 2012 also compared equally to 328 reports in all of 2011 for the same four narcotic analgesics. Among reports for these 4 opioids in the first half of 2012, 54 percent were considered lethal doses, and 100 percent were found in combination with at least one other substance. Most of the deaths occurred among those age 35 years and older; 37 percent of Broward County oxycodone deaths in the first half of 2012 were aged 35-50 and 43 percent were over 50.

Palm Beach County recorded 44 oxycodone occurrences among deceased persons in the first half of 2012 (exhibit 7), 21 for morphine, 16 reports for methadone, and 15 for hydrocodone. These 96 combined opioid occurrences during the first six months of 2012 compared to 470

reports in all of 2011 for the same four narcotic analgesics. Among reports for these 4 opioids in the first half of 2012, 67 percent were considered lethal doses, and 100 percent were found in combination with at least one other substance. Most of the deaths occurred among those over 35 years of age; 39 percent of Palm Beach County oxycodone deaths in the first half of 2012 were aged 35-50 and 36 percent were over 50.

The DAWN weighted estimate of 1,084 ED visits for nonmedical use of prescription opioids in Miami-Dade County during 2011 accounted for 7 percent of all ED visits among 6 substances (cocaine, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). Between 2004 and 2011, the estimated number of prescription opioid-involved ED visits increased by 133-percent in Miami-Dade County up from 465 that year. No statistical changes were noted for 2009 and 2010 compared with 2011 and no significant testing of data for 2005, 2006, 2007, and 2008 versus 2011 was available. The rate of 42.4 nonmedical opioid ED visits per 100,000 population in Miami-Dade County compared with the national rate of 156.6 per 100,000 in 2011 (exhibit 8). Oxycodone was the most frequently involved opioid in nonmedical ED visits, totaling 462 ED visits in 2011 and representing a 264-percent increase in such cases since 2004. The Miami-Dade rate of 18.1 nonmedical oxycodone ED visits per 100,000 population compared with the national rate of 48.5 per 100,000 in 2011.

The DAWN weighted estimate of 3,699 ED visits for nonmedical use of prescription opioids in the Ft. Lauderdale Division of DAWN including Broward and Palm Beach Counties during 2011 accounted for 20 percent of all ED visits among 7 substances (cocaine, heroin, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). No statistical changes were noted for 2009 and 2010 compared with 2011 and no significant testing of data for 2008 versus 2011 was available. The Broward and Palm Beach Counties rate of nonmedical opioid ED visits was 118.7 per 100,000 population, compared with the national rate of 156.6 per 100,000 in 2011 (exhibit 8). Oxycodone was the most frequently cited opioid involved in nonmedical cases, totaling 1,981 ED visits in 2011. While the national rate was 48.5 per 100,000, the Broward and Palm Beach Counties' rate of nonmedical oxycodone ED visits was 63.6 per 100,000 in 2011. The rates of nonmedical oxycodone ED reports were nearly double for those aged 21-34 years in Broward and Palm Beach Counties as compared to the same age groups nationally.

There were 139 primary treatment admissions for “opiates other than heroin” (prescription opioids) in Miami-Dade County during 2012 (exhibit 3). These cases accounted for a total of or 3.5 percent) of the 3,988 publicly-funded treatment admissions where a primary drug was cited (including 1,069 for alcohol). This total represents a decrease in the proportion of primary prescription opioid admissions in 2011 ( $n=302$ ), when the drug accounted for 5.7 percent of all admissions. Males accounted for 57 percent of the 2012 opioid clients. Information on the ages of these clients was reported for only 74 of them among whom none was younger than age 18, 39 percent were age 18-25, 28 percent were 26-34, and 32 percent ( $n=123$ ) were age 35 or older. Among the 53 percent of the other prescription opioid clients ( $n=74$ ) for whom the primary route of administration was recorded, 22 percent ( $n=16$ ) reported injecting prescription opioids, smoking was reported by 15 percent, sniffing by 12 percent, and 51 percent reported oral administration as their primary method of use.

There were 1,260 primary treatment admissions for “opiates other than heroin” (prescription opioids) in Broward County during 2012 (exhibit 4). These cases accounted for 23 percent of the 5,435 publicly-funded treatment admissions where a primary drug was cited (including 1,360 for alcohol). This total is stable with the proportion of primary prescription opioid admissions in 2011 ( $n=1,459$ ), when the drug accounted for 24 percent of all admissions. Males accounted for 51 percent of the 2012 opioid clients. Information on the ages of these clients was only reported

for 826 of them among whom 8 or 1 percent were younger than age 18, 25 percent were age 18-25, 44 percent were 26-34, and 30 percent ( $n=123$ ) were age 35 or older. Among the 66 percent of the other prescription opioid clients ( $n=826$ ) for whom the primary route of administration was recorded, **58 percent ( $n=480$ ) reported injecting prescription opioids**, sniffing was reported by 18 percent, 20 percent reported oral administration, and 4 percent cited smoking as their primary method of use.

Hospitals reported 55 cases of neonatal abstinence syndrome in Broward County during 2011 and 25 in Miami-Dade County. The number of cases in Broward declined 25-percent between 2010 and 2011 but increased in Miami-Dade County by 39-percent. While these cases could be for maternal use of any addictive drug except alcohol, most are considered to be related to the mothers' nonmedical use of prescription opioids. Statewide the number of cases increased 192-percent between 2007 and 2011 rising from 536 to 1,563.

Prescription opioids accounted for 975 crime lab reports, or 4.1 percent of the 23,671 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5). Prescription opioids ranked third among other substances analyzed in the three counties. The percentage of prescription opioid crime lab reports decreased 31-percent between the 2011 and 2012. Oxycodone accounted for 679 (or 70 percent) of the opioid reports and by itself ranked fifth among all substances. Additionally there were 151 reports for hydromorphone reports (up from 24 in 2011), 122 for hydrocodone, 51 for morphine, 33 for methadone, 28 for buprenorphine, 31 for codeine, 11 for tramadol, and 10 each for oxymorphone and dihydronormorphinone (Paramorphone®). There were also 669 "unspecified controlled substance" crime lab reports in 2012 that may have included additional prescription opioids.

Between 2008 and 2010 as Broward County experienced the highest rates among all other counties in the Nation of: prescription opioid diversion, "pill mill" retail sales, high-volume opioid dispensing practitioners, prescription drug deaths and medical emergencies it also reported the lowest prevalence rate in the Nation for nonmedical use of prescription pain relievers. The Broward County rate of 2.96 percent for residences reporting any past year use of a prescription pain reliever was the lowest percentage for any of the 362 substate regions within the 50 States and the District of Columbia as reported by the 2008-2010 National Survey on Drug Use and Health Substate Estimates of Substance Use and Mental Disorders released in 2012 (exhibit 9).

### **Nonmedical Use of Prescription Benzodiazepines**

Benzodiazepines in general and specifically alprazolam (Xanax®) continue as a substantial problem in South Florida particularly when used non-medically in combination with other pharmaceuticals, alcohol, and illicit drugs. There were 2,622 reports of a benzodiazepine present in deceased persons across Florida in the first half of 2012, representing an 17-percent decrease in the total number of benzodiazepine occurrences in the previous six months. Of the benzodiazepine occurrences in the first half of 2012, 25 percent ( $n=660$ ) were considered "a cause of death." Among the benzodiazepine ME reports statewide, 730 were attributed to alprazolam, and 409 were attributed to diazepam (Valium®); 44 percent of the alprazolam occurrences and 25 percent of the diazepam reports were considered to be a cause of death.

In Miami-Dade County, there were 49 reports of alprazolam detected in deceased persons during the first half of 2012, of which 47 percent were considered lethal. At least one other drug was involved in 100 percent of the reports. There were also 22 reports of diazepam detected in

deceased persons in Miami-Dade County; 36 percent were considered to be the cause of death, and 100 percent of these deaths involved at least one other drug. These 80 medical examiner occurrences for the two benzodiazepines in the first six months of 2012 compare with 151 such reports for alprazolam and diazepam in all of 2011 and 169 in 2010. One of the benzodiazepine mentions in the first half of 2012 involved a person younger than 18; 7 percent of the decedents were between age 18 and 25; 11 percent were age 26–34; 33 percent were age 35–50; and 46 percent were older than 50.

In Broward County, there were 72 reports of alprazolam detected in deceased persons during the first half of 2012, of which 53 percent were considered a cause of death. At least one other drug was involved in 100 percent of the reports. There were also 25 reports of diazepam detected in deceased persons in Broward County; 40 percent were considered to be the cause of death, and 100 percent of these deaths involved at least one other drug. These 97 medical examiner occurrences for the two benzodiazepines in the first six months of 2012 compare with 284 such reports for alprazolam and diazepam in all of 2011 and 315 in 2010. None of the benzodiazepine mentions in the first half of 2012 involved a person younger than 18; 2 percent of the decedents were between age 18 and 25; 14 percent were age 26–34; 37 percent were age 35–50; and 46 percent were older than 50.

In Palm Beach County, there were 47 reports of alprazolam detected in deceased persons during the first half of 2012, of which 55 percent were considered lethal. At least one other drug was involved in 100 percent of the reports. There were also 23 reports of diazepam detected in deceased persons in Palm Beach County; 30 percent were considered to be the cause of death, and 100 percent of these deaths involved at least one other drug. These 70 medical examiner occurrences for the two benzodiazepines in the first six months of 2012 compare with 320 such reports for alprazolam and diazepam in all of 2011 and 186 in 2010. None of the benzodiazepine mentions in the first half of 2012 involved a person younger than 18; 6 percent of the decedents were between age 18 and 25; 24 percent were age 26–34; 34 percent were age 35–50; and 36 percent were older than 50.

The DAWN weighted estimate of 1,808 ED visits for nonmedical use of prescription benzodiazepines in Miami-Dade County during 2011 accounted for 11 percent of all ED visits among 6 categories of substances (cocaine, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). No statistical changes were noted for 2004, 2009 or 2010 compared with 2011 and no significant testing of data for 2005, 2006, 2007, and 2008 versus 2011 was available. The Miami-Dade rate of 70.8 nonmedical benzodiazepine ED visits per 100,000 population compared with the national rate of 114.8 per 100,000 in 2011. Alprazolam was the most frequently cited benzodiazepine in nonmedical cases, totaling 987 ED visits in 2011. The Miami-Dade rate of nonmedical alprazolam ED visits per 100,000 population was 38.6, compared with the 2011 national rate of 39.7 per 100,000.

The DAWN weighted estimate of 3,647 ED visits for nonmedical use of pharmaceutical benzodiazepines in the Ft. Lauderdale Division of DAWN including Broward and Palm Beach Counties during 2011 accounted for 19 percent of all ED visits among 7 categories of substances (cocaine, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). The Broward and Palm Beach Counties rate of 117.1 nonmedical benzodiazepine ED visits per 100,000 population was less than the national rate of 114.8 per 100,000 in 2011. The highest ED visit rates in the two Counties for nonmedical use of benzodiazepines were among those aged 21–24 at 246.9 per 100,000 and those age 25–29, at 250.8 per 100,000. These rates were similar to the national rates of 223.3 for those aged 21–24 and 259.8 per 100,000 for those 25–29. Alprazolam was the most frequently cited benzodiazepine in nonmedical cases, totaling an estimated 1,780 ED visits in 2011. The Broward

and Palm Beach Counties' rate of nonmedical alprazolam ED visits per 100,000 population of 57.1 was higher than the national rate of 39.7 per 100,000 in 2011.

There were 58 admissions for benzodiazepines reported as primary treatment admissions in Miami-Dade County during 2012, or 1.5 percent of the 3,988 total treatment admissions where a primary drug was cited in Miami-Dade County (exhibit 3). This total is stable with the proportion of such admission in 2011 when 79 cases also represented 1.5 percent of the total. Females accounted for 55 percent of the 2012 benzodiazepine clients.

In Broward County, there were 93 primary admissions for benzodiazepines during 2012 or 1.7 percent of 5,435 primary admissions where a primary drug was cited (exhibit 4). This total is an increase in the proportion of such admission in 2010 when 140 cases represented 2.5 percent of the total. Males accounted for 52 percent of the 2012 benzodiazepine clients.

Prescription benzodiazepine accounted for 882 crime lab reports, or 3.7 percent of the 23,671 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5). This category of drugs ranked fourth among all substances analyzed in the three counties in both 2011 and 2012 but the percentage of prescription benzodiazepine crime lab reports decreased 16-percent between the two years. Alprazolam accounted for 729 (or 83 percent) of the benzodiazepine reports and by itself ranked third among all substances. Additionally there were 74 clonazepam (Klonopin®) reports, 46 for diazepam, 14 for lorazepam (Ativan®), 17 for temazepam (Restoril®), and 2 for triazolam (Halcion®). There were also 669 "unspecified controlled substance" crime lab reports in 2012 that may have included additional prescription benzodiazepines.

## **Methamphetamine/Amphetamines**

Indicators of methamphetamine abuse reflect increases in the drug's use in the most recent reporting periods but still remain at low levels relative to other substances. Methamphetamine was cited as the primary drug for addiction treatment among less than 0.3 percent of addiction treatment clients in South Florida during 2012. Numerous anecdotal reports from private treatment counselors suggest a resurgence in methamphetamine abuse among men who have sex with men beginning in the first half of 2012. Methamphetamine use is also reported among heavy users of club drugs.

It is suspected that the methamphetamine being used locally is produced in Mexico. Domestic clandestine laboratory production in Florida mostly appears still to be using the 2-liter soda bottles "shake and bake" method that yields a relatively 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 73 deceased persons during the first half of 2012 statewide in Florida, compared to 58 in the previous six months. There were 115 methamphetamine medical examiner occurrences in all of 2011, 132 in 2010, 81 in 2009, and 114 in 2008. Methamphetamine was considered a cause of death in 29 (40 percent) of the 73 cases during the first half of 2012. There were also 123 reports of amphetamine detected among decedents across Florida in the first six months of 2012, representing a 21-percent increase from the 102 such occurrences in the previous semi-annual period. Amphetamine was considered the cause of death in 20 percent of the 123 cases in the first half of 2012.

There were 271 DAWN weighted estimated reports for the combined category of illicit stimulants including both amphetamines and methamphetamine for Miami-Dade County during 2011, representing a 75-percent increase over the 155 such reports in 2009. This 2011 total included 150 reports for methamphetamine and 131 for other illicit amphetamines. In 2011, the rate of 10.6 illicit stimulant ED visits per 100,000 population was well below the national rate of 51.3 per 100,000.

There were 251 DAWN weighted estimate of for the combined category of illicit stimulants including both amphetamines and methamphetamine for the Ft. Lauderdale Division that includes Broward and Palm Beach Counties during 2011. However, there were no estimates for the specific stimulants due to a low number from the DAWN sample. No statistical changes were noted for 2009 or 2010 compared with 2011 and no significant testing of data for 2008 versus 2011 was available. The 2011 rate of 9.8 illicit stimulant ED visits per 100,000 population in Broward and Palm Beach Counties was well below the national rate of 51.3 per 100,000.

There were 11 primary treatment admissions for methamphetamine in Miami-Dade County during 2012 (exhibit 3). These cases accounted for 0.3 percent of the 3,988 publicly-funded primary treatment admissions where a primary drug was cited (including 1,069 for alcohol). This total is stable with the number of primary methamphetamine admissions compared to 2011 when the drug also accounted for 0.3 percent (n=17) of all admissions. All of the 2012 methamphetamine clients were male; none was under the age of 18, 27 percent (n=3) were age 18-25, 9 percent (n=1) were age 26-34, and 67 percent (n=7) were age 35 or older. There were also four primary admissions for other amphetamines; three were male and 2 each were age 18-25 and 26-34. Among the 11 methamphetamine clients, 6 cited smoking as their primary method of use, 3 reported sniffing, and 2 reported injecting,

There were 16 primary treatment admissions for methamphetamines in Broward County during 2012 (exhibit 4). These cases accounted for 0.3 percent of the 5,435 publicly-funded primary treatment admissions where a primary drug was cited (including 1,360 for alcohol). This total is stable with the number of primary methamphetamine admissions compared to 2011 when the drug also accounted for 0.3 percent (n=12) of all admissions. All of the 2012 methamphetamine clients were male; none was under the age of 25, 31 percent (n=5) were age 26-34, and 69 percent (n=11) were age 35 or older. There were also 8 primary admissions for other amphetamines, none of whom was under the age of 18 years, 1 was 18-25, and 2 were age 25-34, and 5 were age 35 or older. Among the 16 methamphetamine clients, 9 cited smoking as their primary method of use, 4 reported injecting, 2 reported sniffing, and 1 cited oral injection,

Methamphetamine accounted for 161 crime lab reports, or 0.7 percent of the 23,971 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5). Methamphetamine ranked tenth among all substances analyzed in the three counties in both 2011 and 2012. There were also 58 amphetamine crime lab reports in 2012.

## **Marijuana/Cannabis and Synthetic Cannabinoids**

Marijuana was cited as the number one primary substance for addiction treatment in both South Florida counties in 2012 accounting for one-third of admissions for all substances. Consequences of marijuana use and addiction continued at high levels particularly among adolescents and young adults. More than half of marijuana addiction treatment clients were below the age of 18 years and more than three-fourths were under the age of 25 in Miami-Dade and Broward Counties.

Cannabinoids were detected in 384 deaths statewide in Florida during the first half of 2012 an 18-percent decrease from the 470 occurrences the previous six months.

The availability of unregulated synthetic cannabinoids increased through retail sale throughout 2010 and the first half of 2011. Their use was primary among those who were subject to frequent drug-testing that did not identify these products. However, drug tests are now available for their detection, and the five synthetic cannabinoids that were federally scheduled in 2011 were also made illegal by the 2011 Florida Legislature which also banned other cannabinoids in 2012. There were 537 exposure calls statewide to Florida Poison Information Centers in 2012 for various synthetic cannabinoids (e.g., “K2” or “Spice”) stable with the 517 calls in 2011. Among the calls in 2012, 45 were from Miami-Dade County, 37 from Broward, and 24 from Palm Beach County. More than two-thirds of the State’s 2012 synthetic cannabinoid poison exposure calls were in the first half of the year and 271 or 50 percent were made in the first four months. In the first four months of 2013 these calls declined 71-percent to 78 in all of Florida and were mostly from the St. Petersburg and Tampa Bay area. Exposure calls involve cases usually from a hospital emergency department where someone is experiencing adverse consequences after smoking or ingesting a substance.

The DAWN weighted estimate of 4,842 cannabinoid-involved ED visits for Miami-Dade County during 2011 accounted for 30 percent of all ED visits among 6 categories of substances (cocaine, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). No statistical changes were noted for 2004, 2009 or 2010 compared with 2011 and no significant testing of data for 2005, 2006, 2007, and 2008 versus 2011 was available. Forty-four of these ED reports in 2011 were for a synthetic cannabinoid. The rate of marijuana ED visits per 100,000 population was 187.8 while the national rate was 146.2 per 100,000 (exhibit 10). Among those younger than 21, there were 1,036 cannabinoid-involved ED visits (or 21 percent) in 2011, representing a rate of 158.5 visits per 100,000; the national rate was 153.1 per 100,000. Among those aged 21 and older, there were 3,806 marijuana ED visits (or 79 percent) in 2011, at a rate of 200.2 per 100,000; the national rate was 154.2 per 100,000.

The DAWN weighted estimate of 4,127 cannabinoid-involved ED visits for the Ft. Lauderdale Division that includes Broward and Palm Beach Counties during 2011 accounted for 22 percent of all ED visits among 7 categories of substances (cocaine, heroin, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). The estimated number of marijuana-involved ED visits in 2011 was a 44-percent increase compared with the 2,870 marijuana-involved visits in 2009. No statistical changes were noted for 2010 compared with 2011 and no significant testing of data for 2008 versus 2011 was available. Included in the 2011 reports were 120 for a synthetic cannabinoid. The rate of marijuana ED visits per 100,000 population was 128.6, compared with national rate of 146.2 per 100,000 population (exhibit 10). Among those younger than 21, there were 1,208 cannabinoid-involved ED visits (or 29 percent) in 2011 and a rate of 156.4 visits per 100,000; the national rate was 153.1 per 100,000. Among the local reports for those below age 21, 32 were for a synthetic cannabinoid. Among those aged 21 and older, there were 2,918 marijuana ED visits (or 71 percent) in 2011 and a rate of 124.6 per 100,000, compared with the national rate of 154.2 per 100,000.

There were 1,576 primary treatment admissions for marijuana in Miami-Dade County during 2012 (exhibit 3). These cases accounted for 40 percent of the 3,988 publicly-funded primary treatment admissions where a primary drug was cited (including 1,069 for alcohol), higher than for any other substance. This proportion of admissions was stable with 2011 when the drug accounted for 37 percent (n=2,008) of all admissions. Among the 2012 marijuana clients, 72

percent were male; 56 percent were under the age of 18, 22 percent were age 18-25, 14 percent were 26-34, and 7 percent were age 35 or older.

In Broward County, there were 1,748 primary admissions for marijuana (or 32 percent) of the 5,435 publicly-funded primary treatment admissions where a primary drug was cited (including 1,360 for alcohol), higher than for any other substance (exhibit 4). This proportion of admissions was stable with 2011 when the drug also accounted for 32 percent (n=1,949) of all admissions. Males accounted for 80 percent of the 2012 clients; 51 percent were under the age of 18, 26 percent were age 18-25, 12 percent were 26-34, and 11 percent were age 35 or older.

Cannabis/THC accounted for 5,388 crime lab reports, or 22.8 percent of the 23,671 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5). This total increased 8-percent from the number of marijuana crime lab cases in 2011. As in previous years, marijuana ranked second among all substances analyzed in the three counties. There were also 114 crime lab reports for the synthetic cannabinoid AM-2201, 27 reports for JWH-018 (1-Pentyl-3-[1-Naphthoyl] Indole), 25 for XLR-11, 6 for JWH-081 and 18 reports for 6 other synthetic cannabinoids. The total of crime lab synthetic cannabinoids increased from 19 reports in 2011 to 190 in 2012.

Marijuana continued to be described as widely available throughout Florida, with local commercial, sinsemilla, and hydroponic grades available. The ounce price for commercial grade marijuana continued to be \$100–\$150. Sinsemilla sold for \$400–\$500 per ounce. Depending on its potency, marijuana sold for \$5–\$20 per gram.

## **MDMA or Ecstasy and Emerging Psychoactive Substances**

Measures of MDMA abuse have declined in the South Florida area to relatively low numbers in recent years while reports of other hallucinogenic amphetamines often sold as “ecstasy” or “Mollys” have increased. Indicators where there is no toxicology verification such as hospital emergency departments report “ecstasy” as MDMA with increasing numbers while other measures such as medical examiner and crime lab reports with toxicological testing of the actual substance reflect declining numbers of MDMA but increasing cases of other drugs including bk-methylone, MDA, 5-Methoxy-N,N-Diisopropyltryptamine (5-MeO-DIPT), 1-benzylpiperazine (BZP), and 1-3(3-Trifluoromethyl-phenyl)-Piperazine (TFMPP).

There were 5 MDMA-related deaths statewide in Florida in the first half of 2012, with the drug being cited as the cause of death in 3 of these cases. There were also 5 reports of MDA (3, 4-methylenedioxyamphetamine)-related deaths statewide in Florida during the semi-annual period, one of which was considered the cause of death. During the previous six months, there were 4 MDMA-related deaths and 1 for MDA.

There were 398 DAWN weighted estimates for MDMA-involved ED visits for Miami-Dade County during 2011 representing 2 percent of all ED visits among 6 categories of substances (cocaine, cannabinoids, illicit stimulants, and MDMA—as well as nonmedical use of prescription opioids and benzodiazepines). The 2011 total represented a 91-percent increase over the 209 MDMA reports in 2004 and a 107-percent increase over the 192 in 2009. The rate of 15.6 MDMA ED visits per 100,000 population was above the national rate of 7.2 (exhibit 11). Among those younger than 21, there were 153 MDMA ED visits in 2011, representing a rate of 23.3 visits per 100,000; the national rate was 11.6. Among those age 21 and older, there were 245 MDMA ED visits in 2011 with a rate of 7.7 compared to the national rate of 5.5.



The DAWN weighted estimate of 409 MDMA-involved ED visits for the Ft. Lauderdale Division that includes Broward and Palm Beach Counties during 2011 accounted for 2 percent of all ED visits among 7 categories of substances (cocaine, heroin, cannabinoids, heroin, MDMA—and nonmedical use of prescription opioids and benzodiazepines). The 409 MDMA ED visits in 2011 increased 62-percent from the 253 such cases in 2009. The 2011 rate of 13.1 MDMA ED visits per 100,000 population was above the national rate of 7.2 (exhibit 11). Among those age 21 and older, there were 255 MDMA ED visits in 2011 with a rate of 12.9 almost double the national rate of 5.5. A local estimate of MDMA ED reports for those under age 21 was not available for 2011.

In all of Florida there were 47 Poison Information exposure calls for “Mollys” in the first four months of 2013 which included 19 from Miami-Dade County, 8 from Broward, and 4 from Palm Beach County. During the same four months in 2012, there were only 2 poison exposure calls for “Mollys” in the State and none were from any of the three South Florida Counties.

There were 10 primary treatment admissions for MDMA in Miami-Dade County in 2012 and 4 in Broward County (exhibits 3 and 4). In 2011, there were 4 primary treatment admissions for MDMA in Miami-Dade County and 7 in Broward County.

MDMA accounted for 107 crime lab reports, or 0.4 percent of the 23,671 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012 (exhibit 5). This number is down from 2011 when there were 299 MDMA crime lab reports, or 1.2 percent of the 25,697 total primary, secondary, and tertiary NFLIS reports from the three South Florida Counties that year. MDMA ranked 17<sup>th</sup> among all substances analyzed in the three counties during 2012 down from 8<sup>th</sup> in 2011.

There were also 428 crime lab reports for synthetic cathinones in 2012, up from 42 in 2011 (exhibit 12). Methylone was detected in 388 of these samples most of which were alleged to be “Molly” capsules. Finally there were also 361 other emerging psychoactive substances crime lab cases in 2012 including 89 for 5-MeO-DIPT, 113 for BZP, and 86 for TFMPP (exhibit 13). BZP in combination with TFMPP is often sold as “ecstasy.”

## **GHB**

Abuse of the anesthetic Gamma Hydroxy Butyrate (GHB) had declined significantly over the past decade, but deaths related to it have been slowly increasing since 2008 in Florida. There are several compounds that are converted by the body to GHB, including Gamma Hydroxy Butyl Lactone (GBL) and 1, 4-Butanediol (1, 4-BD). Over the past few years, GHB abuse had involved only the abuse of 1, 4-BD, but crime lab cases for GHB and GBL appeared in 2012. Commonly used with alcohol, these substances have been implicated in drug-facilitated rapes and other crimes. GHB was declared a federally controlled Schedule I drug in March 2000, and indicators of its abuse have declined since that time.

There were 7 GHB-related deaths statewide during the first half of 2012, and the drug was considered the cause of death in two of those cases. There were 9 GHB-related deaths statewide in all of 2011, 8 in 2010, 6 in 2009, and 3 in 2008, 5 in 2007; 4 in 2006; and 9 deaths in 2005. Statewide in Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001; they then declined to 19 in 2002 before declining to 11 in 2003 and 2004.

There were no weighted estimates of GHB ED visits for either Miami-Dade County or the Ft. Lauderdale Division of DAWN in 2011 as in 2010 due to a low number of cases from the DAWN sample.

There were 5 crime lab reports for 1,4-Butanediol and 3 each for Gamma Hydroxy Butyrate (GHB) and Gamma Hydroxy Butyl Lactone (GBL) among the 25,697 total primary, secondary, and tertiary NFLIS reports for Miami-Dade, Broward, and Palm Beach Counties combined in 2012. In 2011 there were 9 crime lab reports for 1, 4-Butanediol and none for either GHB or GBL among the 25,697 South Florida crime lab reports.

### **Nonmedical Use of Prescription Muscle Relaxants**

Muscle relaxants may be abused in combination with MDMA and other drugs and particularly prescription opioids and benzodiazepines. There were 174 reports of carisoprodol (Soma®) or meprobamate among deceased persons in Florida during the first half of 2012, of which 53 (or 30 percent) were considered to be caused by the drug. There were 246 carisoprodol/meprobamate occurrences the previous six months and a total of 478 in all of 2011, 513 in 2010, 455 in 2009, and 415 deaths in 2008. The 29-percent decrease in muscle relaxant deaths between the second half of 2011 and the first half of 2012 reflects a similar decline as seen for other prescription medications over the same two reporting periods.

Weighted DAWN visit estimates for muscle relaxants were not available for Miami-Dade County from 2004 to 2011 because the sample numbers were not adequate. There were 300 DAWN weighted ED visits for nonmedical use of any pharmaceutical muscle relaxants in the Ft. Lauderdale Division of DAWN comprised of Broward and Palm Beach Counties during 2011. The Broward and Palm Beach Counties rate of nonmedical muscle relaxant ED visits per 100,000 population was 9.6, compared with the national rate of 3.3 in 2011. Carisoprodol was the most frequently cited muscle relaxant in nonmedical cases, totaling 256 estimated ED visits in 2011. The Broward and Palm Beach Counties 2011 rate of nonmedical carisoprodol ED visits per 100,000 population was 8.2, compared with the national rate of 1.4.

There were 2 primary treatment admissions for carisoprodol in Broward County in 2012 and none in Miami-Dade County.

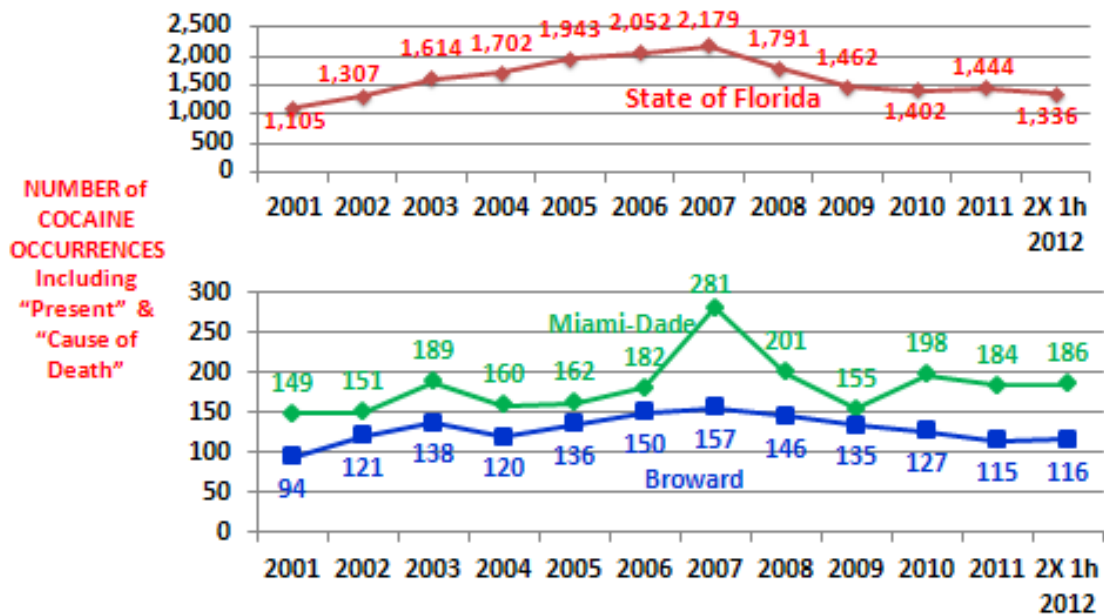
NFLIS laboratories analyzed 33 carisoprodol items in the South Florida MSA in 2012, a decrease from the 42 reports in 2011 and 55 in 2010.

### **Infectious Disease Related to Drug Abuse**

A major concern identified in the above sections of this report is the increase in injecting drug use among new, young adult cohort of prescription opioid injectors, heroin initiates, and methamphetamine users. Among 2012 treatment clients, 90 percent of Broward and 85 percent of Miami-Dade heroin patients reported injecting as their major route of administration (exhibit 14). Even more surprising is the 58 percent of prescription opioid treatment clients in Broward County reporting injecting as their primary method of use as did 22 percent of such clients in Miami-Dade. Among the relative few methamphetamine treatment clients, 25 percent in Broward and 18 percent in Miami-Dade were injecting drug users. Most of these new IDUs were born after 1990 and were only toddlers when the public learned about the high risk of infected syringes and works as well as how to clean them. Thus a public health threat of increased HIV and Hepatitis C transmission is already occurring.

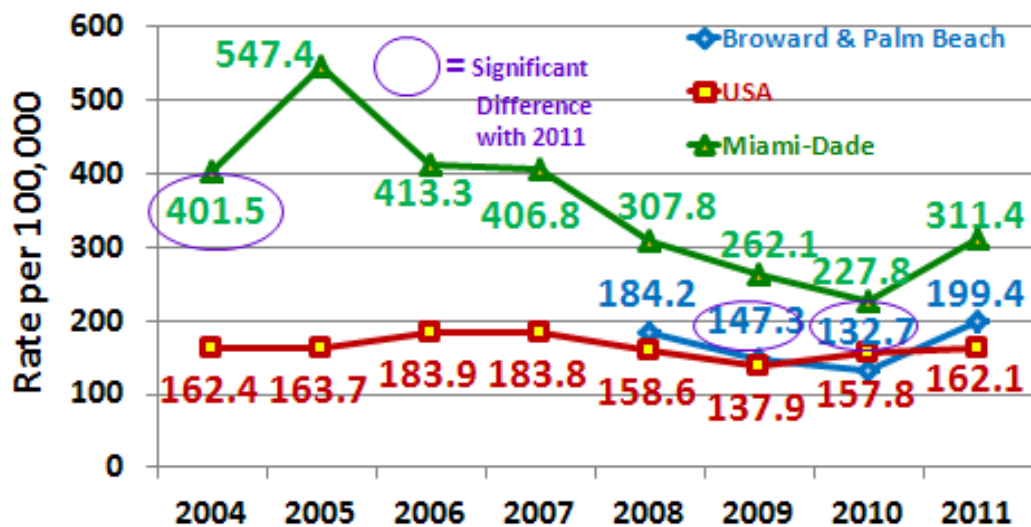
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## Exhibit 1 Number of Cocaine Reports Detected Among Decedents in Florida: 2000 - 2012



SOURCE: Florida Medical Examiners Commission Interim Report Jan-Jun 2012

## Exhibit 2 Rate of Cocaine Emergency Department Reports Per 100,000 Miami-Dade, Broward and Palm Beach Counties, and USA: 2004-2011



SOURCE: US Dept. HHS-SAMHSA, CBHSQ; DAWN Emergency Dept. Estimates 2004-2011

### Exhibit 3 Number of Primary Treatment Admissions by Substance in Miami-Dade County, FL: 2009-2012

Primary Treatment Substance	2009	2010	2011	2012
Alcohol	1,289	1,242	1,406	1,069
Crack Cocaine	867	549	615	551
Powder Cocaine	690	369	437	390
Heroin	150	183	227	161
Rx Opioids	113	246	302	139
Marijuana	2,118	1,741	2,008	1,576
Methamphetamine	55	22	17	11
Amphetamine	2	5	5	4
MDMA	3	6	4	10
PCP	29	0	1	1
Benzodiazepine	1	71	79	58
All Other Drugs	108	30	230	18
Substance Unknown	117	84	91	78
<b>TOTAL ADMISSIONS</b>	<b>5,542</b>	<b>4,548</b>	<b>5,338</b>	<b>4,066</b>

SOURCE: Florida Department of Children and Families Data Submitted June 4, 2013

### Exhibit 4 Number of Primary Treatment Admissions by Substance in Broward County, FL : 2009-2012

Primary Treatment Substance	2009	2010	2011	2012
Alcohol	1,254	1,142	1,302	1,360
Crack Cocaine	610	424	432	472
Powder Cocaine	159	57	123	135
Heroin	105	156	169	292
Rx Opioids	336	1,118	1,459	1,260
Marijuana	2,030	1,689	1,949	1,748
Methamphetamine	20	34	12	16
Amphetamine	6	2	8	8
MDMA	0	5	7	4
PCP	0	0	0	0
Benzodiazepine	47	101	140	93
All Other Drugs	689	37	219	47
Substance Unknown	422	304	178	430
<b>TOTAL ADMISSIONS</b>	<b>5,678</b>	<b>5,069</b>	<b>5,851</b>	<b>5,865</b>

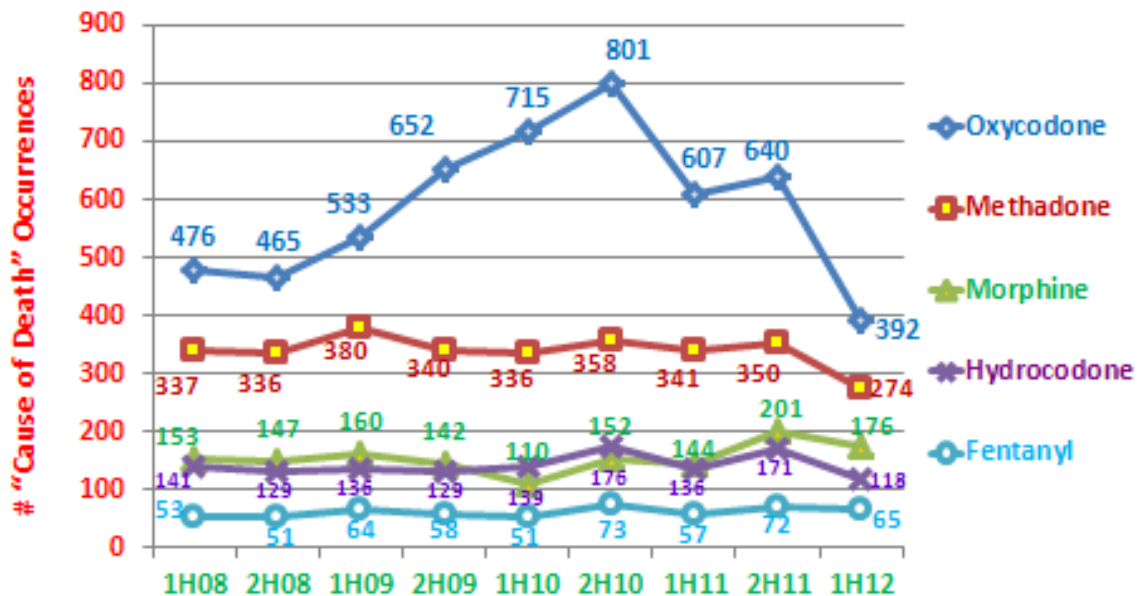
SOURCE: Florida Department of Children and Families Data Submitted June 4, 2013

**Exhibit 5** Top 10 Most Frequently Identified Drugs of Total Analyzed Drug Reports of 3 Drugs per Item from South Florida Crime Labs Reports CY 2012 vs. 2011

Drug	2012 Number	2012 %	% Δ vs. 2011
Cocaine	11,411	48.2%	Down 16 %
Marijuana/Cannabis	5,388	22.8%	Up 8 %
Rx Opioids	975	4.1%	Down 31 %
Rx Benzodiazepines	882	3.7%	Down 16 %
Heroin	696	2.9%	Up 21 %
Hallucinogen	524	2.2%	Up 16 %
Methylone (N-Methyl-3,4-Methylenedioxycathinone)	388	1.6%	Up 1500 %
Phenylimidothiazole Iso Undetermined	246	1.0%	Down 9 %
Caffeine	237	1.0%	Down 17 %
Methamphetamine	170	0.7%	Up 17 %
All Other Analyzed Drugs	2,754	11.6%	Up 5 %
<b>Total</b>	<b>23,671</b>	<b>100.0%</b>	

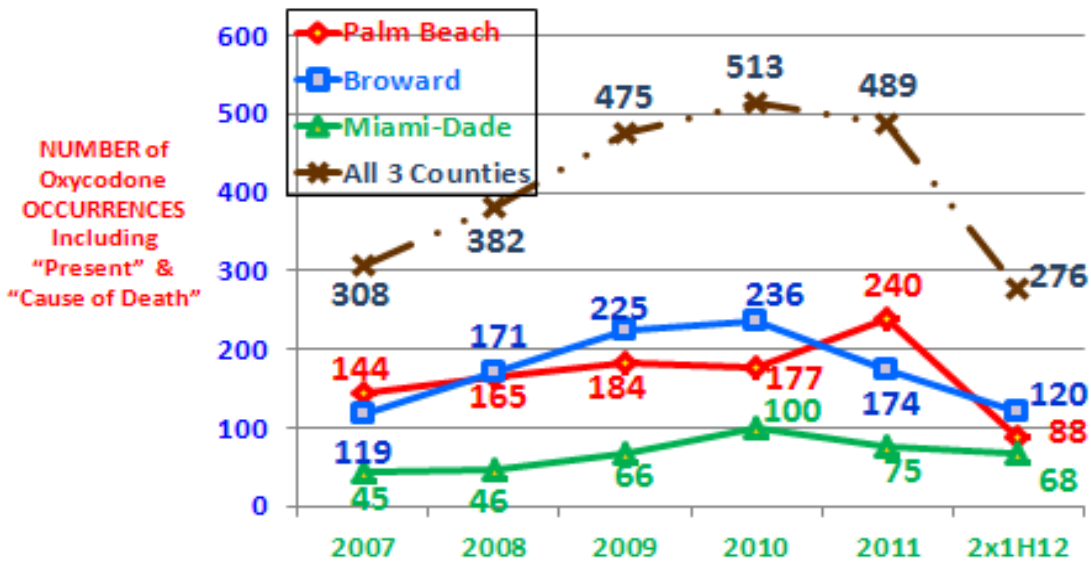
Data are for January–December 2012 and include primary, secondary, and tertiary reports.  
 SOURCE: US DEA: National Forensic Laboratory Information System DQS on May 7, 2013

**Exhibit 6** # of Selected Lethal Rx Opioid Occurrences Among Deceased Persons in Florida Jan 2008 to Jun 2012



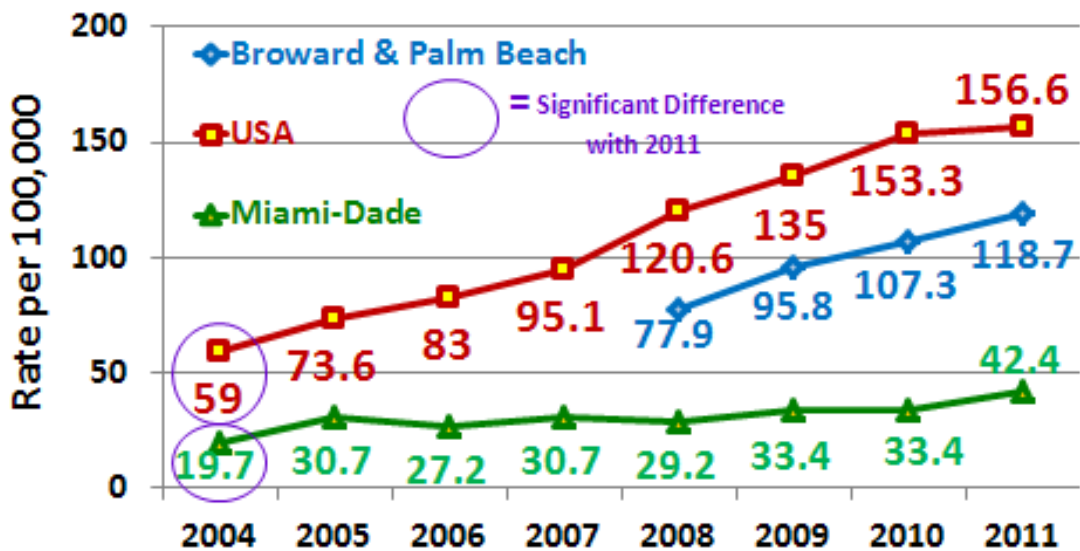
Source: FDLE – Drugs Identified In Deceased Persons by Florida Medical Examiners  
 Jan 2007 - Jun 2012 Reports

**Exhibit 7** Number of **Oxycodone** Reports Detected among Decedents in South Florida: 2007-2012



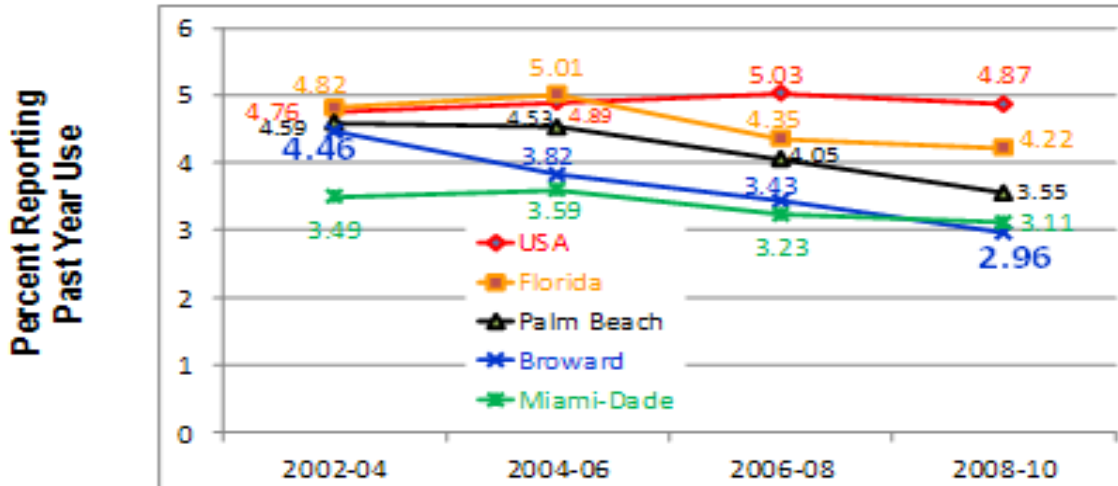
SOURCE: Florida Medical Examiners Commission Interim Report 2012

**Exhibit 8** Rates of **NMU Rx Opioid** Emergency Dept. Reports Per 100,000 **Miami-Dade, Broward and Palm Beach** Counties, and **USA**: 2004-2011



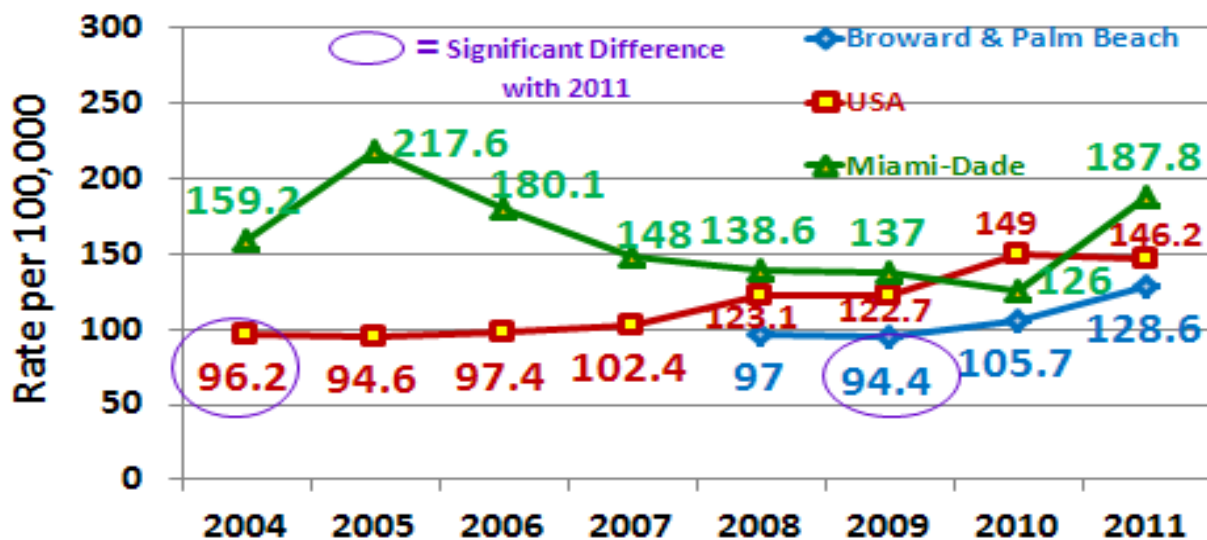
SOURCE: US Dept. HHS-SAMHSA, CBHSQ: DAWN Emergency Dept. Estimates 2004-2011

**Exhibit 9 Percent of Persons Aged 12 and Above Reporting Nonmedical Use of Rx Pain Relievers in the Past Year: 2002-2010**



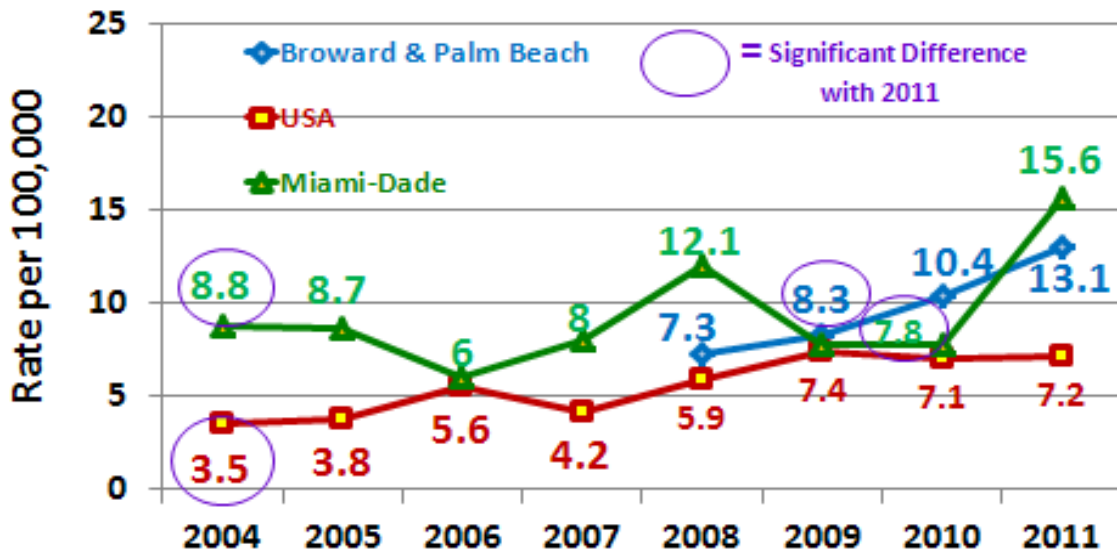
SOURCE: SAMHSA-CBHSQ(2012): Substate Estimates from the 2002-2010 National Surveys on Drug Use and Health

**Exhibit 10 Rate of Marijuana Emergency Dept. Reports Per 100,000 Miami-Dade, Broward and Palm Beach Counties, and USA: 2004-2011**



SOURCE: US Dept. HHS-SAMHSA, CBHSQ: DAWN Emergency Dept. Estimates 2004-2011

**Exhibit 11 Rate of MDMA Emergency Department Reports Per 100,000 Miami-Dade, Broward and Palm Beach Counties, and USA: 2004-2011**



SOURCE: US Dept. HHS-SAMHSA, CBHSQ: DAWN Emergency Dept. Estimates 2004-2011

**Exhibit 12 Number of Synthetic Cathinone South Florida Crime Lab Reports 2011 vs. 2012**

Synthetic Cathinones	2011	2012
<b>Methylone</b>	<b>27</b>	<b>388</b>
<b>4-MEC</b>	<b>3</b>	<b>36</b>
3,4-METHYLENEDIOXY-DIMETHYL CATHINONE	0	2
<b>Mephedrone</b>	<b>12</b>	<b>2</b>
<b>TOTAL</b>	<b>42</b>	<b>428</b>

Source: US DEA-National Forensic Laboratory Information System (NFLIS) for Miami-Dade, Broward and Palm Beach Counties 2011 (5/8/12) and 2012 (5/7/13)



**Exhibit 13      Number of South Florida Other New Drugs  
Crime Lab Reports 2011 vs. 2012**

*Source: US DEA-  
National  
Forensic  
Laboratory  
Information  
System (NFLIS)  
for Miami-Dade,  
Broward and  
Palm Beach  
Counties 2011  
(5/8/12) and  
2012 (5/7/13)*

OTHER EMERGING PSYCHOACTIVE SUBSTANCES	2011	2012
BZP	130	113
5-MEO-DIPT	133	89
TFMPP	83	86
MDPV	32	58
DMT	6	4
2C-B	2	2
4- METHOXYMETHAMPHETAMINE		2
5-MEO-MIPT		2
ALPHA-PVP		2
MMDA		1
ALPHA-METHYLTRYPTAMINE		1
TRYPTAMINE		1
<b>TOTAL</b>	<b>386</b>	<b>361</b>

**Exhibit 14      Percent of Addiction Treatment Clients  
Reporting Injecting Drug Use by Primary Drug at  
Admission: Miami-Dade & Broward Counties 2012**

Treatment Primary Drug	Miami-Dade %	Broward %
<b>Prescription Opioid</b>	<b>22 %</b>	<b>58 %</b>
<b>Heroin</b>	<b>85 %</b>	<b>90 %</b>
<b>Methamphetamine</b>	<b>18 %</b>	<b>25 %</b>

*Source: Florida Department of Children and Families*