

# Drug Abuse Trends in Miami-Dade County, Florida: 2009-2010

James N. Hall<sup>1</sup>

## ABSTRACT

**Cocaine** consequences as a proportion of all drug problems continue to be higher in South Florida than in most of the Nation. Yet, Miami-Dade County has been leading a decline in cocaine-related problems since 2007 which is now observed nationwide. **Heroin** remains at low and stable levels across Florida with wide scale availability of diverted prescription opioids. Primary treatment admissions for heroin increased locally between 2009 and 2010. More than half of the heroin deaths in recent years are found in combination with one or more **prescription opioids** at the time of death. Oxycodone remains the major opioid linked to nonmedical use, yet 93 percent of deaths attributed to it statewide are found in combination with other drugs including benzodiazepines, other opioids, and muscle relaxants. Deaths related to nonmedical use of opioids appear to have peaked in the second half of 2009 while other indicators are increasing. Oxymorphone is the fastest rising opioid in nonmedical use indicators. Injecting is increasingly reported among opioid treatment clients. **Benzodiazepine** related-deaths have stabilized while emergency department reports have increased. **Muscle relaxant** nonmedical use is stable at low levels. Indicators of **methamphetamine** abuse are low in Florida, yet seizures of small clandestine labs (mostly two-liter soda bottles) are on the rise in other parts of the State but not in South Florida. Such activity is associated with low-level yields for use by those involved in “cooking meth” and a small number of other users who often help acquire or “smurf” for the precursor, pseudoephedrine. **Marijuana** use is increasing among adolescents and ranks number one in addiction treatment admissions statewide as well as locally and number two behind cocaine in South Florida drug-related emergency department reports and crime lab cases. **Ecstasy** indicators decreased between 2008 and 2009 with many counterfeit pills detected often containing **BZP** at that time. More recently MDMA is the only drug detected in ecstasy tablets.

## INTRODUCTION

This report reviews data from 2009 and 2010 for drug-related deaths, medical emergencies, addiction treatment admissions, 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, GHB (gamma hydroxybutyrate), MDMA (3,4-methylenedioxymethamphetamine) or ecstasy, 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

Located in the extreme southern portion of the Florida peninsula, Miami-Dade County has the State's largest population, with 2,500,625 residents, according to 2009 U.S. Census estimates. Hispanic account for 62.5 percent of the population while 17.6 percent are White non-Hispanic, 16.6 percent are Black non-Hispanic and 1.6 percent are Asian. Miami is the County's largest city, with 404,048 residents. More than 100,000 immigrants arrive in Florida each year;

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<sup>1</sup>The author is the Director of the Center for the Study and Prevention of Substance Abuse at Nova Southeastern University, and is Executive Director of Up Front Drug Information Center in Miami, Florida.

one-half establish residency in Miami-Dade County. One-half of the county's population is foreign born.

Since 2003, Miami-Dade along with Broward and Palm Beach Counties to the north 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.

Several factors impact the potential for drug abuse problems in South Florida, including the following:

- 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.
- South Florida is a designated High Intensity Drug Trafficking Area and one of the Nation's leading cocaine importation centers. It has also been a gateway for Colombian heroin since the 1990s.
- Lack of a prescription monitoring system in Florida in the time periods covered by this report made the State a source for diverted medications in the eastern United States. A prescription monitoring system was enacted in July 2009 and is expected to be operational by October 2011.

## Data Sources

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

- **Drug-related mortality data** were provided by the Florida Department of Law Enforcement (FDLE) Medical Examiners Commission's *2010 Interim Report of Drugs Identified in Deceased Persons between January and June 2010*. The report for all of 2010 should be released by July 2011.
- **Emergency Department (ED) data** were derived for Miami-Dade County 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 reports involved in drug-related visits for illicit drugs (derived from the category of "major substances of abuse," excluding alcohol) and 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 2004–2009 are included in this report and provide estimates of the total number

of drug-related ED visits and per capita rates for selected substances for all of Miami-Dade County in those 5. A full description of the system can be found on the DAWN Web site <http://dawninfo.samhsa.gov>.

- **Drug treatment data** on primary admissions to all publicly funded addiction treatment programs in Miami-Dade County during calendar year 2009 and 2010 were provided by the Florida Department of Children and Families. State of Florida admissions from 1999 to 2009 are from *SAMHSA - Treatment Episode Data Sets (TEDS)* submitted by the Florida Department of Children and Families as of January 6, 2011
- **Crime laboratory drug analyses data** were derived from the Drug Enforcement Administration's (DEA's) National Forensic Laboratory Information System (NFLIS) Report for Miami-Dade, Broward, and Palm Beach Counties from January through December 2010. However, the NFLIS data combines some, but not all, pharmaceutical items into the category of "controlled substance." This factor makes it difficult to track the role of illegally diverted medications.
- **Data on Distribution of Pharmaceuticals** are from DEA Automation of Reports & Consolidated Orders System (ARCOS) data from 2009 and 2010.
- **Data on prevalence of nonmedical use of pain relievers** are from SAMHSA's National Survey on Drug Use and Health Sub-State Data.
- **Data on injection drug use** among acquired immune deficiency syndrome (AIDS) cases are from Miami-Dade County Departments of Health.

Other information on drug use patterns was derived from ethnographic research and callers to the Up Front drug information hotline.

## **DRUG ABUSE PATTERNS AND TRENDS**

### **Cocaine/Crack**

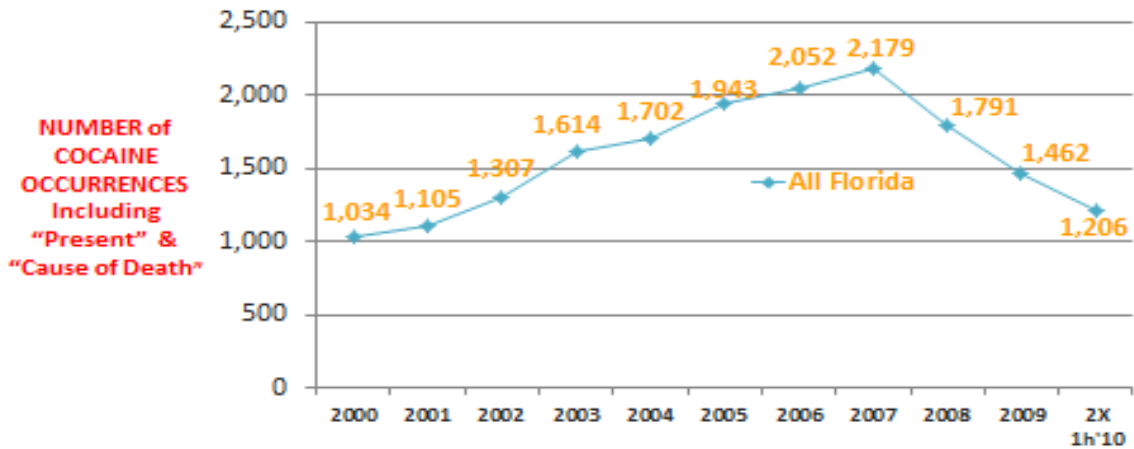
Indicators of cocaine problems in South Florida continue to dominate consequences of drug abuse, yet are declining in recent years. The numbers of cocaine occurrences among deceased persons have been declining since 2007 in Miami-Dade County as well as for the State of Florida. The majority of cocaine deaths and addiction treatment reports were among those older than 35, while medical emergencies related to cocaine were highest among those age 25-29. Many of the indicators reflected cocaine use in combination with other drugs.

Throughout Florida, the number of cocaine-related deaths decreased 16-percent in the first half of 2010 as compared as compared to the last half of 2009 continuing declines since 2007 and reversing what had been an upward trend since 2000 (exhibit 1). A cocaine-related death is defined as a death in which cocaine is detected in the decedent but not necessarily considered the cause of death. There were 603 cocaine-related deaths across Florida in the first half of 2010, compared with 716 the previous six months. In all of 2009 there were 1,462 cocaine-related deaths compared with 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 603 cocaine-related deaths in Florida during the first half of 2010, 81 percent of the cases involved cocaine found with at least 1 other drug.

**Exhibit 1**

**Number of Cocaine Reports Detected among Decedents in Florida: 2000-2010**



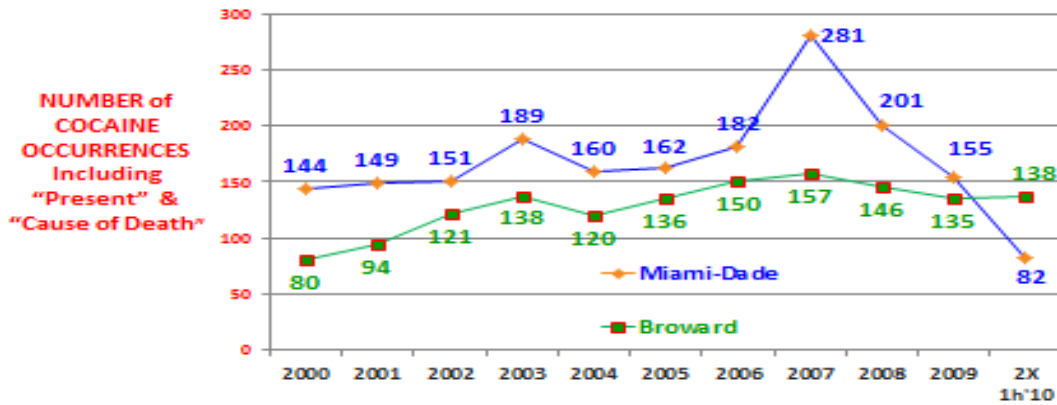
**SOURCE:** *Florida Medical Examiners Commission Interim Report 2010*

In Florida, a drug is considered to be a cause of death if it is detected in an amount considered a lethal dose by the local medical examiner (ME). Among the cocaine-related deaths statewide in the first half of 2010, the drug was considered to be a cause of deaths in 259 (or 41 percent) of the cases.

There were 41 deaths related to cocaine use in Miami-Dade County during the first half of 2010 for an annualized rate of 82 occurrences compared to 155 in 2009 (exhibit 2). Cocaine was detected at a lethal level in 34 percent of the cases in the first half of 2010. Cocaine was found in combination with another drug in 76 percent of the cases. None of the 2010 cocaine-related fatalities were younger than 18; 19 percent were age 18–25; 15 percent were 26–34; 32 percent were 35–50; and 34 percent were older than 50. Miami-Dade County’s number of cocaine deaths in 2009 ranked sixth among the 24 Medical Examiner Districts in the State.

Broward County’s number of cocaine-related deaths ranked first among the 24 ME districts in the State in the first half of 2010. Broward County’s high rate of prescription drug-related deaths contributes to the high number of cocaine deaths in combination with other drugs. The St. Petersburg ME district reported the second highest number of cocaine-related deaths in the State during the first half of 2010, with 64 cases, followed by Palm Beach County with 60, the Jacksonville region with 49 reports, and the Orlando district with 41.

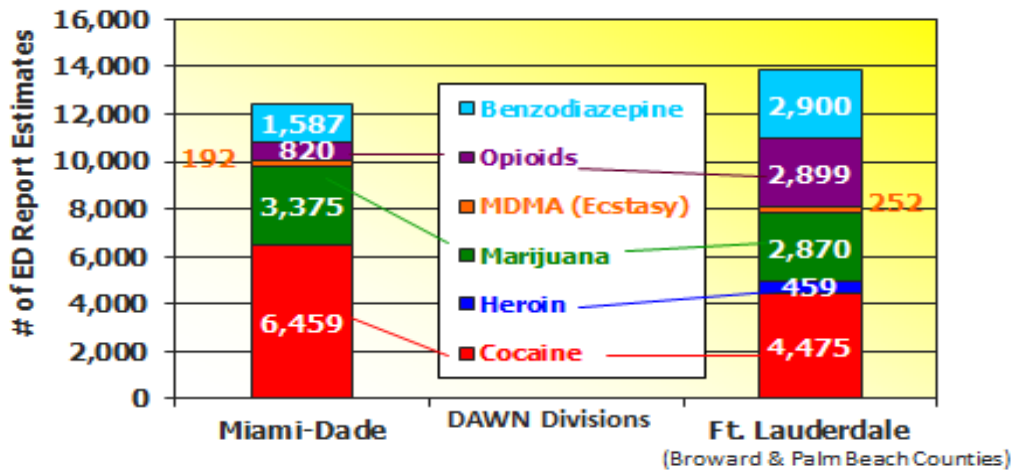
**Exhibit 2 Number of Cocaine Reports Detected among Decedents in South Florida: 2000-2010**



SOURCE: Florida Medical Examiners Commission Interim Report 2010

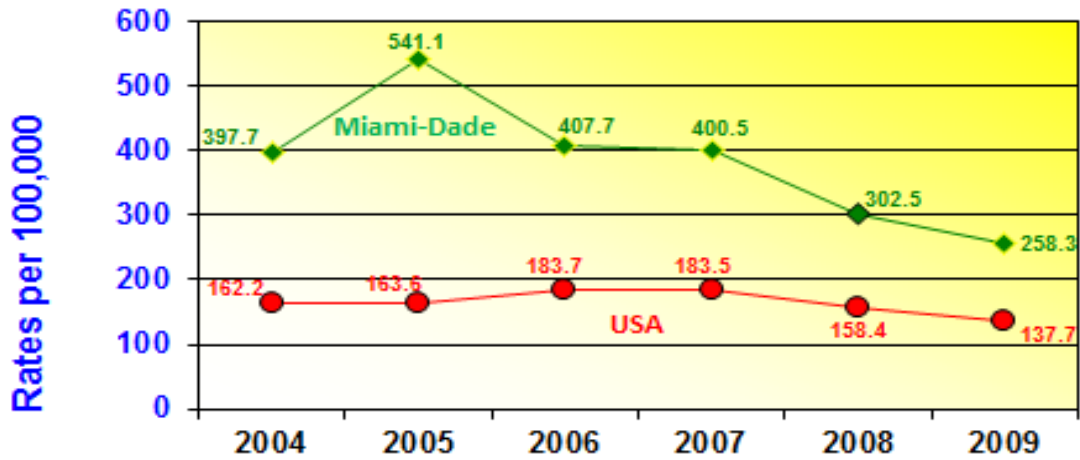
The DAWN weighted estimate of 6,459 cocaine-involved ED visits for Miami-Dade County during 2009 (exhibit 3) accounted for 52 percent of all ED visits among six substances (four illicit drugs —cocaine, marijuana, MDMA, and methamphetamine as well as nonmedical use of prescription opioids and benzodiazepines). Between 2008 and 2009, the number of cocaine-involved ED visits declined 14-percent in Miami-Dade County, from 7,498 to 6,459 (exhibit 4). In 2009, the per capita rate of 258.3 cocaine ED visits per 100,000 people was almost double the national rate of 137.7. Cocaine ED visits were greatest among those age 25–29 in 2009, with a Miami-Dade per capita rate of 559.3 reports per 100,000 for that age group almost two and a half times the Nation’s rate of 232.1.

**Exhibit 3 Number of Estimate Emergency Department Reports by Drug in Miami-Dade and Ft. Lauderdale (Broward & Palm Beach Counties) DAWN Divisions: 2009**



SOURCE: SAMHSA-CBHSQ Dawn Emergency Department Estimates 2009 October 5, 2010

**Exhibit 4 Rates per 100,000 of Cocaine Emergency Dept. Reports Miami-Dade County, FL and USA: 2004-2009**

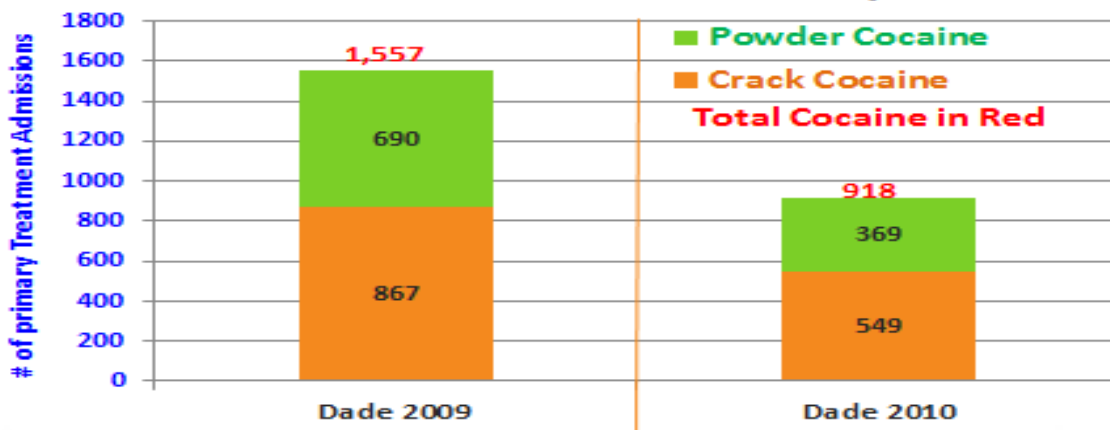


Note: For Miami, there was a statistically significant 14 %-decrease from 2008 to 2009, although no statistical changes were noted for 2004 and 2007 compared with 2009. For the USA, there was a statistically significant 24 %-decrease from 2007 to 2009 and 12%-decrease from 2008 to 2009. No significant testing of data for 2005 and 2006 versus 2009 was available.

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

There were 549 primary admissions for cocaine smoking (crack), and an additional 369 for powder cocaine in Miami-Dade County during 2010 (exhibit 5). These cases accounted for a total of 918 (or 20 percent) of the 4,548 publicly funded primary treatment admissions (including 1,242 for alcohol) in Miami-Dade County in 2010, as reported by the Florida Department of Children and Families. These totals represent a 41-percent decline in the number of cocaine primary admissions compared to 2009 when cocaine accounted for 28 percent of all admissions. Males accounted for 60 percent of the 2010 clients and 59 percent (n=545) were age 35 or older; only one percent (n=10) were aged 17 years or younger.

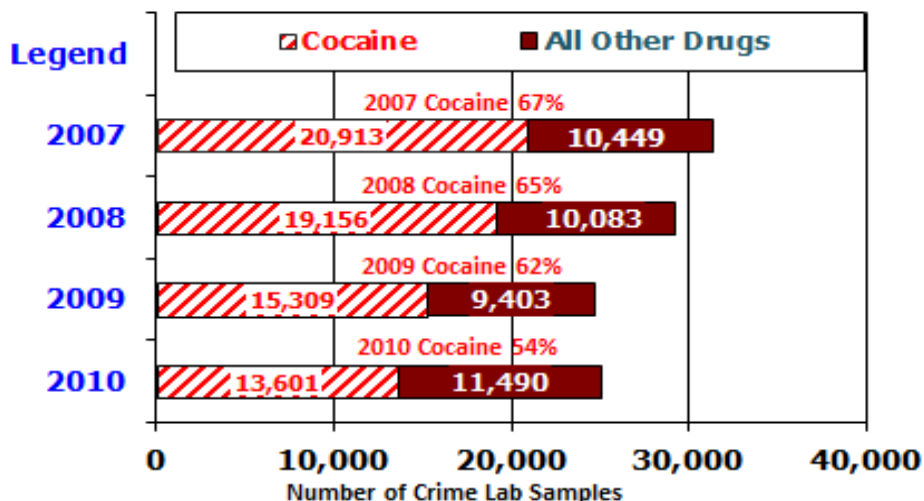
**Exhibit 5 Number of Primary Cocaine Treatment Admissions in Miami-Dade County, FL: 2009-2010**



SOURCE: Florida Department of Children and Families

Cocaine continued to be the most commonly analyzed substance by local crime laboratories. It accounted for 13,601 items, or 54.2 percent, of the 25,091 total samples tested in the Metropolitan Statistical Area (MSA) comprised of Miami-Dade, Broward, and Palm Beach Counties in 2010 as reported by the NFLIS (exhibit 6). In 2007, cocaine accounted for 67 percent of all crime lab items and has declined each year since then.

**Exhibit 6**      **Number of South Florida\* Crime Lab Reports  
for Cocaine and All Other Drugs: 2007- 2010**  
\*Miami-Dade, Broward, & Palm Beach Counties Combined



Source: US DEA National Forensic Laboratory Information System

## Heroin

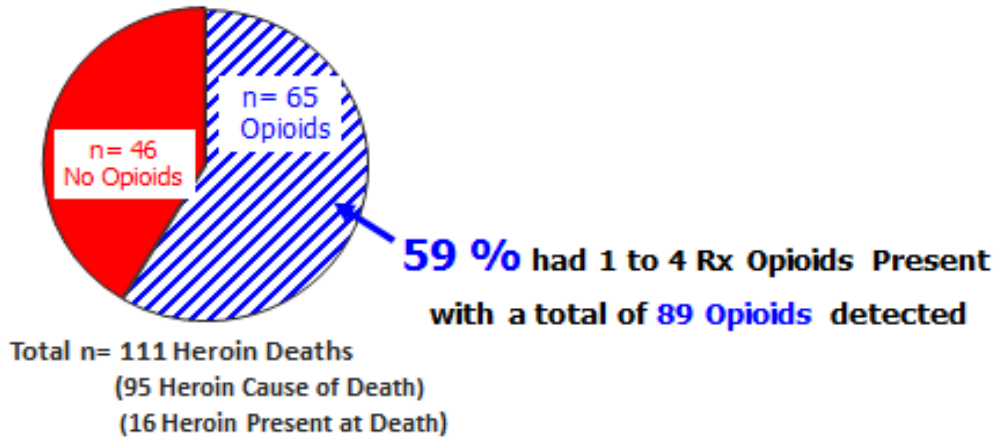
Heroin consequences remain at low and stable levels across Florida. Primary treatment admissions for heroin increased in South Florida between 2009 and 2010. More than half of the heroin deaths in recent years are found in combination with one or more prescription opioids at the time of death. South 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 made since 2008. Deaths caused by heroin declined in Florida from 2001 to 2006, then increased between 2006 and 2008 before declining again in 2009 and 2010. Substantial increases in abuse and consequences of narcotic analgesic use have occurred as heroin problems were waning. Most heroin ED patients and addiction treatment admissions continued to be among older, White males.

Throughout Florida, the number of heroin-related deaths decreased 40 percent during the first half of 2010 compared to the previous six months. There were 30 heroin-related deaths across Florida during the first half of 2010 down from 50 in the second half of 2009. Heroin continued to be the most lethal drug, with 83 percent ( $n=25$ ) of heroin-related deaths in 2010 caused by the drug. Polysubstance abuse was noted in 93 percent of the 2010 heroin-related deaths statewide.

Among the 111 heroin-related deaths in Florida during 2009, 59 percent (or 65) had from one to four prescription opioids present at the time of death (exhibit 7). There were a total of 89 opioids detected among the 65 decedents.

**Exhibit 7**

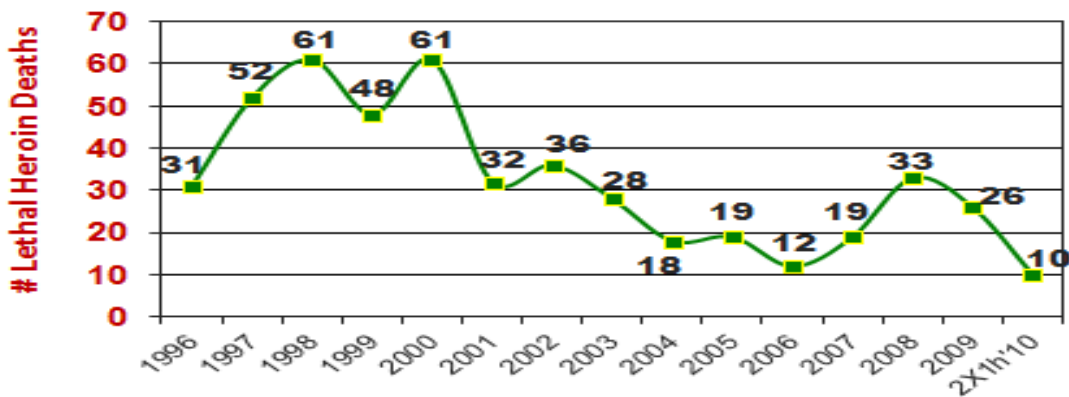
**Percent of Heroin-Related Deaths with Rx Opioids Present in Florida: 2009**



SOURCE: Analysis of Florida Medical Examiners Commission data by the Center for the Study and Prevention of Substance Abuse, Nova Southeastern University

There were 7 heroin deaths in Miami-Dade County during the first half of 2010 for an annualized rate of 14 occurrences compared to 30 in all of 2009. Lethal heroin deaths peaked in Miami-Dade County in 2000 with 61 fatalities (exhibit 8). In the first half of 2010, heroin was found at a lethal dose level in 5 of the 7 deaths in which the drug was detected in the county. Other drugs were found in combination with heroin in all of the cases. None of the heroin-related fatalities were younger than 25, while 4 of the heroin-related decedents (57 percent) were age 26–34; 1 (14 percent) was age 35–50; and 2 (28 percent) were older than 50.

**Exhibit 8 Number of Heroin-Induced Deaths in Miami-Dade County, FL: 1996-Jun 2010**



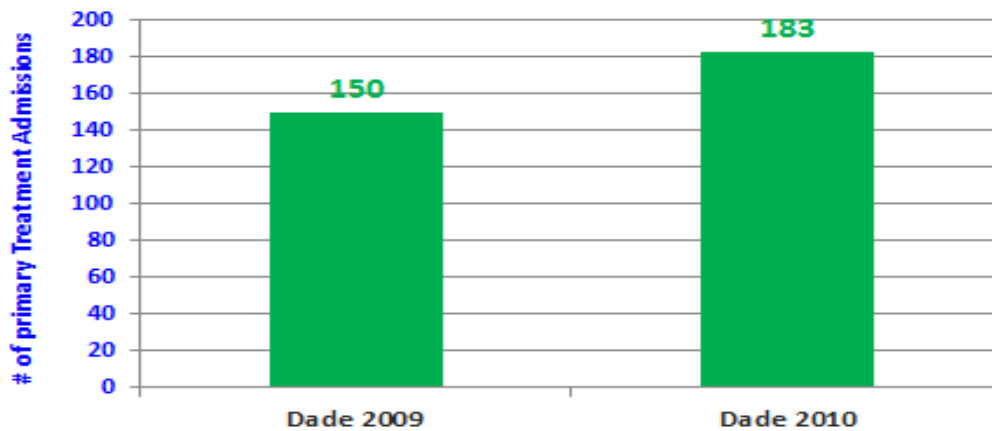
SOURCE: Florida Medical Examiners Commission Interim Report 2010



Weighted DAWN visit estimates for heroin were not available for Miami-Dade County in 2008 and again in 2009 because the sample numbers were not adequate.

There were 183 primary admissions for heroin, or 4 percent of the 4,548 publicly funded primary treatment admissions in Miami-Dade County, as reported by the Florida Department of Children and Families in 2010 (exhibit 9). These totals represent a 22-percent increase in the number of heroin primary admissions over 2009 when heroin accounted for 2.7 percent of all admissions (exhibit 9). Males accounted for 75 percent (n=137) of the 2010 heroin clients and 56 percent (n=102) were age 35 years or older; none was younger than 18.

**Exhibit 9 Number of Primary Heroin Treatment Admissions  
Miami-Dade County, FL: 2009-2010**



SOURCE: Florida Department of Children and Families

Heroin accounted for 634 cases, or 2.5 percent of all items analyzed by crime laboratories in 2010 for the three-county South Florida MSA, as reported by NFLIS. Heroin ranked fifth among all substances analyzed in the MSA (exhibit 10). In 2009 heroin ranked third with 3.1 percent of all crime lab items.

**Exhibit 10 Number and Percent of Top 10 Most Frequently Identified Drugs in South Florida Crime Labs: 2010**

DRUG	Number	Percent
Cocaine	13,601	54.2%
Marijuana/Cannabis	5,342	21.3%
Oxycodone	1,256	5.0%
Alprazolam	916	3.7%
Heroin	634	2.5%
3,4-Methylenedioxymethamphetamine (MDMA)	555	2.2%
Hallucinogen	409	1.6%
Hydrocodone	145	0.6%
1-Benzylpiperazine (BZP)	114	0.5%
Methamphetamine	102	0.4%
Other <sup>1</sup>	2,017	8.0%
<b>Total</b>	<b>25,091</b>	<b>100.0%</b>

**NOTES:**

Data are for January-December 2010 from the Miami/Ft. Lauderdale/Pompano Beach MSA and include Miami-Dade, Broward, and Palm Beach Counties.

<sup>1</sup> Unspecified Controlled Substance represents 910 cases and are included in "Other."

Percentage may not sum to the total due to rounding.

Source: US Drug Enforcement Administration - National Laboratory Information System (NFLIS) May 2, 2011

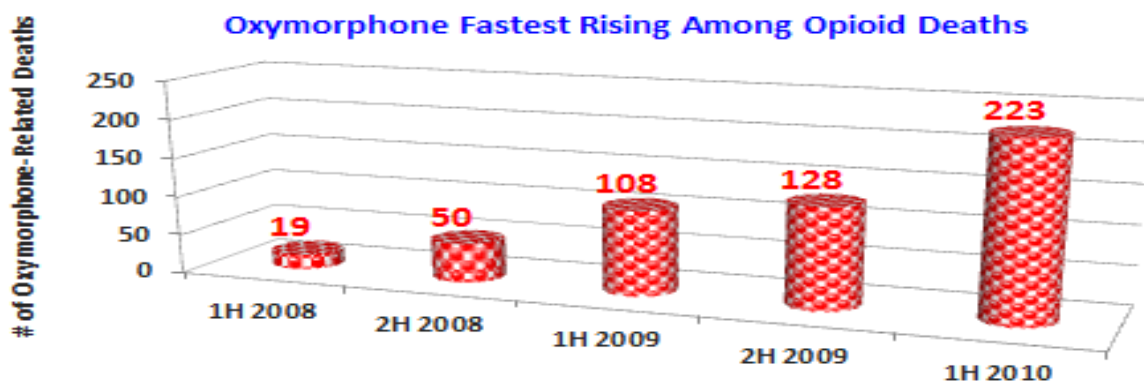
## Nonmedical Use of Prescription Opioids

During the first half of 2010, 2,578 individuals died in Florida with 1 or more prescription drugs in their system, of which 49 percent ( $n=1,268$ ) had at least 1 prescription medication that was considered a cause of death. In total there were 6,172 prescription drugs detected (including 2,994 opioids), and 2,392 (or 39 percent of the total medication occurrences) were considered at a lethal dose and a cause of death, including 50 percent ( $n=1,504$ ) of the opioids. 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 2009 and the first six months of 2010, statewide reports in Florida related to the category of prescription opioids detected among deceased persons increased 2 percent, from 2,931 to 3,004. This followed a 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 Numophan®) and other opioids were included in the Florida Medical Examiners Commission's surveillance monitoring program. Occurrences of 5 prescription opioids detected among deceased persons during the first half of 2010 totaled 175 in Broward County, 65 in Miami-Dade County, and 148 in Palm Beach County.

Across Florida, the 223 oxymorphone reports detected among deceased persons in the first half of 2010 represented a 74-percent increase over the 128 reports in the previous six months. This continues a rise in oxymorphone related deaths following a 242-percent increase between 2008 ( $n=69$ ) and 2009 ( $n=236$ ) (exhibit 11). The 1,117 medical examiner reports for oxycodone in the first half of 2010 represents a 11-percent increase over the previous semi-annual period, while the number of occurrences for hydrocodone were up 4-percent with a total of 431 occurrences in the first six months of 2010.

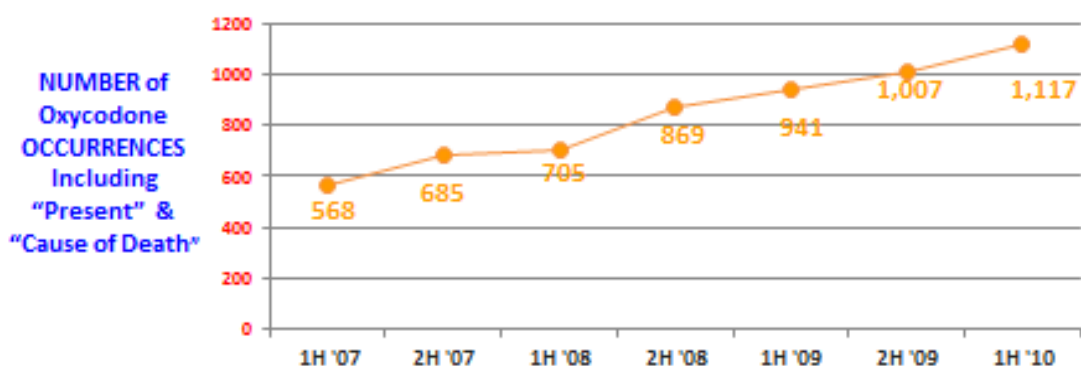
**Exhibit 11**      **Number of Oxymorphone-Related Deaths in Florida: January 2008 – June 2010**



SOURCE: Florida Medical Examiners Commission Interim Report 2010

The 1,117 medical examiner reports for oxycodone in the first half of 2010 represents a 11-percent increase over the previous semi-annual period (exhibit 12), while the number of occurrences for hydrocodone were up 4-percent with a total of 431 occurrences in the first six months of 2010.

### Exhibit 12 Number of Oxycodone Reports Detected among Decedents in Florida: Jan 2007 – Jun 2010

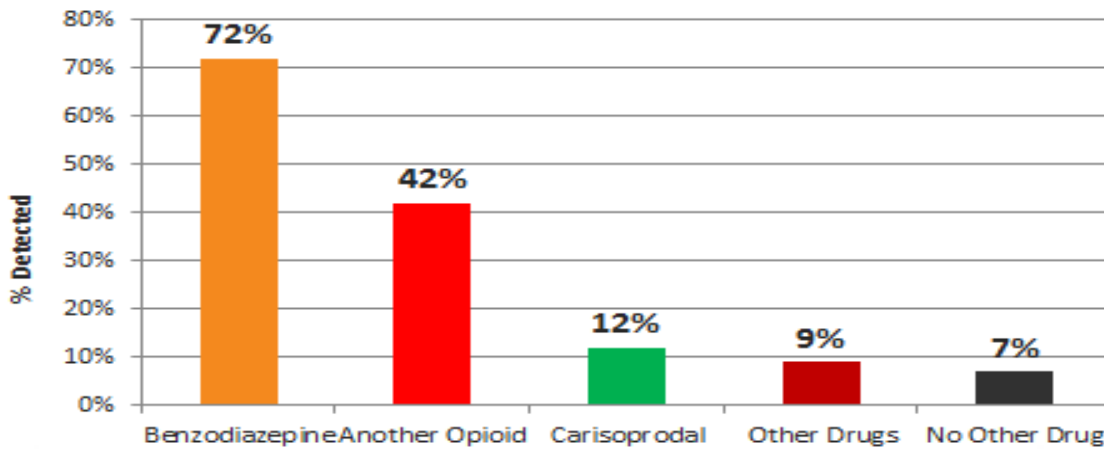


SOURCE: *Florida Medical Examiners Commission Interim Report 2010*

The most lethal prescription opioids statewide in 2010 were (1) methadone which was considered a cause of death for 75 percent of the decedents in which it was detected; as (2) oxycodone was a cause of death for 64 percent of the deaths related to it; and (3) fentanyl was a cause of death for 52 percent of its occurrences. Most of the statewide ME prescription opioid cases were polydrug episodes, including 93 percent of the oxycodone reports, 90 percent of the methadone cases, 86 percent of the hydrocodone reports, 85 percent of propoxyphene-related deaths, and 83 percent of morphine cases.

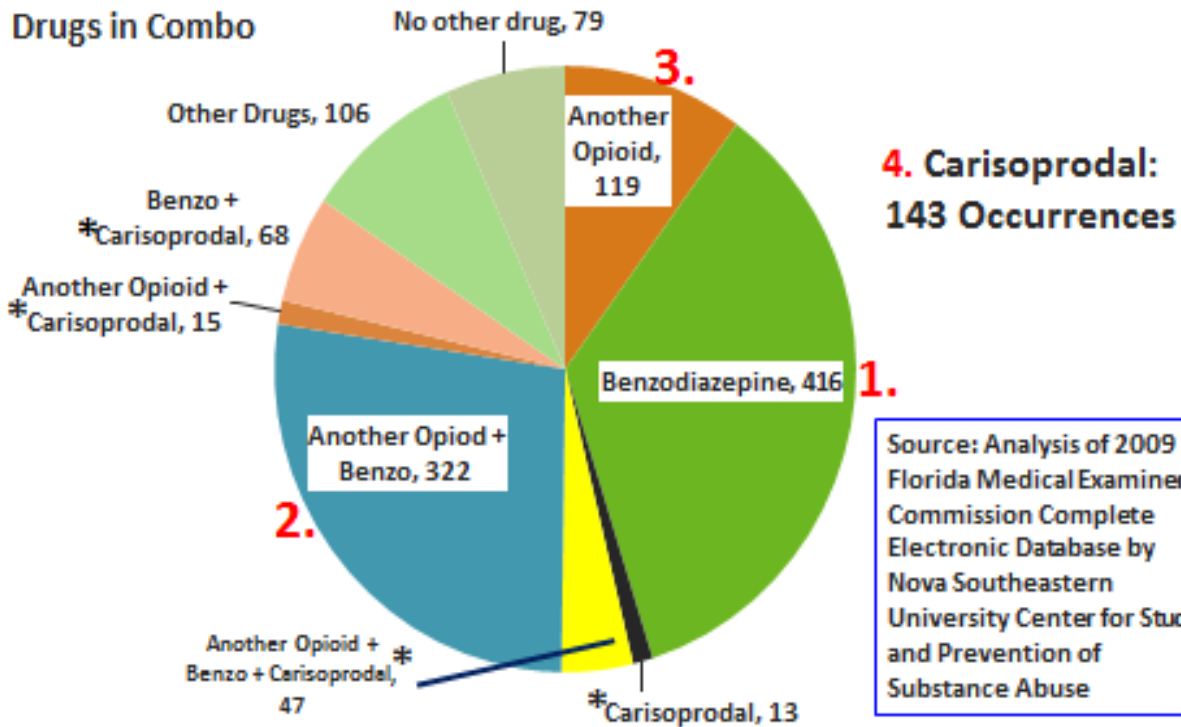
A special study of the 1,185 deaths considered to be caused by oxycodone in Florida during 2009 revealed that 93 percent of the cases were detected in combination with another drug. One or more benzodiazepines were detected in 72 percent of the lethal oxycodone deaths, one or more other opioids in addition to oxycodone were detected in 42 percent of the cases, carisoprodal was found in 12 percent, and alcohol or another drug was detected in 9 percent of the reports (exhibit 13). The most frequent combination found in the 1,185 lethal oxycodone deaths was with one or more benzodiazepines in 416 cases, followed by a benzodiazepine and another opioid in 322 cases, and one or more other opioids in 119 cases (exhibit 14).

**Exhibit 13 Percent of Other Drugs Detected in the 1,185 Lethal Oxycodone Deaths in Florida: 2009**



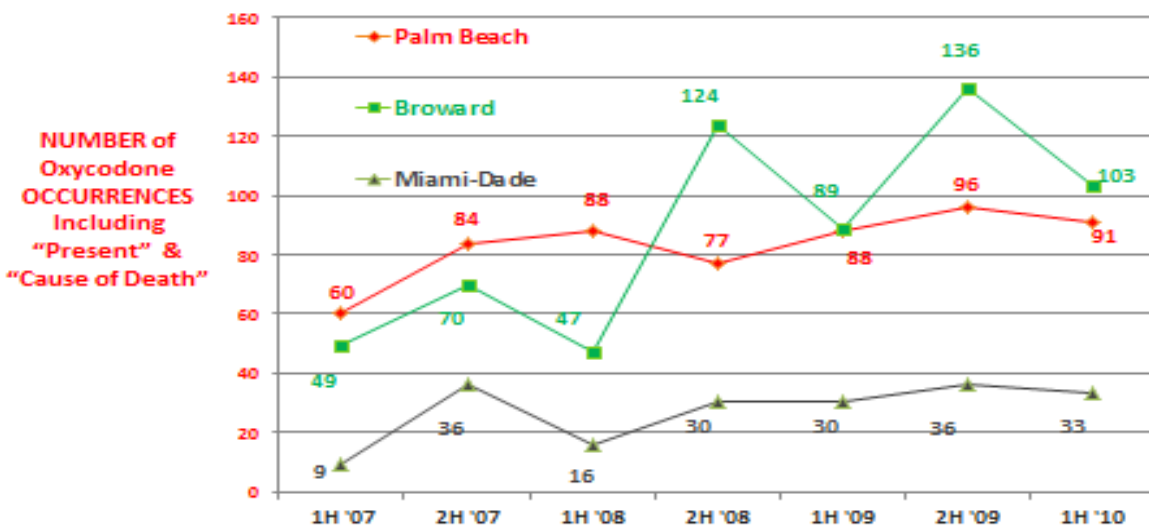
Source: Analysis of 2009 Florida Medical Examiner Commission Complete Electronic Database by Nova Southeastern University Center for Study & Prevention of Substance Abuse

**Exhibit 14 Drug Combinations in 1,185 Deaths Caused by Oxycodone in Florida: 2009**



Miami-Dade County recorded 33 oxycodone occurrences among deceased persons in the first half of 2010 (exhibit 15), 14 morphine reports, 11 for hydrocodone, 5 for propoxyphene, and 2 for methadone. These 65 opioid occurrences during the first six months of 2010 compared to 158 combined reports in all of 2009 and 124 in 2008. Among the total opioid reports in the first half of 2010, 28 percent were considered lethal doses, and 77 percent were found in combination with at least one other substance. Most of the deaths occurred among those age 35 and older; 21 percent of Maim/Dade oxycodone deaths in the first half of 2010 were aged 35-50 and 55 percent were over 50.

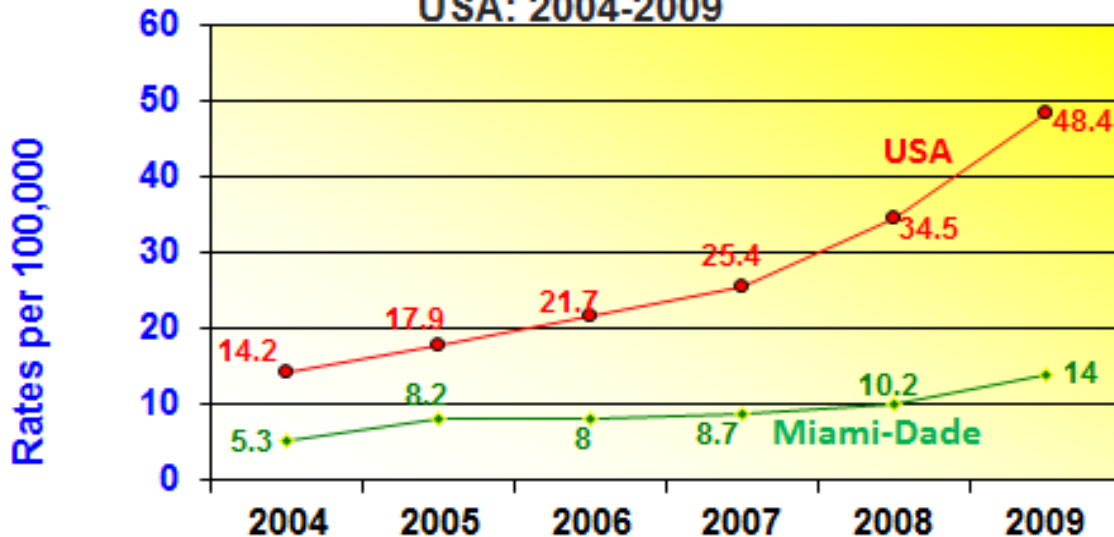
**Exhibit 15                      Number of Oxycodone Reports Detected  
among Decedents in South Florida: Jan 2007-2011**



**SOURCE: Florida Medical Examiners Commission Interim Report 2010**

The DAWN weighted estimate of 820 ED visits for nonmedical use of prescription opioids in Miami-Dade County during 2009 (exhibit 3 above) accounted for 7 percent of all ED reports among 6 substances (4 illicit drugs—cocaine, marijuana, MDMA, and methamphetamine as well as nonmedical use of prescription opioids and benzodiazepines). Between 2004 and 2009 the number of prescription opioid-involved ED visits increased 77-percent in Miami-Dade County (exhibit 16). The Miami-Dade per capita rate of 32.8 nonmedical opioid ED visits per 100,000 population compared to the national rate of 135.7 in 2009. Oxycodone was the most frequently cited opioid in nonmedical cases totaling 351 ED visits in 2009 representing a 176-percent increase in such cases since 2004. The Miami-Dade per capita rate 14.0 nonmedical oxycodone ED visits per 100,000 population compared to the national rate of 48.4 in 2009.

**Exhibit 16 Rates per 100,000 of Nonmedical Use Oxycodone  
Emergency Dept. Reports Miami-Dade County, FL and  
USA: 2004-2009**



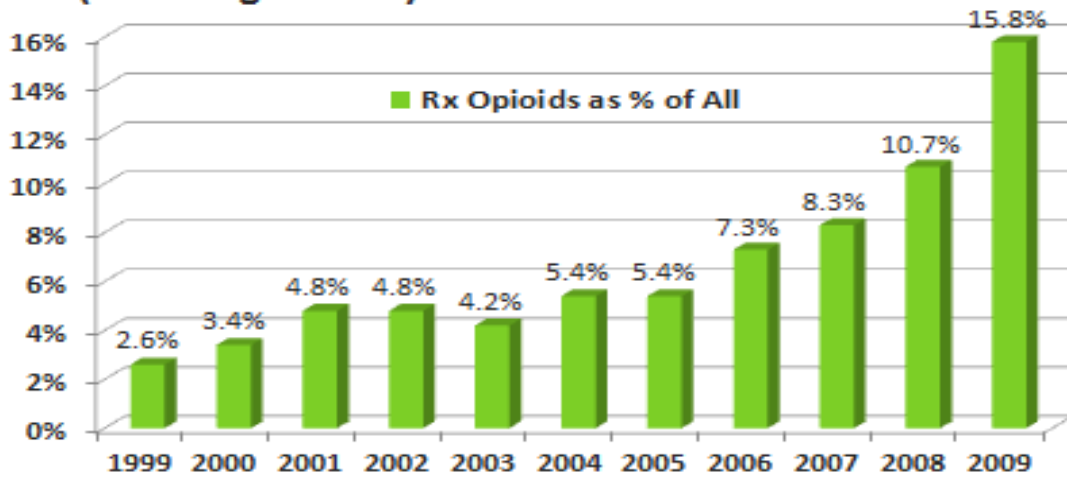
Note: For Miami, there was a statistically significant 176%-increase from 2004 to 2009 and a 64%-increase from 2007 to 2009. For the USA, there was a statistically significant 256 %-increase from 2004 to 2009 and 94%-increase from 2007 to 2009 and a 41%-increase from 2008 to 2009. No significant testing of data for 2005 and 2006 versus 2009 was available.

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

A comparison of primary opioid addiction treatment admissions over the past decade reveals that across Florida there was an increase from 2.6 percent of all admissions in 1999 to 15.8 percent in 2009 (exhibit 17) according to SAMHSA’s *Treatment Episode Data Sets* as submitted by the Florida Department of Children and Families as of January 6, 2011.

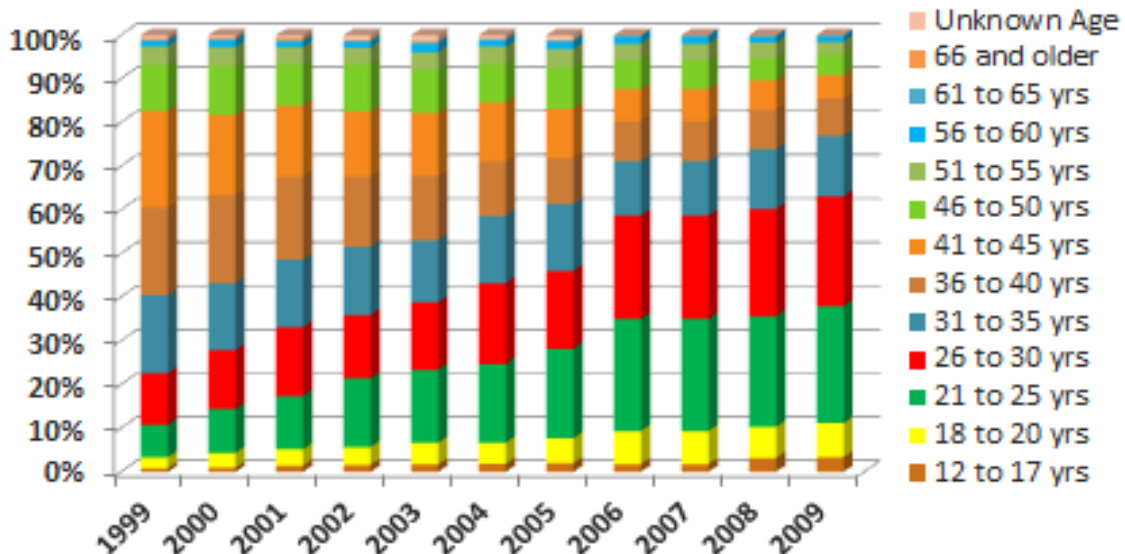
The increasingly younger population observed in emergency department reports of nonmedical opioid misuse is also seen in the trend of those admitted to a Florida publicly-funded addiction treatment program over the past decade. In 1999 a total of 20 percent of all admissions for “opiates other than heroin” (*i.e.*, prescription opioids) were below the age of 30 years. By 2009 the percent of those under 30 increased to 62 percent of all opioid treatment admissions (exhibit 18).

**Exhibit 17 Percent of Primary Addiction Treatment Admissions for Rx Opioids among all substances (including alcohol) in Florida: 1999 to 2009**



Source: SAMHSA - Treatment Episode Data Sets Submitted by the Florida Dept. of Children and Families as of January 6, 2011

**Exhibit 18 Percent of Primary Rx Opioid Addiction Treatment Admissions By Age Groups in Florida: 1999 to 2009**



Source: SAMHSA - Treatment Episode Data Sets Submitted by the Florida Dept. of Children and Families as of January 6, 2011

There were 246 primary admissions for opiates other than heroin, or 5 percent of the 4,548 publicly funded primary treatment admissions in Miami-Dade County, as reported by the Florida Department of Children and Families in 2010 (exhibit 19). These totals represent a 118-percent increase in the number of opioid primary admissions compared to 2009 when opioids accounted for 2 percent of all admissions. Males accounted for 55 percent of the other opiate clients. Twenty-eight percent (n=69) of the admissions were age 18-25 years, 37 percent (n=91) were 26–34, 34 percent (n=84) were 35 or older, and none were below the age of 18.

### **Exhibit 19 Number of Primary Treatment Admissions by Substance in Miami-Dade County, FL: 2009-2010**

2009	Primary Treatment Substance	2010
1,289	Alcohol	1,242
867	Crack Cocaine	549
690	Powder Cocaine	369
150	Heroin	183
113	Rx Opioids	246
2,118	Marijuana	1,741
55	Methamphetamine	22
2	Amphetamine	5
3	MDMA	6
29	PCP	0
1	Benzodiazepine	71
108	All Other Drugs	30
117	Substance Unknown	84
<b>5,542</b>	<b>TOTAL ADMISSIONS</b>	<b>4,548</b>

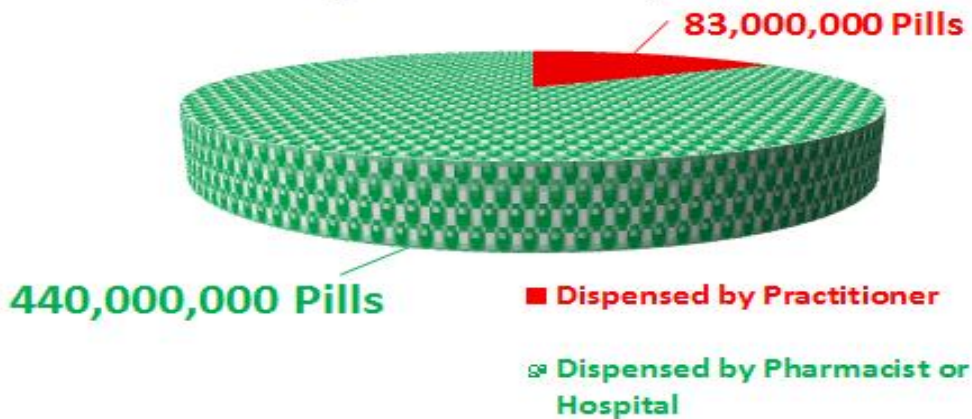
SOURCE: Florida Department of Children and Families

The NFLIS reported 1,256 oxycodone crime laboratory cases and 145 hydrocodone items ranking third and eighth respectively among all substances analyzed during 2010 in the three-county South Florida MSA (exhibit 10 above). There were also 52 methadone cases, 16 morphine items, 6 propoxyphene cases, 13 hydromorphone items, 12 codeine cases, 6 tramadol items, and 1 oxymorphone case. Totaled together there were 1,515 prescription opioid crime lab cases accounting for 6 percent of all substances in 2010 as compared to 424 such reports representing 1.7 percent of all drug items analyzed in 2009. There were also 910 “unspecified controlled substance” cases in the 2010 NFLIS report which may include additional prescription opioids items.

There were approximately 440,000,000 dose units (*i.e.*, pills) of oxycodone dispensed in Florida from pharmacies and hospitals in 2009 according to the DEA’s ARCOS data (exhibit 20). There were 41,285,772 dose units of Oxycodone dispensed by practitioners in Florida during the first half of 2010 and that represented 89.6 percent of the national total of oxycodone dose units dispensed by practitioners. However when all sources are totaled, Florida, with 5.9 percent of the nation’s population, dispensed 523,424,109 dose units of oxycodone in 2009 or 12.1 percent of the national total. In terms of dosage strength, Florida dispensed 16.9 percent of the total grams of oxycodone distributed in the United States in 2009. The average dose unit dispensed in Florida was 18 mg compared to 13 mg nationally.



**Exhibit 20 Sources of Oxycodone Dose Units Dispensed Annually in Florida**

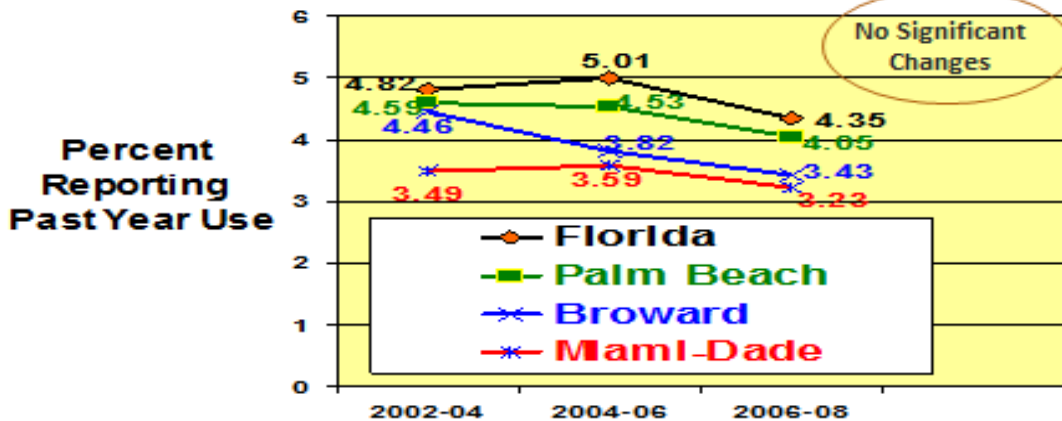


Source: Analysis of US Department of Justice DEA ARCOS 2009 and 2010 data by NSU Center for Study And Prevention of Substance Abuse

Among the states in 2009, Florida ranked #1 in the total grams of oxycodone distributed nationally; Florida's rankings for other opioids include # 2 for methadone, #2 for morphine, # 3 for fentanyl base, #4 for hydrocodone, and # 6 for codeine.

According to the Sub-State Data of the National Survey on Drug Use and Health the percentage of Floridians and residents of Miami-Dade County reporting nonmedical use of prescription pain relievers declined between 2002 and 2008 (exhibit 21), however none of the changes are considered to be statistically significant.

**Exhibit 21 Percent of Persons Aged 12 and Above Reporting Nonmedical Use of Rx Pain Relievers in the Past Year: 2002-2008**

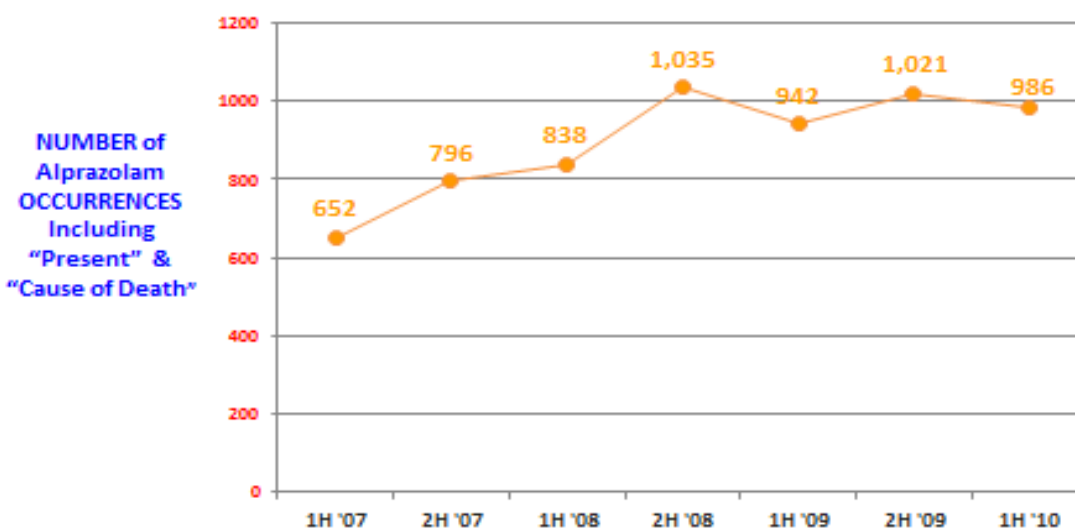


SOURCE: SAMHSA (2010): Substate Estimates from the 2002-2008 National Surveys on Drug Use and Health (Office of Applied Studies).

## Nonmedical Use of Prescription Benzodiazepines

Benzodiazepines in general, and alprazolam (Xanax®) in particular, were a substantial problem in South Florida in this reporting period. There were 2,787 reports of a benzodiazepine present in deceased persons across Florida in the first half of 2010, representing a 17-percent increase over the 2,382 cases in the previous six months. Of the benzodiazepine occurrences in the first half of 2010, a benzodiazepine was identified as causing 597 deaths, with a total of 811 lethal benzodiazepine occurrences. Among the benzodiazepine ME reports statewide, 986 were attributed to alprazolam (exhibit 22), and 430 were attributed to diazepam (Valium®); 45 percent of the alprazolam occurrences and 32 percent of the diazepam reports were considered to be a cause of death.

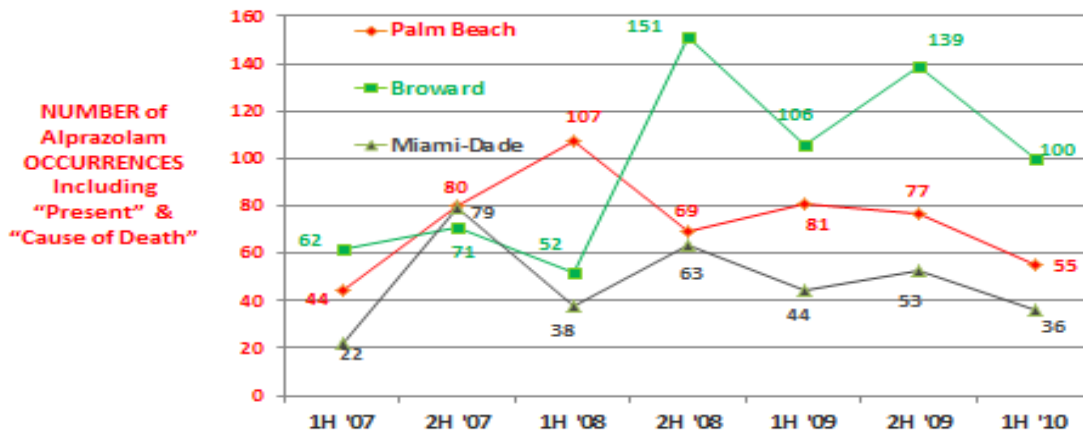
**Exhibit 22      Number of Alprazolam Reports Detected  
among Decedents in Florida: Jan 2007 – Jun 2010**



**SOURCE:** *Florida Medical Examiners Commission Interim Report 2010*

In Miami-Dade County, there were 36 reports of alprazolam detected in deceased persons during the first half of 2010 (exhibit 23), of which 36 percent were considered lethal. At least one other drug was involved in 94 percent of the reports. There were also 19 reports of diazepam detected in deceased persons in Miami-Dade County; 10 percent were considered to be the cause of death, and 95 percent of these deaths involved at least one other drug. These 55 benzodiazepine medical examiner occurrences in the first six months of 2010 compare with 124 such reports for alprazolam and diazepam in all of 2009 and 145 in 2008. None of the benzodiazepine mentions in the first half of 2010 involved a person younger than 18; 7 percent of the decedents were between age 18 and 25; 5 percent were age 26–34; 29 percent were age 35–50; and 58 percent were older than 50.

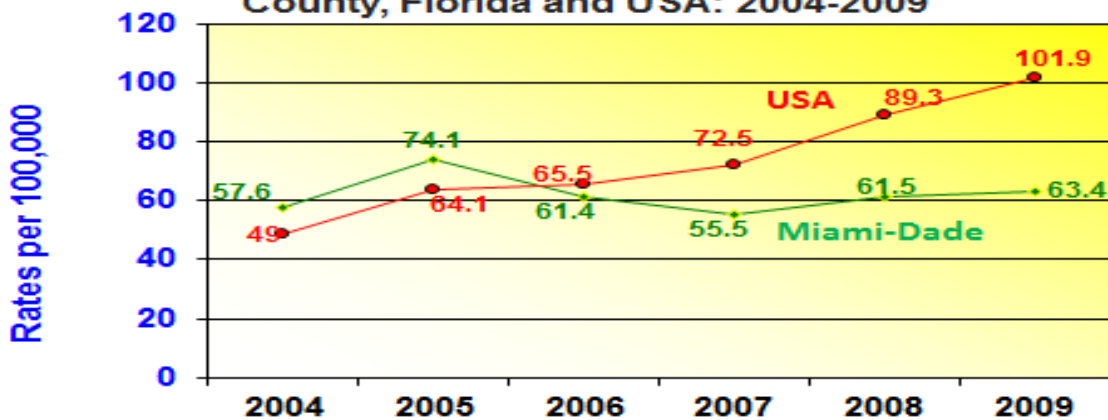
**Exhibit 23 Number of Alprazolam Reports Detected among Decedents in South Florida: Jan 2007-Jun 2010**



**SOURCE: Florida Medical Examiners Commission Interim Report 2010**

The DAWN weighted estimate of 1,587 ED visits for nonmedical use of prescription benzodiazepines in Miami-Dade County during 2009 (exhibit 3 above) accounted for 13 percent of all ED reports among 6 substances (4 illicit drugs—cocaine, marijuana, MDMA, and methamphetamine as well as nonmedical use of prescription opioids and benzodiazepines). The number of prescription benzodiazepine-involved ED visits was stable with the 1,524 such visits in 2008. The Miami-Dade per capita rate of 63.4 nonmedical benzodiazepine ED visits per 100,000 population compared to the national rate of 101.9 in 2009 (exhibit 24). Alprazolam was the most frequently cited benzodiazepine in nonmedical cases totaling 741 ED visits in 2009 representing a 26-percent increase in such cases since 2007. The Miami-Dade per capita rate of 29.6 nonmedical alprazolam ED visits per 100,000 population was below the national rate of 36.7 in 2009.

**Exhibit 24 Rates per 100,000 of Nonmedical Benzodiazepines Emergency Dept. Reports for Miami-Dade County, Florida and USA: 2004-2009**



Note: For Miami, there were no statistically significant changes. For the USA, there was a statistically significant 116 %-increase from 2004 to 2009 and 47%-increase from 2007 to 2009. No significant testing of data for 2005 and 2006 versus 2009 was available.

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

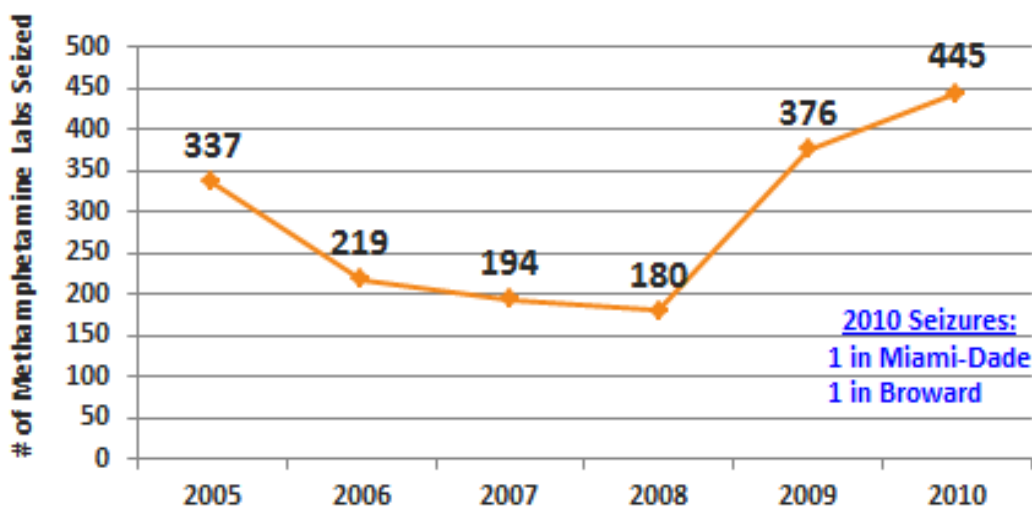
There were 71 admissions for benzodiazepines reported as primary treatment admissions in Miami-Dade County during 2010 or 1.5 percent of the 4,548 total treatment admissions in Miami-Dade County (exhibit 19 above). This total increased from only one admission in 2009.

The NFLIS reported 916 alprazolam crime laboratory cases, 57 diazepam items, and 46 clonazepam cases during 2010 in the three-county South Florida MSA. There were also 21 lorazepam, 9 temazepam, and 1 bromazepam items. Combined these 1,050 benzodiazepine reports represented 4 percent of all drug items analyzed (exhibit 10 above). There were also 910 “unspecified controlled substance” cases in the 2010 NFLIS report which may include additional prescription benzodiazepine items. In 2009 there were 638 benzodiazepine crime lab samples.

### Methamphetamine/Amphetamines

The number of methamphetamine clandestine laboratory seizures in all of Florida doubled between 2008 and 2009 and continued to increase in 2010 (exhibit 24). Yet, most of these labs have been 2-liter soda bottles used in the so called “shake and bake” production method yielding a relative small amount of methamphetamine more for personal use and sharing with those who may have help supply the precursor, pseudoephedrine. Of the 445 such lab seizures statewide in 2010 there was one in Miami-Dade County and one in neighboring Broward County. Indicators of methamphetamine abuse remained at low levels. While methamphetamine was cited as the primary drug for addiction treatment among less than 1 percent of addiction treatment clients in South Florida during 2010, 86 percent of clients were older than 25 years of age.

**Exhibit 24 Florida Clandestine Methamphetamine Lab Seizures: 2005 - 2010**



**SOURCE: Florida Department of Law Enforcement**

Methamphetamine was detected among 49 deceased persons during the first half of 2010 statewide in Florida, compared to 39 in the previous six months. There were 81 methamphetamine medical examiner occurrences in all of 2009 and 114 in 2008. Methamphetamine was considered a cause of death in 20 (41 percent) of the 49 cases during the first half of 2010. There were also 66 reports of amphetamine detected among decedents across Florida in the first six months of 2010, the same number as in the previous semi-annual period. An amphetamine was considered the cause of death in 18 percent of the 66 cases in the first half of 2010.

The DAWN weighted estimate of 86 methamphetamine-involved ED visits for Miami-Dade County during 2009 accounted for less than 1 percent of all ED visits among six substances (four illicit drugs —cocaine, marijuana, MDMA, and methamphetamine as well as nonmedical use of prescription opioids and benzodiazepines). Between 2004 and 2009, the number of methamphetamine-involved ED visits increased 43-percent in Miami-Dade County, from 60 to 86. In 2009, the per capita rate of 3.4 methamphetamine ED visits per 100,000 people was well below the national rate of 20.9. There was not an estimate for the number of illicit amphetamine ED visits in Miami-Dade County for 2009 due to a low number from the DAWN sample.

There were 22 primary admission for methamphetamine, accounting for 0.5 percent of the 4,548 primary treatment admission drug mentions (including alcohol) in Miami-Dade County during 2010 (exhibit 19 above). This total represents a 60-percent decrease over the 55 methamphetamine admissions in 2009. Females accounted for 64 percent of the methamphetamine clients. No methamphetamine client was younger than 18; 14 percent (n=3) were age 18–25; 45 percent (n=10) were 26–34; and 41 percent (n=9) were 35 or older. There were also 5 primary admissions for other amphetamines.

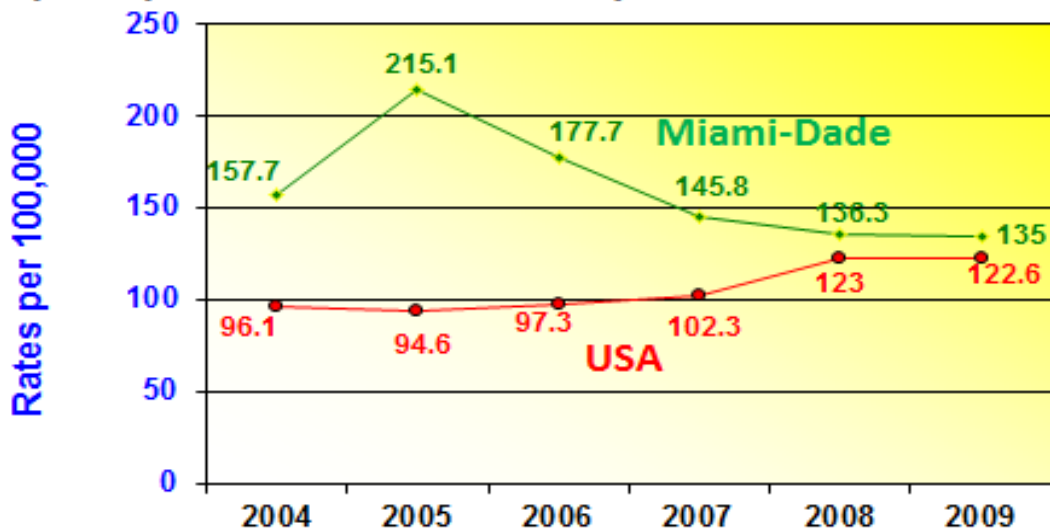
Methamphetamine accounted for 102 cases, or 0.4 percent, of all items analyzed by crime laboratories in 2010 for the three-county South Florida MSA as reported by the NFLIS. It ranked tenth among all substances (exhibit 10 above). In 2009 there were 110 methamphetamine crime lab reports.

## **Marijuana/Cannabis**

Consequences of marijuana use and addiction continue at high but stable levels. Marijuana is used by more Americans, particularly youth, than any other illicit drug. It is cited as the number one primary substance for addiction treatment in the State and both South Florida counties. Cannabinoids were detected in 389 deaths statewide in Florida during the first half of 2010 stable with the 392 occurrences the previous six months.

The DAWN weighted estimate of 3,375 marijuana-involved ED visits for Miami-Dade County during 2009 (exhibit 3 above) accounted for 27 percent of all ED visits among six substances (four illicit drugs —cocaine, marijuana, MDMA, and methamphetamine as well as nonmedical use of prescription opioids and benzodiazepines). The number of marijuana-involved ED visits in 2009 was stable with the 3,378 such reports in 2008 (exhibit 26). The per capita rate of 135 marijuana ED visits per 100,000 population was above the national rate of 122.6. Among those under 21 years of age there were 697 marijuana ED visits (or 21 percent) in 2009 with a per capita rate of 103.2 reports per 100,000 which was below the national rate of 125.3. Among those aged 21 and over there were 2,676 marijuana ED visits (or 79 percent) in 2009 with a per capita rate of 146.6 which was above the national rate of 121.5.

**Exhibit 26 Rates per 100,000 of Marijuana Emergency Dept. Reports Miami-Dade County, FL and USA: 2004-2009**

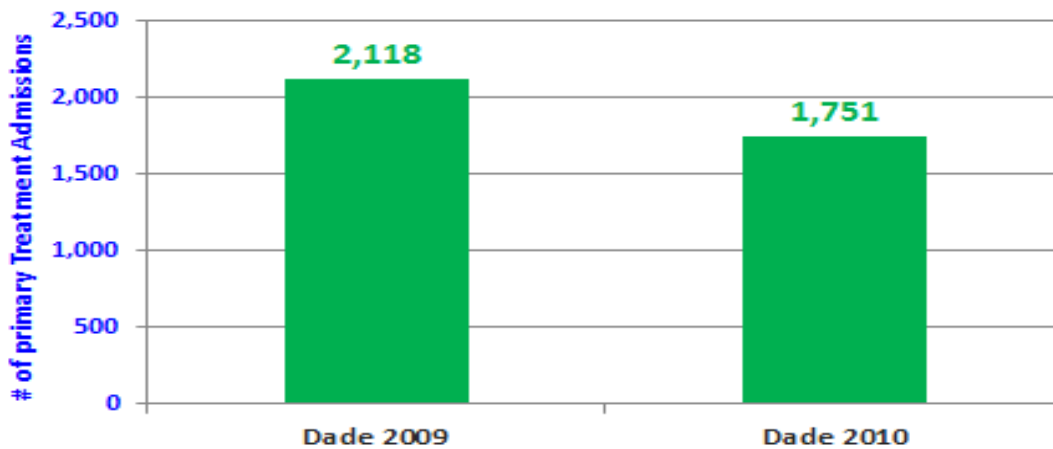


Note: There were no statistically significant changes for Miami or the USA.

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

There were 1,741 primary admission for marijuana, accounting for 38 percent of the 4,548 primary treatment admission drug mentions (including alcohol) in Miami-Dade County during 2010, more than for any other substance (exhibit 19 above). This total represents an 18 percent-decrease over the 2,118 marijuana admissions in 2009 (exhibit 27). Males accounted for 75 percent of the marijuana clients. Sixty percent (n=1,045) of these clients were younger than 18; 22 percent (n=377) were age 18–25; 12 percent (n=204) were 26–34; and 6 percent (n=115) were 35 or older.

**Exhibit 27 Number of Primary Marijuana Treatment Admissions Broward County, FL: 2009-2010**



SOURCE: Florida Department of Children and Families

Marijuana or cannabis accounted for 5,342 cases, or 21.3 percent of all items analyzed by crime laboratories in 2010 for the three-county South Florida MSA, as reported by NFLIS. Marijuana/cannabis ranked second among all substances after cocaine in the South Florida MSA (exhibit 10 above). In 2009 Marijuana or cannabis accounted for 4,699 cases, or 19 percent of all items analyzed by crime laboratories.

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.

The availability of unregulated synthetic cannabinoids increased via 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 5 synthetic cannabinoids that were federally scheduled in 2011 were also made illegal by the 2011 Florida Legislature.

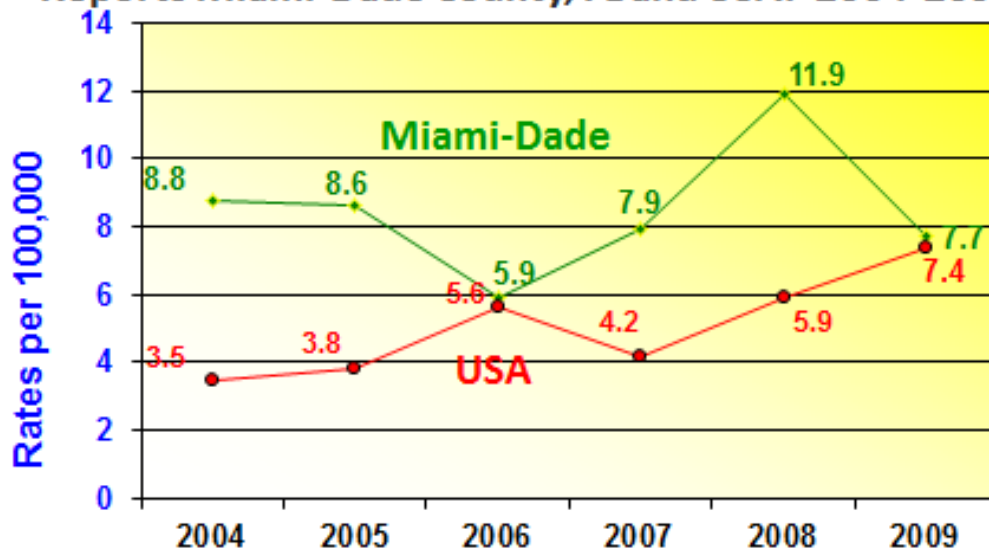
## **MDMA or Ecstasy**

Measures of MDMA (3,4-methylenedioxymethamphetamine) abuse have stabilized at relative low numbers in recent years. Ecstasy pills generally contain 75–125 milligrams of MDMA, although pills are often adulterated and may contain other drugs. The stimulant, BZP (1-benzylpiperazine), continues to be reported in ecstasy pills, with or without MDMA.

There were 22 MDMA-related deaths statewide in Florida in the first half of 2010, with the drug being cited as the cause of death in 8 of these cases. There were also 13 reports of MDA (3,4-methylenedioxyamphetamine)-related deaths statewide in Florida during the semi-annual period. During the previous six months, there were 19 MDMA-related deaths, and 8 MDA-related deaths. MDMA deaths decreased 27 percent between 2008 (n=44) and 2009 (n=32).

The DAWN weighted estimate of 192 MDMA-involved ED visits for Miami-Dade County during 2009 (exhibit 3 above) accounted for 1.5 percent of all ED visits among six substances (four illicit drugs —cocaine, marijuana, MDMA, and methamphetamine as well as nonmedical use of prescription opioids and benzodiazepines). The 192 MDMA-involved ED visits in 2009 represented a 35-percent decrease from the 294 visits in 2008 (exhibit 28). The per capita rate of 7.7 MDMA ED visits per 100,000 population was similar to the national rate of 7.4. There was not a weighted estimate of MDMA ED visits for those under 21 years of age in 2009. Among those aged 21 and over, there were 140 MDMA ED visits in 2009 with a per capita rate of 7.7 which was above the national rate of 5.4.

**Exhibit 28 Rates per 100,000 of MDMA Emergency Dept. Reports Miami-Dade County, FL and USA: 2004-2009**



Note: For Miami, there was a statistically significant 35%-decrease from 2008 to 2009. For the USA, there was a statistically significant 123%-increase from 2004 to 2009 and a 79%-increase from 2007 to 2009. No significant testing of data for 2005 and 2006 versus 2009 was available.

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

There were six primary treatment admissions for MDMA in Miami-Dade County in 2010 (exhibits 19 above). In 2009 there were 3 cases in Miami-Dade County.

MDMA accounted for 555 cases, or 2.2 percent of all items analyzed by crime laboratories in 2010 for the three-county South Florida MSA, as reported by NFLIS. MDMA ranked sixth among all substances in the three-county MSA (exhibit 10). There were also 114 items, or 0.5 percent of all items analyzed, identified as BZP and sold as ecstasy in 2010. There were also two samples of TFMPP analyzed. One local crime laboratory reported that 65 percent of alleged ecstasy items identified to date in 2010 were BZP. However availability of ecstasy with only MDMA appears to be increasing.

During 2010 in South Florida, ecstasy tablets sold for \$4–\$5 per tablet wholesale (in bulk), and \$9 retail for a single pill, according to the NDIC. These prices have remained stable since 2008.

## GHB

Abuse of the anesthetic GHB (gamma hydroxybutyrate) has declined significantly in recent years. There are several compounds that are converted by the body to GHB, including GBL (gamma butyrolactone) and 1,4-butanediol (1,4-BD). Over the past few years, GHB abuse has involved the abuse of 1,4- BD. 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. However there are increasing antidotal reports of 1,4- BD being used in drug-facilitated sexual assaults among men who have sex with other men in 2011.



There were three GHB-related deaths statewide during the first half of 2010, and the drug was considered the cause of death in two of those cases. There were six GHB related deaths statewide in 2009 and three in 2008, five in 2007; four in 2006; and nine 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 in 2009 due to a low number of cases from the DAWN sample.

The NFLIS reported there were 9 cases of 1,4-BD analyzed by the crime laboratories in Miami-Dade, Broward, and Palm Beach Counties in 2010, the same number as in 2009. There were no GHB items in either year.

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

Muscle relaxants may be abused in combination with MDMA and other drugs. There were 220 reports of carisoprodol or meprobamate among deceased persons in Florida during the first half of 2010, of which 48 (or 22 percent) were considered to be caused by the drug. There were 199 carisoprodol occurrences the previous six months and a total of 455 for the entire year of 2009, up from 415 deaths in 2008.

Weighted DAWN visit estimates for muscle relaxants were not available for Miami-Dade County in 2008 and again in 2009 because the sample numbers were not adequate.

The NFLIS reported 55 carisoprodol crime laboratory cases for the South Florida MSA in 2010, an increase from the 19 reports in 2009.

### **Infectious Diseases Related to Drug Abuse**

As of December 31, 2010, 32,470 adult/adolescent cumulative cases of AIDS had been reported in Miami/Dade County. Among those cases, 15.7 percent identified as injection drug users (IDUs), and an additional 3.9 percent reported the dual risk of men who have sex with men (MSM)/IDU. Approximately 11 percent of the total cases have not been classified by a known risk category, and thus the rates of IDU cases are most likely higher.

*For inquiries regarding this report, contact James N. Hall, Center for the Study and Prevention of Substance Abuse, Nova Southeastern University c/o Up Front, Inc., 13287 S.W. 124th Street, Miami, FL 33186, Phone: 786-242-8222, Fax: 786-242-8759, [E-mail: upfrontin@aol.com](mailto:upfrontin@aol.com).*