

## Drug Abuse in Miami, Florida: January to June 2008

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

**Overview of Findings:** Cocaine remains entrenched as Miami-Dade's major illicit drug problem, yet there were declines in deaths and treatment admissions related to it during the first half of 2008 as compared to the previous six months. Increasing heroin consequences that began during the second half of 2007 continued in the first half of 2008 when heroin deaths also increased in other areas of Florida. Heroin is the primary opiate reported in Miami-Dade County. Consequences for nonmedical use of prescription narcotic opioids appeared to have declined in the first half of 2008 as compared to the second half of 2007. MDMA continues to be found in-combination with methamphetamine as both drugs have been detected in ecstasy tablets. Consequences related to benzodiazepines declined during the first half of 2008 as compared to the previous six months but increased over the numbers recorded in the first half of 2007. Emerging issues include (1) declining trends in cocaine indicators perhaps related to lower purity of South American cocaine, and (2) increases in heroin consequences linked to rising opiate addiction with non-medical use of prescription narcotic analgesics.

**Updated Drug Abuse Patterns and Emerging Trends: Crack/Powder Cocaine** – Miami-Dade has the highest proportions of cocaine-related hospital emergency department (ED) reports and crime lab cases among the nation's 20 largest metropolitan areas with 60% of illicit drug ED reports and 2/3 of crime lab cases during the first

half of 2008. Cocaine-related deaths declined 54-percent in Miami-Dade County and 18-percent across the State between the last half of 2007 and the first half of 2008. These declines reverse rising numbers of cocaine-related deaths for the State since 2000 and since 2004 locally. Polysubstance abuse was linked to 55 percent of the cocaine deaths in Miami-Dade County and 75 percent Statewide during the first half of 2008. **Heroin:** The 16 heroin-related deaths in Miami-Dade County during the first half of 2008 were the highest number in the State yet represented a 16-percent decline over the previous six months. Heroin deaths increased 34-percent across Florida during the same period. Heroin consequences had been declining since 2001 in Florida as prescription opioid abuse began to sharply escalate. Then heroin indicators began increasing during the second half of 2007 in Miami-Dade County as well as the State. Mexican Black Tar heroin which had been primarily available west of the Mississippi River is now reported in South Florida. **Other Opiates/Narcotics:** Most of the State has higher numbers and per capita rates of prescription opioid non-medical use and abuse than Miami-Dade County. Yet, consequences rose sharply in Miami-Dade during the second half of 2007 before declining during the first six months of 2008. Statewide, methadone deaths decreased 17-percent from 520 in the last half of 2007 to 432 in the first six months of 2008 while fentanyl deaths increased 44-percent from 89 to 128 over the same period. Among unweighted ED reports for 5 illicit drugs as well as prescription opioids and benzodiazepines in the first half of 2008, 5 percent were for narcotic opioids in Miami-Dade County. Oxycodone is the most frequently cited prescription opioid observed in most abuse indicators. **Methamphetamine:** Indicators of methamphetamine abuse remain low with less than one percent of unweighted ED reports (excluding alcohol).

<sup>1</sup>Mr. Hall 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.

However, those reports doubled in Miami-Dade County from 31 to 63 between the second half of 2007 and the first half of 2008. Statewide, methamphetamine-related deaths increased 27-percent from 45 in the last half of 2007 to 57 in the first half of 2008. Methamphetamine continues to be detected in ecstasy tablets. **MDMA (ecstasy):** Statewide, MDMA-related deaths decreased 45-percent from 40 in the last half of 2007 to 22 in the first half of 2008. Miami-Dade trends are stable for both methylated amphetamines. **Marijuana:** Indicators of marijuana consequences remain stable and high, ranking second to cocaine. Approximately ¼ of unweighted ED reports for all non-alcohol illicit drugs are for marijuana. Marijuana was the primary drug cited by 84 percent of adolescent clients in Miami-Dade County treatment programs (excluding alcohol) and by 23 percent of adult clients. **Benzodiazepines:** Alprazolam is the most frequently cited benzodiazepine observed in most abuse indicators. In Miami-Dade County, Benzodiazepines accounted for 26 percent of drug-related deaths and 9 percent of ED reports during the first half of 2008. Benzodiazepine deaths declined sharply between the two most recent semi-annual reporting periods while increasing 10-percent statewide. **Emerging Patterns:** The decline of cocaine indicators and the increase of heroin consequences are the major changes between the most recent semi-annual reporting periods. Patterns of cocaine trafficking including purity of the drug sold in wholesale quantities should be monitored for changes in its availability and consequences. Initiation of heroin use among nonmedical opioid users is a potential risk.

## INTRODUCTION

This report reviews data from the first half of 2008 with short-term trends from the previous semi-annual reporting period about drug-

related deaths, medical emergencies, addiction treatment admissions, and law enforcement intelligence. Information is presented by primary substance of abuse, with topics including cocaine, heroin, prescription narcotic opioids, methamphetamine, marijuana, gamma hydroxybutyrate (GHB), 3,4 methylenedioxymethamphetamine (MDMA or “ecstasy”), benzodiazepines, 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. Exhibits for the report follow the narrative text.

## Area Description

Located in the extreme southern portion of the Florida peninsula, Miami-Dade County has a population of 2.4 million; 61 percent are Hispanic, 20 percent are Black non-Hispanic, 18 percent are White non-Hispanic, and 1 percent are Asian/Pacific Islanders. Miami is Dade County’s largest city, with 360,000 residents. More than 100,000 immigrants arrive in Florida each year; one-half establish residency in Miami-Dade County. More than half of the County’s population are foreign born.

Approximately 25 million tourists visit South Florida annually. The region is a hub of international transportation and the gateway to commerce between the Americas, accounting for sizable proportions of the Nation’s trade: 40 percent with Central America, 37 percent with the Caribbean region, and 17 percent with South America. 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:

- 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 also remains a gateway for Colombian heroin since the 1990s.
- Extensive coastline and numerous private air and sea vessels make it difficult to pinpoint drug importation routes into Florida and throughout the Caribbean region.
- Lack of a prescription monitoring system in Florida makes the State a source for diverted medications in the eastern United States.

### 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 *2008 Interim Report of Drugs Identified in Deceased Persons between January and June 2008*.
- **Emergency Department (ED) data** were derived for Miami-Dade County from the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA). 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 sub-

stances"). Drug reports exceed the number of ED visits because a patient may report use of multiple drugs (up to six drugs plus alcohol). Unweighted Miami-Dade ED data for the first half of 2008 are from the DAWN *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), SAMHSA. Eligible hospitals in only the Miami-Dade County Division totaled 21; hospitals in the DAWN sample numbered 19, with the number of EDs in the sample also totaling 19. (Some hospitals have more than one emergency department.) During January to June 2008, nine EDs reported data each month. The completeness of data reported by participating EDs varied by month (exhibit 1). Exhibits in this paper for the first half of 2008 Miami-Dade County data reflect cases that were received by DAWN as of December 22, 2008. Based on the DAWN *Live!* reviews, cases may be corrected or deleted; thus, the unweighted data presented in this paper are subject to change. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. The DAWN *Live!* data are unweighted and, thus, are not estimates for the reporting area. DAWN *Live!* data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the system can be found on the DAWN Web site <<http://dawninfo.samhsa.gov>>.

- **Drug treatment data** for Fiscal Year July 2007 through June 2008 were provided by the South Florida Provider Coalition.
- **Crime lab drug analyses data** were derived from the Drug Enforcement Administration's (DEA's) National Forensic

Laboratory Information System (NFLIS) Report for Miami-Dade County from January through December 2008.

- **Drug pricing data** for South Florida were derived from the National Drug Intelligence Center (NDIC), *National Illicit Drug Prices*, December 2007.
- **Heroin price and purity information** is from the U.S. Drug Enforcement Administration (DEA) Domestic Monitor Program (DMP).
- **Data on the prevalence of substance use by middle and high school students** in Miami-Dade County are from the 2008 Florida Youth Substance Abuse Survey.

Other information on drug use patterns was derived from ethnographic research and callers to local drug information hotlines.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine/Crack

For the first time since 2004, there were declines in indicators of cocaine abuse in Miami-Dade County between the second half of 2007 and the first half of 2008. Declines in the purity of retail cocaine at the gram level may explain reduced consequences. As wholesale kilo prices increase, dealers are adding more adulterants or “cuts” reducing street purity. The rise in US wholesale cocaine prices is attributed to a shift in global trafficking patterns as more cocaine from Colombia is directed to a higher profit European market.

Yet, Miami’s cocaine epidemic is still characterized by consequences that rank among the highest in the Nation. Cocaine abuse indicators had been rising since 2000 across the State but remained relatively stable in Miami-Dade at high numbers through 2006.

In 2007, there were increases in the numbers of cocaine-related deaths in Miami-Dade County attributed to underreporting in the previous year. Even with declines in the first half of 2008, cocaine still dominates consequences of drug abuse with 44 percent of all illicit drug related deaths, 60 percent of drug emergency department (ED) reports, 51 percent of primary treatment admissions, and 67 percent of crime lab cases. The majority of cocaine deaths, medical emergencies, and addiction treatment reports are among those older than 35. Many of the indicators reflect cocaine use in combination with other drugs, including prescription opiates and benzodiazepines.

Throughout Florida, the number of *cocaine-related* deaths decreased 18-percent in the first half of 2008 as compared with the previous six months, reversing an upward trend since 2000. There were 955 cocaine-related deaths across Florida in the first half of 2008 as compared to 1,171 in the second half of 2007. The 2,179 cocaine-related deaths in all of 2007 were the highest number since the drug has been tracked beginning in the late 1980s. The number of cocaine deaths had increased 97-percent between 2001 and 2007; the key factor for that rise was a 105-percent increase of deaths with cocaine-in-combination with other drugs, particularly prescription medications. Among the 955 cocaine-related deaths in Florida during the first half of 2008, 75 percent of the cases involved cocaine-in-combination with at least one other drug.

In Florida, a drug is considered to be the cause of death and termed a *drug-induced death* if it is detected in an amount considered a lethal dose by the local medical examiner (ME). Among the 955 cocaine-related deaths statewide in the first half of 2008, 360 or 38 percent were considered to be *cocaine-induced*.

There were 91 deaths related to cocaine use in Miami-Dade County during the first six months of 2008, representing a 54-percent decrease over the 197 reported in the second half of 2008 (exhibit 2). Cocaine was detected at a lethal level in 24 percent of the cases in the first six months of 2008. Cocaine was found in combination with another drug in 55 percent of the cases (exhibit 3). One of the cocaine-related fatalities was younger than 18; 15 percent were age 18–25; 20 percent were 26–34; 40 percent were 35–50; and 15 percent were older than 50. Miami-Dade County's number of cocaine deaths during the first half of 2008 ranked second among the 24 medical examiner districts in the State below Orlando with 106 deaths.

During the first six months of 2008, unweighted data from *DAWN Live!* showed 1,809 cocaine reports from a sample of 9 of 19 emergency departments (EDs) in Miami-Dade (exhibit 4). Cocaine was the most frequently cited substance (excluding alcohol-only) among all local *DAWN* ED cases. Among major substances of abuse (excluding alcohol), cocaine represented 58 percent of the ED reports.

There were 1,400 primary admission for crack cocaine and an additional 674 for powder cocaine accounting for a total of 2,074 (or 51 percent) of the 4,068 primary treatment drug mentions (excluding alcohol) from the Miami-Dade County treatment admissions reported by the South Florida Provider Coalition in the Fiscal year July 2007 to June 2008 (exhibit 5).

Cocaine continued to be the most commonly analyzed substance by the Miami-Dade crime lab. It accounted for 7,094 items, or 67 percent, of the 10,545 total samples tested during the first half of 2008.

Powder cocaine and crack continued to be reported as “widely available” throughout

Florida. According to NDIC, in Miami powder cocaine sells for \$15,250–\$17,500 per kilogram wholesale, \$700–\$1,200 per ounce, and \$40–\$100 per gram retail. Crack cocaine sells for \$750 per ounce, \$50–\$125 per gram, and \$10 per 0.1 gram “rock.”

The 2008 Florida Youth Survey on Substance Abuse reported that 5.7 percent of Miami-Dade high school students had used powder cocaine at least once in their lifetime, and 2.1 percent reported lifetime crack use down from 7.7 percent for powder cocaine and 2.9 percent for crack in 2006. Power cocaine use in the past 30 days was reported by 2.3 percent of Miami-Dade high school students and past 30-day crack use was reported by 0.4 percent in 2008. Powder cocaine use remained the same as reported in 2006 while crack use declined from 0.7 percent.

## Heroin

Deaths caused by heroin had declined dramatically in Florida since 2001 but increased both statewide and in Miami-Dade County between 2006 and the first half of 2008. Substantial increases in abuse and consequences of narcotic analgesic medications have occurred since 2000 and were previously linked to declining heroin problems. Increasing heroin consequences may also be attributed now to abusers of prescription opioids who are using heroin for their narcotic dependency. Polydrug abuse patterns have facilitated first-time use of opiate drugs, including heroin. Most heroin ED patients and addiction treatment admissions continue to be among older, White males.

South American heroin has been entering the area over the past decade. **In 2008 the first kilo-level seizures of Mexican Black Tar heroin have occurred in South Florida.**

Throughout Florida, the number of *heroin-related* deaths increased 9-percent during the first half of 2008 as compared as compared to the previous six months, reversing declining trends between 2001 and 2006. There were 71 heroin-related deaths across Florida from January to June 2008. Heroin continued to be the most lethal drug, with 92 percent ( $n=65$ ) of heroin-related deaths in the first half of 2008 being caused by the drug. Polysubstance abuse was noted in 89 percent of the heroin-related deaths statewide in the first half of 2008.

In the first six months of 2008, Miami-Dade County accounted for nearly one-fourth (23 percent) of all heroin deaths in Florida where it was found at a lethal dose level in 14 of the 16 deaths in which heroin was detected. Other drugs were detected in 75 percent of the cases (exhibit 3). None of the heroin-related fatalities was younger than 18 years and three (19 percent) were aged 18–25, 2 (12 percent) were age 26–34, 8 (50 percent) were age 35–50, and 3 (19 percent) were older than 50. The 16 heroin-related deaths in Miami-Dade during the first half of 2008 reflect a 16-percent decrease over the 19 deaths in the previous six months. Lethal heroin deaths peaked in Miami-Dade County in 2000 with 61 fatalities.

During the first half of 2008, unweighted DAWN *Live!* data for Miami-Dade County showed 426 ED heroin reports (exhibit 4). Among major substances of abuse (excluding alcohol), heroin represented 14 percent of the ED reports.

There were 200 primary admissions for the category combining heroin and prescription opioids accounting for 5 percent of the 4,068 primary treatment drug mentions (excluding alcohol) from the Miami-Dade County treatment admissions reported by the South Florida Provider Coalition in the Fiscal Year July 2007 to June 2008 (exhibit 5).

Heroin accounted for 290 crime lab cases in Miami-Dade during the first half of 2008 according to NFLIS, representing 2.7 percent of all drugs tested.

A comparison of opiate indicators for heroin and narcotic analgesics in Miami-Dade and Broward Counties are contrasted in exhibit 6. Heroin accounts for 72 percent of opiate ED reports in Miami-Dade County. While in neighboring Broward County, prescription opioids accounted for 79 percent of opiate ED reports.

In 2006, 23 qualified Heroin Domestic Monitoring Program samples were purchased in Miami by DEA agents. All of these samples were analyzed as South American heroin. These samples ranged from 2.8 to 85.9 percent pure, with an average purity of 24.4 percent. Compared with 2005 levels, the average purity of Miami's exhibits rose by five percentage points; this level of average heroin purity has not reached comparable levels in Miami since 2003. The average price per milligram pure in Miami increased from \$1.36 to \$1.75 per milligram pure between 2005 and 2006.

South American heroin is available in South Florida, as described by law enforcement officials and epidemiologists/ethnographers. Yet, in 2008 at least one seizure of 8 kilos of Mexican Black Tar heroin was seized by a Broward County police department.

According to NDIC, 1 kilogram of heroin sells for \$42,000–\$70,000 in the region and for \$1,800 per ounce; retail prices are roughly \$35–\$50 per gram. The most common street unit of heroin is a bag of heroin (roughly 15–20 percent purity) weighing about one-tenth of a gram that sells for \$10.

The 2008 Florida Youth Survey on Substance Abuse reported that 1.2 percent of Miami-Dade high school students had used

heroin at least once in their lifetime, up from 0.9 percent in 2006. Heroin use in the past 30 days was reported by 0.2 percent of Miami-Dade high school students in the past 30 days in 2008, down from 0.4 percent in 2006.

### Prescription Opioids

Deaths related to prescription opioids stabilized across Florida in the first half of 2008 as compared to the previous semi-annual reporting period following steady increases from 2000 to 2006. Yet Fentanyl-related deaths totaled 128 increasing 44-percent between the last half of 2007 and the first six months of 2008. In all of 2007, deaths related to the category of prescription narcotic analgesics totaled 5,059, up from 4,386 in 2006 and 4,054 in 2005. Deaths from hydrocodone, oxycodone, and methadone have been tracked in Florida since 2000. Beginning in 2003, morphine, propoxyphene, fentanyl, hydromorphone, meperidine, and other opioids were included in the Florida Medical Examiners Commission's surveillance monitoring program. Deaths related to 5 prescription narcotics totaled 47 in Miami-Dade County, 94 in Broward County, and 206 in Palm Beach County in the first half of 2008.

Across Florida, deaths related to oxycodone increased 10-percent between the second half of 2007 and the first half of 2008 ( $n=705$ ), and deaths related to hydromorphone remained stable at 89. Methadone deaths declined 17-percent to 432 in the first half of 2008, hydrocodone deaths ( $n=419$ ) increased 6-percent, and fentanyl deaths ( $n=128$ ) increased 44-percent. The most lethal prescription narcotics statewide were methadone that caused 75 percent ( $n=324$ ) of the deaths related to it, oxycodone that was the cause of 60 percent ( $n=423$ ) of its related deaths, and fentanyl that caused 39 percent ( $n=50$ ) of the deaths related to it.

Medical examiner mentions for all opioid analgesics totaled 2,495 during the first half of 2008, compared with 1,923 alcohol medical examiner mentions. Most of the statewide opioid analgesics mentions were polydrug episodes, including 92 percent of the methadone ME cases, 91 percent of the oxycodone ME cases, 89 percent of the hydrocodone ME cases, 80 percent of morphine cases, and 79 percent of propoxyphene deaths.

Miami-Dade recorded 16 oxycodone-related deaths during the first half of 2008 (exhibit 3), of which half were oxycodone induced. Most of these deaths (69 percent) involved oxycodone found in combination with at least one other drug. Miami-Dade also had 15 morphine-related deaths half of which were morphine induced. Miami-Dade County recorded 6 hydrocodone-related deaths during the first half of 2008, and 33 percent were hydrocodone induced. Miami-Dade County recorded 4 methadone-related deaths 75 percent of which were considered methadone induced. There were 6 propoxyphene-related deaths in Miami-Dade County of which 17 percent were considered to be a lethal dose. These 47 combined mentions represented a 64-percent decrease over the 131 such deaths in the second half of 2007.

Unweighted DAWN *Live!* data for Miami-Dade show 167 narcotic analgesic reports in the first half of 2008 (exhibit 4) as compared to 426 reports for heroin. Among the narcotic analgesic reports, 64 (or 38 percent) were oxycodone ED reports. The total also includes 12 hydrocodone reports, 11 methadone ED reports, 6 fentanyl reports, 2 buprenorphine ED reports, and 72 unspecified opioid reports.

As reported above, there were 200 primary admission for the category combining heroin and prescription opiates accounting for 5 percent of the 4,068 primary treatment drug mentions (excluding alcohol) from the Miami-Dade County treatment admissions

reported by the South Florida Provider Coalition in the Fiscal Year July 2007 to June 2008 (exhibit 5).

The NFLIS reported 60 oxycodone crime lab cases, 29 hydrocodone cases, 7 codeine cases, 6 methadone cases, and 10 other narcotic analgesic cases during the first half of 2008 in Miami-Dade County, representing 1 percent of all drug items analyzed.

The 2008 Florida Youth Survey on Substance Abuse reported that 5.4 percent of Miami-Dade high school students had used a prescription pain medication non-medically at least once in their lifetime, stable with 5.3 percent in 2006. Non-medical use of a pain medication in the past 30 days was reported by 1.9 percent of Miami-Dade high school students in the past 30 days in 2008, stable with 2 percent in 2006.

### **Methamphetamine**

Indicators of methamphetamine abuse remain at low levels among populations who may not be observed in traditional drug abuse indicators. Most methamphetamine seen in South Florida is high-grade Mexican-manufactured “ice” trafficked from Atlanta. Mexican drug trafficking organizations are also supplying powdered methamphetamine directly to local Latino populations of Central and South American nationalities. As well, methamphetamine is now seen in “ecstasy” tablets that may or may not also contain MDMA.

Nationally methamphetamine problems have diminished since the second half of 2006 as domestic production in clandestine labs has been significantly curtailed following laws controlling sales of pseudoephedrine, a key ingredient in the manufacture of methamphetamine. Yet, other methods of “cooking meth” could restart domestic production. A second factor in declining consequences of

methamphetamine is the rising awareness of its harm among users who may be turning to cocaine as an alternative stimulant.

Methamphetamine-related deaths increased 27-percent between the second half of 2007 (n=45) and first half of 2008 (n=57) Methamphetamine was considered the cause of death in 11 of the 57 cases (19 percent) from January to June 2008. There were also 64 amphetamine-related deaths in the first half of 2008 across Florida, a 54-percent increase over the previous six months. Amphetamine was considered the cause of death in 14 percent of the 64 cases from January to June 2008.

Unweighted data accessed from DAWN *Live!* reveal 14 methamphetamine-related ED reports during the first half of 2008 in Miami-Dade County (exhibit 4) up from 4 reports in the previous six months. There were also 23 amphetamine-related Miami-Dade ED reports during the first half of 2008.

There were 31 primary admissions for the combined category of methamphetamine or amphetamine accounting for 0.7 percent of the 4,068 primary treatment drug mentions (excluding alcohol) from Miami-Dade County treatment admissions reported by the South Florida Provider Coalition for the Fiscal Year July 2007 through June 2008 (exhibit 5).

Methamphetamine accounted for 92 crime lab cases in Miami-Dade during the first half of 2008 according to NFLIS, representing less than 1 percent of all drugs tested. There were also 3 amphetamine crime lab cases.

In South Florida, methamphetamine has some of the highest prices in the Nation at \$15,000–\$30,000 per pound for powder Mexican methamphetamine as of December 2007, and \$2,100 per ounce for Mexican ice. A gram of the high purity ice sells for \$50–

\$100 per gram. Lower purity powered methamphetamine sells for \$200 per gram.

The 2008 Florida Youth Survey on Substance Abuse reported that 1.1 percent of Miami-Dade high school students had used methamphetamine at least once in their lifetime, stable with the 1.2 percent in 2006. Use among middle school students was higher with 1.4 percent reporting lifetime methamphetamine use in 2008, down from 2.1 percent in 2006. Methamphetamine use in the past 30 days was reported by 0.1 percent of Miami-Dade high school students in 2008, down from 0.3 percent in 2006. Current methamphetamine use among middle school students was also higher with 1.0 percent reporting past 30-day use in 2008, down from 1.6 percent in 2006. Prescription amphetamine use was higher than methamphetamine use with 2.6 percent of high school students reporting any lifetime use in 2008, up from 2.1 percent in 2006. Current, past 30-day prescription amphetamine use among Miami-Dade high school students also rose from 0.4 percent in 2006 to 1 percent in 2008.

Methamphetamine abuse and related sexual activity have contributed to sharp increases in sexually transmitted diseases in South Florida, particularly among men who have sex with men (MSM). Local public health officials consider methamphetamine-related sexual behavior as a key factor in why Miami-Dade County ranks among the highest in the nation for per capita rates of HIV infection.

## **Marijuana**

Marijuana is used by more Americans, particularly youth, than any other illicit drug. Consequences of its abuse and addiction continue as declines in its rates of use

among youth since 2000 have stalled in recent surveys.

Cannabinoids were detected in 440 deaths statewide in Florida during the first half of 2008, representing a 21-percent decrease compared to the 557 such reports the previous six months.

Unweighted DAWN *Live!* data for Miami-Dade showed 729 marijuana reports in the first six months of 2008 (exhibit 4). Marijuana was the second most cited illicit drug among Miami-Dade County unweighted DAWN *Live!* ED reports, accounting for 23 percent of the 3,122 major substances of abuse reports (excluding alcohol and medications) during the first half of 2008.

Among youth below 18 years of age, primary treatment admissions for marijuana totaled 755 or 84 percent of the 894 youth primary admissions (excluding alcohol) in Miami-Dade County as reported by the South Florida Provider Coalition in Fiscal Year July 2007 through June 2008 (exhibit 5). There were also 729 primary admissions for marijuana among adults accounting for 23 percent of the 3,174 adult primary treatment drug mentions (excluding alcohol).

The NFLIS reported 2,315 cannabis crime lab cases in Miami-Dade County during the first half of 2008 representing 22 percent of all exhibits analyzed. Marijuana is still described as widely available throughout Florida, with local commercial, sinsemilla, and hydroponic grades available. A pound of commercial grade marijuana sells for \$650–\$1,200 per pound. Hydroponic and sinsemilla grades sell for \$3,500–\$4,000 per pound. The ounce price for commercial grade marijuana is \$100–\$150. Sinsemilla sells for \$400–\$500 per ounce. Depending on its potency, marijuana may sell for \$5–\$20 per gram.

The 2008 Florida Youth Survey on Substance Abuse reported that 23.3 percent of

Miami-Dade high school students had used marijuana at least once in their lifetime down from 26.8 percent in 2006. Among middle school students, 6.1 percent reported lifetime marijuana use in 2008, slightly below the 6.6 percent in 2006. Marijuana use in the past 30 days was reported by 13 percent of Miami-Dade high school students in 2008, down slightly from 13.5 percent in 2006. Among middle school students, current past 30-day use was reported at 3.4 percent in 2008, stable with the 3.6 percent in 2006.

### **Methylenedioxymethamphetamine (MDMA, or “Ecstasy”)**

Measures of MDMA abuse have been increasing since 2006. Mixed trends between the last half of 2007 and the first half of 2008 appear related to adulterated “ecstasy” often containing methamphetamine and sometimes no MDMA. Across the most recent reporting periods, deaths related to MDMA decreased while methamphetamine deaths increased, yet hospital ED reports for both drugs increased. This pattern may be explained by the fact that drug-related deaths are determined by toxicology test of the actual substance detected in decedents and most ED reports are by patient self-reporting. Thus, a person taking “ecstasy” may think they used MDMA when the actual substance ingested could be methamphetamine or another drug.

There were 22 MDMA-related deaths statewide in Florida during the first six months of 2008, with the drug being cited as the cause of death in 2 of these cases. There were also 10 methylenedioxyamphetamine (MDA)-related deaths statewide in Florida during the same time period and 2 of those deaths were caused by MDA. MDMA deaths decreased 45-percent and MDA deaths decreased 50-percent between the last

six months of 2007 and the first half of 2008.

In the first half of 2008, unweighted DAWN *Live!* data revealed 63 MDMA reports in Miami-Dade (exhibit 4) as compared to 31 in the previous six months.

The NFLIS reported that the Miami-Dade Crime Lab analyzed 136 MDMA exhibits and 4 MDA samples, representing a combined 1.3 percent of all substances analyzed in the first half of 2008.

In South Florida, ecstasy tablets sell for \$4–\$5 per tablet wholesale (in bulk) and \$15 retail for a single pill. These prices have declined since 2006.

The 2008 Florida Youth Survey on Substance Abuse reported that 6.4 percent of Miami-Dade high school students had used ecstasy at least once in their lifetime stable with 6.2 percent in 2006. Ecstasy use in the past 30 days was reported by 3.1 percent of Miami-Dade high school students in 2008, up from 2.0 percent in 2006.

### **Gamma Hydroxybutyrate (GHB)**

Abuse of the anesthetic GHB has declined significantly in recent years. There are several compounds that are converted by the body to GHB, including gamma butyrolactone (GBL) and 1,4 butanediol (1,4 BD). Most recently, GHB abuse involves 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. More recently, GHB and its related substances are reported to be used by those seeking to come down from stimulant effects of methamphetamine.

There was one GHB-related death statewide during the first half of 2008 and the drug was considered the cause of death. There were 5 GHB-related deaths statewide in 2007; 4 in 2006; and 9 deaths in 2005. In all of Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001 and then declined to 19 in 2002 before declining to 11 in 2003 and 2004.

Unweighted data accessed from DAWN *Live!* for Miami-Dade County reveal 12 GHB-related ED reports in the first half of 2008.

The NFLIS reported 9 crime lab cases of 1,4 BD in Miami-Dade County in the first half of 2008, and no GBL or GHB cases.

The 2008 Florida Youth Survey on Substance Abuse reported that 0.3 percent of Miami-Dade high school students had used GHB at least once in their lifetime down from 0.8 percent in 2006. No Miami-Dade high school students reported GHB use in the past 30 days in 2008, down from 0.2 percent in 2006.

### **Benzodiazepines**

Benzodiazepines in general and alprazolam (Xanax) in particular are substantial problems. There were 1,469 benzodiazepine-related deaths across Florida in the first half of 2008, representing a 10-percent increase over the 1,333 such deaths in the previous six months. Of the benzodiazepine-related deaths in the first half of 2008, a benzodiazepine was identified as the cause of death in 392 cases (27 percent). Among the benzodiazepine-related deaths statewide, 838 were attributed to alprazolam and 402 were attributed to diazepam (*Valium*).

In Miami-Dade County, there were 38 alprazolam-related deaths during the first half of 2008, of which 18 percent were alprazolam-

induced. Seventy-nine percent of the deaths involved at least one other drug (exhibit 3). There were also 16 diazepam-related deaths in Miami-Dade County; none were caused by the drug; 69 percent of these deaths involved at least 1 other drug. These 54 combined mentions for alprazolam and diazepam represented an 50-percent decrease over the 107 such deaths in the previous six months and follows an 39-percent increase from 2006 to 2007. One (or 2 percent) of the combined mentions in the first half of 2008 involved a person younger than 18; 2 percent of the decedents were between 18 and 25, 11 percent were age 26–34, 46 percent were age 35–50, and 39 percent were older than 50.

Unweighted DAWN *Live!* data for Miami-Dade show 335 benzodiazepine reports (exhibit 4) in the first half of 2008.

There were no primary admissions for benzodiazepines reported from Miami-Dade County treatment admissions provided by the South Florida Provider Coalition in the Fiscal Year from July 2007 through June 2008.

The NFLIS reported that Miami-Dade had 289 benzodiazepine exhibits (or 2.7 percent of all exhibits) during the first half of 2008, including 269 alprazolam items, 9 clonazepam samples, 7 diazepam items, and 4 for other benzodiazepines.

The 2008 Florida Youth Survey on Substance Abuse found that 1 percent of Miami-Dade high school students and 0.5 percent of middle school students reported non-medical use of a “prescription depressant (e.g., Xanax)” at least once in the past 30 days. The 2008 combined prevalence for all Miami-Dade students was 0.8 percent reflecting a 43-percent decrease from 1.4 percent reported in 2006.

### **Muscle Relaxants**

Muscle relaxants may be abused in combination with MDMA and other drugs. There were 212 deaths related to carisoprodol or meprobamate across Florida in the first half of 2008, of which 42 (or 20 percent) were considered to be caused by the drug. The number of these deaths increased by 22-percent as compared to the 174 such deaths in the previous six months.

Unweighted DAWN *Live!* data for Miami-Dade County in the first half of 2008 show 14 reports on nonmedical use of muscle relaxants. Carisoprodol was specifically cited in 29 percent of the reports.

The NFLIS reported 2 meprobamate crime lab cases and 1 carisoprodol case in Miami-Dade County during the first half of 2008.

### Exhibit 1 DAWN ED Miami-Dade County Sample and Reporting Information: January – June 2008

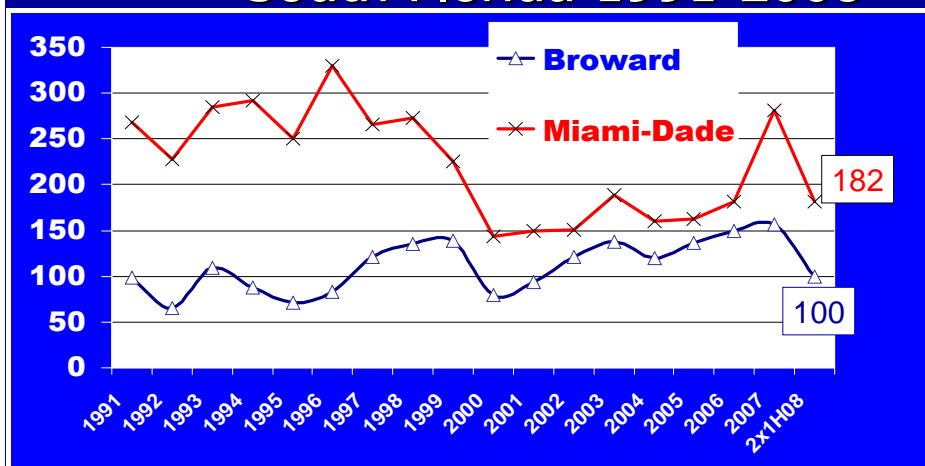
Total Eligible Hospitals <sup>1</sup>	No. of Hospitals in DAWN Sample	Total EDs in DAWN Sample <sup>2</sup>	No. of EDs Reporting Month: Completeness of Data (%)			No. of EDs Not Reporting
			90–100%	50–89%	<50%	
21	19	19	8	0-1	0-1	10

<sup>1</sup> Short-term, general, non-Federal hospitals with 24-hour emergency departments based on the American Hospital Association Annual Survey.

<sup>2</sup> Some hospitals have more than one emergency department.

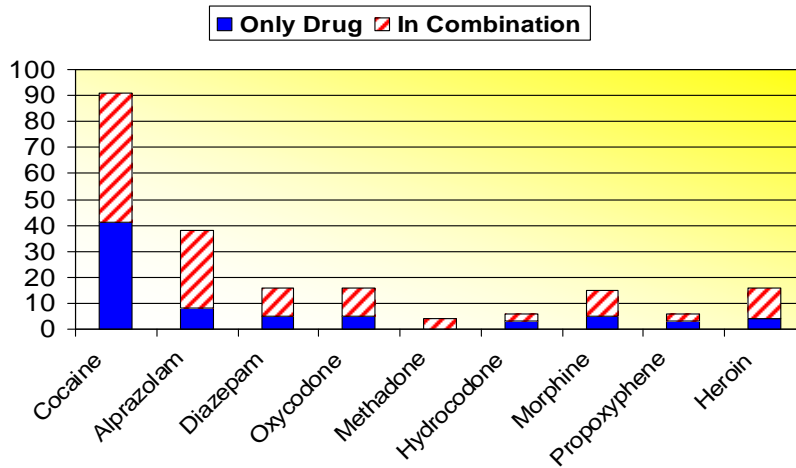
SOURCE: DAWN Live!, OAS, SAMHSA, updated December 22, 2008

### Exhibit 2 Cocaine-Related Deaths in South Florida 1991-2008



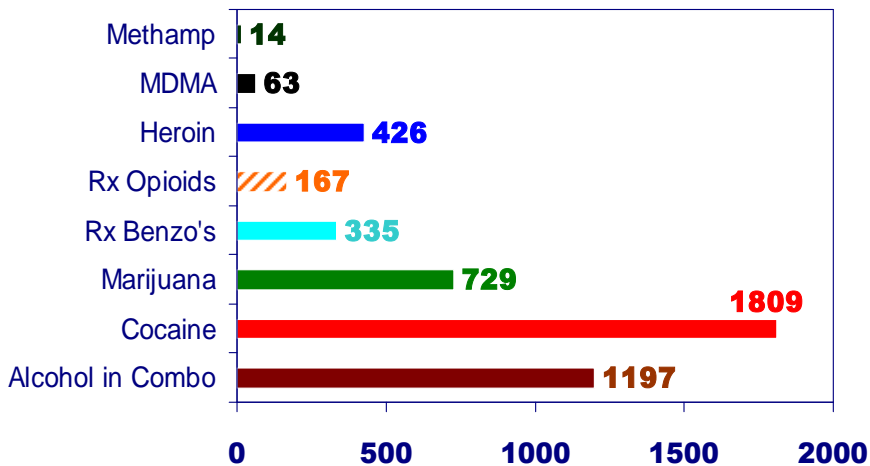
Source: FDLE Florida Medical Examiners Commission Interim Report 2008

### Exhibit 3 Miami-Dade County Drug-Related Deaths Jan-Jun 2008 - By Single Drug or In-Combination



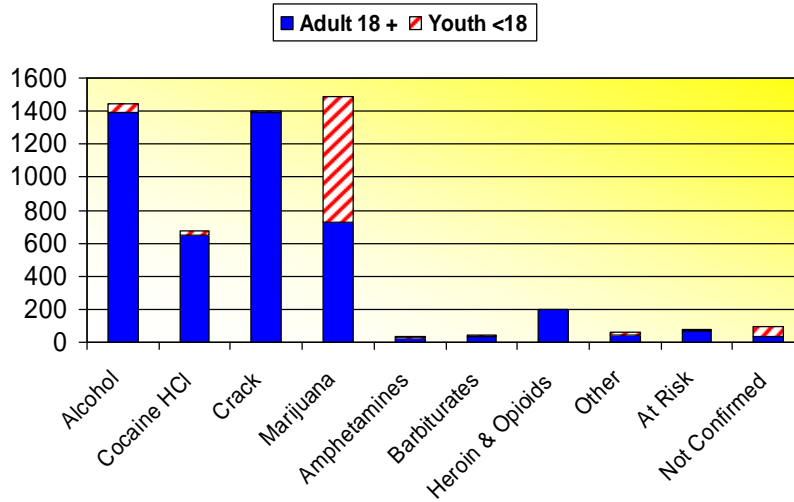
Source: FDLE Florida Medical Examiners Commission Interim Report 2008

### Exhibit 4 Numbers of Selected Drug Reports in Miami-Dade County DAWN ED Data (Unweighted<sup>1</sup>), by Drug Category: January – June 2008



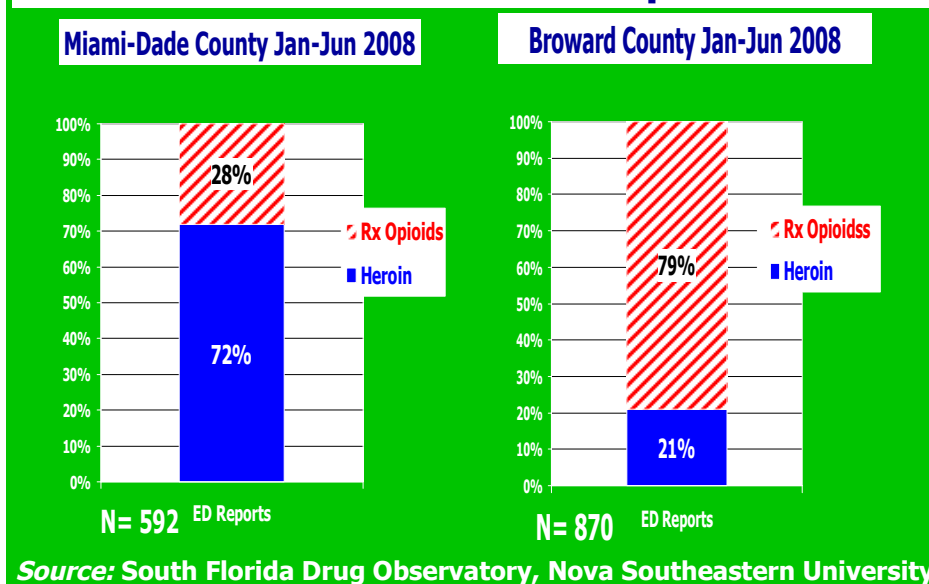
<sup>1</sup> The unweighted data are from 8-9 Miami-Dade EDs reporting to DAWN in 2007. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change. SOURCE: Miami – Dade County Division EDs DAWN Live!, OAS, SAMHSA, updated December 22, 2008

### Exhibit 5 Miami-Dade County Primary Treatment Admissions July 2007-June 2008 - By Age Groups



Source: South Florida Provider Coalition July 2007-June 2008

### Exhibit 6 Heroin and Rx Opioids ED Reports as Percent of all Opiates



For inquiries regarding this report, please contact James N. Hall,  
 Center for the Study and Prevention of Substance Abuse,  
 Up Front, Inc., 13287 SW 124 Street, Miami, FL 33186 , Phone: (786) 242-8222,  
 E-mail: upfrontin@aol.com.