Drug Abuse Trends
Minneapolis/St. Paul, Minnesota

June 2009

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Minnesota Department of Human Services

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Carol L. Falkowski[1]

ABSTRACT

Heroin and other opiate-related indicators continued significant upward trends in 2008. Treatment admissions for heroin and other opiates combined, more than doubled since 2002, and increased 14.9 percent from 2007 to 2008 alone. Opiates other than heroin, primarily prescription narcotics that are taken orally, accounted for 6.2 percent of total treatment admissions in 2008, compared with only 1.4 percent in 2000. A record-high number of 1,187 patients in the Twin Cities in 2008 reported other opiates as the primary substance problem, almost a three-fold increase since 2002. Twin Cities hospital emergency department visits involving the non-medical use of narcotic analgesics increased 67.8 percent from 2005 to 2007.

Minneapolis had the highest purity level of Mexican heroin of any city reporting on DEA's Heroin Domestic Monitor Program, and was among the cities with the lowest prices per milligram. Heroin-involved visits to Twin Cities hospital emergency departments increased 65.3 percent from 2005 to 2007. Males arrested in Hennepin County who tested positive for opiates increased from 2007 to 2008, as did opiate-related overdose deaths in Hennepin, but not Ramsey County.

Marijuana-related hospital emergency department visits increased 33.8 percent from 2006 to 2007. Marijuana continued to account for more admissions to addiction treatment programs than any other illicit drug, with 3,199 admissions in 2008 (16.6 percent of total admissions.)

All methamphetamine-related indicators declined in 2008, following significant increases from 2000 through 2005. In 2008, 6.0 percent of admissions to Twin Cities addiction treatment programs were for methamphetamine, compared with 12 percent in 2005. Methamphetamine-related hospital emergency department visits also declined (50.1 percent from 2005 to 2007,) as did the percentage of males arrested in Hennepin County who tested positive for methamphetamine.

Cocaine-related treatment admissions declined 39.8 percent since 2005, and in 2008 accounted for 9.9 percent of all treatment admissions. In Hennepin County cocaine-related deaths fell sharply from 59 in 2007 to 21 in 2008, a 64.4 percent decline, but remained stable in Ramsey County. Cocaine-involved visits to Twin Cities hospital emergency departments declined 23.3 percent from 2006 to 2007, and Hennepin County male arrestees who tested positive for cocaine fell from 28.5 percent of total arrestees in 2007 to 21.6 percent in 2008.

INTRODUCTION

This report is produced twice annually for participation in the Community Epidemiology Work Group of the National Institute on Drug Abuse, an epidemiological surveillance network of researchers from 21 U.S. metropolitan areas. This report is available online at www.dhs.state.mn.us/adad.

Area Description

The Minneapolis/St. Paul ("Twin Cities") metropolitan area includes Minnesota's largest city, Minneapolis (Hennepin County,) the capital city of St. Paul (Ramsey County,) and the surrounding counties of Anoka, Dakota, and Washington. Recent estimates of the population of each county are as follows: Anoka, 313,197; Dakota, 375,462; Hennepin, 1,239,837; Ramsey, 515,274; and Washington, 213,395, for a total of 2,557,165, or roughly one-half of the Minnesota State population. In the five-county metropolitan area, 84 percent of the population is White. African-Americans constitute the largest minority group in Hennepin County, while Asians are the largest minority group in Ramsey, Anoka, Dakota, and Washington Counties.

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Outside of the Twin Cities metropolitan area, the State is less densely populated and more rural in character. Minnesota shares an international border with Canada, a southern border with Iowa, an eastern border with Wisconsin, and a western border with North Dakota and South Dakota, two of the country's most sparsely populated States. Illicit drugs are sold and distributed within Minnesota by Mexican drug trafficking organizations, street gangs, independent entrepreneurs, and other criminal organizations and groups. Drugs are typically shipped or transported into the Minneapolis/St. Paul area for further distribution throughout the State.

Data Sources

Information used in this report was gathered from the following sources:

Hospital emergency department (ED) data are from the Drug Abuse Warning Network (DAWN) system administered by the Office of Applied Studies (OAS) of the Substance Abuse and Mental Health Services Administration. These newly-available, population-based estimates allow comparisons over time, unlike data in previous recent reports. There are 28 eligible hospitals in the Minneapolis and St. Paul Standard Metropolitan Statistical Area; 26 are in the DAWN sample. Since all DAWN cases are reviewed for quality control, the data may be corrected and, therefore, are subject to change. A full description of the DAWN system is found at http://dawninfo.samhsa.gov.

Treatment data are from addiction treatment programs in the five-county metropolitan area, as reported on the Drug and Alcohol Abuse Normative Evaluation System (DAANES) of the Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services (through December 2008.)

Mortality data on drug-related deaths are from the Hennepin County Medical Examiner and the Ramsey County Medical Examiner (through December 2008.) Hennepin County cases include those in which drug toxicity was the immediate cause of death and those in which the recent use of a drug was listed as a significant condition contributing to the death. Ramsey County cases include those in which drug toxicity was the immediate cause of death and those in which drugs were present at the time of death.

Crime lab data are from the National Forensic Laboratory Information System (NFLIS.) This system, which began in 1997, is sponsored by the U.S. Drug Enforcement Administration (DEA) and collects solid dosage drug analyses conducted by State and local forensic laboratories across the country on drugs seized by law enforcement (January through December 2008.) Data presented here are from 7-county metropolitan area (Anoka, Dakota, Hennepin, Ramsey, Washington, Scott and Carver counties.)

Heroin purity and price data are from the Heroin Domestic Monitor Program (HDMP) of the U.S. Drug Enforcement Administration. These data are based on actual undercover heroin purchases made by the DEA on the streets of 28 U.S. cities. Data on heroin purity and price in this report are for cases in which the geographic source of heroin was Mexico.

Data resulting from **drug testing among arrestees in Hennepin County** for 2007 and 2008 are from the Arrestee Drug Abuse Monitoring (ADAM II) System, supported by the White House Office of National Drug Control Policy.

Student survey data are from the Minnesota Student Survey, which is administered statewide every three years to students in grades 6, 9 and 12. Results presented in this report are from students in the 5-county metropolitan area.

Human immunodeficiency virus (HIV) infection data for 2008 are from the Minnesota Department of Health, HIV/AIDS Surveillance System.

Additional information is from interviews with treatment program staff, narcotics agents, and school-based drug and alcohol specialists, conducted in May 2009.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine / Crack

The actual number of admissions to addiction treatment programs for cocaine declined 39.8 percent from 2005 to 2008 (exhibit 1.) For the first time in recent history, treatment admissions for heroin and other opiates combined, surpassed the number of admissions for cocaine.

Cocaine was the primary substance problem for 9.9 percent of total treatment admissions in 2008 (exhibit 2,) compared with 11.6 in 2007 (exhibit 3.) Most (75 percent) cocaine treatment admissions in 2008 were for crack cocaine (exhibit 4.) Almost one-half (49 percent) were African-American, 35.1 percent were female, and more than two-thirds (69.6 percent) of patients were age 35 and older.

Cocaine-involved visits to Twin Cities hospital emergency departments declined 23.3 percent from 2006 to 2007 (exhibit 5.) The percentage of Hennepin County male arrestees who tested positive for cocaine fell from 28.5 in 2007 to 21.6 in 2008 (exhibit 6.)

In Hennepin County accidental cocaine-related deaths fell from 59 in 2007 to 21 in 2008, a 64 percent decline (exhibit 7.) In Ramsey County deaths remained stable with 11 in 2007 and 10 in 2008. Combining Hennepin and Ramsey County, cocaine-related deaths declined 48 percent from 2000 to 2009 (exhibit 8.)

Cocaine accounted for 28.2 percent of the drug seizures reported to NFLIS in 2008 (exhibit 9.) Gangs in both cities remain involved in the street-level retail distribution of crack cocaine.

Heroin / Opiates / Other opiates

Although nationally heroin use appears to be stable or declining, it appears to be increasing in the Twin Cities and throughout Minnesota. Rising Mexican heroin production contributes to this trend, inasmuch as Mexico is the primary source of heroin in this geographical area. Increased addiction to prescription narcotics may also increase the likelihood of more prevalent future heroin problems. Heroin use may increase in the future, if those addicted to prescription narcotics can find heroin as a more affordable, available alternative. This pattern has already been noted in other parts of the country.

Treatment admissions reporting heroin and other opiates as the primary substance problems continued to climb in the Twin Cities, a trend that began in 2000. The number of treatment admissions for heroin and other opiates combined more than doubled since 2002, and increased 14.9 percent from 2007 to 2008 alone (exhibit 10.) Heroin accounted for 6.7 percent of total admissions in 2008, and other opiates 6.2 percent (exhibit 2.) These compare with 3.3 percent for heroin and 1.4 percent for other opiates in 2000.

Of the 1,292 patients with heroin as the primary substance problem in 2008, very few (0.2 percent) were younger than 18 and injecting was the most common route of administration (62.2 percent.) Females accounted for 33.5 percent of patients, Whites for 59.3 percent, and almost half (49.4 percent) were age 35 and older (exhibit 4.)

Opiates other than heroin ("other opiates") include prescription narcotic analgesics (painkillers,) and therefore the most common route of administration was oral (74.6 percent.) Other opiates were reported as the primary substance problem by a record-high number of 1,187 patients in the Twin Cities in 2008, almost a three-fold increase since 2002 (exhibit 1.) Treatment admissions for other opiates accounted for 6.2 percent of total treatment admissions in 2008, compared with 4.9 percent of total treatment admissions in 2007, and only 1.4 percent in 2000. The majority of patients were White (85.8 percent,)

almost half were females (45.4 percent,) and 46.2 percent were age 35 and older (exhibit 4.) Enrollment in Twin Cities methadone maintenance treatment programs grew from 1,779 patients as of January 2002 to 2,378 in January 2009, a 33.7 percent increase.

Heroin-involved visits to Twin Cities hospital emergency departments increased 65.3 percent from 2005 to 2007 (exhibit 5.) Hospital emergency department visits involving the non-medical use of narcotic analgesics increased 67.8 percent from 2005 to 2007 (exhibit 5.) Of these 2,801 cases in 2007, 52.8 percent were female, and 60.4 percent were age 35 and older. Hennepin County male arrestees who tested positive for opiates (includes heroin and other opiates) rose from 5.3 percent in 2007 to 7.2 in 2008 (exhibit 6.)

Opiate-related deaths rose from 67 to 84 from 2007 to 2008 in Hennepin County, and declined somewhat in Ramsey County from 39 to 31. In 2008, 20 of these Hennepin County deaths and 4 of the Ramsey County deaths involved methadone. Four deaths in Hennepin County and 1 in Ramsey County involved fentanyl, a potent prescription synthetic narcotic analgesic. Oxycodone, another prescription narcotic, was involved in 13 deaths in Hennepin and 7 deaths in Ramsey County. Seven of the opiate-related deaths in Ramsey County also involved cocaine use, as did 8 in Hennepin County.

Use of methamphetamine and opiates used in combination, was factor in several accidental opiate deaths. This combination is known as the new "speedball," a term previously used to describe the simultaneous use of cocaine and heroin.

Heroin accounted for 2.0 percent of the drug samples analyzed by NFLIS in 2008. Oxycodone accounted for 1.4 percent and hydrocodone 1 percent. All levels of law enforcement reported an increase in the seizure of prescription drugs.

The primary source of heroin in the Twin Cities is Mexico. Mexican "black tar" heroin was available in both cities. Of the Mexican heroin samples purchased by DEA and reported on the Heroin Domestic Monitor Program (HDMP,) Minneapolis had the highest purity level of any U.S. HDMP city in 2007, with 59.9 percent (exhibit 11.) At the same time, the cost per milligram of pure heroin was among the lowest of all HDMP cities (exhibit 12.) It is likely that the presence of such high-purity, low-cost heroin contributed to the increased opiate-related mortality, and may have fueled the sporadically heightened availability of heroin both in the Twin Cities and other, more remote parts of the State, as reported by numerous law enforcement and other sources.

A small portion of Minnesota's Hmong immigrant population regularly smokes opium. Packages concealing opium continued to be shipped from Asia to the Twin Cities.

Methamphetamines/Other stimulants

In the wake of rising consequences related to increased methamphetamine manufacture, abuse and addiction from 2000 through 2005, notable downward trends continued into 2008.

Methamphetamine labs in Minnesota declined significantly since enactment of a 2005 Minnesota State law that restricted retail sales of pseudoephedrine-containing products. Methamphetamine use by high school students in the metro area showed downward trends as well. Among high school seniors 2.2 percent reported past year methamphetamine use in 2007, compared with 4.8 percent in 2004 and 5.3 percent in 2001.

The number of patients entering treatment with methamphetamine as the primary substance problem declined 56.3 percent from 2005 to 2008 (exhibit 13.) Methamphetamine-related admissions to addiction treatment programs accounted for 6.0 percent of total treatment admissions in the Twin Cities in 2007 compared with 12 percent in 2005.

Of the 1,154 methamphetamine-related treatment admissions in 2008 85.4 percent were White. Asians accounted for 3.1 percent and Hispanics 4.9 percent, the highest percentage of Asians and Hispanics within any drug category. Smoking was the most common route of administration (67.3 percent.) In 2008, only 2.1 percent of the methamphetamine patients were younger than 18, compared with 11.5 percent in the first half of 2005.

Methamphetamine-involved visits to Twin Cities hospital emergency departments declined 50.1 percent from 2005 to 2007. The percentage of Hennepin County male arrestees who tested positive for methamphetamine fell from 5.1 in 2007 to 2.7 in 2008.

Combining Hennepin and Ramsey Counties, there were 14 methamphetamine-related deaths in 2008, compared with 13 in 2006, and a high of 28 in 2004 (exhibit 8.)

Seizures of methamphetamine by law enforcement accounted for 26.5 percent of the samples reported to NFLIS in 2008, compared with 51.0 percent in 2005.

Khat, a plant indigenous to East Africa and the Arabian Peninsula and used for its stimulant effects in East Africa and the Middle East, maintained a presence within the Somali immigrant community in the Twin Cities. Its active ingredients, cathinone and cathine, are controlled substances in the United States. Cathinone, a Schedule I drug, is present only in the fresh leaves of the flowering plant and converts to the considerably less potent cathine in about 48 hours. Users chew the leaves, smoke it, or brew it in tea.

Methylphenidate (Ritalin,) a prescription drug used in the treatment of attention deficit hyperactive disorder, is also used nonmedically as a drug of abuse to increase alertness and suppress appetite by some adolescents and young adults. Crushed and snorted or ingested orally, each pill is sold for $5 or simply shared with fellow middle school or high school students at no cost. It is sometimes known as a "hyper pill" or "the study drug."

Marijuana

Marijuana use (past year) was reported by 33 percent of high school seniors in 2007, compared with 29.2 percent in 2004.

In spite of a drop in marijuana treatment admissions since 2003, marijuana still accounted for more admissions into addiction treatment programs than any other illicit drug in the Twin Cities, with 3,199 admissions in 2008 (16.6 percent of total treatment admissions.) Of these, 27.4 percent were younger than 18, 41 percent were age 18–25, and only 13.3 percent were age 35 and older. Only 21.8 percent were female (the lowest percentage female with any drug category,) 59.4 percent White, 26.6 percent African American, and 3.6 percent American Indian.

Marijuana-involved visits to Twin Cities hospital emergency departments, however, increased 33.8 percent from 2006 to 2007. The percentage of Hennepin County male arrestees who tested positive for marijuana also increased from 43.4 in 2007 to 47.6 in 2008 (exhibit 6.)

Marijuana (cannabis) accounted for 27.2 percent of drug samples reported to NFLIS in 2008. Marijuana sold for $5 per joint. Marijuana joints dipped in formaldehyde, which is often mixed with phencyclidine (PCP,) are known as "wet sticks," "water," or "wet daddies." Joints containing crack are known as "primos."

Club drugs/Hallucinogens

The drug 3,4 methylenedioxymethamphetamine, known as MDMA or "ecstasy," "X," or "e," sold for $20 per pill. MDMA accounted for 4.1 percent of drugs samples in 2008 according to NFLIS. MDMA-related visits to hospital emergency departments grew from 204 in 2004 to 433 on 2008.

Lysergic acid diethylamide (LSD or "acid,") a strong, synthetically produced hallucinogen, typically sold as saturated, tiny pieces of paper known as "blotter acid," for $5 to $10 per dosage unit.

According to the Minnesota Student Survey, MDMA use (any use in the past year) rose from 4.3 percent in 2004 to 5.7 percent in 2007 among high school seniors, and LSD from 4.9 to 6.2 percent. There were 139 hospital emergency department visits for miscellaneous hallucinogens in 2007.

Gamma hydroxybutyrate (GHB,) a concentrated liquid abused for its stupor-like depressant effects, is also used as a predatory, knockout, drug-facilitated rape drug. Ketamine, also known as "Special K," is a veterinary anesthetic that first appeared as a drug of abuse among young people in Minnesota in 1997. Hospital emergency visits with GHB and ketamine were rare from 2004 to 2007.

Dextromethorphan (also known as "DXM") is the active cough suppressant ingredient in Coricidin HBP Cough and Cold (known as "Triple Cs") and Robitussin. Over-the-counter cough and cold products that contain dextromethorphan continued to be abused for their hallucinogenic effects by ingesting doses many times in excess of the recommended amount. Excessive dosages produce long-acting hallucinations, altered time perception, slurred speech, profuse sweating, uncoordinated movements, and high blood pressure.

Alcohol

Alcohol remained the most widely abused substance. Alcohol consumption (any use in past year) was reported by 60.8 percent of metro area high school seniors in 2007, virtually unchanged from the 2004 survey (60.6 percent,) but lower than the highest rate of 78.1 percent in 1992.

Roughly one-half of the total admissions to addiction treatment programs (52.6 percent) reported alcohol as the primary substance problem in 2008. Over half (60.1 percent) were age 35 and older, 2.1 percent were under the age of 18, and 77.2 percent were White.

In Hennepin County in 2008, 87 deaths were alcohol-involved, including those where alcohol toxicity was the cause of death, and those in which acute alcohol intoxication was listed as a significant contributing condition. This compares with 91 in 2007.

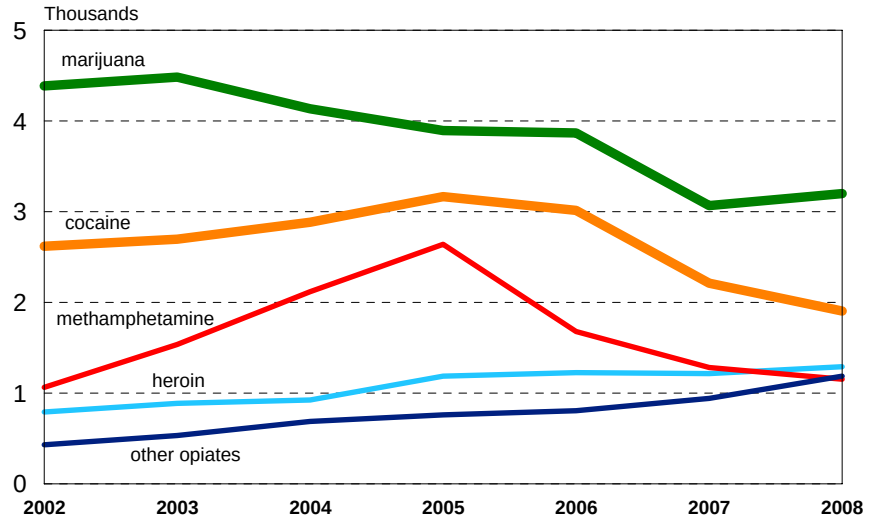
DRUG ABUSE-RELATED DISEASES

All but 12 percent of HIV infections diagnosed in Minnesota in 2008 were in the Minneapolis/St. Paul area (exhibit 14.) Exposure categories for Minnesota cases of HIV infection among men were as follows: men who have sex with men (76 percent;) injection drug use (5 percent;) men who have sex with men and injection drug use (7 percent;) heterosexual contact (11 percent;) and 1 percent other (exhibit 15.) Among women 90 percent was attributed to heterosexual transmission, 8 percent to injection drug use, and 2 percent to other modes of transmission (exhibit 16.)

The level of hepatitis C virus (HCV,) a blood-borne liver disease, remained prevalent among injection drug abusers.

EXHIBIT 1

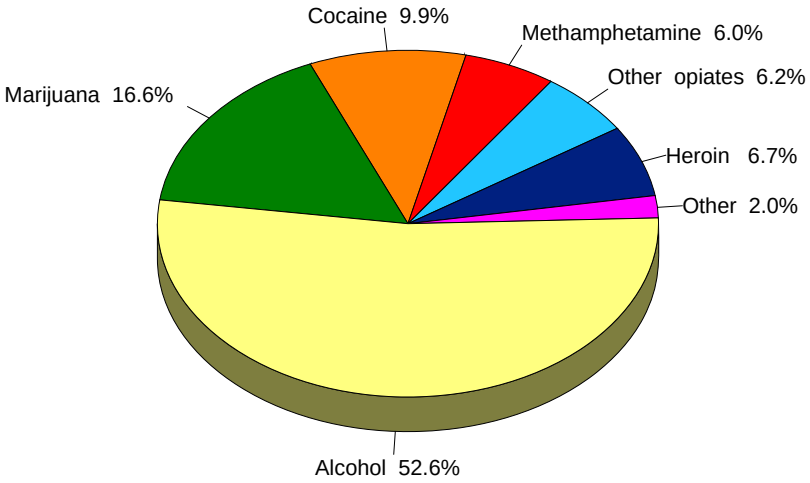
Number of non-alcohol admissions to Twin Cities addiction treatment programs by primary substance problem 2002 -2008



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2009.

EXHIBIT 2

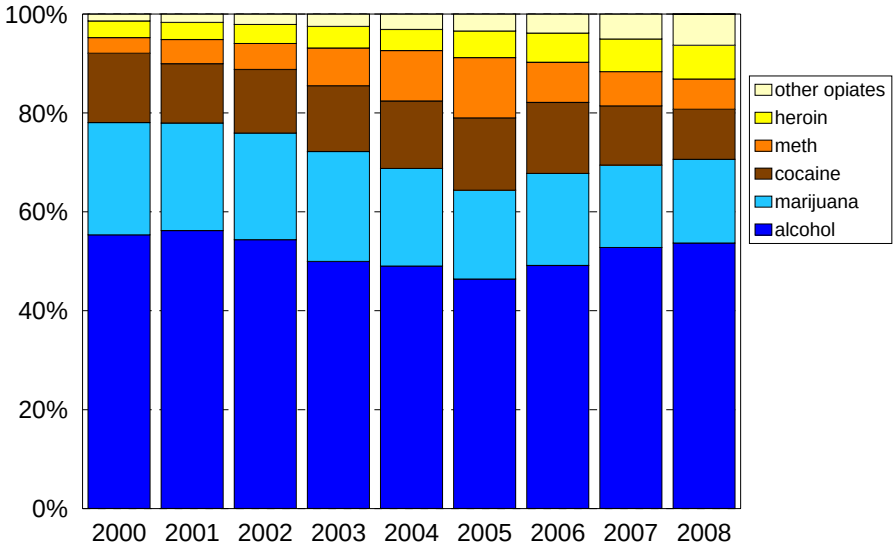
Percent of admissions to Twin Cities area addiction treatment programs by primary substance problem - 2008



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2009.

EXHIBIT 3

Percent of admissions to Twin Cities addiction treatment programs by primary substance problem 2000 - 2008



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2009.

EXHIBIT 4

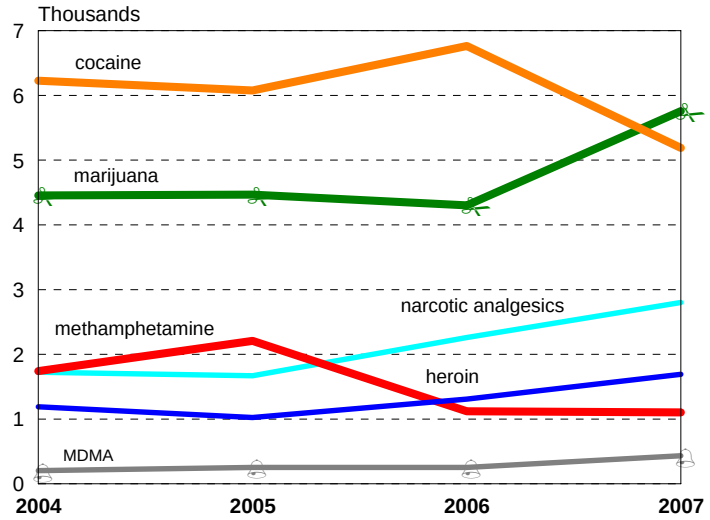
Characteristics of patients admitted to Twin Cities area addiction treatment programs by primary substance problem – 2008

Total Admissions (N = 19,263)	**Alcohol** n = 10,131 52.6%	**Marijuana** n = 3,199 16.6%	**Cocaine/Crack** n = 1,905 9.9%	**Metham-phetamine** n = 1,154 6.0%	**Heroin** n = 1,292 6.7%	**Other Opiates** n= 1,187 6.2%
GENDER						
Male	68.5	78.2	64.9	62.7	66.5	54.6
Female	31.5	21.8	35.1	37.3	33.5	45.4
RACE/ETHNICITY						
White	77.2	59.4	39.9	85.4	59.3	85.8
African-American	12.8	26.6	49	1.6	31.1	4.2
Hispanic	3.5	4.7	4.1	4.9	3	1.9
A Indian/ Other	3.5	3.6	3.5	1.9	3.5	4.5
Asian	1	1.5	0.7	3.1	0.9	1.8
Other	2	4.1	2.7	3	2.2	1.8
AGE						
17 and younger	2.1	27.4	1.3	2.1	0.2	2
18–25	17.4	41	9.2	25.6	24.9	23.7
26–34	20.3	18.3	19.9	37.6	25.5	28.1
35 and older	60.1	13.3	69.6	34.7	49.4	46.2
ROUTE OF ADMINISTRATION						
Smoking			75	67.3	5	3.6
Sniffing			20.7	8.4	31.4	11.3
Injecting			2	15.3	62.2	9.3
Oral			0	6.3	0	74.6
Other/Unknown			2.1	2.7	1.3	1.2

SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2009. Methamphetamine category includes amphetamines. Percentages do not add to 100 due to "other" category (2%) which is not displayed.

EXHIBIT 5

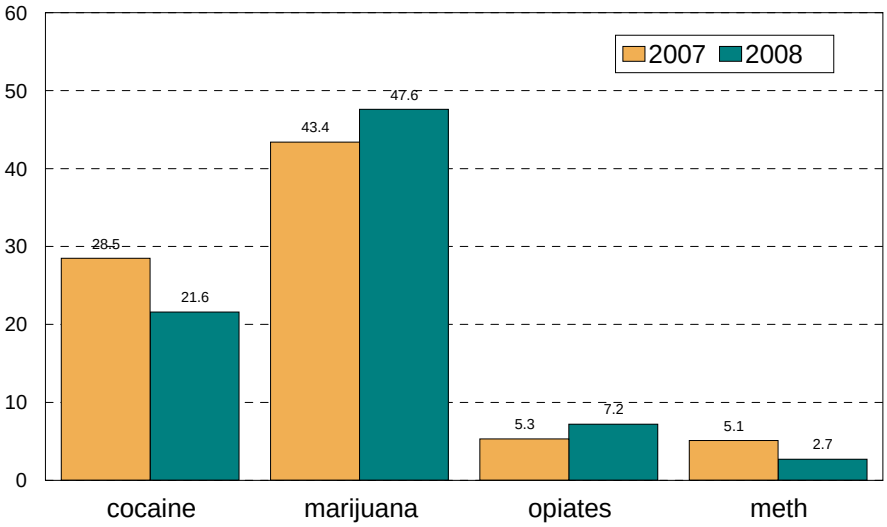
Estimates of drug abuse-related emergency department visits: Twin Cities 2004 - 2007



SOURCE: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, Drug Abuse Warning Network, 11/2008 update. Estimates of ED visits are based on a representative sample of Non-Federal short-stay hospitals with 24-hour emergency departments.

EXHIBIT 6

Percentage of male arrestees who tested positive for drugs in Hennepin County - 2007 and 2008



SOURCE: Arrestee Drug Abuse Monitoring (ADAM) II, 2007 Report and 2008 Report White House Office of National Drug Control Policy. Sampled eligible arrestees in 2007 = 881 and in 2008 = 854.

EXHIBIT 7

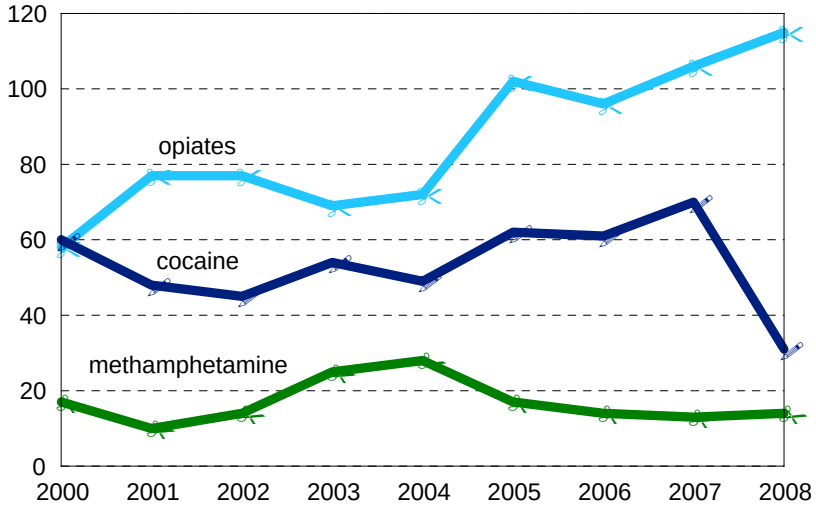
Drug-related deaths: Hennepin County and Ramsey County 2000 - 2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008
HENNEPIN COUNTY									
cocaine	43	37	34	44	39	50	48	59	21
opiates	**41**	**58**	**59**	**50**	**47**	**60**	**69**	**67**	**84**
meth	6 (includes 3 MDMA)	8 (includes 1 MDMA)	11 (includes 3 MDMA)	15 (includes 1 MDMA)	19 (includes 8 MDMA)	10 (includes 3 MDMA)	8 (includes 1 MDMA)	6 (includes 2 MDMA)	9 (includes 1 MDMA)
RAMSEY COUNTY									
cocaine	17	11	11	10	10	12	13	11	10
opiates	**17**	**19**	**18**	**19**	**25**	**42**	**27**	**39**	**31**
meth	11 (includes 3 MDMA)	2	3	10	9	7	6	7	5

SOURCE: Hennepin County Medical Examiner and Ramsey County Medical Examiner, 2009.

EXHIBIT 8

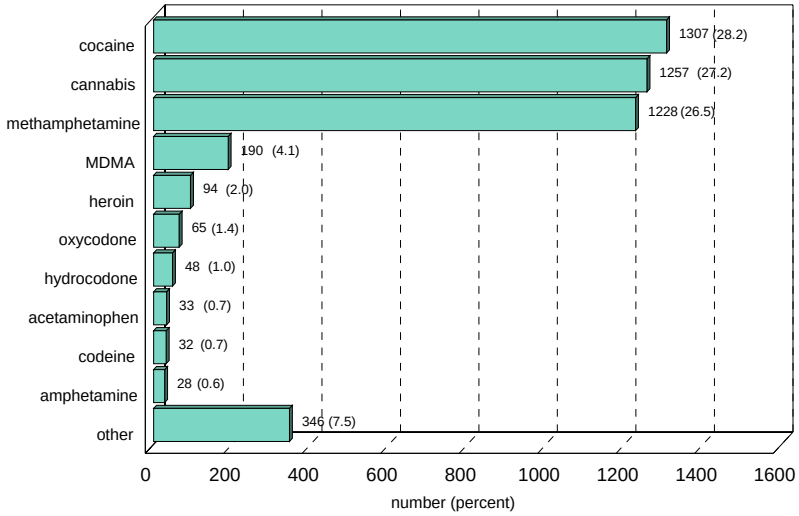
Drug-related deaths in Hennepin County and Ramsey County combined 2000 - 2009



SOURCE: Hennepin County Medical Examiner and Ramsey County Medical Examiner, 2009.

EXHIBIT 9

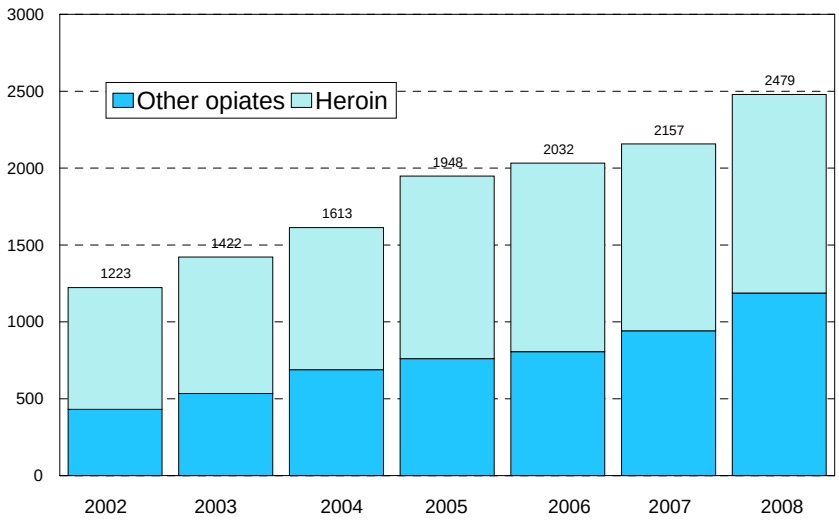
Top 10 most frequently identified drugs of total analyzed drug items: Twin Cities 2008



SOURCE: National Forensic Laboratory Information system, U.S. Drug Enforcement Administration, April 14, 2009. Twin Cities metropolitan area includes the counties of Hennepin, Ramsey, Dakota, Washington, Anoka, Scott and Carver. Percentages may not add to the total due to rounding.

EXHIBIT 10

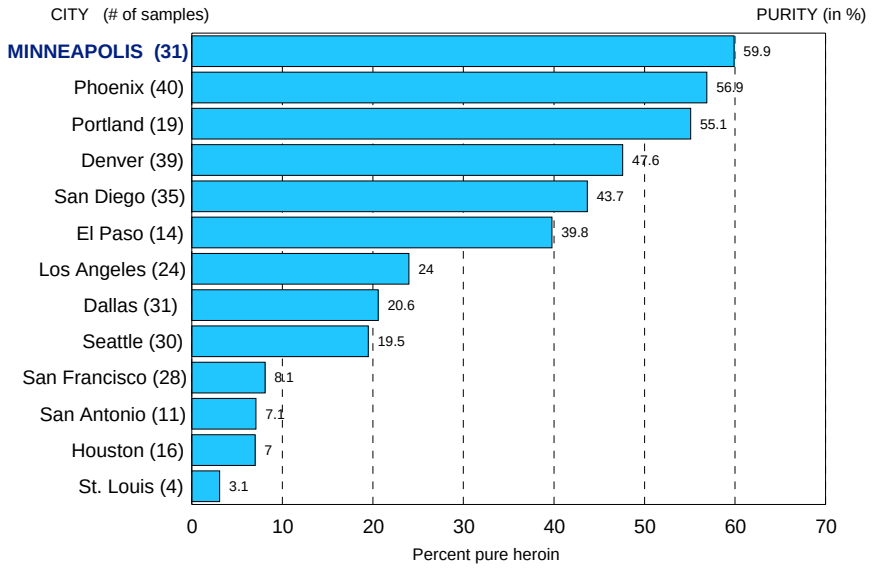
Admissions to Twin Cities addiction treatment programs with heroin and other opiates as the primary substance problem 2000 - 2008



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2009.

EXHIBIT 11

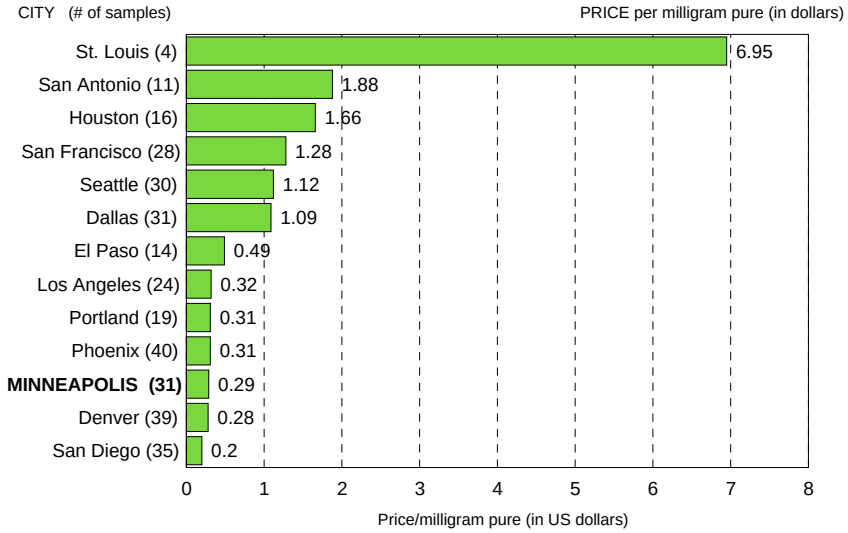
Purity of Mexican heroin: US cities - 2007



SOURCE: US Drug Enforcement Administration, 2007 Heroin Domestic Monitor Program, November 2008.
Boston, Miami, Washington DC and Orlando, are not displayed due to 2 or fewer samples in each of those cities.

EXHIBIT 12

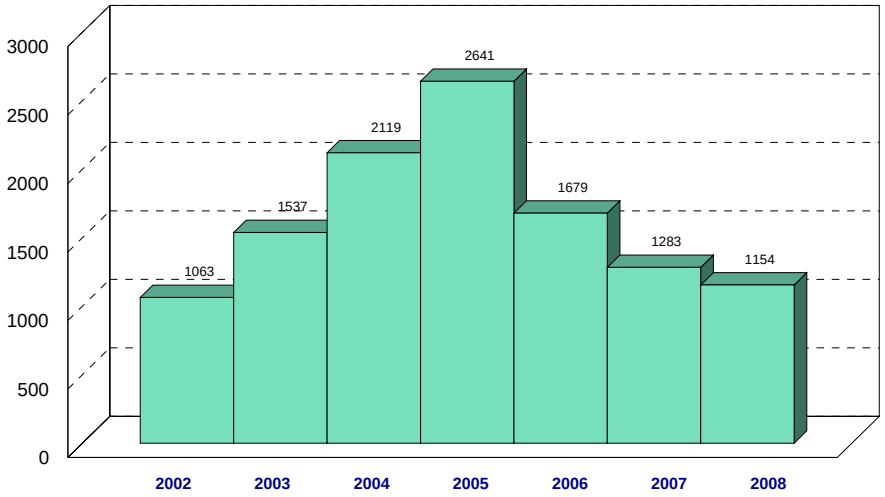
Price of Mexican heroin: US cities - 2007



SOURCE: US Drug Enforcement Administration, 2007 Heroin Domestic Monitor Program, November 2008.
Boston, Miami, Washington DC and Orlando, are not displayed due to 2 or fewer samples in each of those cities.

EXHIBIT 13

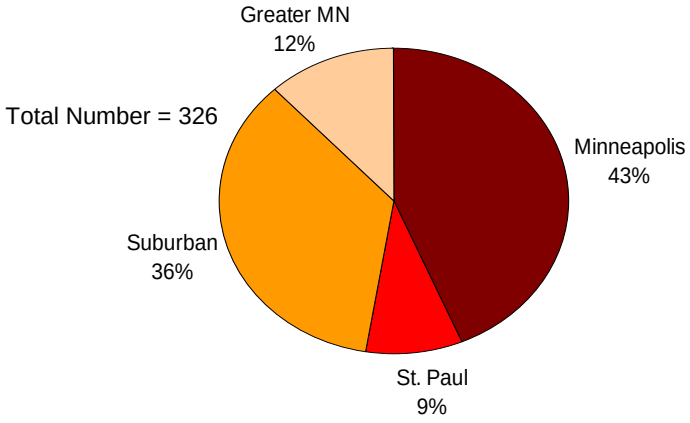
Admissions to Twin Cities addiction treatment programs with methamphetamine as the primary substance problem: 2002 - 2008



SOURCE: Minnesota Department of Human Services, Drug and Alcohol Abuse Normative Evaluation System (DAANES), May 2009.

EXHIBIT 14

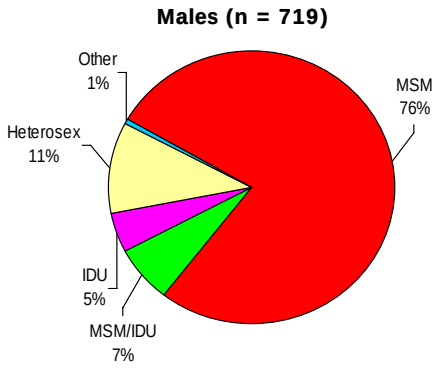
HIV infections* in Minnesota by residence at diagnosis, 2008



SOURCE: Minnesota Department of Health, Minnesota HIV/AIDS Surveillance System, 2009. Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties, outside the seven-county metro area * *HIV or AIDS at first diagnosis*

EXHIBIT 15

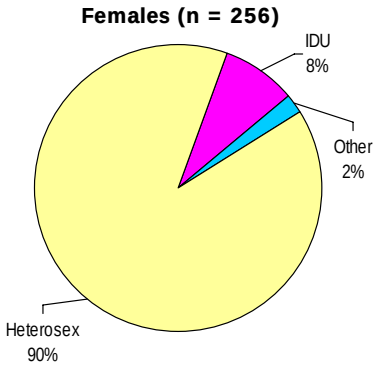
HIV infections* among males by estimated mode of exposure † Diagnosis years 2006-2008 combined



SOURCE: Minnesota Department of Health, Minnesota HIV/AIDS Surveillance System, 2009. n = Number of persons. MSM = Men who have sex with men. IDU = Injecting drug use. Heterosex = Heterosexual contact. Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk ** HIV or AIDS at first diagnosis* † Mode of Exposure proportions have been estimated using cases for 2004-2005 with known risk. For more detail see the HIV Surveillance Technical notes.

EXHIBIT 16

HIV infections* among females by estimated mode of exposure† Diagnosis years 2006-2008 combined



SOURCE: Minnesota Department of Health. Minnesota HIV/AIDS Surveillance System, 2009. n = Number of persons. Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk. IDU = Injection Drug Use. Heterosex = Heterosexual contact ** HIV or AIDS at first diagnosis* † Mode of Exposure proportions have been estimated using cases for 2004-2005 with known risk. For more detail see the HIV Surveillance Technical notes.