New Jersey Substance Abuse Monitoring System

The NJSAMS Report

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Heroin Admissions to Substance Abuse Treatment in New Jersey

Heroin is a semi-synthetic opioid drug derived from morphine. It has a high potential for abuse and dependence. It is commonly thought of as a 'hard' drug and for decades has been the drug of greatest concern for both law enforcement and the general public.

This report focuses on primary heroin abuse related trends and characteristics of users admitted to treatment in New Jersey. The data source is NJSAMS admissions from SFY06 to SFY10. In this report the use of the term 'admissions' refers to individuals who were admitted to treatment for substance abuse issues.

In Brief

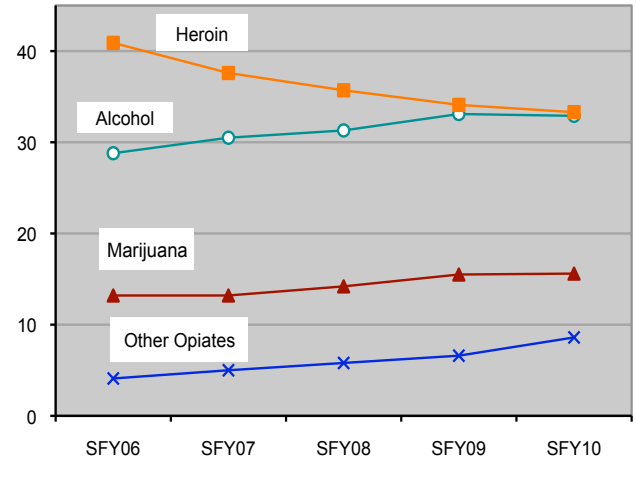
- Between SFY06 and SFY10, the percentage of admissions for heroin as a primary drug of choice or abuse declined from 41% to 33%, but it is still the most abused drug of all treatment admissions in New Jersey.
- There was a large increase in the number of heroin and other opiate abuse admissions for 20 to 25 year olds, from 4,591 in SFY06 to 7,534 in SFY10.
- More than two thirds of heroin admissions reported first use of heroin at age 25 or younger, and the percentage increased from 70% to 75% between SFY06 and SFY10.
- For those reporting heroin as their primary drug of abuse, the most common secondary drug of abuse was cocaine/crack; its use has decreased over the past five years. On the other hand, alcohol, marijuana, other opiates, and benzodiazepines, as secondary drugs abused by primary heroin users, increased during the same time period.
- Most clients admitted to treatment for heroin dependence had been in treatment at least once before (76% in SFY06 and 80% in SFY10). The proportion of heroin users who used by injection also increased from 45% to 57% during this time interval.

Trends

Between SFY06 and SFY10, although the proportion of consumers reporting heroin as their primary drug at admission to treatment declined from 41% to 33% (Figure 1), it was still the most abused drug of all treatment admissions.

Compared to heroin, the proportions of alcohol, marijuana and other opiates as the primary drug abused increased in the last five years.

Figure 1. NJ Primary Drug Admission Trends, SFY06 to SFY10



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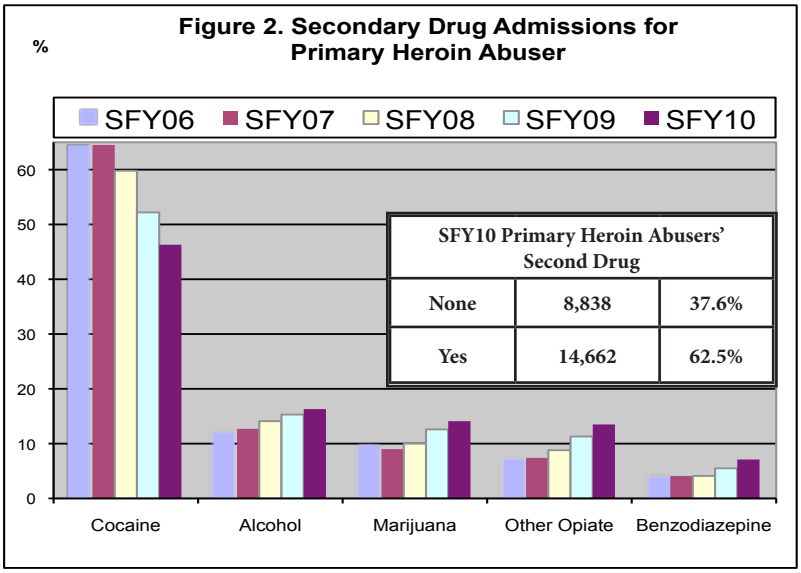
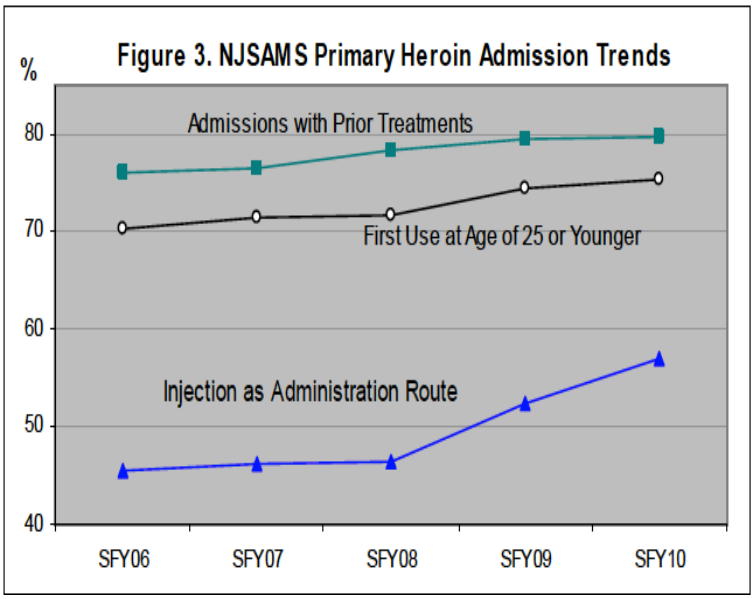


Note: Other opiate includes 'Opiate-Other' and 'Oxycontin'.

About 63% of primary heroin admissions reported secondary drugs abused in SFY10, with the most common secondary drug abused being cocaine/crack (Figure 2). However, the proportion of cocaine/crack admissions as a secondary drug in combination with heroin declined from 64% in SFY06 to 46% in SFY10. Alcohol, marijuana, other opiates and benzodiazepines, as secondary drug of abuse in combination with heroin, all increased during the same time period.

Figure 3 shows that a large and slightly increasing majority of up to 80% of primary heroin admissions had prior treatment episodes during the SFY06 - SFY10 time interval. Regarding the route of heroin administration, the proportion of admissions reporting injection use increased from 45% to 57% during this time, particularly in the recent two years. This latter increase may be due to the implementation of the Medication Assisted Treatment Initiative (MATI) in New Jersey which primarily serves intravenous drug users and utilizes mobile medication vans in five counties. This has made treatment more accessible to IV drug users.



In terms of age of first use of heroin, more than two thirds of heroin admissions reported first use of heroin at age 25 or younger. This percentage increased from 70% in SFY06 to over 75% in SFY10, which implies that more heroin users presenting for treatment first tried heroin at a young age in SFY 10 than was the case five years ago.

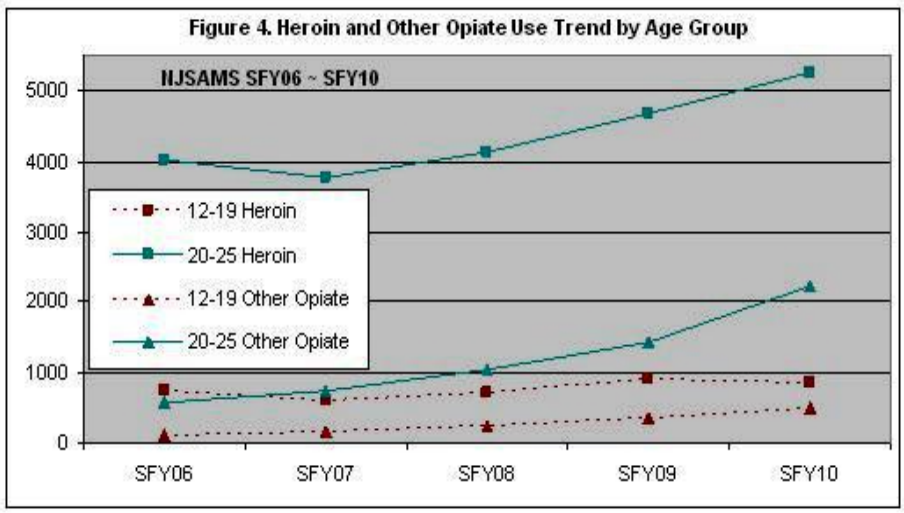


Figure 4 shows heroin and other opiate use trends for young people under 25 years old. The combined number of admissions that reported heroin or other opiate abuse for 20 to 25 year olds showed a large increase from 4,591 to 7,534 during this time. There is little change in the use of heroin or other opiates among 12 to19 year olds over the same time period.

Table 1. Sociodemographic Characteristics

Sociodemographic Characteristics	Heroin	Other Drugs*
Gender		
Male	65%	70%
Female	35%	29%
Age		
Under 18	1%	8%
18-24	22%	21%
25-44	56%	48%
45 and over	22%	24%
Race/Ethnicity		
White (Non-Hispanic)	58%	61%
Black (Non-Hispanic)	26%	24%
Hispanic Origin	15%	14%
Other	1%	1%
Education Level		
Less Than High School	36%	32%
High School	47%	43%
Some College	15%	22%
Employment Status		
Employed	15%	33%
Unemployed	32%	26%
Not in Labor Force	52%	39%
Living Arrangement		
Homeless	13%	6%
Dependent Living	12%	14%
Independent Living	75%	81%

*Other drugs including Alcohol
Source: 2009 NJSAMS data

Sociodemographic Characteristics

There were 69,477 substance abuse treatment admissions in 2009, and 34% were for heroin.

In general, the majority of treatment admissions were male for both primary heroin and other drugs. But for female, the proportion of heroin admissions was more than that of other drug admissions (35% vs. 29%, Table 1).

In terms of age, primary heroin admissions were slightly older than the other drug admissions. Among heroin admissions, only 1% were under 18, 22% were between the ages of 18 and 24 and 78% were 25 or older; among non-heroin primary drug admissions, more admissions (8%) were under age 18, 21% were between the ages of 18 and 24, and 72% were age 25 or older.

There were only slight differences in race/ethnicity distributions between primary heroin admissions and other drug admissions, which include alcohol. The primary heroin admissions were less likely to be non-Hispanic White (58% vs. 61%) and more likely to be non-Hispanic Black (26% vs. 24%) than admissions for other primary drugs of choice.

For education level, primary heroin admissions were less educated than admissions for other primary drugs of abuse. The percentages of those with less than high school education were 36% vs. 32% respectively, and for those with some college, they were 15% vs. 22%.

For employment, heroin admissions were also less likely to be employed in comparison to other drug admissions (15% vs. 33%), more likely not to be in the labor force (52% vs. 39%) and more likely to be homeless (13% vs. 6%). In general, heroin admissions have fewer resources and face more challenges than other drug admissions.

Treatment Characteristics

Heroin admissions were more likely to have medication assisted therapy planned during treatment than other drug admissions. Table 2 shows that methadone was planned for primary heroin admissions in 30% of the cases, and suboxone was planned in 24% of the cases.

The most common referral sources of heroin admissions were self referrals (51%) compared to 25% of other drug admissions. The percentages of criminal justice and other referral sources for heroin admissions were less than those of other drugs admissions.

Table 2. Treatment Characteristics

Treatment Characteristics	Heroin	Other Drugs*
Medication Assisted Therapy Planned		
Methadone	30%	3%
Suboxone	24%	4%
Referral Source		
Self	51%	25%
Family/Friend	7%	4%
Criminal Justice	17%	27%
Other	25%	44%
Number of Prior Treatment Episodes		
0	20%	44%
1	21%	25%
2	20%	14%
3+	39%	17%
Level of Care		
Outpatient (Standard OP/IOP)	20%	63%
Residential (LTR/STR/HH)	18%	17%
Detoxification	33%	14%
Methadone Maintenance (OP/IOP)	27%	2%

*Other drugs including Alcohol
Source: 2009 NJSAMS data

As mentioned before, primary heroin admissions were more likely to have received previous treatment. Table 2 shows only 20% of primary heroin admissions reported no prior treatment episodes while the other 80% had at least one or more prior treatment episodes. In comparison, 56% of the non-heroin primary admissions reported one or more prior treatments.

Heroin admissions were less likely to be treated in standard outpatient settings in comparison to other drug admissions and more likely to be observed in detoxification and methadone maintenance outpatient programs. Research supports the finding that opioid addiction is a medical disorder that can be treated effectively with medications when they are administered under conditions with their pharmacological efficacy and when treatment includes necessary supportive services (TIP 43, SAMHSA).

Addiction Severity Index

The Addiction Severity Index (ASI) is widely used clinically for assessing substance abuse patients at admission. It focuses on seven functional areas affected by the substance abuse: alcohol use, drug use, medical, employment, legal, family and social, and psychiatric status. ASI composite scores range from 0 to 1, with higher scores indicating a more severe disorder.

Table 3 compares the ASI mean scores and t-test results between the two groups of heroin and other drug users. It can be seen, the t-tests results indicate that there were statistically significant differences between the two groups; heroin users have significantly greater severity in all areas, except for alcohol use, than other drug users.

Table 3. Analysis of ASI Scores

ASI composite scores	Heroin	Other Drugs*	t_Test
	Mean	Mean	Pr>|t|
Alcohol	0.069	0.164	<0.001
Drug	0.225	0.066	<0.001
Medical	0.189	0.142	<0.001
Family/Social	0.223	0.192	<0.001
Employment	0.780	0.730	<0.001
Psychiatric	0.166	0.128	<0.001
Legal	0.175	0.140	<0.001

*Other drugs including Alcohol
Source: 2010 NJSAMS data

Treatment Outcomes

A number of treatment outcomes for primary heroin admissions were different from those of other drug admissions (Table 4). First, primary heroin admissions were more likely than other drug admissions to report being "abstinent from alcohol" both at admission and discharge. Second, primary heroin admissions were less likely to be "abstinent from drugs" both at admission and discharge than other drug admissions. Third, a lower percentage of heroin admissions completed treatment than did other drug admissions (51% vs. 56%), which may be the result of the fact that 27% heroin admissions are in methadone maintenance programs. More heroin admissions than other drug admissions quit or dropped out of treatment (37% vs. 30%).

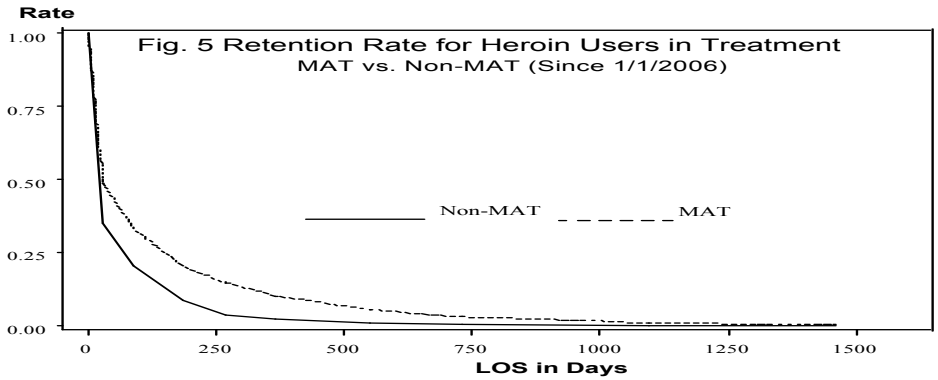
Table 4. Treatment Outcomes for Heroin and Other Drug Users

	Heroin			Other Drugs*		
	Change	Adm.	Dis.	Change	Adm.	Dis.
Absolute percent change of clients abstinent from alcohol at admission vs. discharge:	15%	83%	98%	63%	33%	95%
Absolute percent change of clients abstinent from other drugs at admission vs. discharge:	83%	0%	83%	61%	31%	92%
Treatment completed at discharge			51%			56%
Treatment quit or dropped out			37%			30%

*Other drugs including Alcohol
Source: 2009 NJSAMS data

Research has indicated that the length of stay in treatment is positively related to treatment success. Especially for heroin users, retention rates are an important indicator of treatment effectiveness since some research indicates that retaining patients in treatment decreases the risk of contracting and transmitting disease such as HIV and is more successful in averting relapse than shorter-term treatment.

In order to determine whether medication assisted treatment (MAT) was more effective with primary heroin users, retention rates were analyzed by survival analysis. Figure 5 shows the retention rates for heroin users admitted since 2006 with medication assisted treatment were higher than those without medication assisted treatment (Non-MAT). The equality test indicated that the retention rate between the two groups of clients was significantly different.



Discussion

Despite the slight decline over the past five years in the proportion of primary heroin admissions, it continued to be the most commonly abused drug, accounting for about one-third of all substance abuse admissions in New Jersey. The differences between heroin admissions and admissions for other drugs are notable, especially in regard to employment, living arrangements, and treatment level of care. It is apparent that primary heroin users are facing more challenges than other drug users. Also, an analysis of addition severity index (ASI) scores indicated that heroin users had significantly higher composite scores than other drug users in all areas except for alcohol use. These findings support the assumption that the substance use disorders among this population more severely impact the areas of life functioning. Treatment outcomes also showed that the clients with medication assisted therapy had higher retention rates than those without medication assisted therapy. Recognizing and understanding the differences between primary heroin admissions and other drug admissions may help policy makers and providers target the most effective interventions for this population.