Baltimore Substance Abuse Systems, Inc.

Outlook and Outcomes

Baltimore City

Greg Warren, President

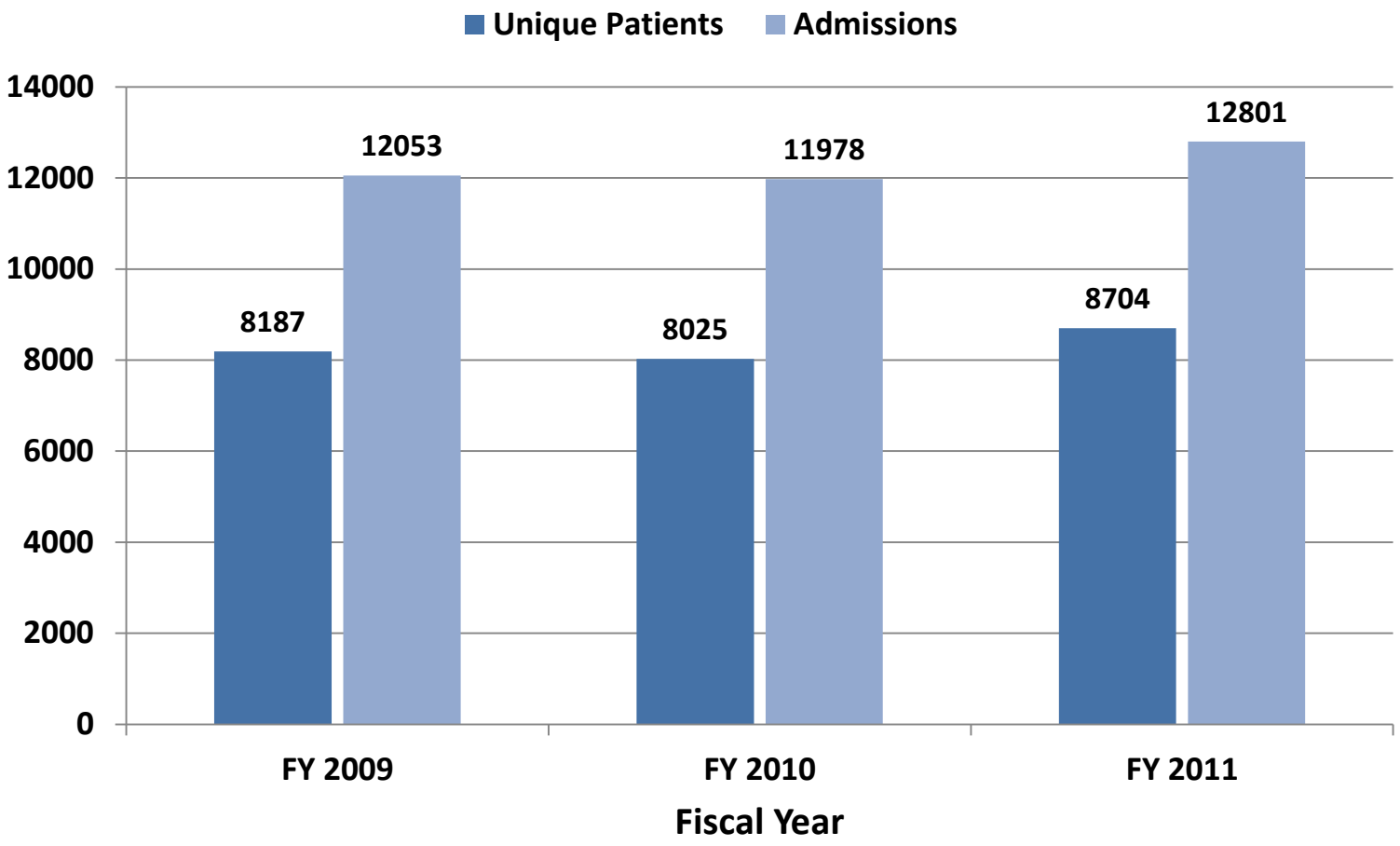
Fiscal Year 2011

Compiled July 2012

BSAS Outlook and Outcomes FY 2011 is the first edition of a planned annual publication from Baltimore Substance Abuse Systems (BSAS). BSAS's primary goal in producing this initial edition was to mimic a portion of the Alcohol and Drug Abuse Administration's statewide *Outlook and Outcomes FY 2011* report – focusing only on those admissions/clients funded by BSAS at some point during treatment. The data presented herein were collected in the Statewide Maryland Admissions and Records Tracking (SMART) system and obtained by BSAS through collaboration with the ADAA. The report encompasses all admissions to and discharges from the community-based substance abuse treatment centers under BSAS's local jurisdiction during FY 2011. It provides information about the client population served, payment sources utilized, and treatment outcomes over time – information that is essential to BSAS's ability to effectively manage fiscal resources and ensure the availability of quality substance abuse treatment services in Baltimore City.

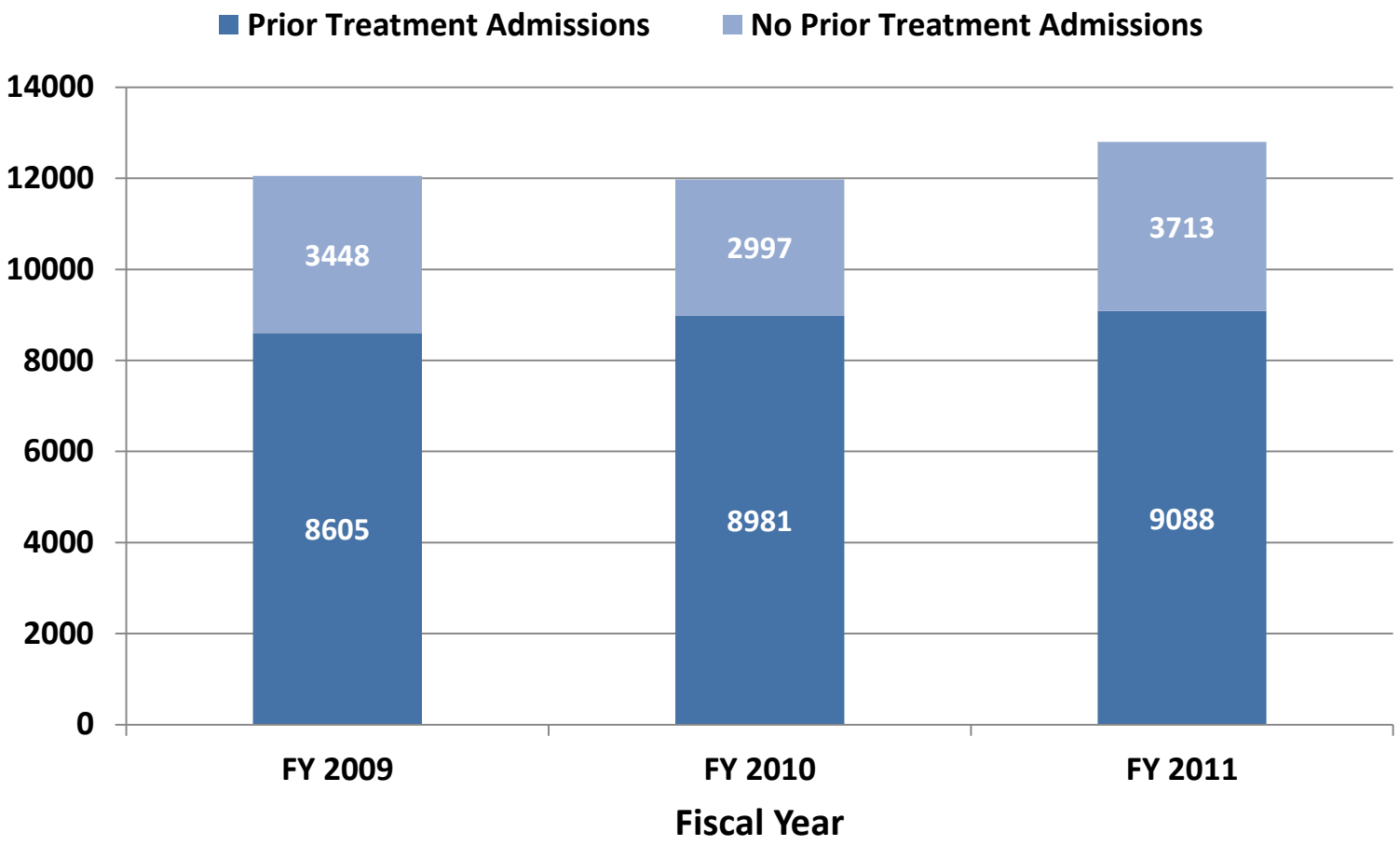
BSAS Outlook and Outcomes FY 2011 focuses on all admissions and discharges during FY 2011 under BSAS's local jurisdiction. In this report, an admission is conceptualized as an entry into an ASAM level of care and a discharge as an exit from an ASAM level of care. Note that this conceptualization is in contrast to that currently used in the SMART system. In SMART, an admission is conceptualized as an entry into an *initial* ASAM level of care during a continuous episode of treatment and a discharge as an exit from a *concluding* level of care during a continuous episode of treatment. In SMART, entries into ASAM levels of care are referred to as enrollments and exits from these levels of care as dis-enrollments. Because of the manner in which admissions and discharges are conceptualized in the current report, data that are collected in SMART at admission and discharge are counted multiple times – once for each ASAM level of care. Using this conceptualization of an admission, there were a total of 19,313 admissions that received at least one day of substance abuse treatment within FY 2011 – referred to as "active" admissions within FY 2011. Out of these 19,313 active admissions within FY 2011, 6,512 were admitted prior to the beginning of FY 2011 and 12,801 were admitted during FY 2011. The current report focuses only on those 12,801 admissions that were admitted during FY 2011.

Figure 1
Unique Patients and Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2009 - FY 2011



As shown in Figure 1, the number of admissions to and unique patients treated in BSAS-funded treatment programs remained relatively stable from FY 2009 to FY 2010. However, from FY 2010 to FY 2011, there was a 6% increase in admissions and an 8% increase in the number of unique patients treated. This increase may be attributed to the expansion of Maryland's Primary Adult Care Program in January 2010 to cover Outpatient and Methadone Maintenance community-based substance abuse treatment services. In FY 2011, 8,704 unique patients accounted for 12,801 admissions – a ratio of 1.5 admissions per patient.

Figure 2
Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs by Number of Prior Admissions
FY 2009 - FY 2011



The numbers of admissions with and without prior treatment history can be used to approximate the prevalence and incidence of substance abuse treatment. Figure 2 shows that 71% of FY 2011 admissions had at least one prior treatment admission. The number of admissions with at least one prior treatment admission has slightly been increasing from FY 2009 through FY 2011. Although the number of admissions with no prior treatment history was greater in FY 2011 than in FY 2009, this number of was relatively lowest in FY 2010.

Figure 3
Age at Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

N = 12,801

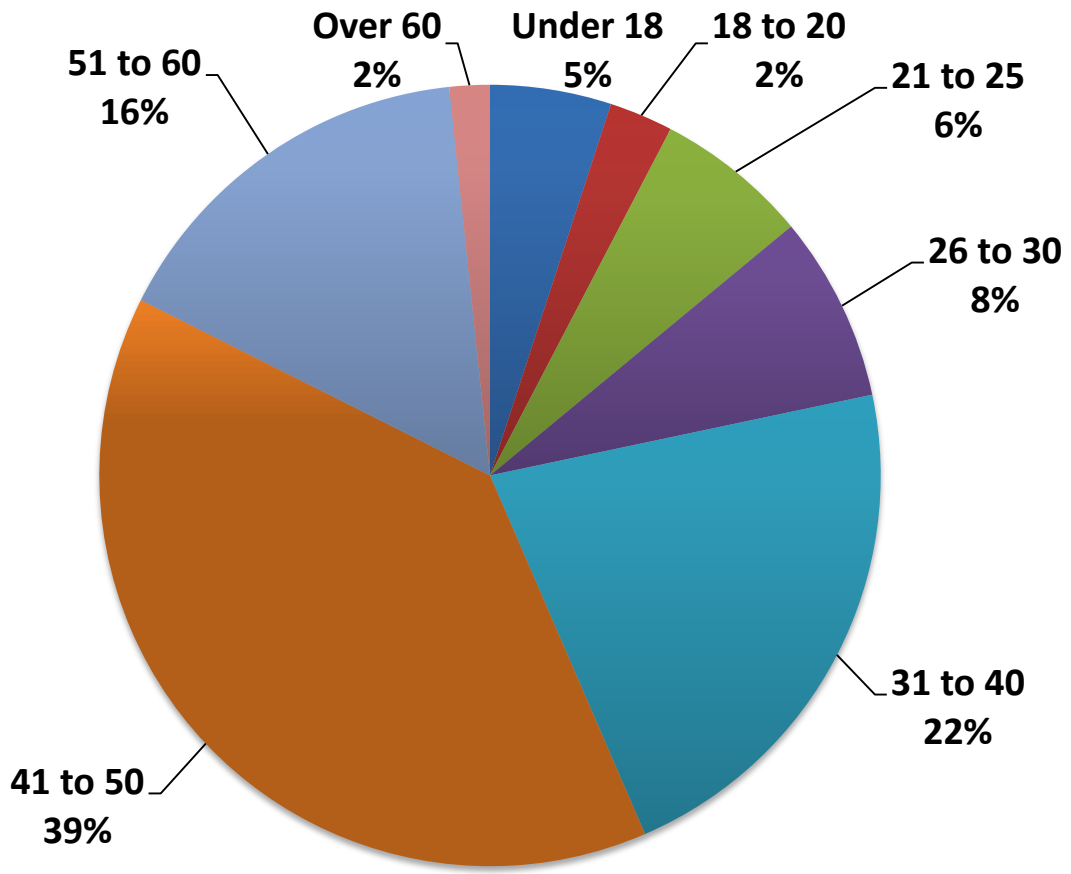


Figure 3 summarizes the age distribution of FY 2011 admissions. A combined 77% of admissions were for patients between 31 and 60 years old – and just over half of these (51%) were for patients between 41 and 50 years old. Youth admissions – under 18 through 20 years old – accounted for 7% of the total. The overall average age at admission for adults was 41 years old with a range from 18 to 82 years.

Figure 4
Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs by Race/Ethnicity/Sex
FY 2011

N = 12,801

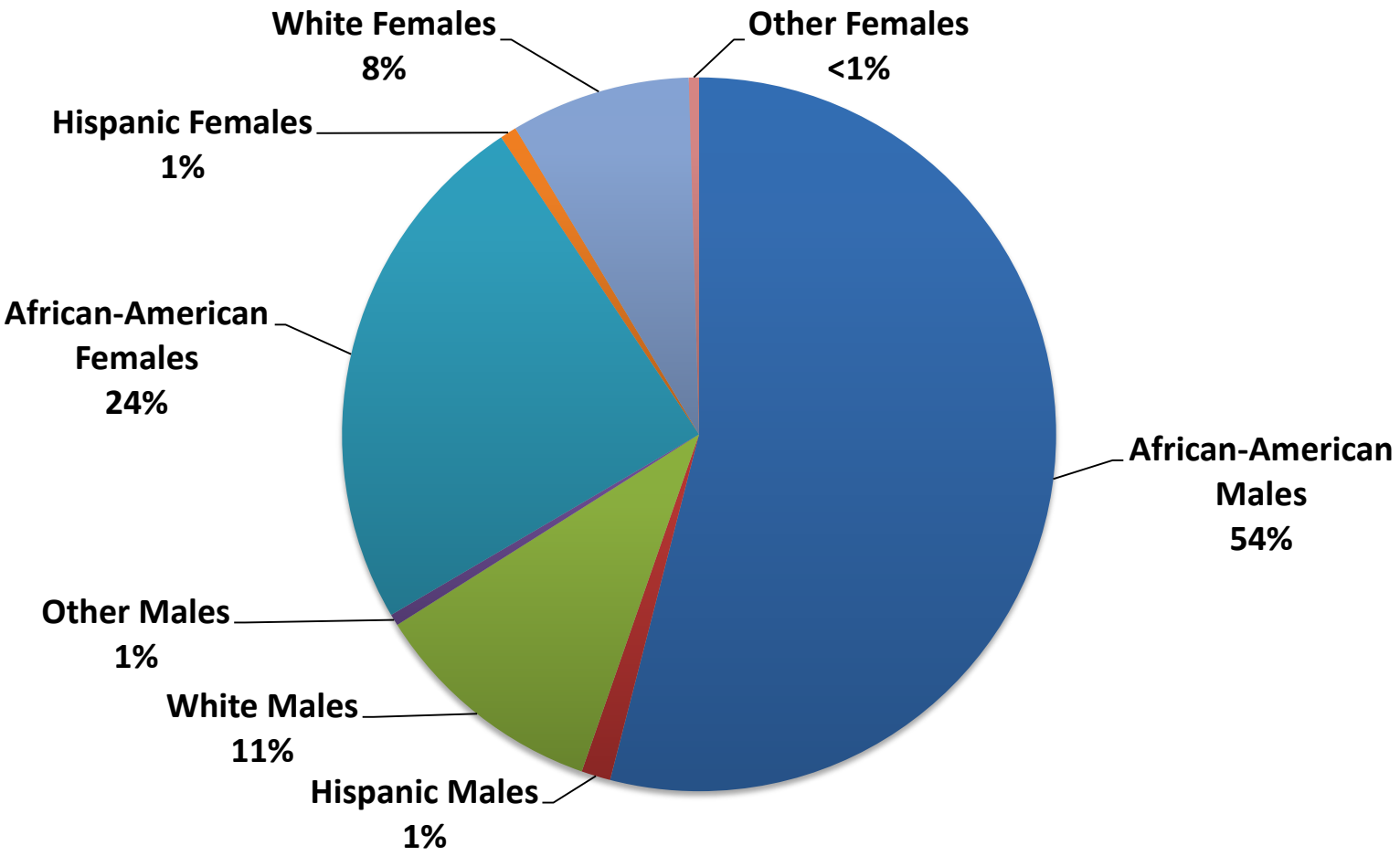
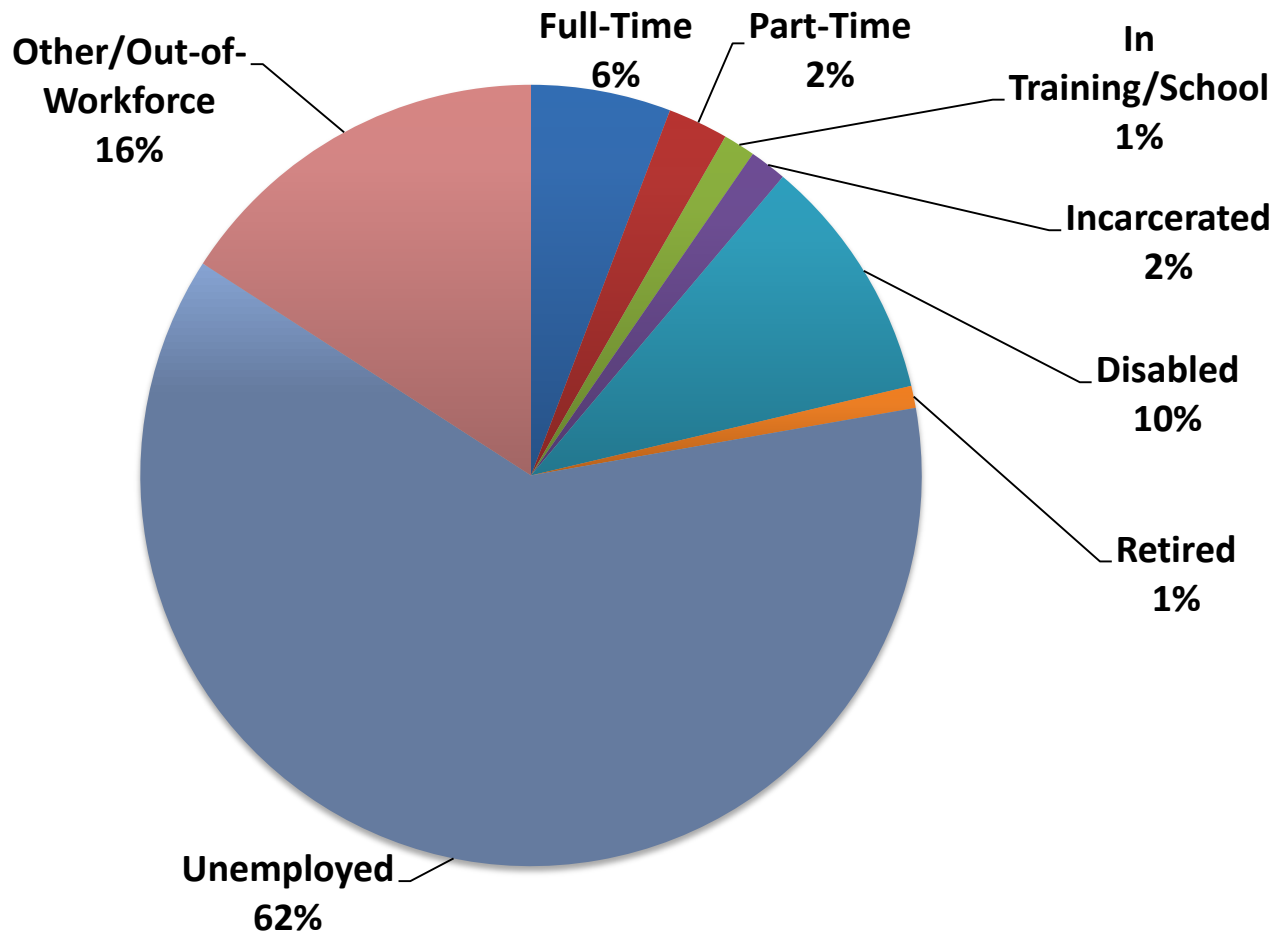


Figure 4 shows the racial, ethnic, and gender breakdown of FY 2011 admissions. The majority were male (67%) and African-American (78%). The ratio of males to females was highest for African-Americans (2.24), lower for Hispanics (1.76), and lowest for Whites (1.31).

Figure 5
Employment Status for Adults (18 and Older) At Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

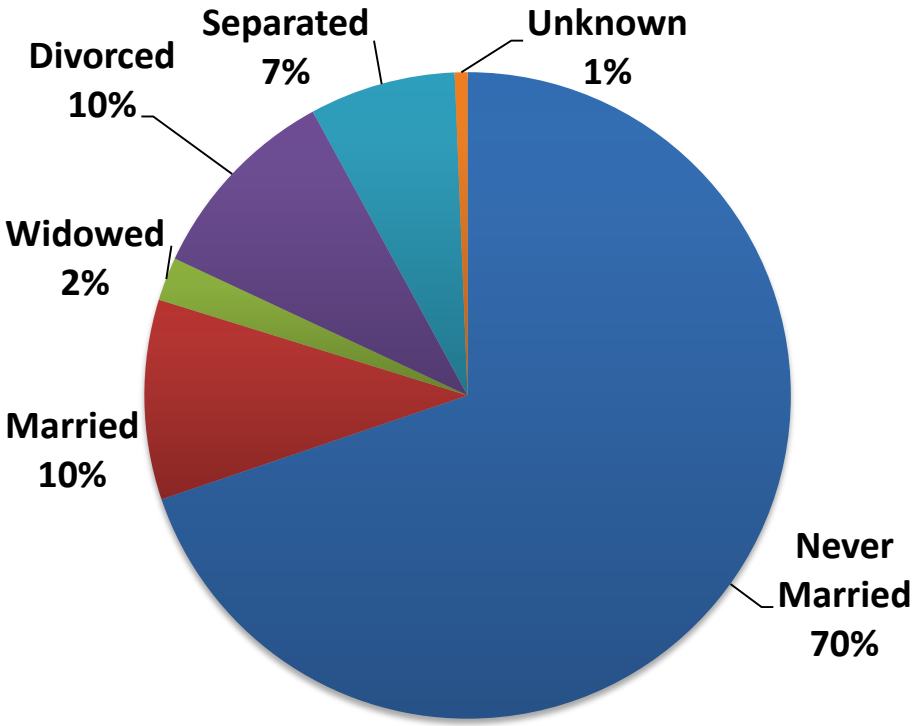
N = 12,159



After limiting FY 2011 admissions to those 18 years or older – removing 642 admissions from the 12,801 total – 8% were self-reported employed full-time or part-time.

Figure 6
Marital Status and Number of Dependent Children of Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

N = 12,801



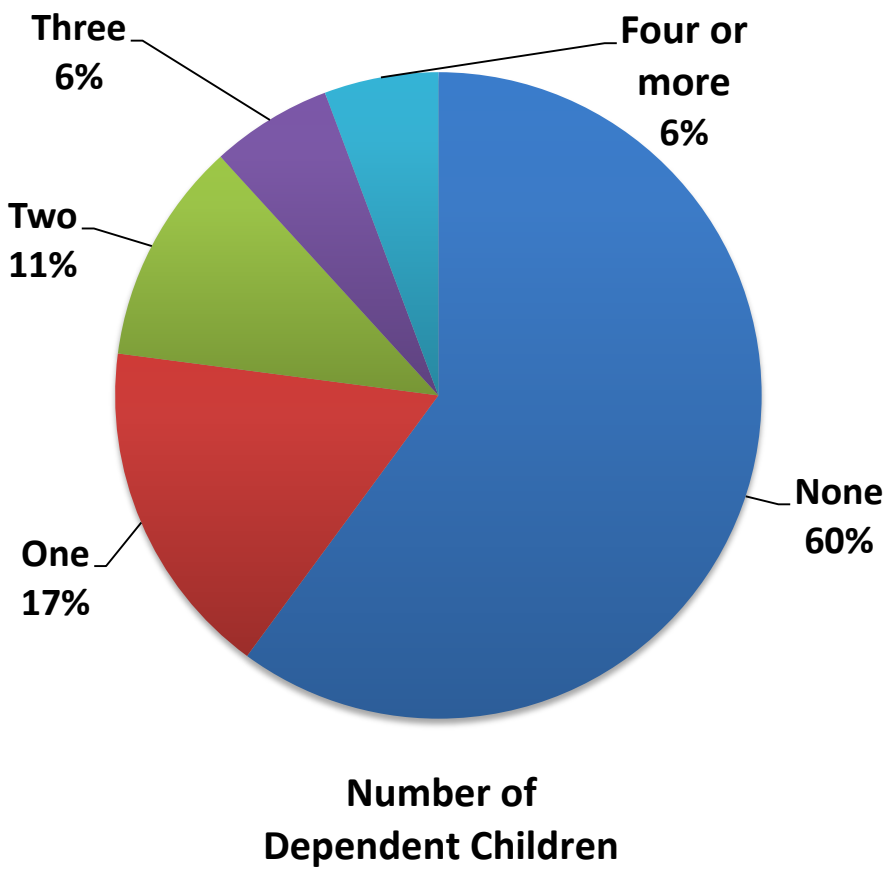
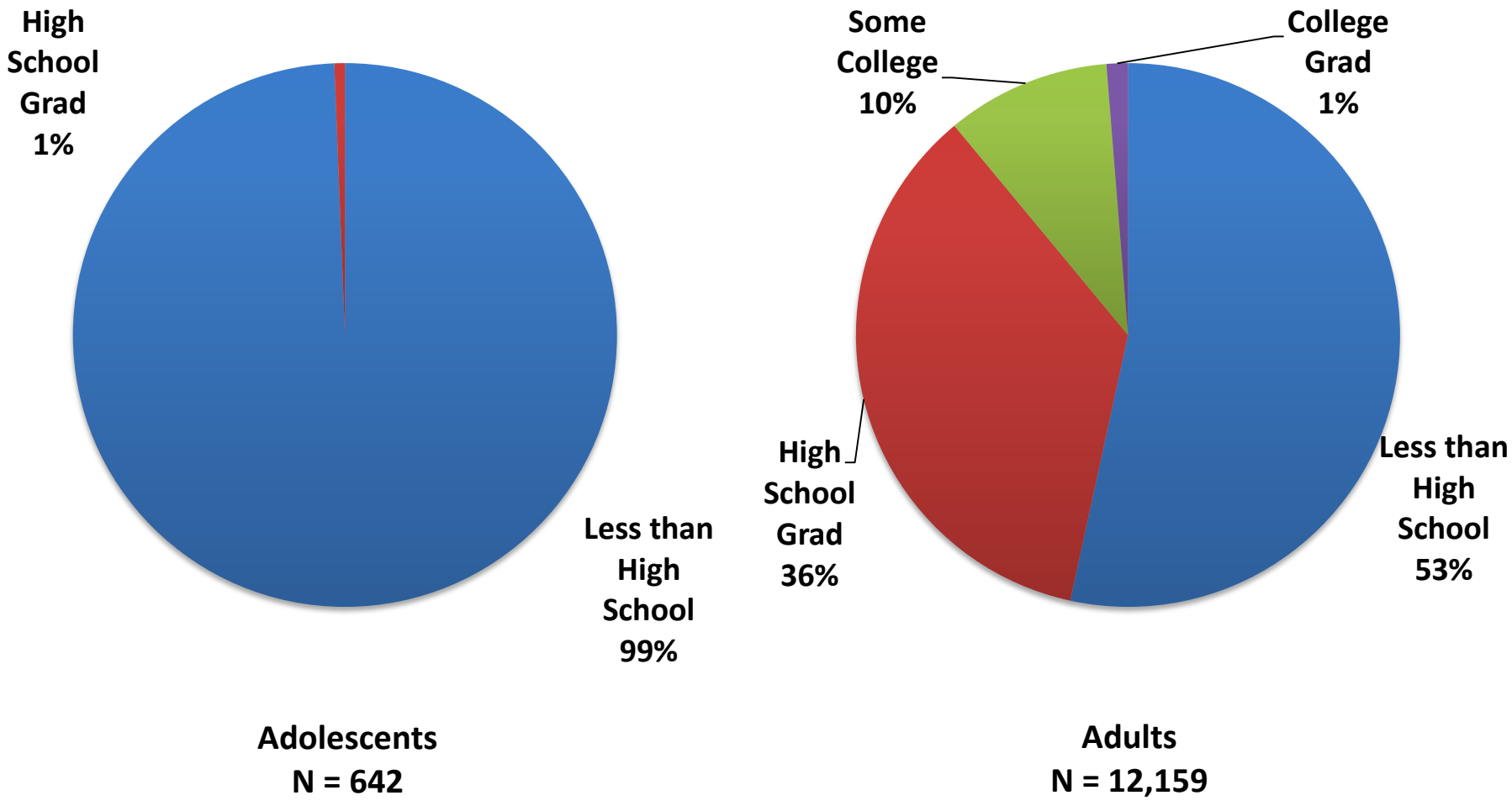


Figure 6 shows that 70% of the FY 2011 admissions reported never being married and 60% reported not having any dependent children.

Figure 7
Highest School Grade Completed at Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011



As shown in Figure 7, almost all of the 642 adolescent admissions in FY 2011 had not completed high school at admission. Just over half of the 12,159 adult admissions had not completed high school at admission – 86% of these had dropped out of high school by the time they were admitted. Nonetheless, 47% of FY 2011 adult admissions had graduated from high school at admission.

Figure 8
Health Coverage of Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

N = 12,801

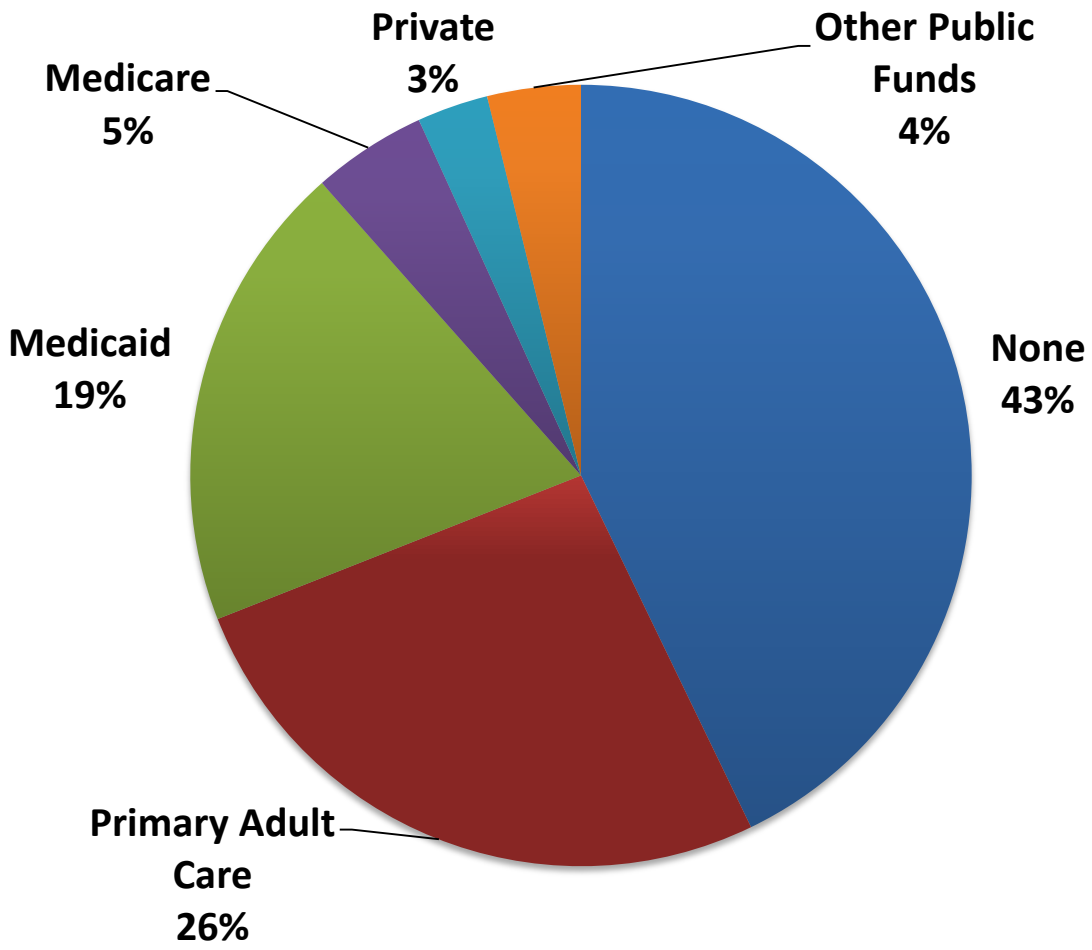


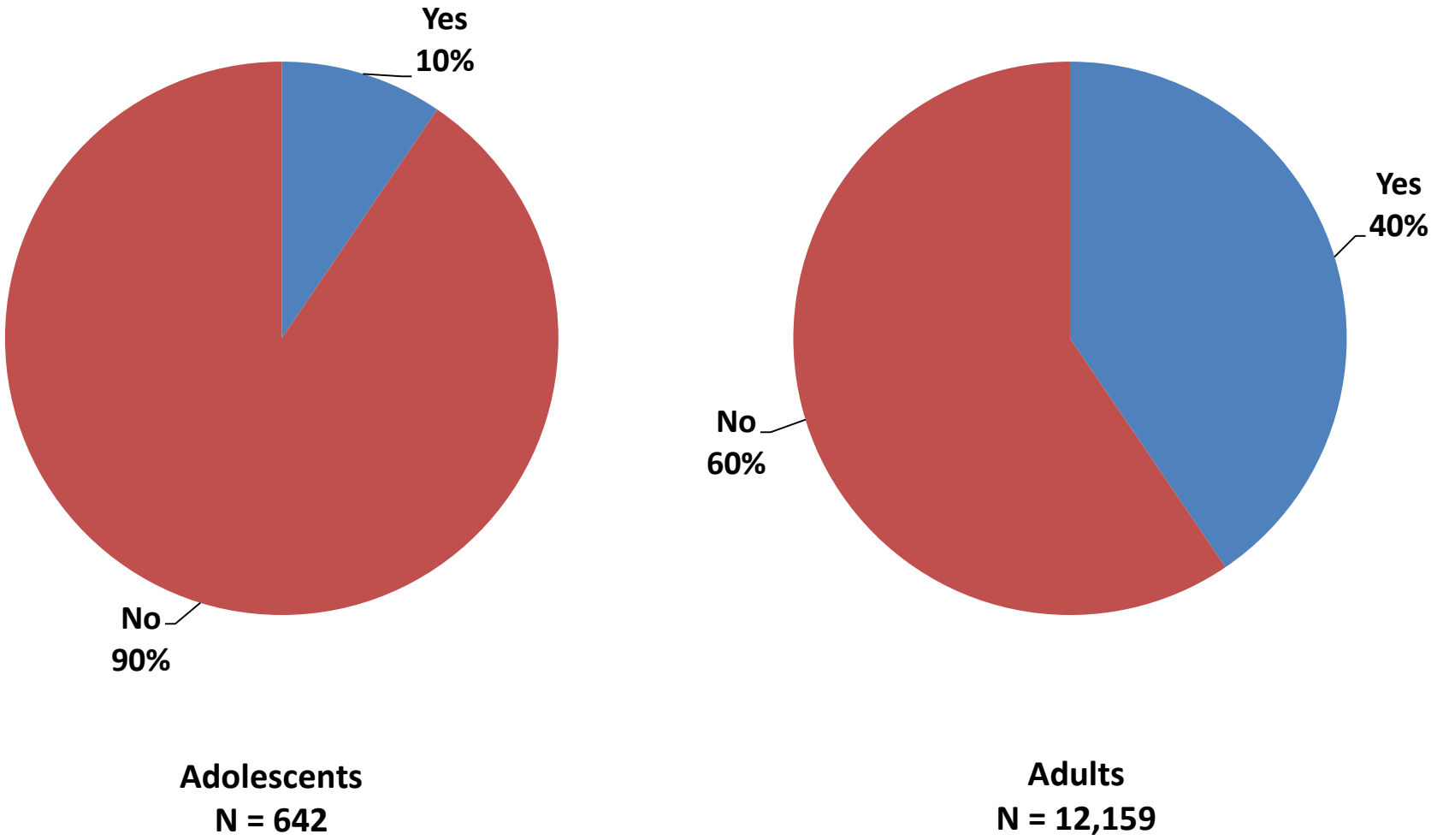
Figure 8 depicts the distribution of health insurance coverage at the beginning of all 12,801 FY 2011 admissions. 43% were initially uninsured, but there was a substantial amount of movement from being uninsured to being covered by Maryland's Primary Adult Care program and/or Medicaid throughout the period.

Table 1
Source of Referral to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

Source of Referral	#	%
AIDS Administration	4	0.0
Alcohol and Drug Abuse Administration	109	0.9
Alcohol/Drug Abuse Care Provider	1,177	9.2
DHMH Court Commitment (HG-507)	112	0.9
Drug Court	1,138	8.9
Dept. of Social Services/Temporary Cash Assistance	241	1.9
DWI/DUI Related	41	0.3
Employer/Employee Assistance Program	23	0.2
Individual/Self-Referral	4,217	32.9
Juvenile Justice	372	2.9
Local Detention	20	0.2
Parent/Guardian/Family	83	0.7
Parole	196	1.5
Pre-Trial	116	0.9
Probation	1,422	11.1
School	265	2.1
State Prison	14	0.1
Treatment Alternatives to Street Crimes	44	0.3
Other Community Referral	1,991	15.6
Other Criminal Justice	367	2.9
Other Health Care Provider	849	6.6
Total	12,801	100.0

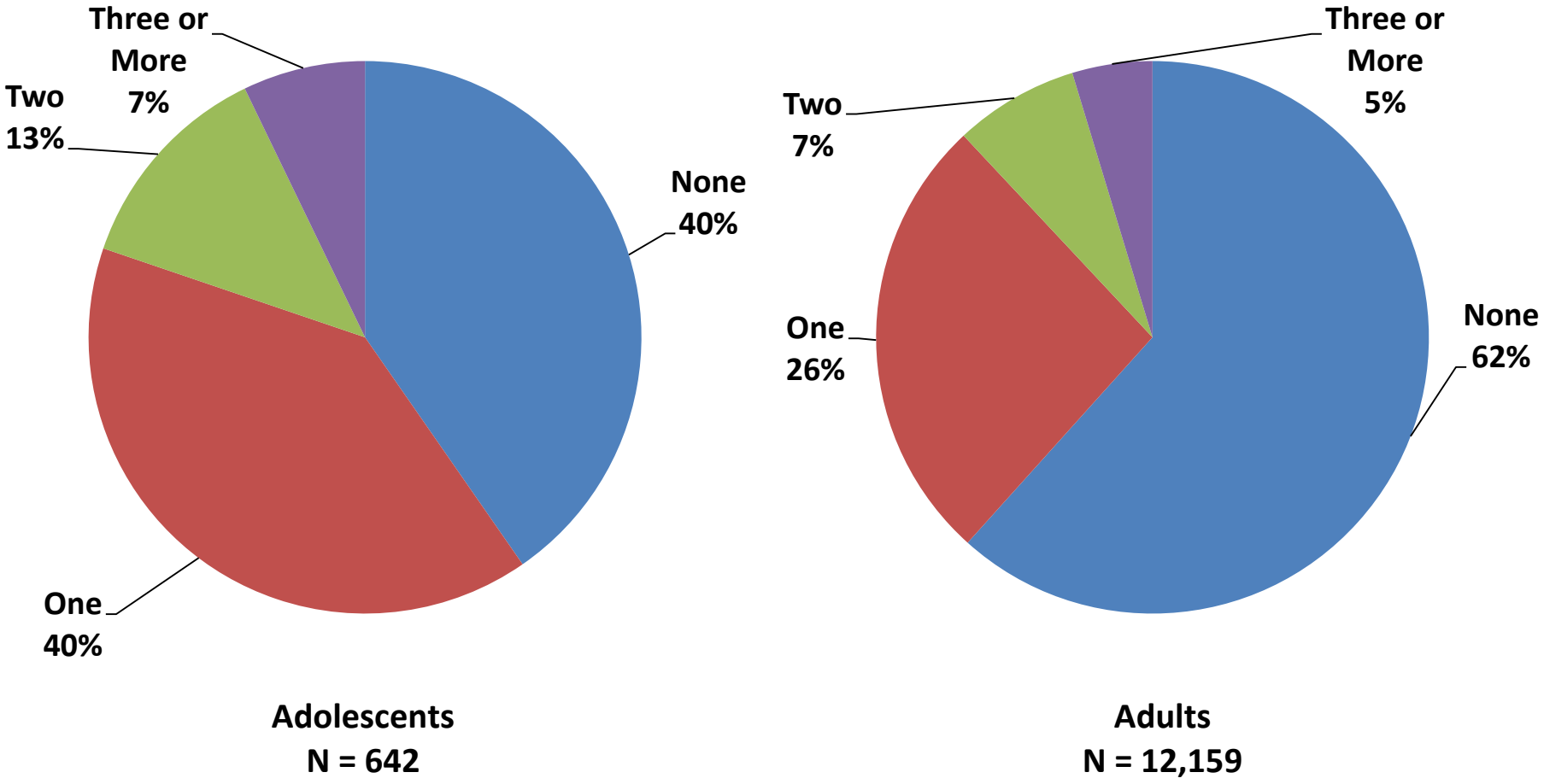
Table 1 reveals that 33% of FY 2011 admissions were individual/self-referrals and 30% were from criminal justice sources. Alcohol/drug abuse-care providers and other health-care providers accounted for 9% and 7% of drug treatment referrals, respectively.

Figure 9
Mental-Health Problem(s) at Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011



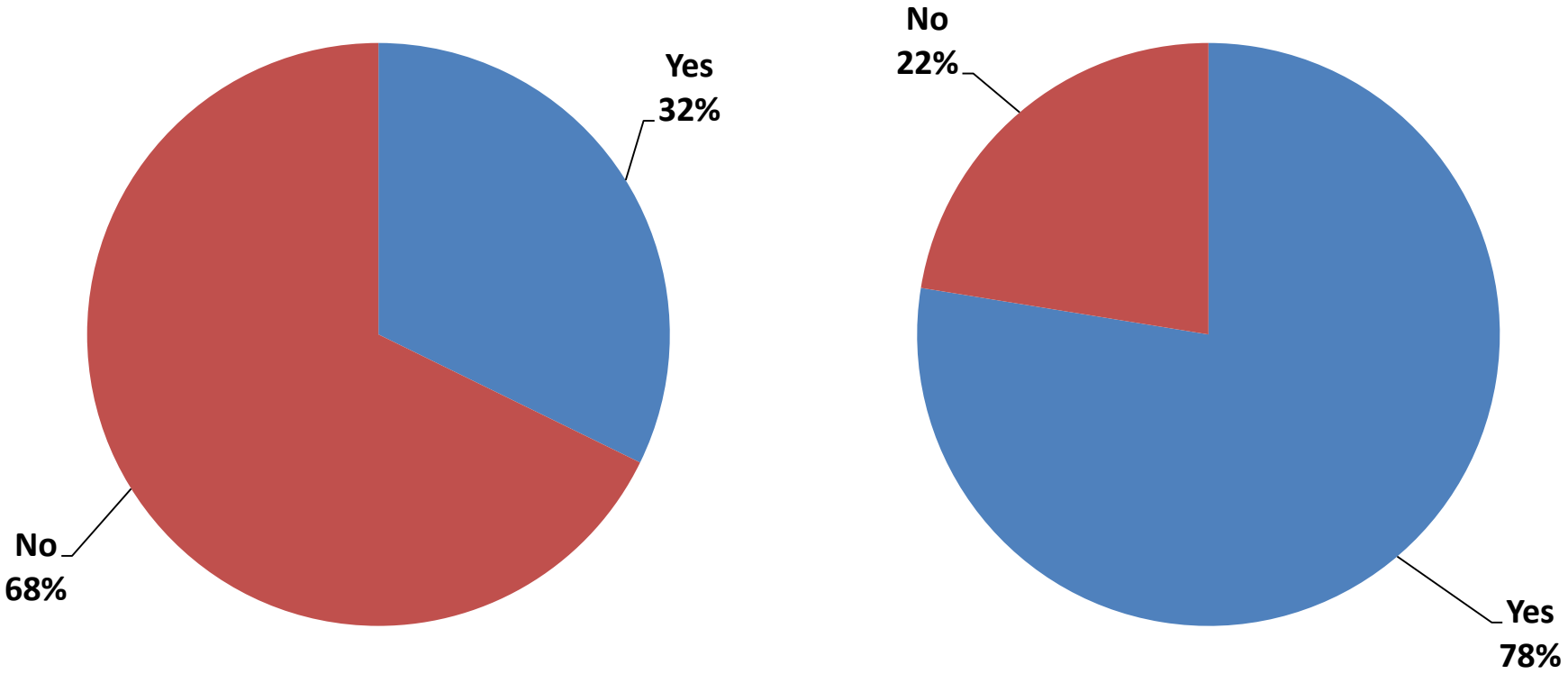
In FY 2011, 10% of adolescent admissions and 40% of adult admissions reported having mental-health issues at the start of treatment – highlighting the importance of maintaining a system that is capable of addressing mental health and substance abuse issues in conjunction.

Figure 10
Number of Arrests in the 12 Months before Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011



In FY 2011, 60% of adolescent admissions and almost 40% of adult admissions had been arrested at least once in the year preceding admission. This is consistent with the data showing that criminal justice referrals accounted for just over 50% of adolescent admissions and just under 30% of adult admissions.

Figure 11
Tobacco Use at Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011



As shown in Figure 11, about a third of adolescent admissions in FY 2011 reported tobacco use within the 30 days preceding admission. In contrast, over three-quarters of adult admissions in FY 2011 reported such use. These high rates of use are why, starting in FY 2012, all BSAS-funded programs will be required to include smoking cessation as part of the treatment plan of patients who smoke.

Figure 12
Pattern of Substance Abuse Problems among Admissions to BSAS-Funded Alcohol and Drug-Abuse Treatment Programs
FY 2011

N = 12,801

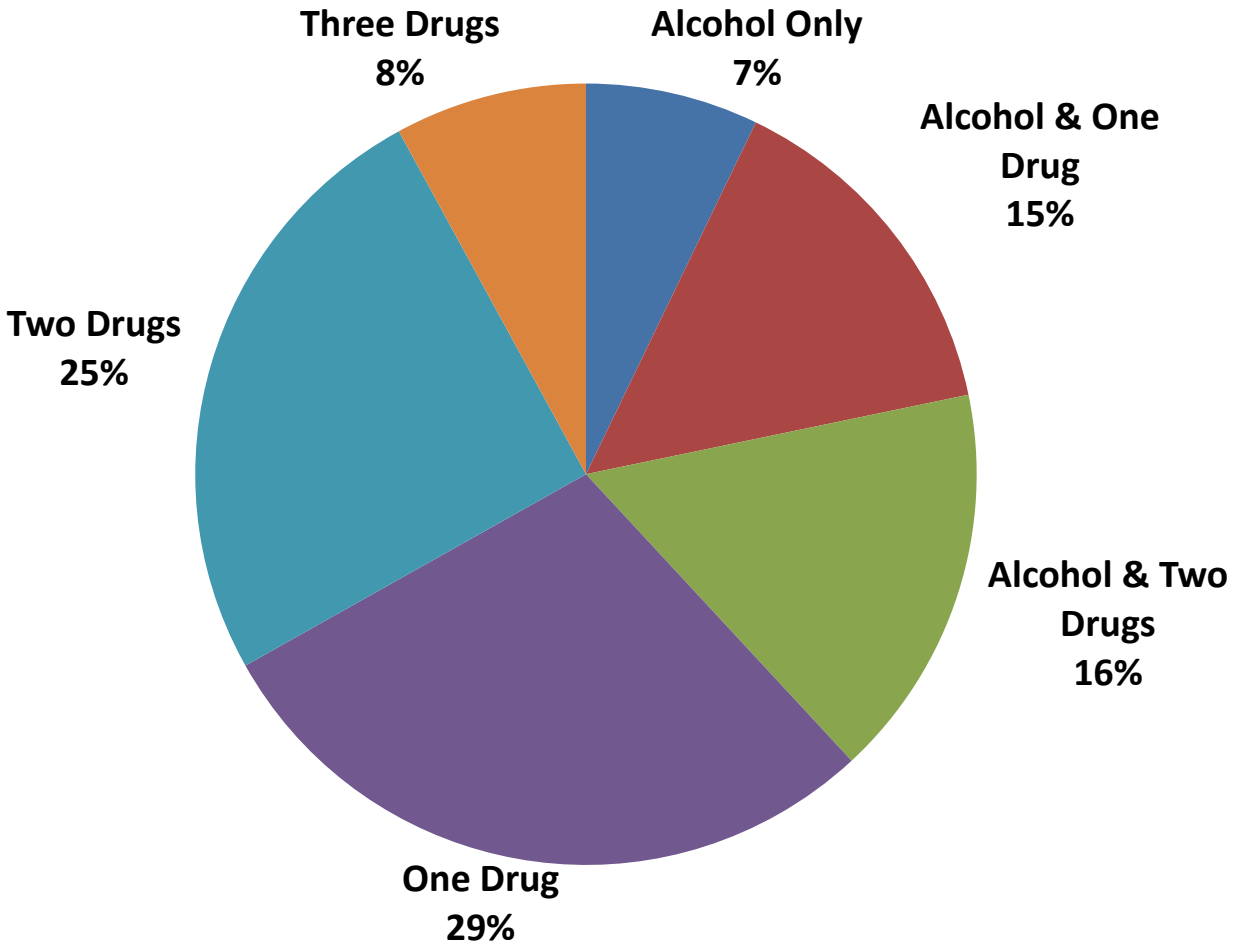


Figure 12 depicts substance abuse patterns for all FY 2011 admissions. Alcohol was involved in 38%, a combination of alcohol and illicit drugs were involved in 31%, and multiple substances were involved in 64%.

Table 2
Substance Problems Among Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2009 - FY 2011

	FY 2009		FY 2010		FY 2011	
Substance Problem	**#**	**%**	**#**	**%**	**#**	**%**
Alcohol	4306	19.5	4354	19.5	4859	20.2
Crack	4375	19.8	4108	18.4	4244	17.7
Other Cocaine	1838	8.3	1776	8.0	1860	7.7
Marijuana	2599	11.8	2781	12.5	3356	14.0
Heroin	7970	36.1	8167	36.6	7899	32.9
Non-Rx Methadone	150	0.7	142	0.6	198	0.8
Oxycodone	191	0.9	265	1.2	361	1.5
Other Opiates*	199	0.9	260	1.2	515	2.1
PCP	13	0.1	25	0.1	28	0.1
Hallucinogens	45	0.2	20	0.1	38	0.2
Methamphetamines	15	0.1	23	0.1	29	0.1
Other Amphetamines	57	0.3	62	0.3	74	0.3
Stimulants	5	0.0	1	0.0	2	0.0
Benzodiazepines	258	1.2	295	1.3	409	1.7
Barbiturates	4	0.0	3	0.0	4	0.0
Inhalants	0	0.0	1	0.0	4	0.0
Other Sedatives or Hypnotics	7	0.0	1	0.0	6	0.0
Over the Counter	2	0.0	3	0.0	9	0.0
Other	45	0.2	35	0.2	131	0.5
Total Responses	22079	-	22322	-	24026	-
Note: Up to three substance problems are reported for each admission so percentages do not add up to 100.						

Heroin has consistently been the most common substance of abuse reported at admission. Table2 shows that, from FY 2009 to FY 2011, the largest percent increases in substance problems among admissions were observed for Other Opiates (159%), Oxycodone (89%), Benzodiazepines (59%), and Marijuana (29%). The raw numbers reported here are greater than the raw numbers of admissions reported earlier because up to three substances (which can be the same substance reported more than once) can be reported per admission. *Other opiates include: Codeine, Hydracodone, Hydromorphone, Meperidine, Non-Prescription Methadone, Pentazocine, Propoxyphene, Tramadol, and other pain relievers not previously mentioned.

Figure 13
Top Five Primary-Substance Problems at Admission to BSAS-Funded Alcohol and Drug-Abuse Treatment Programs
FY 2011

N = 12,378

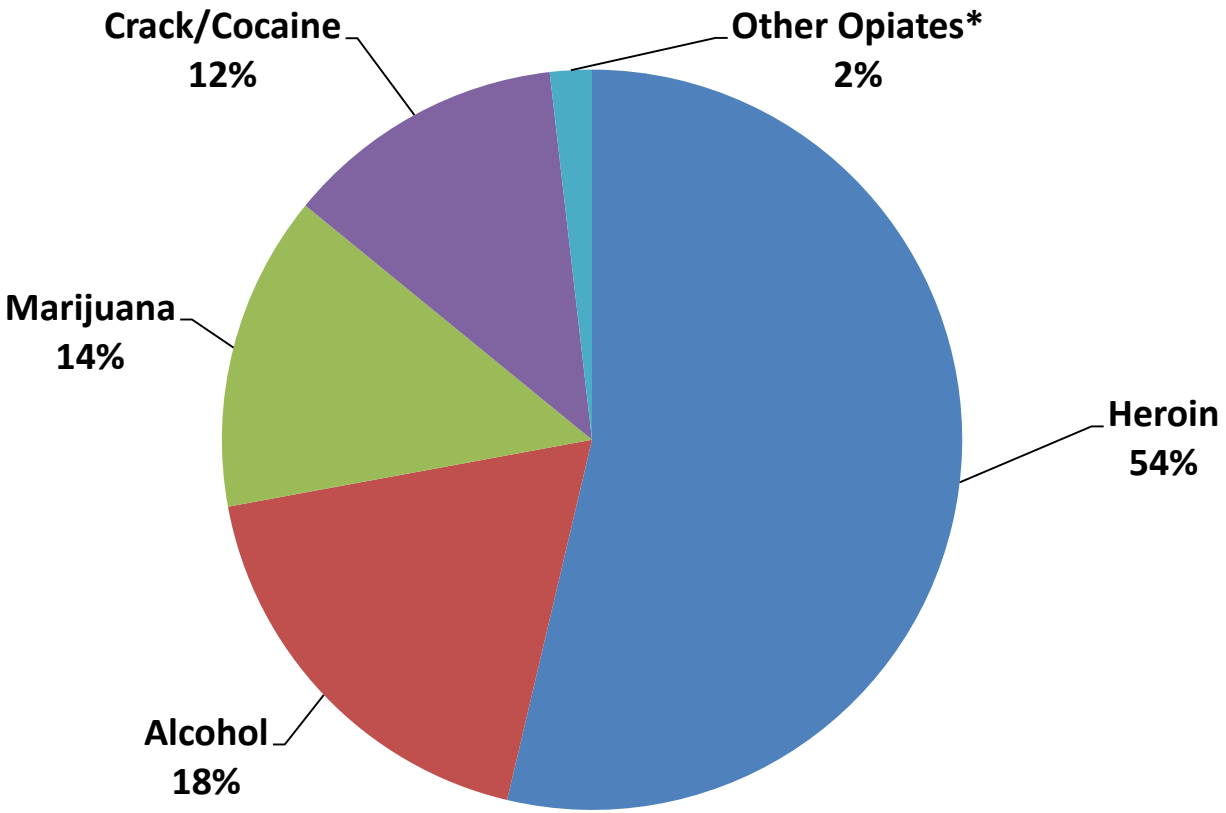


Figure 13 shows the distribution of the top-five primary substances of abuse reported at admission. Of the 12,801 FY 2011 admissions, 423 did not report one of these top-five substances as their primary substance of abuse – leaving 12,378 admissions to be included here. Alcohol was the second most common primary substance of abuse at admission. *Other opiates include: Codeine, Hydracodone, Hydromorphone, Meperidine, Non-Prescription Methadone, Pentazocine, Propoxyphene, Tramadol, and other pain relievers not previously mentioned.

Figure 14
Percentages of Admissions in Selected Age-Groups with the Top Five Primary-Substance Problems at Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

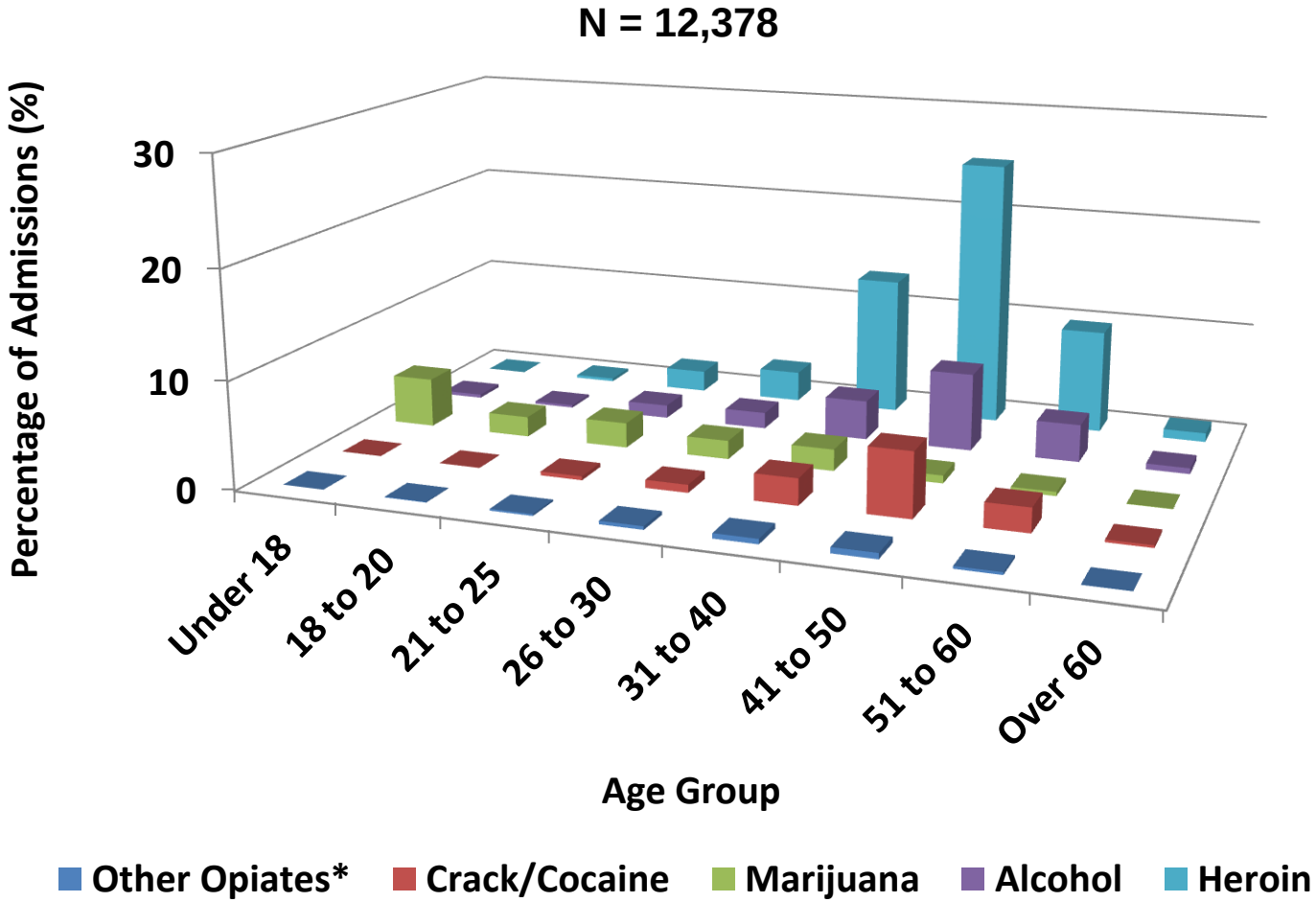


Figure 14 shows the percentages of admissions in selected age groups by the top-five primary substances of abuse – in ascending order. Of the 12,801 FY 2011 admissions, 423 did not report one of these top-five substances as their primary substance of abuse – leaving 12,378 admissions to be included here. Heroin, alcohol, and crack/cocaine admissions all peaked between 41 and 50 years of age. *Other opiates include: Codeine, Hydracodone, Hydromorphone, Meperidine, Non-Prescription Methadone, Pentazocine, Propoxyphene, Tramadol, and other pain relievers not previously mentioned.

Figure 15
Percentages of Admissions in Selected Race/Ethnic/Gender Groups with the Top Five Primary-Substance Problems at Admission to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

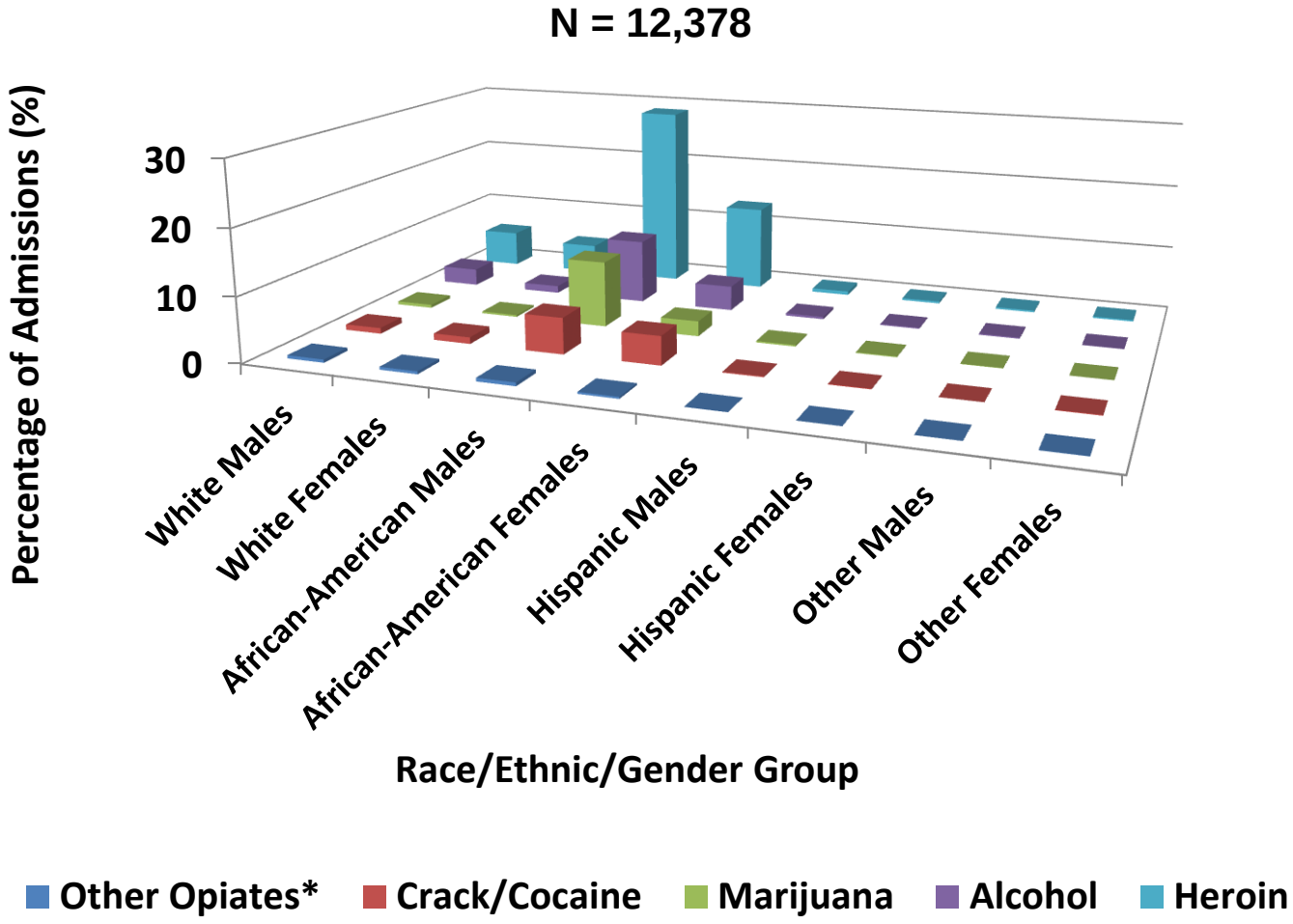


Figure 15 shows the percentages of admissions in selected race/ethnic/gender groups by the top-five primary substances of abuse – in ascending order. Of the 12,801 FY 2011 admissions, 423 did not report one of these top-five substances as their primary substance of abuse – leaving 12,378 admissions to be included here. Across substances, African-American males accounted for most admissions. *Other opiates include: Codeine, Hydracodone, Hydromorphone, Meperidine, Non-Prescription Methadone, Pentazocine, Propoxyphene, Tramadol, and other pain relievers not previously mentioned.

Figure 16
Age at First Use of Alcohol* and Marijuana for Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

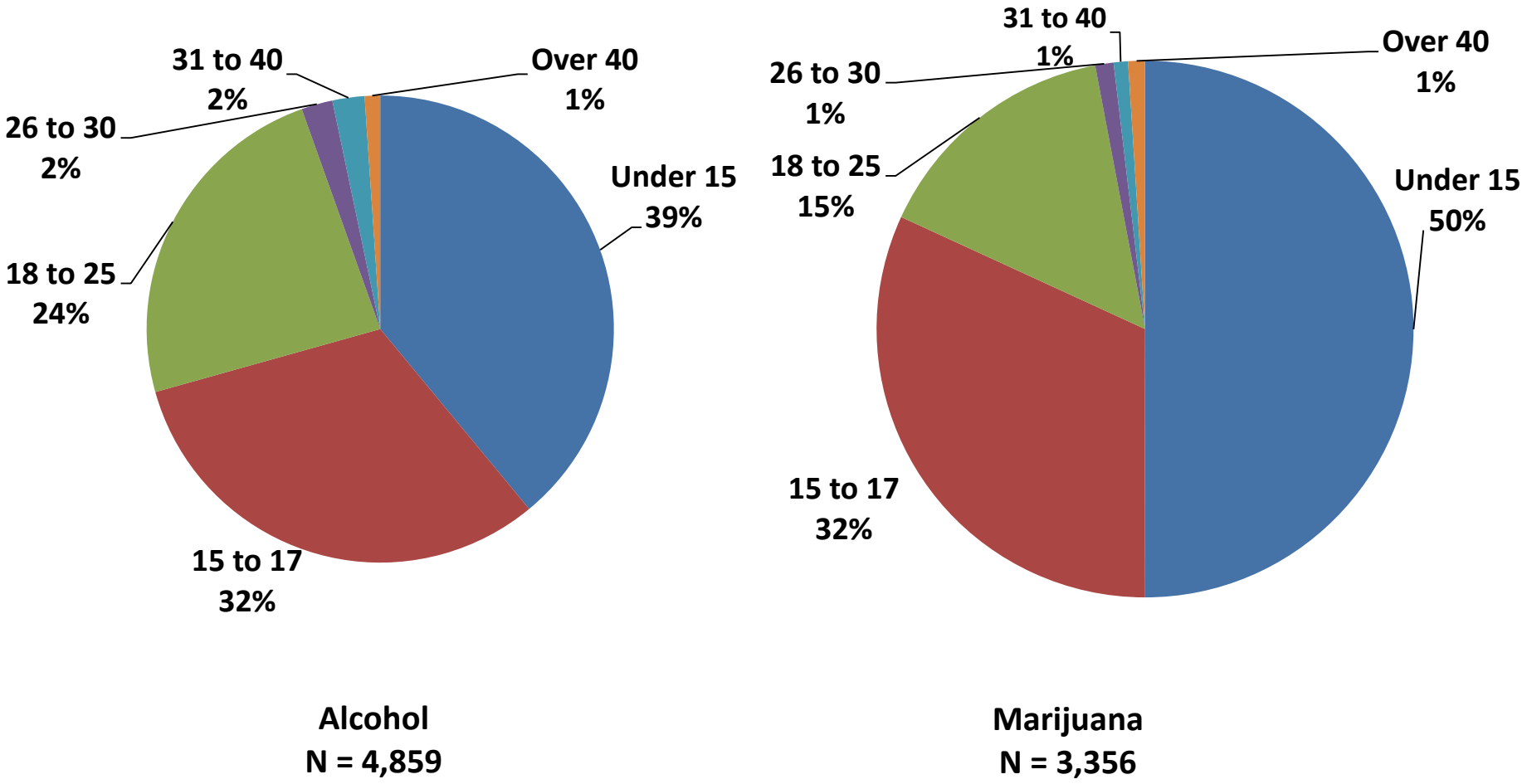
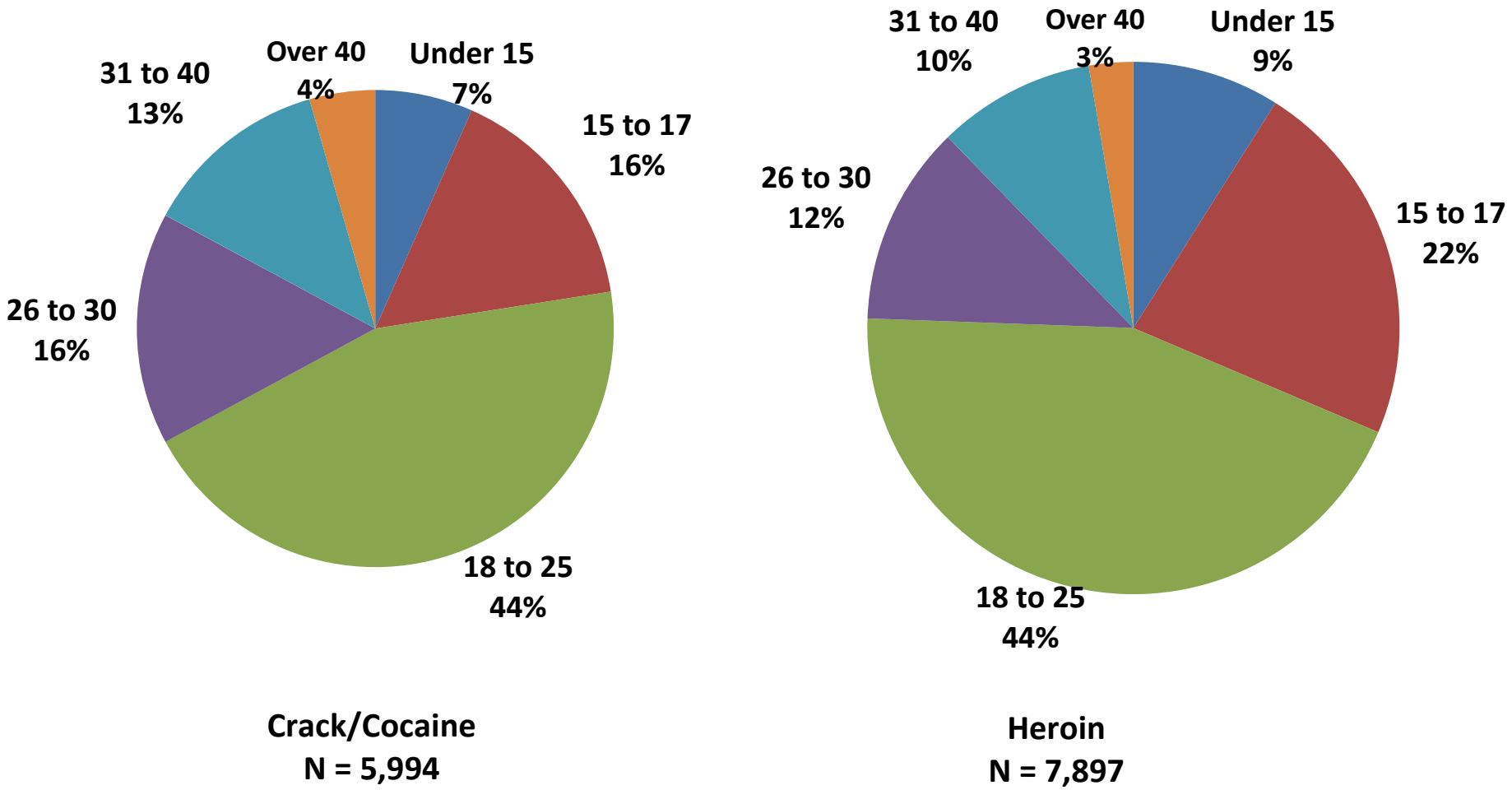


Figure 16 shows that almost 40% of the FY 2011 admissions presenting with alcohol use reported first using alcohol when they were younger than 15 years of age. Half of the FY 2011 admissions presenting with marijuana use reported first using marijuana when they were younger than 15 years of age. Less than 6% of FY 2011 admissions reported first using either substance when they were older than 25 years of age *For alcohol, the age of first use is defined as the age of first intoxication.

Figure 17
Age at First Use of Crack/Cocaine and Heroin for Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011



In FY 2011, there were 5,994 admissions presenting with crack/cocaine use and 7,897 presenting with heroin use. For both substances, 44% of admissions reported first use between the ages of 18 and 25. Notably, a larger percentage of heroin admissions reported first use prior to turning 18 years of age (31%) than did crack/cocaine admissions (23%).

Figure 18
Route of Administration of Crack/Cocaine and Heroin Among Admissions to BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

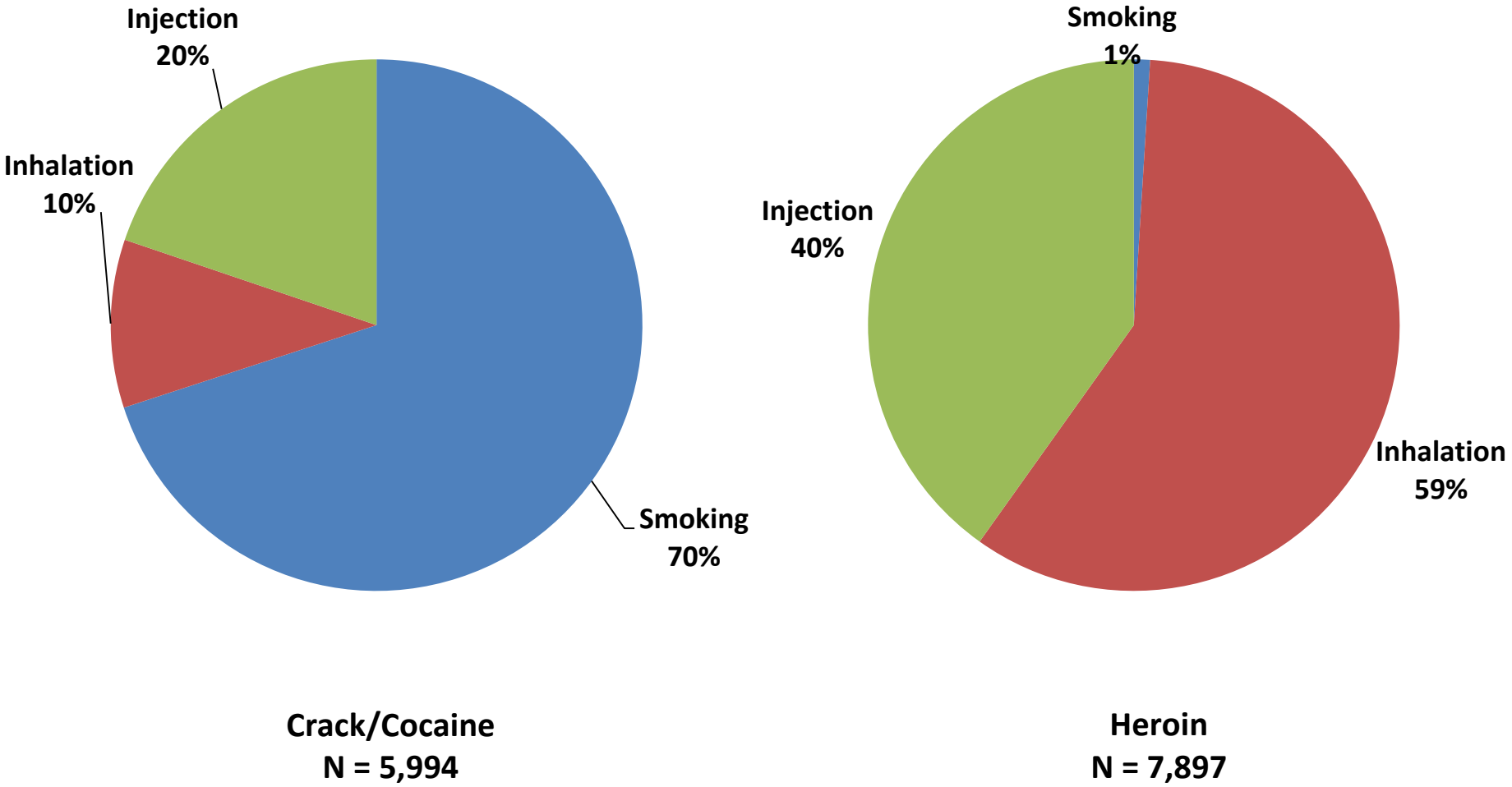


Figure 18 reveals the distribution of administration routes for crack/cocaine and heroin. Smoking was the most common route of administration for crack/cocaine (70%) but the least common route for heroin (1%). In contrast, inhalation was the most common route of administration for heroin (59%), but the least common route for crack/cocaine (10%).

Figure 19
Heroin-Related Admissions to BSAS-Funded Alcohol and Drug-Abuse Treatment Programs by Primary Route of Administration, Race, and Age at Admission
FY 2011

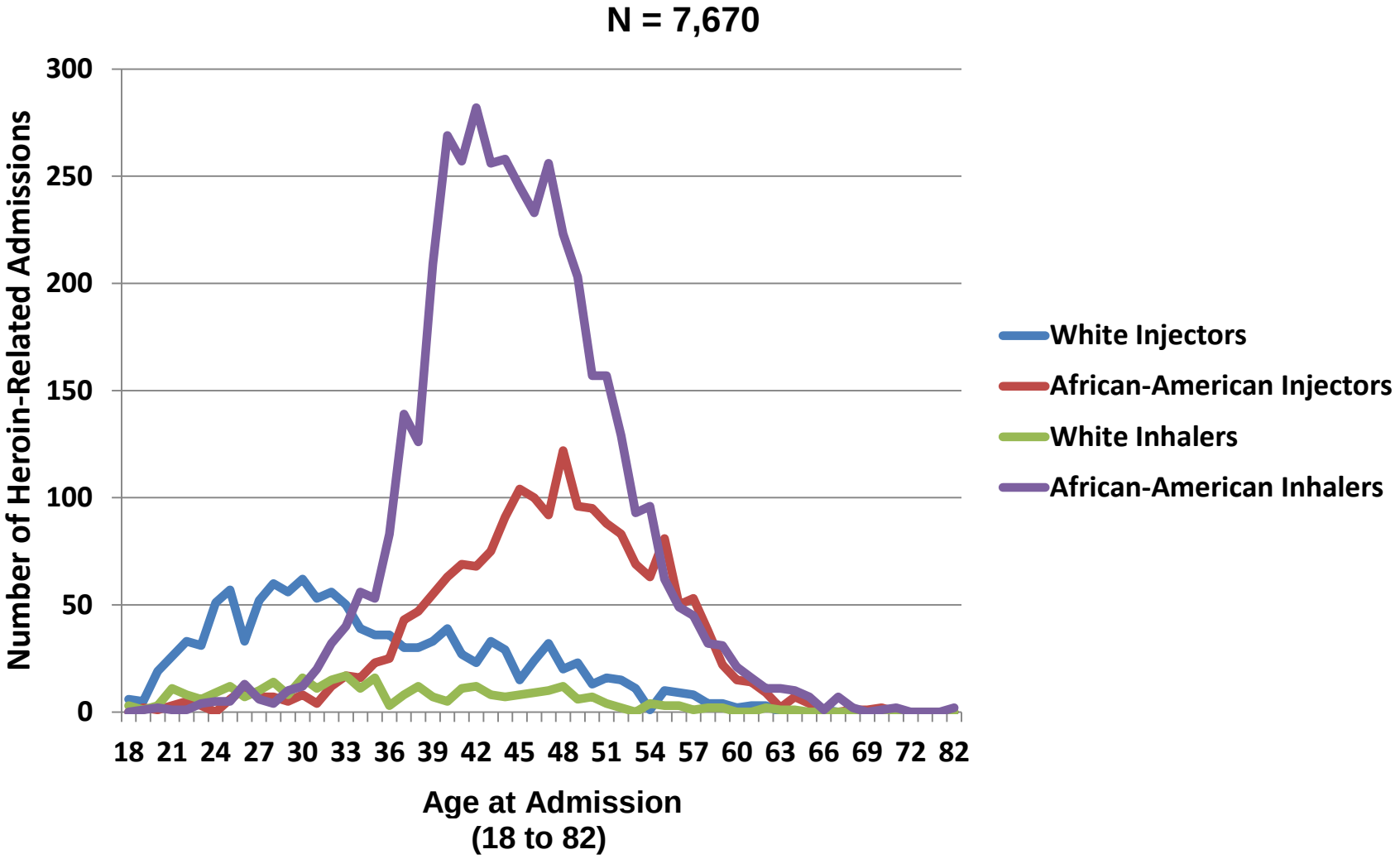
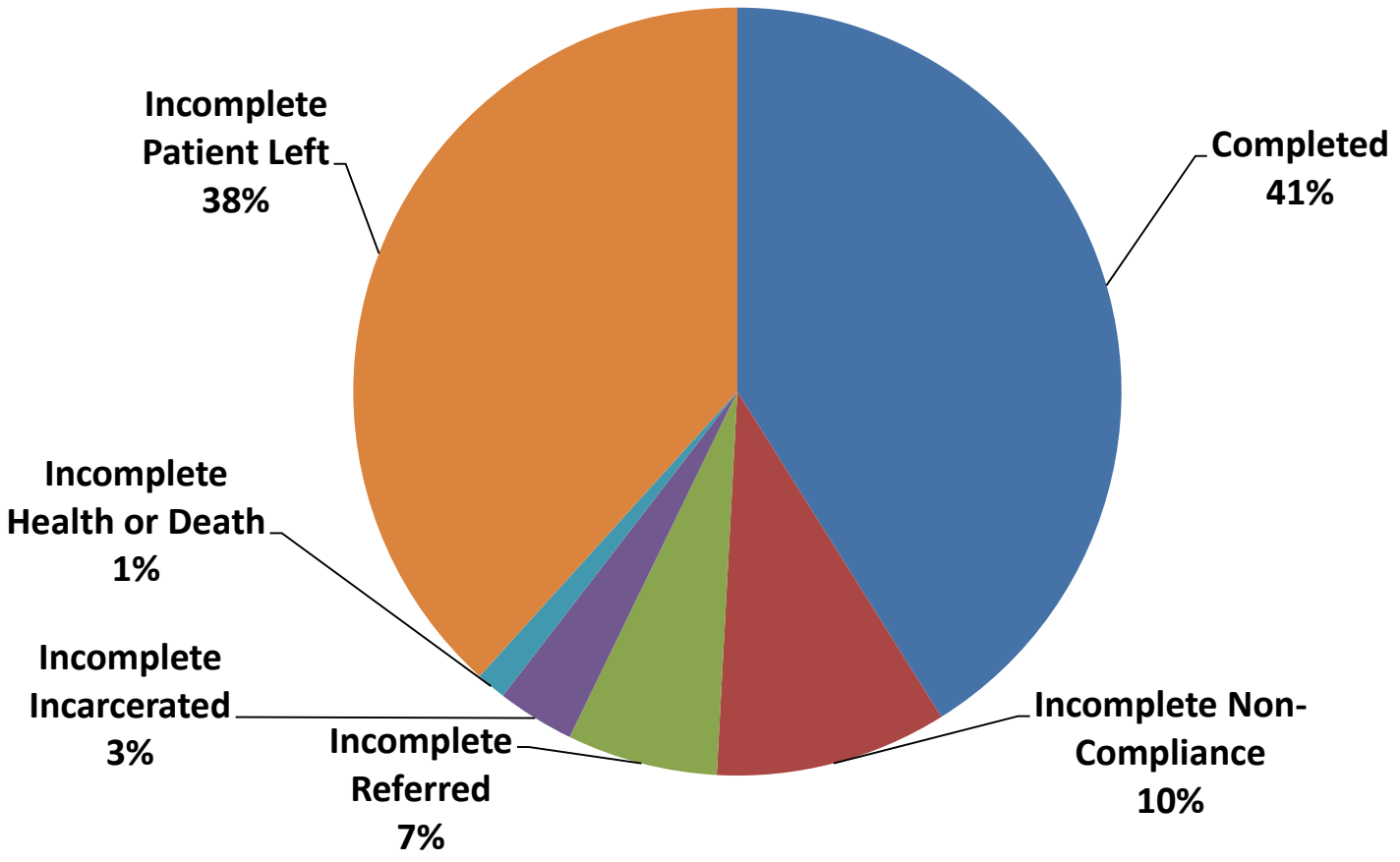


Figure 19 depicts distinct patterns of heroin-related admissions by route of administration, race, and age. Inhalation was a more common route of administration than injection for African-Americans whereas injection was a more common route than inhalation for Whites. Moreover, across routes of administration, African-American admissions were highest in their 40s whereas White admissions were highest in their 20s and 30s.

Figure 20
Reason for Discharge from BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

N = 11,515



There were 11,515 discharges in FY 2011. Figure 20 shows that 41% of these involved the successful completion of a treatment plan and 59% were incomplete. 38% of the total FY 2011 discharges were cases in which the patient left treatment prior to completion.

Figure 21
Primary Source of Payment at Discharge from BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2009 - FY 2011

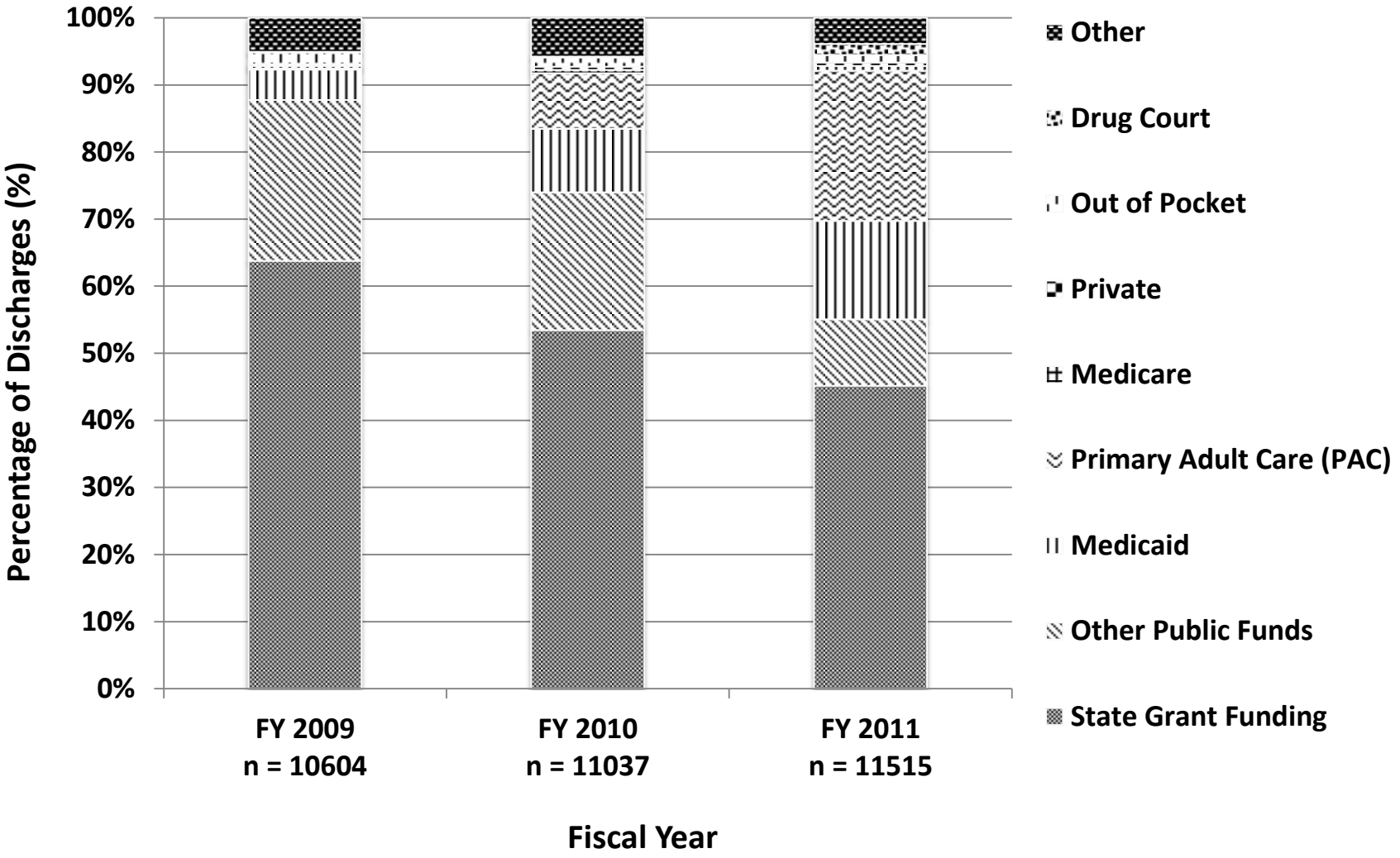


Figure 21 shows the primary payment source at discharge for all FY 2011 discharges. It highlights the decrease over time in the use of State Grant Funding and Other Public Funds to fund treatment, and the simultaneous increase in the use of Medicaid and Primary Adult Care.

Table 3
Use of Substances at Admission to and Discharge from BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

Discharges	Use at Admission		Use at Discharge		Percent Change
	#	%	#	%	%
8,821	7,244	82.1	4,370	49.5	-39.7

$\chi^2(1) = 1473.8, p < 0.0001$

Table 3 shows the percentage of FY 2011 discharges using substances at admission and discharge. Overall, there was a 40% decrease in the use of substances between admission and discharge.

Notes: In order to distribute the data by the final level of care in treatment episodes the analysis was restricted to cases in which the disenrollment coincided with the discharge - substance use information is collected at discharge and not at dis-enrollment from each level of care. Discharges from detoxification levels of care are excluded.

Table 4
Employment at Admission to and Discharge from BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

Discharges	Employed at Admission		Employed at Discharge		Percent Change
	#	%	#	%	%
7,984	764	9.6	1,360	17.0	43.8

$\chi^2(1) = 364.0$, $p < 0.0001$

Table 4 shows the percentage of FY 2011 discharges employed at admission and discharge. Overall there was a 44% increase in employment between admission and discharge.

Notes: In order to distribute the data by the final level of care in treatment episodes the analysis was restricted to cases in which the disenrollment coincided with the discharge - substance use information is collected at discharge and not at dis-enrollment from each level of care. Discharges from detoxification levels of care and short-term residential levels of care (III.7) are excluded.

Table 5
Arrested in the 30 Days Preceding Admission to and Discharge from BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

Discharges	Arrested Prior to Admission		Arrested Prior to Discharge		Percent Change
	#	%	#	%	%
8,821	605	6.9	377	4.3	-37.7

$\chi^2(1) = 79.2$, $p < 0.0001$

Table 5 shows the percentage of FY 2011 discharges arrested in the 30 days prior to admission and discharge. Overall there was a 38% decrease in those arrested prior to admission and those arrested prior to discharge.

Notes: In order to distribute the data by the final level of care in treatment episodes the analysis was restricted to cases in which the disenrollment coincided with the discharge - substance use information is collected at discharge and not at dis-enrollment from each level of care. Discharges from detoxification levels of care are excluded.

Figure 22
Percentages Homeless at Admission to and Discharge from BSAS-Funded Alcohol and Drug-Abuse-Treatment Programs
FY 2011

N = 8,788

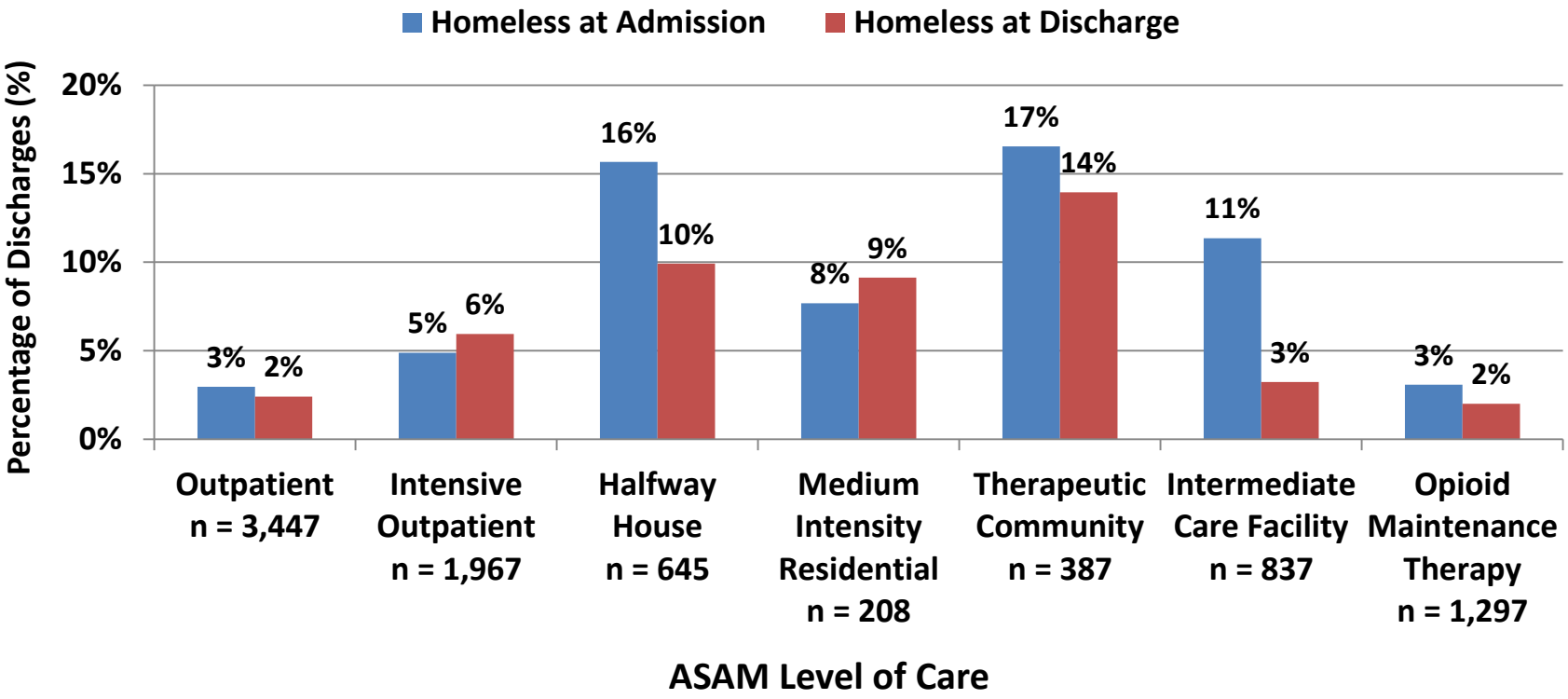


Figure 22 compares the percentages of discharged patients who were homeless at admission with those who were homeless at discharge. Decreases in homelessness were observed for all levels of care except Intensive Outpatient and Medium Intensity Residential. The most substantial decrease in the percentage of homelessness from admission to discharge was observed for Intermediate Care Facilities. Halfway Houses and Therapeutic Communities had the highest percentages of homelessness at admission.

Notes: In order to distribute the data by the final level of care in treatment episodes the analysis was restricted to cases in which the disenrollment coincided with the discharge - substance use information is collected at discharge and not at dis-enrollment from each level of care. Discharges from detoxification levels of care are excluded.