ORANGE COUNTY HEALTH CARE AGENCY

BEHAVIORAL HEALTH SERVICES AND HEALTH POLICY-RESEARCH & PLANNING

Substance Abuse Treatment: Client Demographics and Treatment Outcomes

2011 - 2013

based on California Outcomes Measurement System (CalOMS)





Substance Abuse Treatment: Client Demographics and Treatment Outcomes

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Orange County Residents in Treatment: 2011 – 2013

Behavioral Health Services (BHS) administers alcohol and other drug (AOD) prevention, treatment, and recovery services in Orange County. BHS works in partnership with Department of Health Care Services (DHCS) to reduce alcoholism and drug addiction in the County. This report is a follow-up to an alcohol and drug treatment outcomes report created in 2009 based on data from 2006-2008.

The following data come from California Outcomes Measurement System – Treatment (CalOMS-Tx) for Orange County, which collects client demographics and outcome data. Outcome data are collected from clients by treatment providers and cover the following areas: alcohol/drug use, criminal involvement, employment/education, family/social, mental health, and physical health. Clients are asked the same questions at admission and upon discharge from the treatment program.

Admission Data

From January 2011 through December 2013, there were 17,190 admissions to outpatient, detoxification, and residential BHS treatment programs. This included a total of 11,405 unduplicated clients.

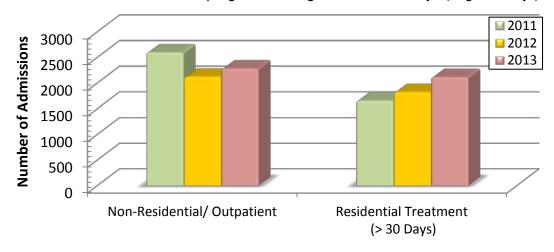
Findings in this report focus on the 12,586 admissions for clients who were treated at non-residential/outpatient programs or residential treatment facilities (with a stay of 31 days or longer). On average, this included 4,195 admissions per year (some clients may have more than one admission).

⁽¹⁾ This program was formally known as Alcohol and Drug Abuse Services (ADAS) during the time of the current study period that ended in December 2013.

SETTING AND REFERRAL SOURCE

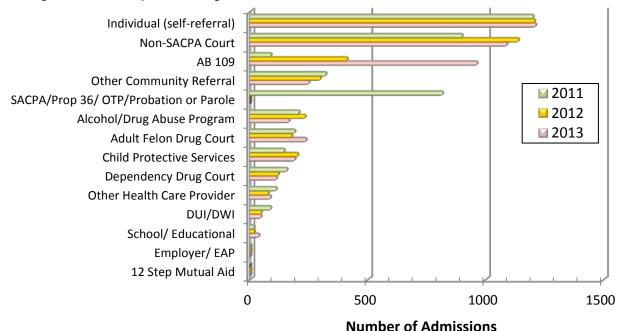
Type of Service

Over half of admissions were to outpatient treatment programs (56%; avg=2,333), while 44% of admissions were to residential programs lasting more than 30 days (avg=1,863/yr).



Referral Source

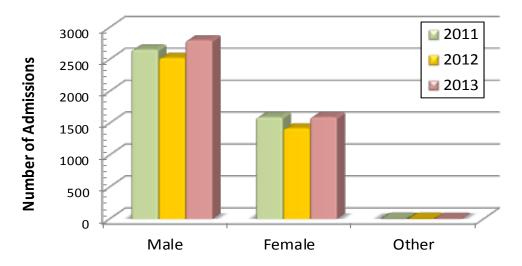
Self-referrals were the most common source of referral to treatment, accounting for 29% of all admissions (avg=1,207/yr). The second most common referral source was non-SACPA criminal justice referrals (avg=1,043/yr). The SACPA (Substance Abuse and Crime Prevention Act) program, a program diverting non-violent drug offenders to treatment instead of incarceration, made 817 referrals in 2011. The ending of State funding for the SACPA program resulted in no referrals for 2012 or 2013. Instead, referrals from AB109 grew dramatically between 2011 and 2013, expanding from 89 referrals in 2011 to 963 referrals in 2013 (avg=488/yr). AB109, a mandate that keeps non-serious, non-sex and non-violent offenders in local jails rather than sending them to state prisons, began in October 2011.



SOCIODEMOGRAPHIC CHARACTERISTICS

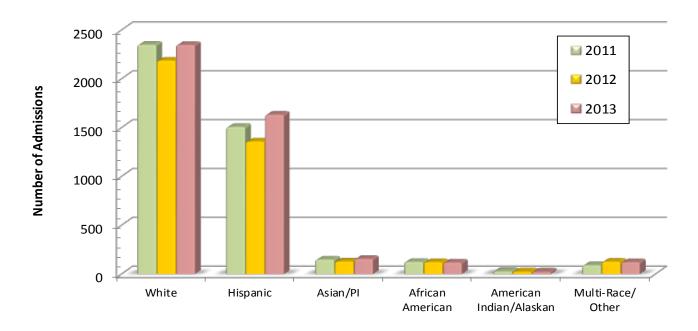
Gender

Over the three year period, male clients accounted for 63% of all admissions (avg=2,657/yr) and female clients accounted for 37% (avg=1,536/yr). Only 0.1% (avg=2/yr) admissions involved clients who were 'other' genders (e.g., transgender).



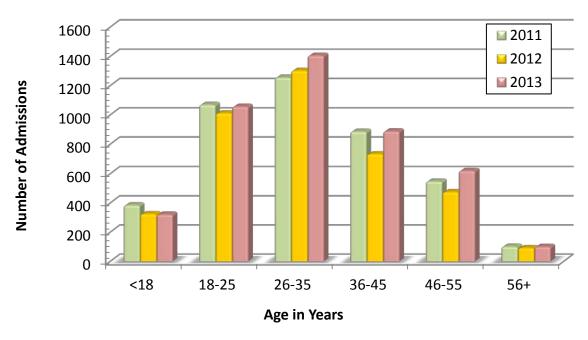
Race/Ethnicity

Over half of all admissions (55%; avg=2,294/yr) involved non-Hispanic Whites, followed by 36% Hispanic (avg=1,499/yr). Asian/Pacific Islanders, African American/Blacks, and Multi-race/other races each accounted for about 3% of admissions (avg=144/yr, avg=121/yr, and avg=112/yr respectively). American Indian/Alaskan Native races accounted for 1% of all admissions (avg=25/yr).



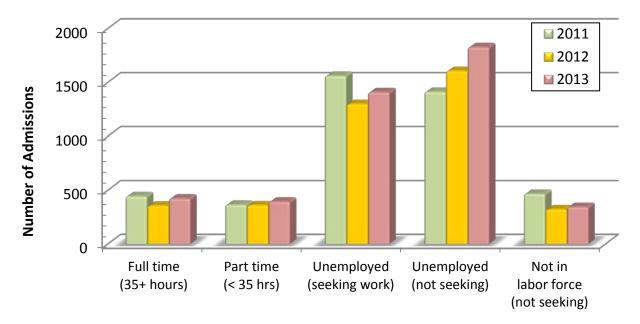
Age

The majority of admissions (76%; avg=3,205/yr) were for adults aged 18 to 45 years. Teens (<18 years) accounted for 8% (avg=344/yr) and adults 46 and older accounted for 15% of all admissions (avg=646/yr).



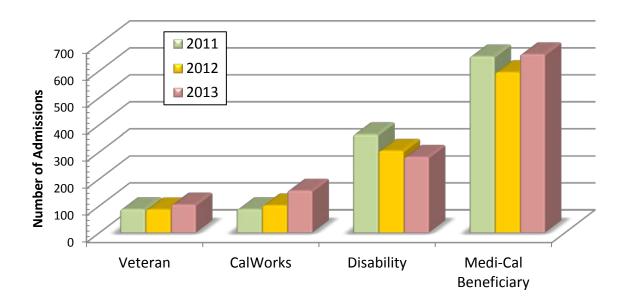
Employment Status

The vast majority of admissions were made to clients who were unemployed (38% unemployed and not seeking work, avg=1,614/yr; and 34% unemployed but seeking work, avg=1,422/yr). Only one-fifth of admissions were to clients who were employed full or part-time (19%; avg=781/yr), while 9% of admissions involved clients who were not in the workforce and not seeking work (e.g., retired, permanent disability; avg=378/yr).



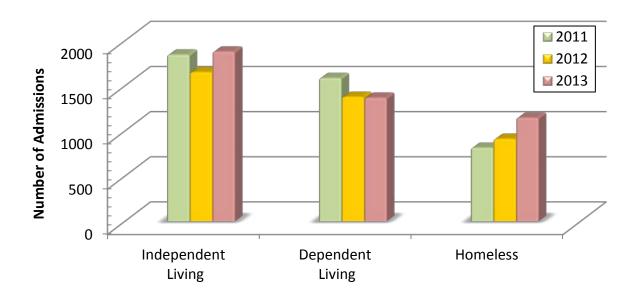
Client Characteristics

A small proportion of admissions involved clients who were Medi-Cal beneficiaries (15%; avg=636/yr), who had a visual, speech, hearing, mental, developmental, or other disability (8%; avg=316/yr), and/or were receiving CalWORKS (3%; avg=115/yr). Nearly 100 admissions per year were clients who were U.S. veterans (2%; avg=92/yr).



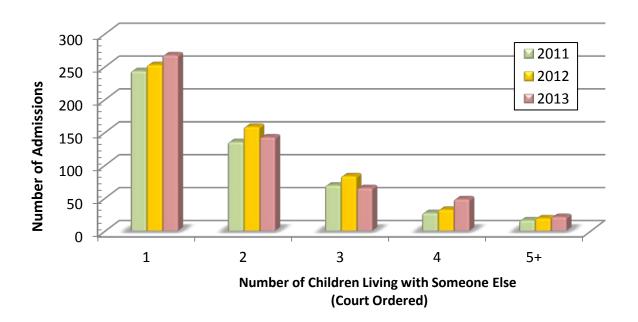
Housing Status

Nearly one-quarter of admissions (23%) were for homeless clients (avg=958/yr). In contrast, 43% were living independently upon admission (avg=1,793/yr) and 34% of admissions were for clients in dependent living situations (avg=1,445/yr).



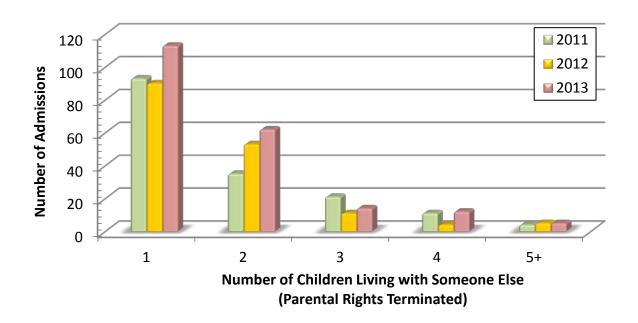
Custody of Minor Children

Parents who had their children removed from their home because of a child protection court order accounted for 525 admissions per year (12%). This corresponds to an average of 818 children per year in protective custody.



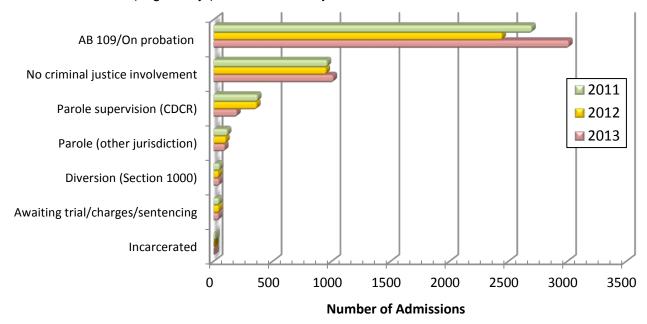
Parental Rights Terminated

On average, 177 admissions per year (4%) were for parents who had their parental rights terminated. This equates to an average of 272 children per year being permanently separated from their parents.



Criminal Justice Involvement

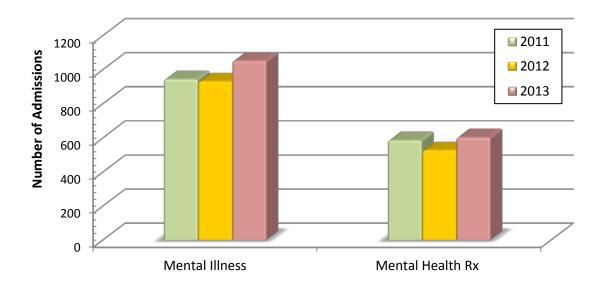
The vast majority of admissions involved clients who had some criminal justice involvement in the past 30 days (77%; avg=3,220/yr), with 65% being AB109 clients or on probation. In contrast, 23% of admissions (avg=976/yr) had no criminal justice involvement.



HEALTH STATUS

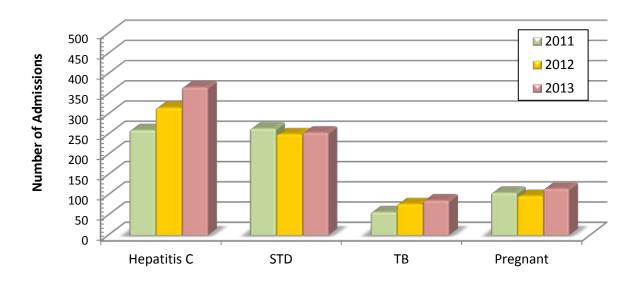
Mental Health

Nearly one-quarter of admissions were for clients with a mental illness diagnosis (23%; 976/yr) and 14% of admissions (avg=573/yr) involved clients who took prescription medication in the previous month for a mental health issue.



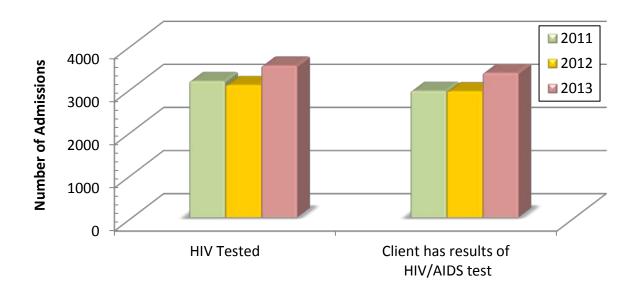
Physical Health

A small, but notable, proportion of admissions were for clients with Hepatitis C (7%; avg=314/yr), a sexually transmitted disease (STD, 6%; avg=256), and/or tuberculosis (TB, 2%; avg=73/yr). Moreover, 7% of all admissions of female clients involved women who were either pregnant at admission, or became pregnant during treatment (avg=106/yr).



HIV Testing Status

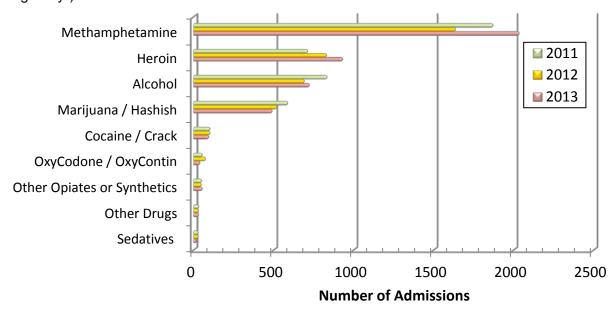
More than three-quarters (77%) of admissions were for clients who had been tested for HIV (avg=3,251/yr), with 94% receiving their HIV test results (avg=3,070/yr).



TYPES OF DRUGS

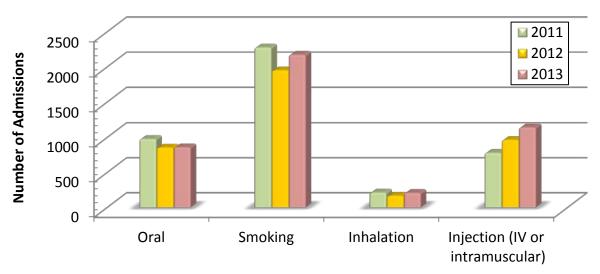
Primary Drug of Abuse

The primary drug of choice in nearly half of admissions was methamphetamine (44%; avg=1,845/yr). Heroin (20%; avg=822/yr), alcohol (18%; avg=747/yr), and marijuana (13%; avg=531/yr) were also common drugs of choice at admission. Other drugs of choice included cocaine (2%; avg=97/yr), OxyCodone/OxyContin (1%; avg=53/yr), other opiates (1%; avg=48/yr), and sedatives (e.g., benzodiazepine, barbiturates, and other tranquilizers and sedatives; 1%; avg=23/yr).



Primary Drug of Abuse - Route of Administration

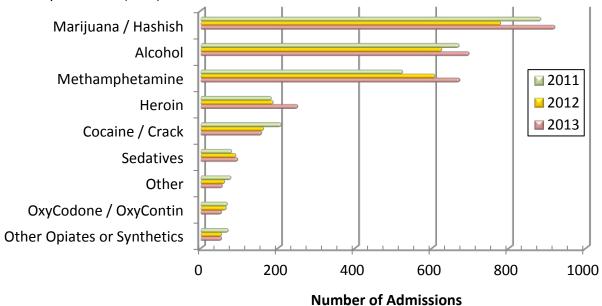
The most common route of administration of the primary drug of choice was smoking (for 51% of all admissions).



Smoking was the preferred route for 98% of marijuana users, 74% of methamphetamine users, 59% of cocaine/crack users, and one-fifth of heroin (21%) and OxyContin users (20%). Heroin was most often injected (76% of users), while cocaine/crack was inhaled by 34% of clients.

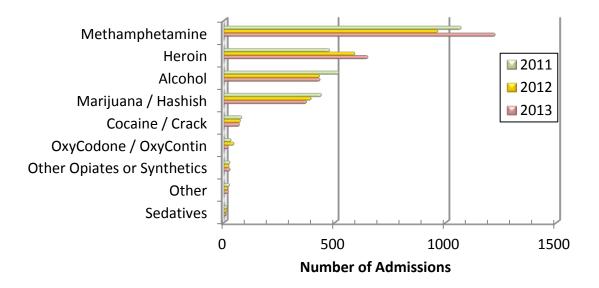
Secondary Drug of Abuse

In one-third (34%) of admissions, there was no secondary drug of choice. However, marijuana was the secondary drug of choice for 20% of admissions, followed by alcohol (16%) and methamphetamine (14%).

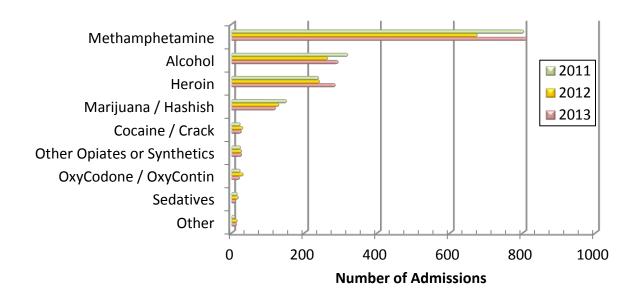


Sex Differences in Primary Drug of Abuse

Men: Methamphetamine was the predominant drug of choice in two out of every five admissions among men (41%; avg=1,082/yr), followed by heroin (21%; avg=569/yr), and alcohol (17%; avg=457/yr). About 15% of male admissions were for marijuana/hashish, 3% for cocaine/crack, about 1% each for OxyCodone/OxyContin and other opiates, and less than 1% each for abuse of other drugs and sedatives.

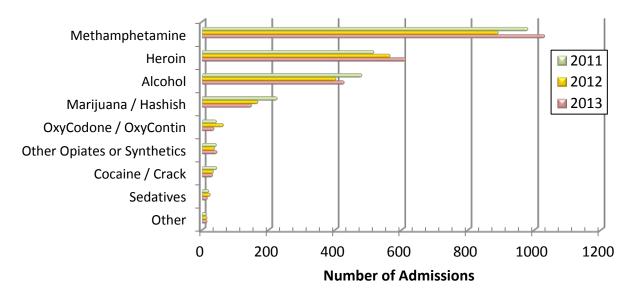


Women: Methamphetamine was the primary drug of choice for half of all admissions among women (50%; avg=761/yr), followed by alcohol (19%; avg=290/yr), and heroin (16%; avg=253/yr). About 9% of female admissions were for marijuana/hashish, about 2% each for cocaine/crack, OxyCodone/OxyContin and other opiates, and about 1% each for abuse of sedatives and other drugs.

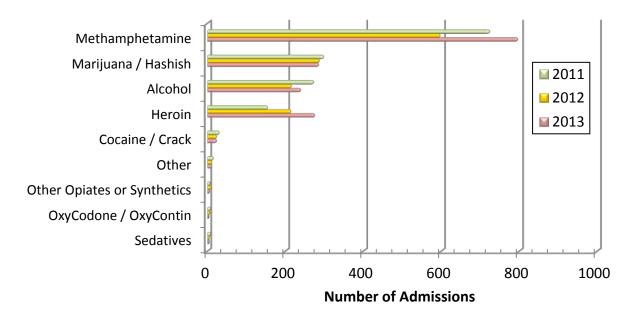


Racial/Ethnic Group Differences in Primary Drug of Abuse

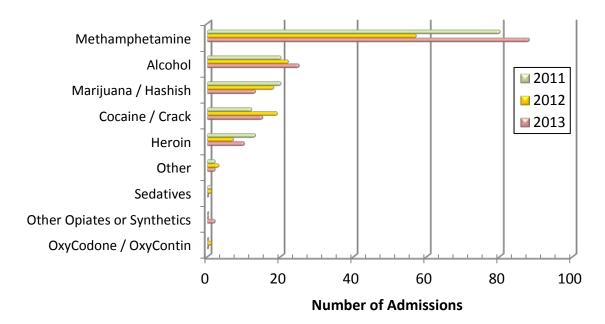
Non-Hispanic Whites: Methamphetamine was the predominant drug of choice for non-Hispanic Whites in treatment (42%; avg=965/yr), followed by heroin (25%; avg=563/yr), and alcohol (19%; avg=435/yr). About 8% of admissions for non-Hispanic White clients were for marijuana/hashish, 2% each for OxyCodone/ OxyContin, other opiates, and cocaine/crack, and 1% each for abuse of sedatives and other drugs.



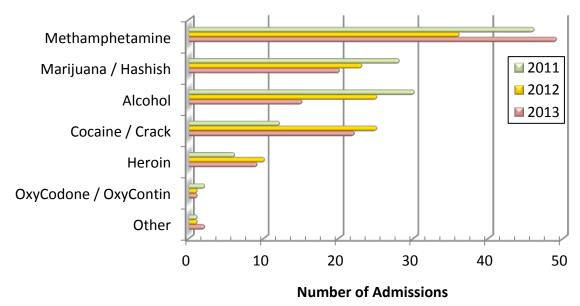
Hispanics: Similarly, methamphetamine was the predominant drug of choice for Hispanics in treatment (47%; avg=705/yr) followed by marijuana (19%; avg=289/yr), alcohol (16%; avg=241/yr), and heroin (14%; avg=213/yr). About 2% of admissions among Hispanic clients were for cocaine/ crack and 1% for abuse of other drugs.



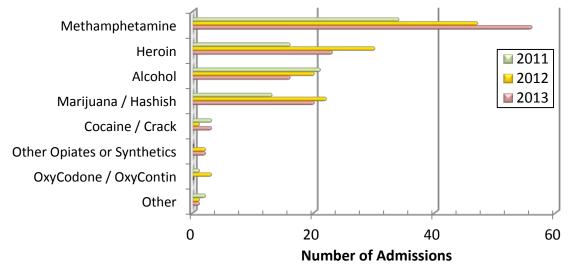
Asian/Pacific Islanders: Methamphetamine was also the predominant drug of choice for Asian/Pacific Islanders in treatment (52%; avg=75/yr), followed by alcohol (16%; avg=22/yr), marijuana (12%; avg=17/yr), and cocaine/crack (11%; avg=15/yr). Heroin was the primary drug for 7%, and 2% of Asian/Pacific Islander admissions were for abuse of other drugs.



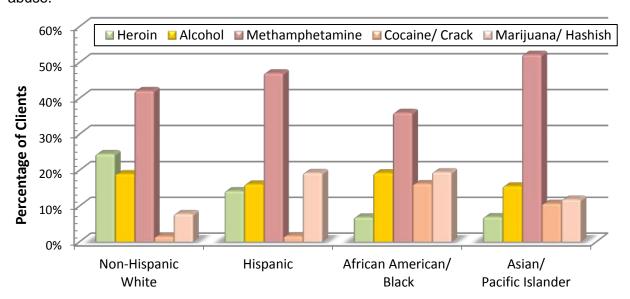
African-Americans/Blacks: Similar to the pattern seen for Hispanic clients, the primary drug of choice for African American/Black clients in treatment was methamphetamine (36%; avg=44/yr), followed by marijuana (20%; avg=24/yr), and alcohol (19%; avg=23/yr). However, 16% of admissions among African American/Black clients were for cocaine/crack abuse (avg=20/yr), while 7% were for heroin use, 1% for OxyCodone/OxyContin abuse, and 1% for other drug abuse.



Multi-Race/Other Races: The profile of primary drugs of choice for multi-race and other racial groups was similar to the profile seen for non-Hispanic White clients. Methamphetamine was the predominant drug of choice for multi-race/others in treatment (41%; avg=18/yr), followed by heroin (20%; avg=23/yr), alcohol (17%; avg=19), and marijuana (16%; avg=29/yr). Cocaine/crack was the primary drug for 2% of admissions, and abuse of other opiates, OxyCodone/OxyContin, and other drugs each accounted for 1% of admissions among multi-race/other ethnic groups.

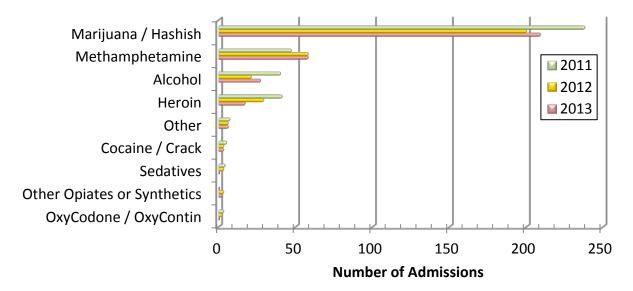


Racial/Ethnic Comparisons: There were a few notable racial/ethnic differences in drugs of choice. First, Non-Hispanic White clients were nearly twice as likely as Hispanics, and more than three times more likely than other ethnic groups to seek treatment for heroin abuse. Second, African American/Black and Asian/Pacific Islander clients were more likely to be in treatment for cocaine/crack abuse than their non-Hispanic White and Hispanic counterparts. Finally, while methamphetamine was the primary drug for most African American/Black clients seeking treatment, they were equally likely to seek treatment for alcohol, marijuana, and cocaine/crack abuse.

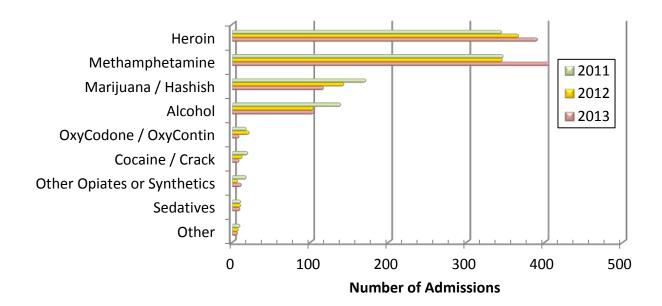


Age Group Differences in Primary Drug of Abuse

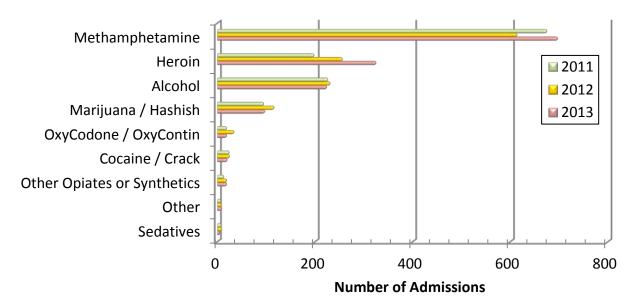
Teens (<18 yrs): The vast majority of admissions among teenagers were for abuse of marijuana (63%; avg=216/yr). Methamphetamine was the second most common drug of choice for teens (16%; avg=54/yr), followed by alcohol (8%; avg=29/yr), and heroin (8%; avg=29/yr).



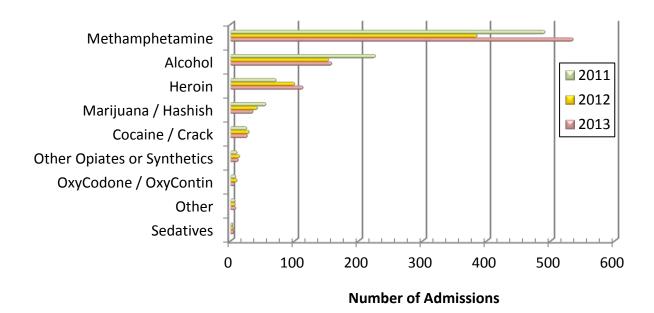
Young Adults (18 to 25 years): Beginning in the early adult years, the drugs of choice shifted from marijuana to heroin and methamphetamine. The primary drugs of choice for young adults (18 to 25 years old) were heroin (35%; avg=367/yr) or methamphetamine (35%; avg=365/yr). Another 14% of admissions in this age group were for marijuana (avg=143/yr), and 11% were for alcohol abuse (avg=115/yr).



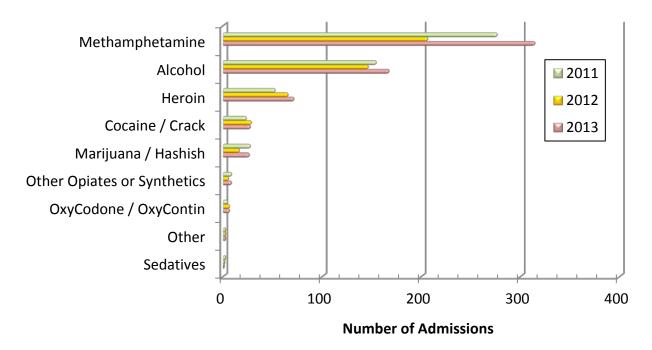
Adults (26 to 35 years): Heroin became less visible as a drug of choice for 26-35 year olds in treatment, while methamphetamine took a prominent place as the drug of choice for this age group (with 50% of admissions for clients in this age group using methamphetamine as their primary drug of choice; avg=661/yr). Heroin was the second most common drug (20%; avg=259/yr), and alcohol was third at 17% (avg=226/yr). Eight percent (8%) of admissions within this age group (avg=102/yr) were for marijuana abuse.



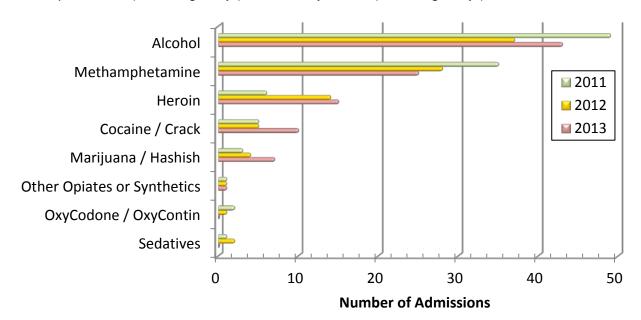
Adults (36 to 45): Methamphetamine was also the primary drug of choice for adults aged 36 to 45 years (56%; avg=469/yr) who were in treatment, followed by alcohol (21%; avg=178/yr), and heroin (11%; avg=94/yr).



Adults (46 to 55 years): Similar to the primary drug profile for adults aged 36-45, nearly half of all admissions for clients aged 46 to 55 years old were for methamphetamine use (48%; avg=265/yr), followed by alcohol (28%; avg=156/yr), and heroin (11%; avg=63/yr).



Adults (56+ years): While methamphetamine was the most popular drug of choice for clients aged 26-55, alcohol was the primary drug involved in most admissions among adults aged 56 years and older (44%; avg=43/yr). The second most common drug of choice for this age group was methamphetamine (30%; avg=29/yr), followed by heroin (12%; avg=12/yr).



Geographic Distribution of BHS clients

A geographic analysis was conducted based on BHS clients' ZIP code of residence. Residential ZIP code was available for 9,112 admissions. Cases where ZIP codes were not available include admissions involving clients who had post office boxes only or a non-Orange County ZIP code (5% combined), or cases where clients were homeless (23% of admissions). These cases were not included in the geographic analysis.

Most of the ZIP codes with a high volume of admissions were in the central, western, and northern regions of the county. The largest proportion of clients (33% of all admissions) lived in ZIP codes in Santa Ana (18%) and Anaheim (15%). Other cities in these (central/northern/western) regions with a significant number of admissions included Huntington Beach (7%), Garden Grove and Orange (6% each), Fullerton and Costa Mesa (5% each). Among the south county cities, parts of Lake Forest, Laguna Niguel, Mission Viejo and San Clemente together had a considerable number of admissions. Together, residents from these four cities accounted for 9% of all admissions.

Admissions by City of Residence

Admissions by City	Number of	1
City of residence	admissions	Percent
Santa Ana	1,637	18.0%
Anaheim	1,410	15.5%
Huntington Beach	604	6.6%
Garden Grove	586	6.4%
Orange	585	6.4%
Fullerton	458	5.0%
Costa Mesa	442	4.9%
Westminster	290	3.2%
Buena Park	237	2.6%
Mission Viejo	237	2.6%
Irvine	204	2.2%
Tustin	197	2.2%
La Habra	189	2.1%
Lake Forest	179	2.0%
San Clemente	174	1.9%
Laguna Niguel	147	1.6%
Placentia	135	1.5%
Stanton	133	1.5%
Yorba Linda	126	1.4%
Dana Point	123	1.3%
Fountain Valley	121	1.3%
Brea	117	1.3%
Cypress	106	1.2%
Newport Beach	105	1.2%
San Juan Capistrano	96	1.1%
Aliso Viejo	82	0.9%
Rancho Santa Margarita	72	0.8%
Laguna Hills	59	0.6%
Midway City	49	0.5%
Trabuco Canyon	43	0.5%
Laguna Beach	38	0.4%
Los Alamitos	34	0.4%
Seal Beach	31	0.3%
Ladera Ranch	20	0.2%
La Palma	19	0.2%
Laguna Woods	14	0.2%
Villa Park	8	0.1%
Silverado	5	0.1%
Total	9,112	100.0%

Treatment Outcomes

The following section presents data on how treatment impacted clients in terms of several life domains (e.g., drug use, criminal justice involvement, employment) at admission compared to their status at discharge. Matched records for clients at admission were compared to their status at discharge for a given episode of treatment (an episode of treatment for individual clients were identified and matched using unique identifiers). Outcome measures are presented for the number of teenagers and adults reporting an event at admission (A) and at discharge (D) for an episode of treatment. The percent change was calculated: [(D-A)/A] x 100%.

Teenagers

For teenagers (<18 years), approximately 500 matched Admission/Discharge pairs were extracted from the 2011-2013 CalOMS data. The table below shows that teens in BHS treatment showed improvement in almost all life domains. For example, the number of teens not using their primary drug at all at discharge increased 117% compared to when they started treatment. Fewer teens were arrested or had been in jail at discharge compared to intake (67% and 69% fewer, respectively). Fewer teens had emergency room visits (63% reduction), or experienced health problems (55% reduction) at discharge compared to intake. More than twice as many teens were employed and/or in job training by discharge compared to intake. Teens also reported fewer serious family conflicts (24% reduction) and greater use of social support recovery networks after receiving treatment (87% improvement). The only domains that did not improve were the number of teens living with an AOD user (up 73%) and the number of teens in school (down 5%).

Change in Client Functioning: Teenagers (<18 years)

Life Domain	Outcome Measures	Admission	Discharge	Difference (D-A)	Percent Change
Primary Drug Use	No Use	173	375	202	117%
	Used 1-20 days	217	91	-126	-58%
	Used 21 days or more	100	24	-76	-76%
Criminal Involvement	Arrested	66	22	-44	-67%
	In Jail	77	24	-53	-69%
Employment & Education	Employed	11	25	14	127%
	In School	481	458	-23	-5%
	In Job training	7	17	10	143%
Family & Social	Had serious family conflict	46	35	-11	-24%
	Lives with AOD user	55	95	40	73%*
	Used social support services	168	314	146	87%
	Homeless	0	1	1	N/A
Medical & Health	Emergency room visit	24	9	-15	-63%
	Overnight hospital stay	5	3	-2	N/A
	Experienced health problems	33	15	-18	-55%
Mental Health	Psychiatric ER visit	3	2	-1	N/A
	24-hour hospital stay	0	2	2	N/A

N/A = too few cases to calculate change.

Color coding indicates improvement (green), no/little change (yellow) or decline (pink)

^{*} Data at discharge were not available for 21 teenagers who lived with an AOD user at admission. Thus the percentage might be closer to 52%, assuming all still lived with an AOD user at discharge.

Adults

For adults (≥18 years), over 8,200 matched Admission/Discharge pairs were extracted from the 2011-2013 CalOMS data. The table below shows that adults in BHS treatment showed improvement in all life domains. For example, the number of adults not using their primary drug *at all* at discharge increased 53% compared to when they started treatment. Legal status also improved, with 65% fewer adults with arrests prior to discharge, 74% fewer having been in jail, and 78% fewer spending time in prison prior to discharge. More adults were employed by discharge (107% more), and fewer had ER visits (32% reduction), overnight hospital stays (42% reduction), psychiatric ER visits (23% reduction), or 24-hour psychiatric hospital stays (52% reduction). Social situations also improved, with 52% fewer adults reporting serious family conflicts by discharge, 59% fewer living with an AOD user, and 32% more using social support recovery services. Finally, 29% fewer adults were homeless at discharge compared to intake.

Change in Client Functioning: Adults (>18 years)

Life Domain	Outcome Measure	Admission	Discharge	Difference (D-A)	Percent Change
Primary Drug Use	No Use	3,646	5,595	1,949	53%
	Used 1-20 days	2,999	1,682	-1,317	-44%
	Used 21 days or more	883	251	-632	-72%
Criminal Involvement	Arrested	1,271	444	-827	-65%
	In Jail	2,310	608	-1,702	-74%
	In Prison	182	40	-142	-78%
Employment & Education	Employed	1,364	2,826	1,462	107%
	In School	318	346	28	9%
	In Job training	85	89	4	5%
Family & Social	Had serious family conflict	904	434	-470	-52%
	Lives with AOD user	1,122	460	-662	-59%
	Used social support services	4,954	6,522	1,568	32%
	Homeless	2,363	1,680	-683	-29%
Medical & Health	Emergency room visit	750	509	-241	-32%
	Overnight hospital stay	245	143	-102	-42%
	Experienced health problems	1,140	722	-418	-37%
Mental Health	Psychiatric ER visit	138	106	-32	-23%
	24-hour hospital stay	88	42	-46	-52%

N/A = too few cases to calculate change.

Color coding indicates improvement (green), no/little change (yellow) or decline (pink)

SUMMARY

Client Demographics: Approximately half of all clients admitted to County BHS programs for substance abuse treatment between 2011 and 2013 were treated at outpatient facilities, while 44% were treated in residential programs lasting 31 days or longer.

Most clients were men (63%), non-Hispanic white (55%) or Hispanic (36%), and aged 18-45 years (76%). At admission, nearly three-quarters were unemployed (72%), and 77% had some criminal justice involvement. Nearly one-quarter (23%) were homeless at admission, and 23% had a mental illness diagnosis in addition to their substance abuse disorder.

During the three year time period, there was a notable shift in referral source, with the end of the SACPA program funding and the onset of the AB109 program.

The predominant drugs of choice among clients admitted for treatment were methamphetamine (44%), heroin (20%), alcohol (18%) and marijuana (13%). Only 2% of all clients were treated for cocaine/crack addiction, and 1% each were treated for addiction to OxyCodone/OxyContin, other opiates, or sedatives.

There were racial/ethnic differences in primary drugs of choice. While methamphetamine was the primary drug of choice for all racial/ethnic groups, the next most common drug of choice varied by race/ethnicity. Specifically, heroin was the second most common drug of choice for non-Hispanic White clients. In fact, Non-Hispanic White clients were nearly twice as likely as Hispanics, and more than three times as likely as other ethnic groups to seek treatment for heroin abuse. In contrast, marijuana was the second most common drug of choice for Hispanic and African American/Black clients, while alcohol was second most common for Asian/Pacific Islander clients.

Moreover, African American/Black clients were eight times more likely, and Asian/Pacific Islander clients were five and a half times more likely to be in treatment for cocaine/crack abuse than non-Hispanic White and Hispanic clients.

The majority of clients who were admitted to treatment for OxyCodone/OxyContin, other opiates, and sedative addictions were non-Hispanic White. Specifically, 5% of all non-Hispanic White clients were treated primarily for abuse of OxyCodone/OxyContin, other opiates, and sedatives. In contrast, only 1% of Hispanic, 1% of Asian/Pacific Islander, 1% of African American/Black, and 2% of other races were treated for abuse of these drugs.

There were also age differences in primary drugs of choice. The primary drug of choice for teenagers was marijuana (63%). The profiles for adults looked very different than for teenagers, and the profiles varied across the adult lifespan. While methamphetamine was one of the two primary drugs of choice across adulthood, heroin was also a prevalent problem in early adulthood (18-35) while alcohol was a bigger problem among those aged 36+ years.

Treatment Outcomes: Analysis comparing client status at intake and discharge revealed that treatment resulted in decreases in drug use, and improvements in all life domains for both teens and adults. These improvements included reductions in criminal involvement, and improvements in employment, family functioning and social engagement, housing, and physical and mental health. The one potential area of concern was that a greater proportion of teenagers reported living with an AOD user at discharge than at admission, suggesting they were continuing to be exposed to substance abuse situations.