THE IOWA
CONSORTIUM
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

State of Iowa
Outcomes Monitoring System

EVALUATION TREND REPORT

November 2011

Iowa Consortium for Substance Abuse Research and Evaluation
University of Iowa, Iowa City, Iowa 52242-5000

With Funds Provided By:
Iowa Department of Public Health, Division of Behavioral Health

Citation of references related to this report is appreciated. Suggested citation:

Hedden, S., Guard, M., & Arndt, S. (2011). State of Iowa Outcomes Monitoring System: Evaluation Trend Report. (Iowa Department of Public Health contract #5881NA01). Iowa City, IA: Iowa Consortium for Substance Abuse Research and Evaluation.
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State of Iowa
Outcomes Monitoring System

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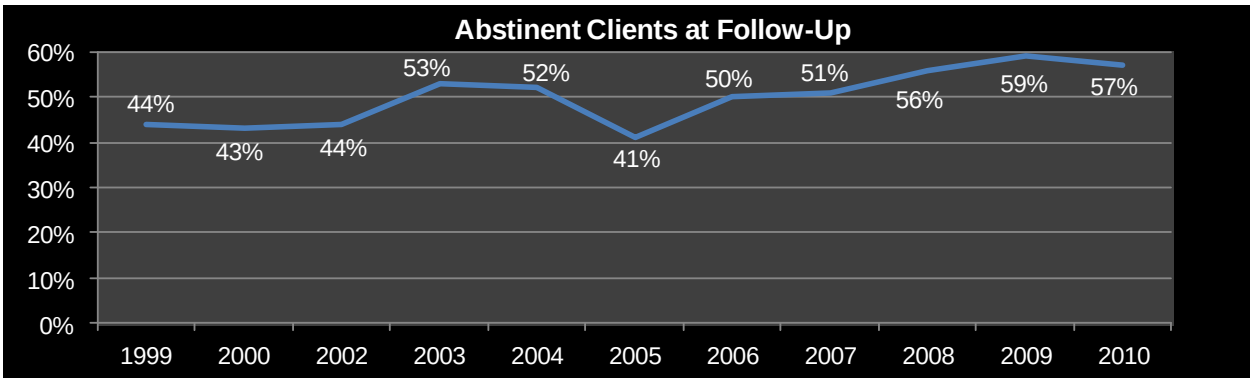
EXECUTIVE SUMMARY

The Iowa Department of Public Health (IDPH) is under contract with the Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) for the Outcomes Monitoring System project (OMS). The OMS project provides an independent evaluation regarding substance abuse treatment outcomes in Iowa. The Consortium conducts follow-up interviews with randomly selected clients from IDPH-funded substance abuse treatment agencies. The interviews occur approximately six months after discharge from the substance abuse treatment program and provide follow-up data to determine outcomes as well as analyze changes between admission and follow-up. The Consortium has provided ongoing client sampling, recruitment, tracking, data collection, data analysis, and reporting since January 1999.
This 2011 OMS trend report examines outcomes for clients admitted to substance abuse treatment between July 1, 1999 and December 31, 2010. Data from the 2001 sample year are omitted due to the weighting mechanism that was applied to the data, resulting in numbers with limited usefulness for reporting trends. Data for the most recent years, particularly 2010, have potential to change as more follow-up interviews are completed.

Abstinence

Abstinence at follow-up has ranged from 41% to 59% over all years and has shown a significant positive trend from 1999 to 2010 (Kendall's Tau-b Test, $p < 0.02$).

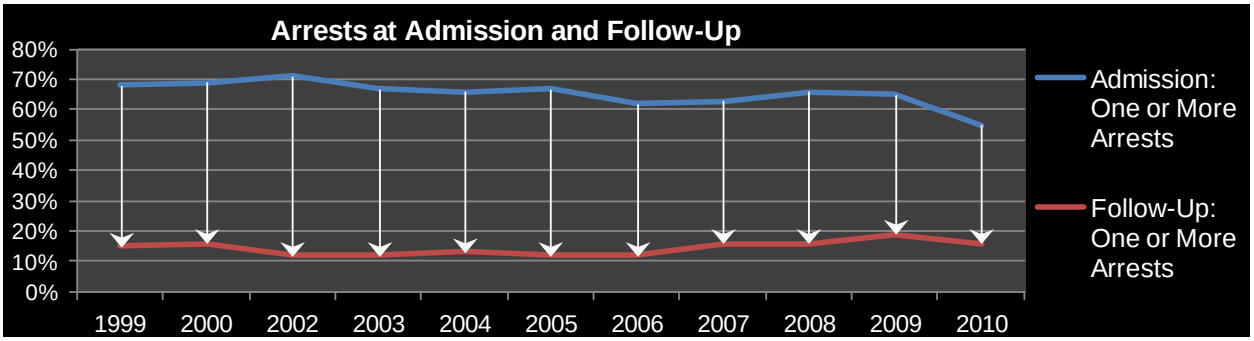


Primary Substance

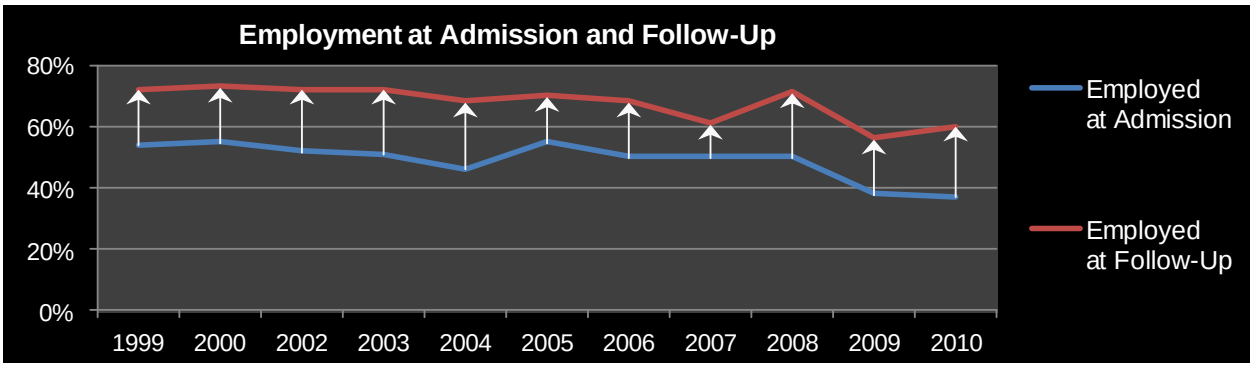
The two most often reported primary substances at admission and follow-up through all years were alcohol and marijuana.

Arrests

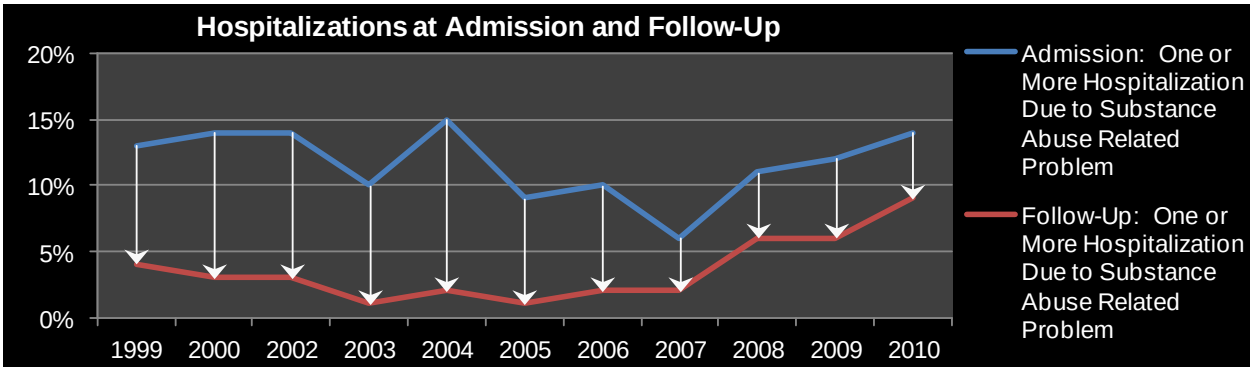
The majority of clients reported arrests at admission each year, ranging from 55% in 2010 to 71% in 2002. However, over all years fewer than 15% of clients report arrests six months following treatment discharge.



Employment
Compared to admission, more clients are employed six months following discharge from treatment. Although employment has been declining recently, consistent with the increase in the unemployment rate in Iowa, over all years, an average of 68% of clients reported employment at follow-up compared to an average of 49% indicating employment at admission.



Hospitalizations Due to Substance Abuse Related Problems:
Hospitalizations after treatment due to substance abuse related problems are reduced to one third (4%) of the pre-treatment hospitalization rate (12%).



Length of Stay
In 1999 through 2009, there were significant differences between length of stay and abstinence at follow-up (Jonckheere-Terpstra Tests, $p < 0.05$). Results for clients admitted in 2010 may change as more discharge information is received and more interviews are conducted with these clients.

Discharge Status
In most years, there were significant associations between discharge status and abstinence, no arrests, and employment at follow-up: clients who successfully completed substance abuse treatment were more likely to be abstinent, not been arrested, and be employed six months following treatment discharge than clients who did not successfully complete treatment (Cochran-Mantel-Haenszel Tests, $p < 0.05$).

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BACKGROUND

The Iowa Department of Public Health (IDPH) is under contract with the Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) for the Outcomes Monitoring System project (OMS). The OMS project provides an independent evaluation regarding substance abuse treatment outcomes in Iowa. The Consortium conducts follow-up interviews with randomly selected clients from IDPH-funded substance abuse treatment agencies. The interviews occur approximately six months after discharge from the substance abuse treatment program and provide follow-up data to determine outcomes as well as analyze changes between admission and follow-up. The Consortium has provided ongoing client sampling, recruitment, tracking, data collection, data analysis, and reporting since January 1999.

The percentages presented in this report reflect a weighted sample to allow a more accurate representation of the State of Iowa's admissions as a whole. When comparing changes between project years, it is important to note that from 1999 through 2003, the sample size was approximately 5% of the overall treatment population; beginning in 2004, the sample size grew to approximately 8%. Additionally, when comparing changes between project years, conservative analyses were performed and it was determined that a change of 8 percentage points or greater for the weighted OMS data should be considered a significant change. Due to rounding, percentages may not add up to exactly 100%.

This trend report examines outcomes for clients admitted to substance abuse treatment between July 1, 1999 and December 31, 2010, however data from the 2001 sample year are omitted due to the weighting mechanism that was applied to the data resulting in numbers with limited usefulness for reporting trends. Data are reported by year of treatment admission, rather than year sampled or date the follow-up interview was completed. Data in trend reports are updated yearly and may differ from previous annual and trend reports. Factors contributing to differences include the collection of additional follow-up data (particularly for recent years), weighting adjustments, and changes and updates to IDPH data collection systems. Additional information about the OMS project including an overview of sampling procedures, client participation data, recruitment, tracking, and follow-up information can be found in annual reports for each respective year.

DESCRIPTION OF CLIENTS

Tables 1 through 4 on the following page present demographic information for clients in the OMS sample by year of admission. In any given year, the sample is weighted to approximate the overall Iowa population of publicly funded clients admitted into substance abuse treatment.

Table 1. Age at Admission

The median age of clients in the OMS sample has ranged from 27 to 30 years of age over all years. The percent of adolescent clients in the OMS sample has ranged from 3% in 2010 to 10% in 2000.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Median Age (years)	27	29	29	27	27	27	29	28	28	29	30
Adult	92%	90%	92%	92%	91%	93%	94%	94%	94%	94%	97%
Adolescent	8%	10%	8%	8%	9%	7%	6%	6%	6%	6%	3%

Table 2. Sex

Over all years, an average of 72% of clients in the OMS sample were male and 28% were female.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	76%	77%	73%	69%	70%	70%	68%	70%	75%	73%	71%
Female	24%	23%	27%	31%	30%	30%	32%	30%	25%	27%	29%

Table 3. Race

Table 3 presents race reported at admission for clients in the OMS sample. The “other race” category includes clients who report Alaskan Native, Asian, Hawaiian or Pacific Islander, or anyone who indicates they are multi-racial.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Caucasian/White	91%	90%	92%	94%	93%	91%	92%	87%	89%	88%	90%
African American/ Black	7%	8%	6%	5%	5%	5%	5%	10%	8%	9%	8%
American Indian	1%	1%	1%	1%	1%	2%	0%	1%	0%	1%	1%
Other Race	1%	1%	1%	0%	1%	2%	2%	2%	1%	1%	1%

Table 4. Ethnicity

Table 4 shows ethnicity reported at admission for clients in the OMS sample.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Not Hispanic or Latino	96%	96%	95%	94%	95%	95%	94%	96%	95%	95%	95%
Puerto Rican	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Mexican	2%	2%	2%	3%	3%	3%	4%	2%	3%	3%	3%
Cuban	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other Hispanic or Latino	1%	1%	2%	2%	1%	1%	1%	1%	1%	2%	2%

RECRUITMENT AND FOLLOW-UP

Table 5. Recruitment

The recruitment rate is calculated using a denominator consisting of those individuals who were recruited, those who declined, and non-recruited clients whom staff was unable to locate. Since 2002, recruitment has been consistently over 70% and averages 72% over all years. Clients declining participation in the OMS project averages 11% over all years.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Recruited Clients	55%	65%	73%	75%	75%	76%	71%	75%	76%	78%	74%

Table 6. Follow-Up

The number of follow-up interviews completed with clients range from 381 to 946 over all years. The follow-up rate is based on recruited clients and consists of all clients who completed the follow-up interview, recruited clients who could not be located when their interview was due, and those who decided not to take part in the interview after initially agreeing to do so. The follow-up rate is over 80% each year and averages 85% over all years.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Follow-Up Interviews Completed	572	946	423	451	548	647	452	466	500	441	381
Follow-Up Rate	86%	88%	89%	84%	85%	82%	82%	83%	87%	84%	88%

Table 7. Incarceration

The percentage of clients who are incarcerated at the time their follow-up interviews are due averages 8% over all years. Consortium staff do not interview incarcerated clients.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
Incarcerated Clients	5%	7%	10%	11%	12%	7%	8%	8%	8%	6%	9%

CHANGES FROM ADMISSION TO FOLLOW-UP

The figures in this section present admission and follow-up responses from clients who completed the follow-up interview. Admission and follow-up data are client self-reported data. Variables at admission and follow-up are compared only for those clients who had a response at both admission and follow-up. The actual number of clients may vary from question to question because some clients may not have responded to the question or the question may not have been applicable to their situation.

Figure 1. Primary Substance at Admission

During all years, alcohol has been the most commonly used primary substance at admission, followed by marijuana. The percentage of clients reporting alcohol as the primary substance at admission ranges from 44% in 2006 to 58% in 2000. The percentage of clients reporting marijuana as the primary substance ranges from 21% in 2009 to 30% in 2007. Clients reporting methamphetamine ranges from a high of 20% of clients in 2004 and 2005 to a low of 11% in 2007 and 2008; however in 2010, 16% of clients reported methamphetamine as the primary substance at admission. Cocaine ranges from a low of 2% in 2005 to 8% in 2006.

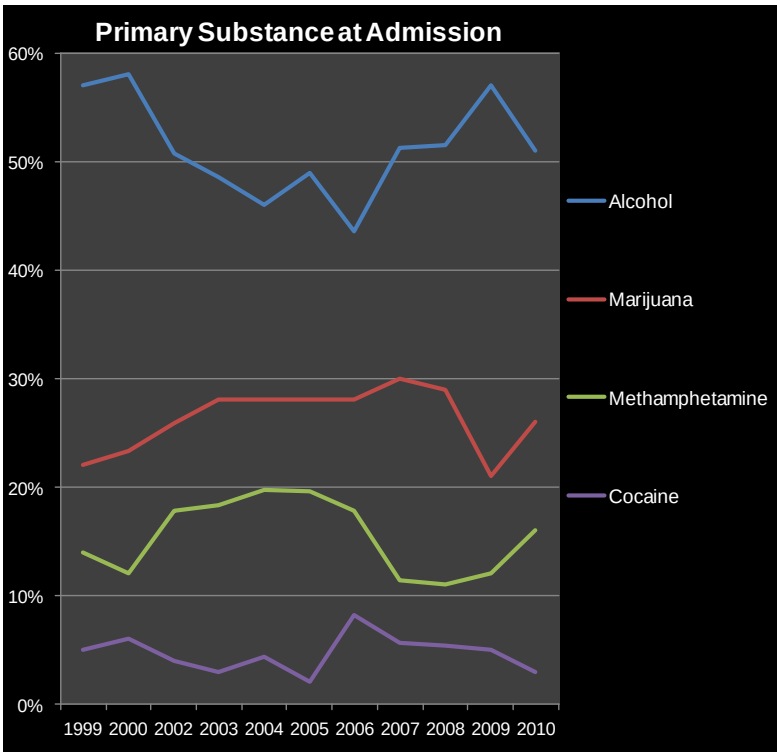


Figure 2. Primary Substance at Follow-Up

For clients reporting substance use at follow-up, alcohol is the most common primary substance reported. In two of the eleven years (2000 and 2005) the percentage of clients reporting alcohol as the primary substance at follow-up (45% and 51% respectively) was higher than the percentage of clients reporting abstinence. In nearly all of the remaining years, clients most often reported abstinence at follow-up, with a high of 59% of clients admitted in 2009 reporting abstinence since their discharge from treatment. In all years, less than 10% of clients reported marijuana as their primary substance at follow-up, fewer than 4% reported methamphetamine, and less than 2% reported cocaine as their primary substance at follow-up.

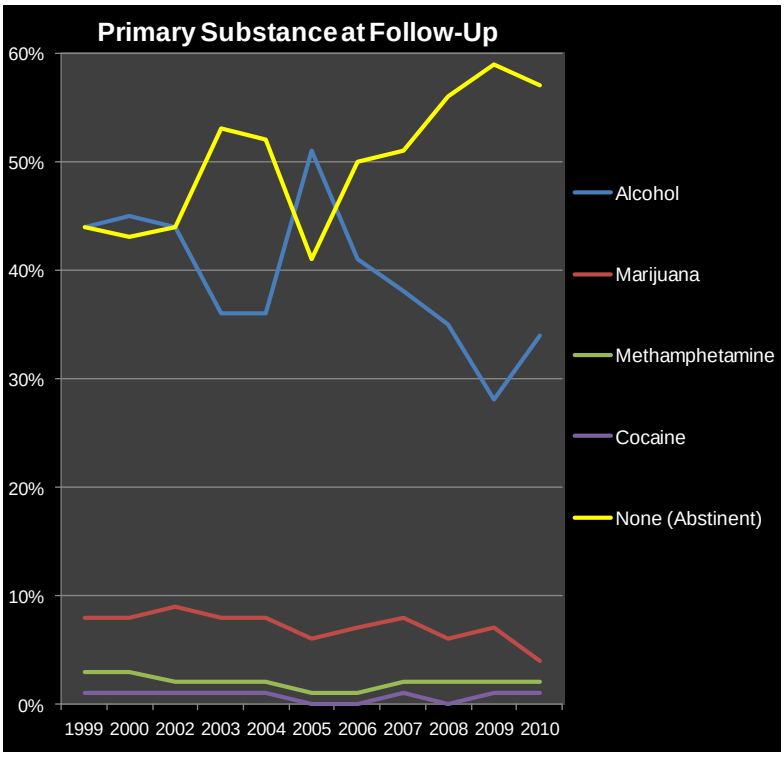


Figure 3. Secondary Substance at Admission

A secondary substance was reported by 57% to 66% of clients at admission during all years. Marijuana was the most commonly used secondary substance, with use at admission ranging from a low of 22% in 2006 to a high of 29% in 2009. This was closely followed by alcohol, which fluctuated from 17% in 2009 to 25% in 2007. Clients reporting methamphetamine and cocaine as secondary substances at admission remained under 10% each year.

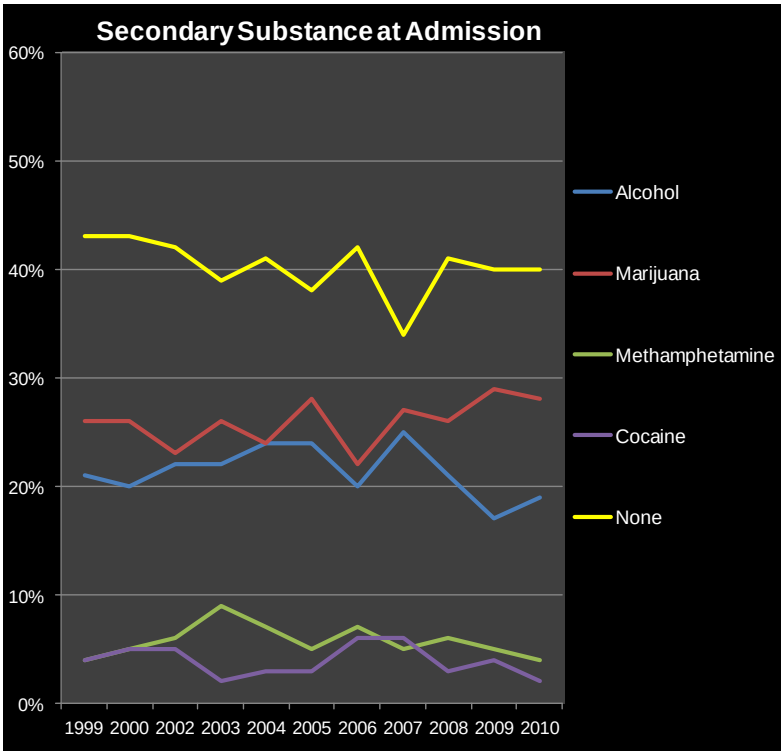
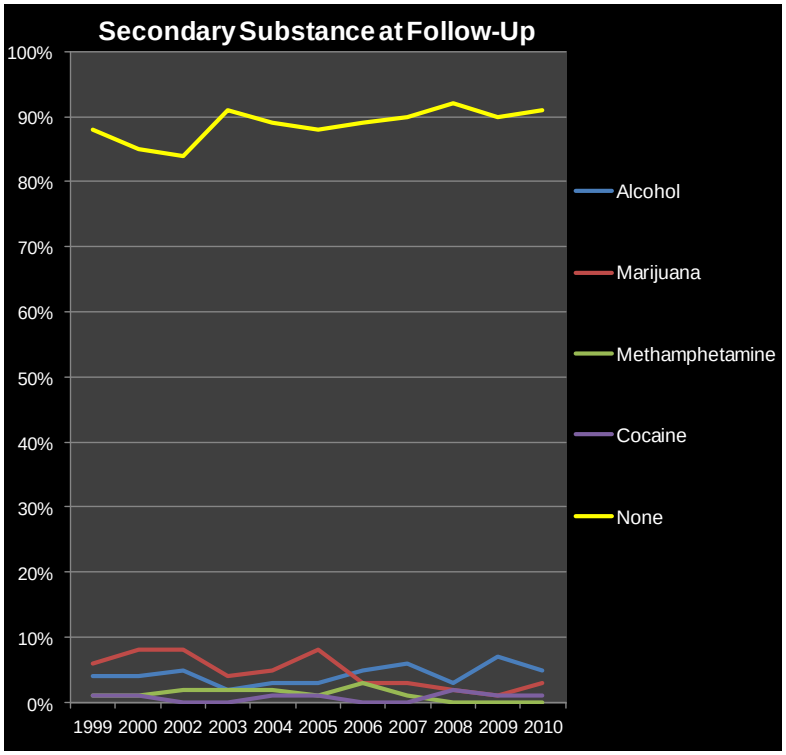


Figure 4. Secondary Substance at Follow-Up

During all years, over 83% of clients did not report use of a secondary substance in the six months after treatment discharge. Clients reporting use of a secondary substance ranged from a high of 16% in 2002 to a low of 8% in 2008. Of clients who indicated use of a secondary substance at follow-up, marijuana was the most commonly reported in 1999 through 2005; however from 2006 to 2010, alcohol was the secondary substance most often indicated by clients. Clients reporting methamphetamine and cocaine as a secondary substance at follow-up remained under 4% each year.



Changes in frequency of use provide additional information regarding client outcomes following treatment. Since a client's primary substance may change from admission to follow-up, a simple comparison of frequency may not be comparable (e.g. having one drink three to six times per week versus smoking methamphetamine three to six times per week). Therefore, Figure 5 presents data for subsets of the total group of clients who completed a follow-up interview each year. Data only include the change in frequency of use from admission to follow-up for individuals who report the same primary substance at both admission and follow-up, and include *only* clients who reported use at follow-up (therefore excluding clients who report abstinence at follow-up). The "Increased Use" category indicates the percentage of clients who indicated using their primary substance with more frequency at follow-up than reported at admission. For example, a client may report using alcohol one to three times in the past month at admission and at follow-up report daily use, representing an increase in their frequency of use. "Maintained Same Use" represents clients reporting the same frequency of use of their primary substance at admission and follow-up. "Decreased Use" presents the percentage of clients who reported using their primary substance with less frequency at follow-up than indicated at admission.

Figure 5. Frequency of Use of Primary Substance: Clients Indicating Use of Same Primary Substance at Both Admission and Follow-Up

In 1999 through 2006, clients who reported use of the same primary substance at admission and follow-up most commonly indicated an increase in use of their primary substance at follow-up compared to admission. However, in more recent years, clients reported using their primary substance less frequently at follow-up compared to admission (2009) and most commonly reported the same use pattern of their primary substance at both admission and follow-up (2010).

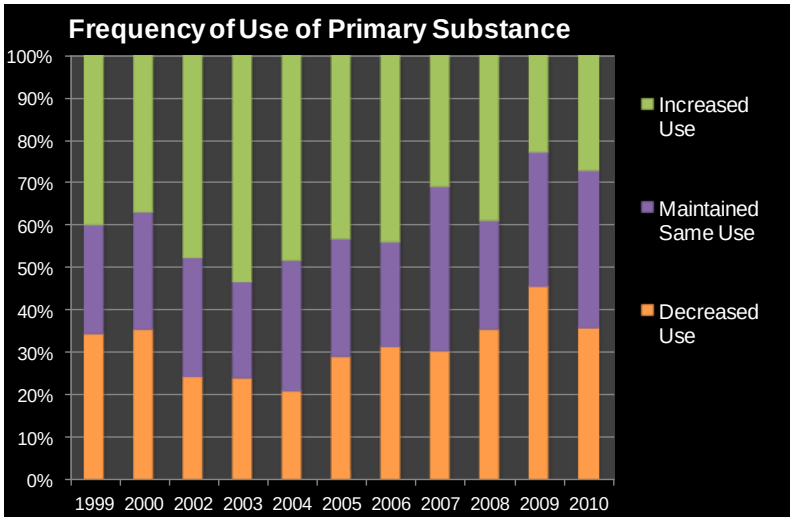


Figure 6. Arrests at Admission and Follow-Up

For the question regarding arrests, the admission response refers to the 12 months prior to admission and the follow-up response refers to the six months following discharge. The majority of clients reported arrests at admission, ranging from 55% of clients in 2010 to 71% in 2002. Fewer than 20% of clients reported arrests at follow-up each year.

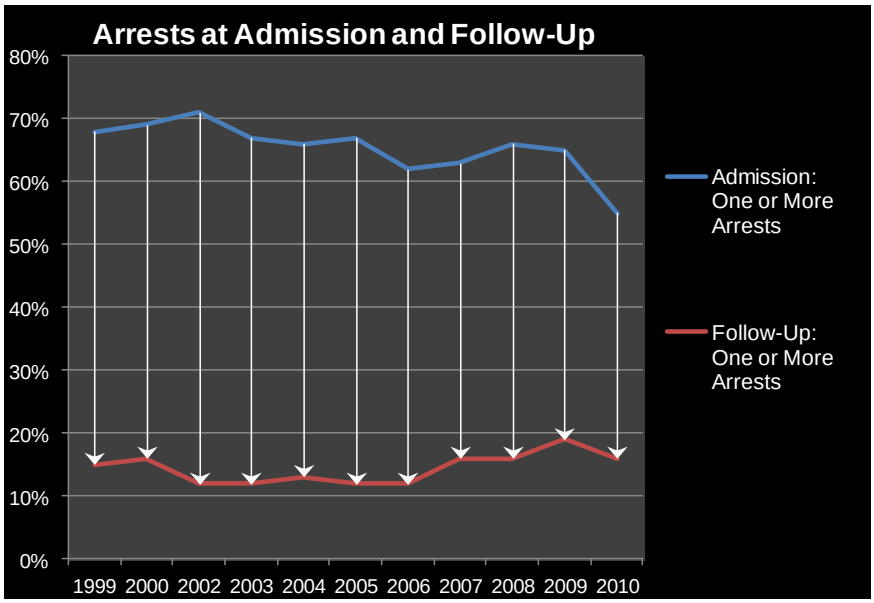


Figure 7. Hospitalizations Due to a Substance Abuse Related Problem at Admission and Follow-Up

Approximately one third fewer clients reported substance abuse related hospitalizations at follow-up compared to admission. The percentage of clients reporting substance abuse related hospitalizations at admission ranged from 6% in 2007 to 15% in 2004. The percentage of clients who indicated in follow-up interviews that they'd been hospitalized for a substance abuse related problem during the six month period from discharge to follow-up ranged from 1% in 2003 and 2005 to 9% in 2010.

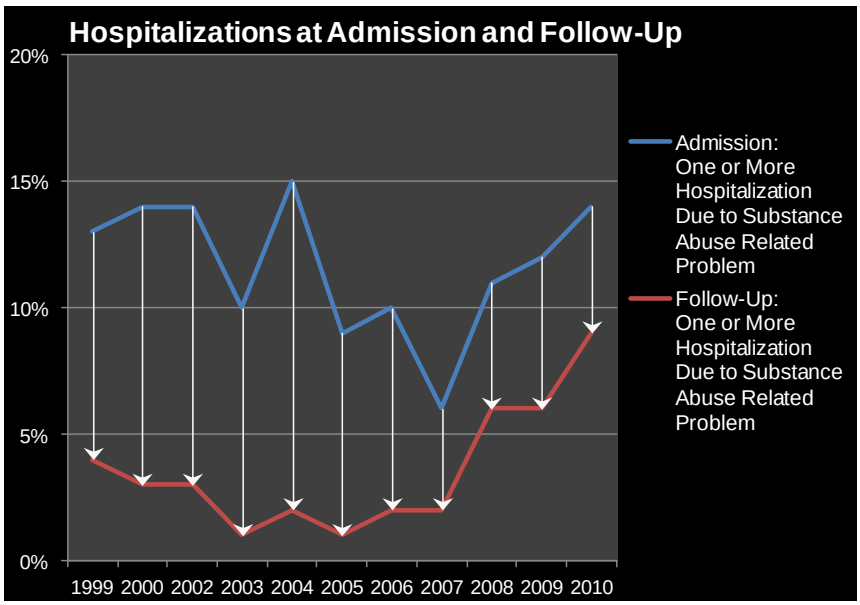


Figure 8. Change in Employment (Full or Part-Time) From Admission to Follow-Up

Compared to admission, more clients are employed full or part-time six months following discharge from treatment in all years. Fewer than 56% of clients reported employment at admission, ranging from 37% recently in 2010 (consistent with the declining employment rate in Iowa) to 55% in 2000 and 2005. Over all years, an average of 68% of clients indicated employment at follow-up.

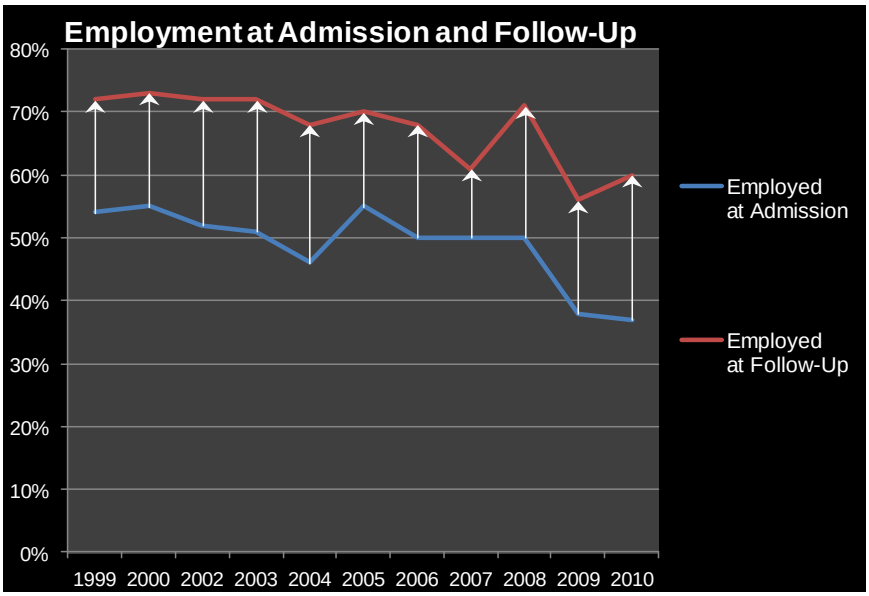


Figure 9. Change in Unemployment from Admission to Follow-Up

Figure 9 includes clients who report they are unemployed and looking for work, as well as clients reporting they are not in the labor force (which could include students, homemakers, disabled, or retired). The percentage of clients reporting they are unemployed at follow-up is lower compared to those who claimed to be unemployed at admission. Although clients indicating they are unemployed at follow-up increased in recent years, this is consistent with the rise in the unemployment rate in Iowa.

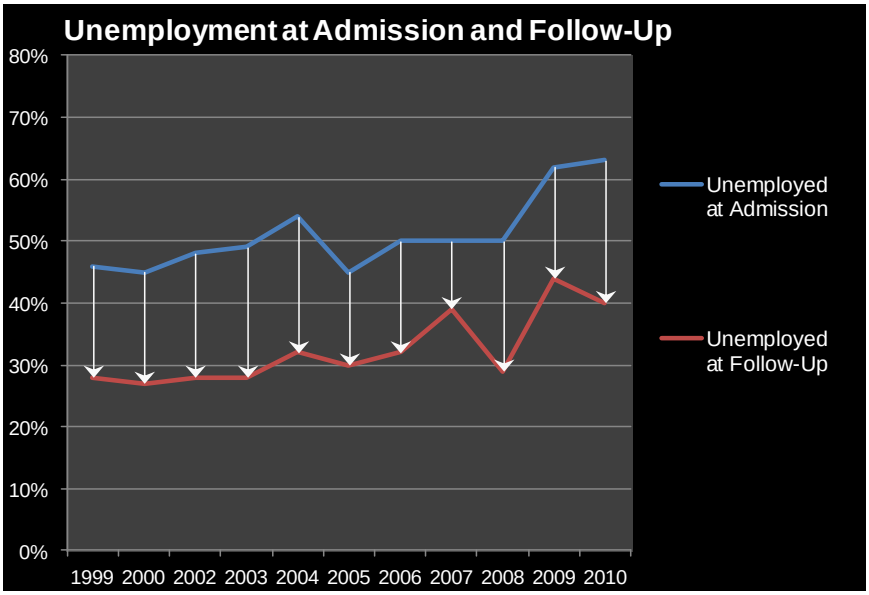


Figure 10. Change in Employment Status from Admission to Follow-Up

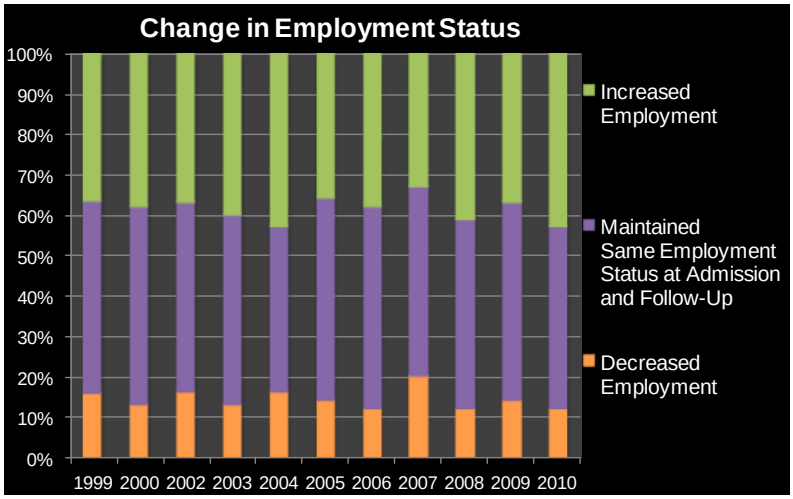
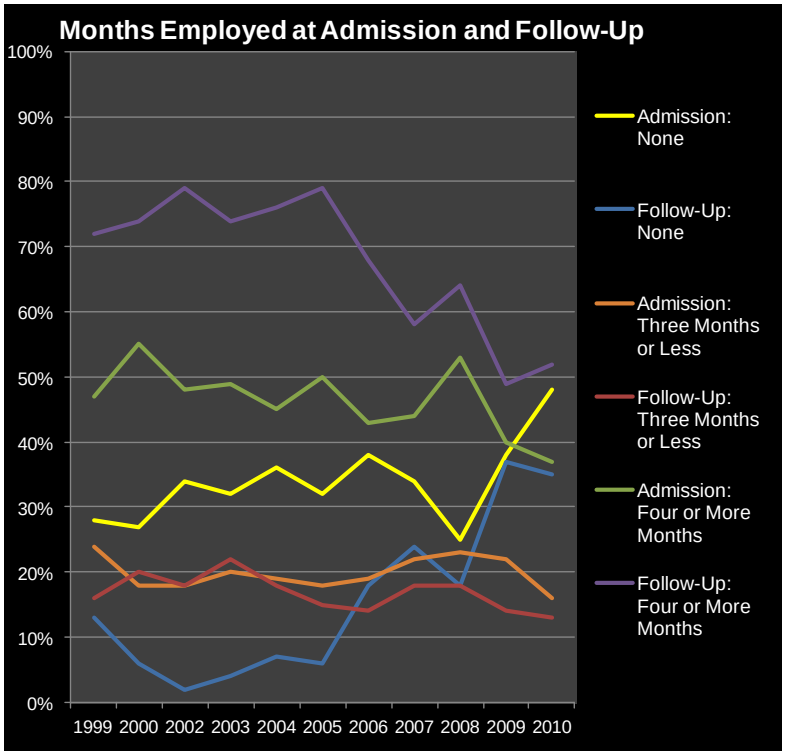


Figure 10 presents the change in employment status from admission to follow-up. Increased employment includes clients who changed from not being in the labor force or were unemployed at admission to having any employment at follow-up, or those who changed from being employed part-time at admission to full-time at follow-up. Decreased employment includes clients who changed from having any employment at admission to being unemployed or not in the labor force at follow-up, or those who changed from being employed full-time at admission to part-time at follow-up. Although the unemployment rate has increased in Iowa in recent years, many clients continue to increase their employment status from admission to six months post-treatment discharge.

Figure 11. Months Employed at Admission and Follow-Up



Over all years, more clients indicate they have been employed four months or more at follow-up compared to admission. An average of 34% of clients indicated they had not been employed in the six months prior to treatment admission over all years, with a high of 48% in 2010. At follow-up an average of 15% reported not being employed since treatment discharge, with recent highs of 37% and 35% in 2009 and 2010 respectively.

Figure 12. Change in Income from Admission to Follow-Up

Figure 12 presents the change in income from admission to follow-up. "Increased Monthly Income" indicates clients have moved from a smaller income category at admission to a larger income category at follow-up. "Decreased Monthly Income" represents clients who have moved from a larger income category at admission to a smaller income category at follow-up. Over all years, nearly half of the clients who completed follow-up interviews increased their income from admission to six months post-treatment discharge, while an average of 15% decreased their income.

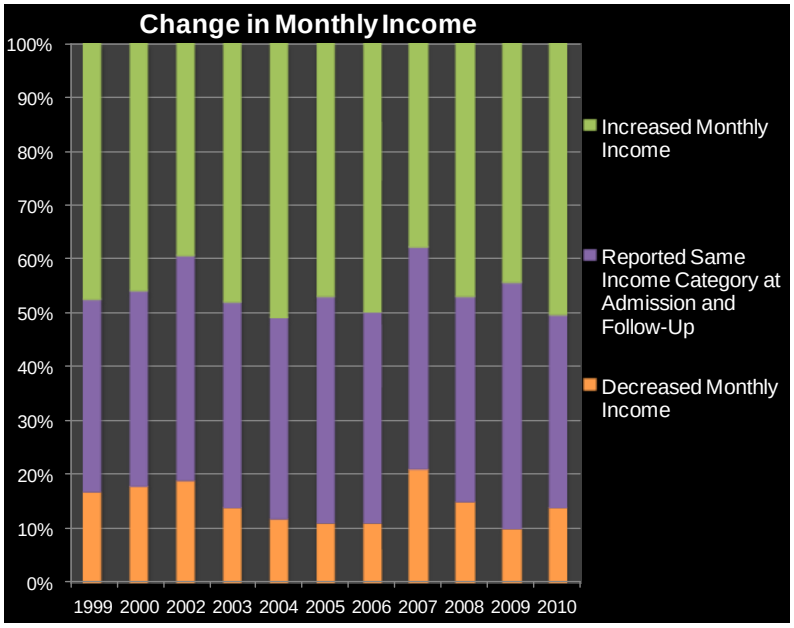


Figure 13. AA, NA, or Similar Meetings Attended at Admission and Follow-Up

During all years, more clients reported attending recovery support meetings in the six months following treatment discharge compared to the six months prior to treatment admission. An average of 21% of clients over all years indicated they had attended at least one Alcoholics Anonymous (AA), Narcotics Anonymous (NA), or similar meeting per month in the six months prior to admission. At follow-up over all years, an average of 45% of clients reported attending meetings during the six months following discharge from treatment. Although there was a decrease in 2005 in clients indicating meeting attendance at follow-up (32%), nearly half or more of the clients indicated attending recovery support meetings in the three most recent years.

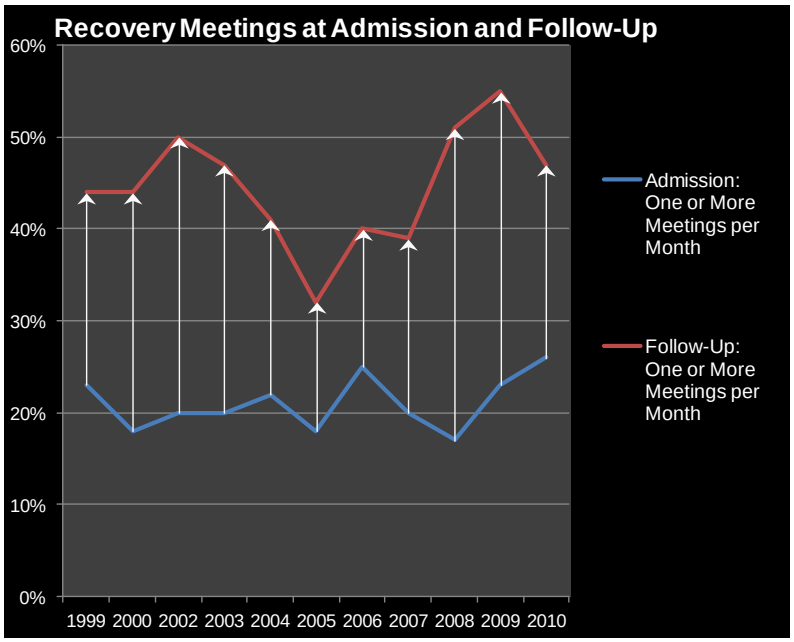


Figure 14. Days of Work or School Missed Due to a Substance Abuse Problem

Fewer clients reported missing days of work due to substance use issues at follow-up compared to admission in all years except 2003 through 2005. The percentage of clients reporting missed days of work or school for substance abuse related problems at admission ranged from 8% in 2010 to 20% in 2000; the range at follow-up was 1% in 2009 and 2010 to a high of 20% in 2004. The variability may be due to differences in employment rates through the years.

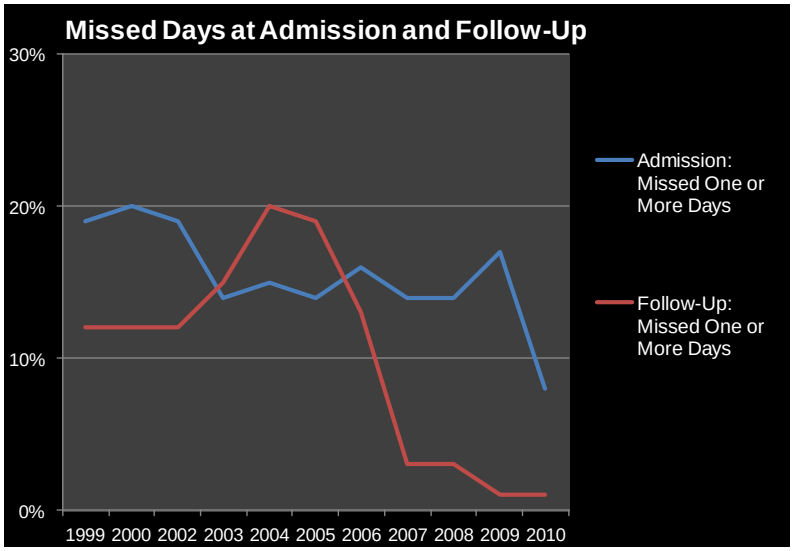


Figure 15. Primary Source of Support at Admission and Follow-Up

Figure 15 presents the three most commonly reported primary source of support categories indicated by clients at admission: none, wages or salary, and family and friends. At admission and follow-up, clients most often reported wages or salary as the primary source of support, indicated by an average of 47% of clients at admission and an average of 60% of clients at follow-up over all years. Consistent with the increase in unemployment in Iowa, in recent years more clients report relying on family and friends, with over 30% of clients at follow-up in 2008 through 2010 reporting their primary source of support was family and/or friends. The percentage of clients reporting no income source at admission ranged from a low of 15% in 1999 to a high of 27% in 2010. Additionally, not shown in Figure 15, clients reporting public assistance as their primary source of support has fluctuated from 1% to 3% at admission over all years and from 1% in 2005 to a high of 7% in 2007 at follow-up.

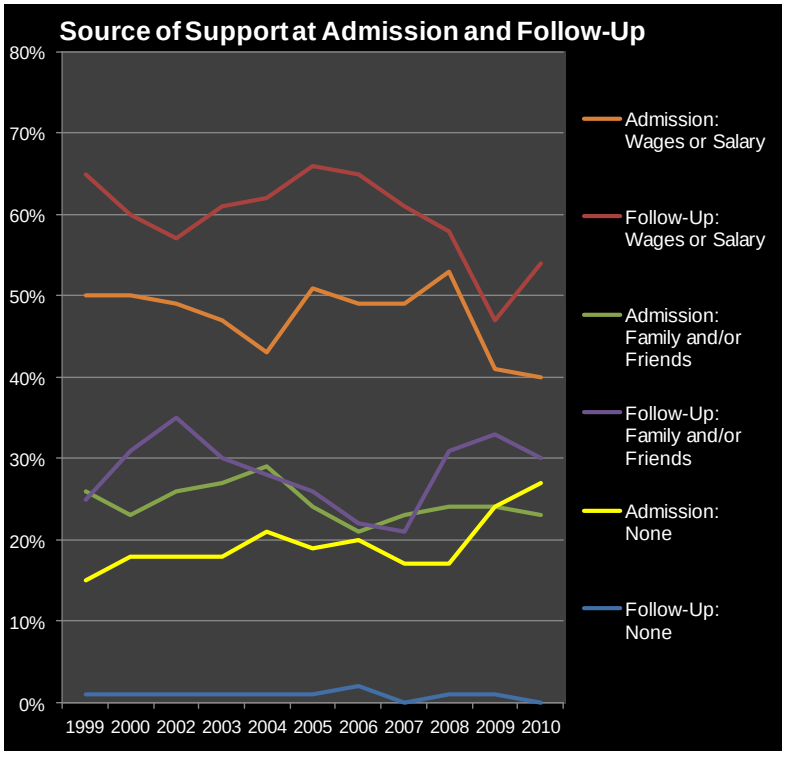


Figure 16. Relationship Status at Admission and Follow-Up

Figure 16 presents the three most common relationship statuses reported by clients at admission: single, married, and divorced. Each year, single was the most common relationship status reported at admission and follow-up. During all years, clients indicating they were married remained between 11% and 18% at admission and between 10% and 18% at follow-up. Clients reporting divorce fluctuated between 11% and 17% at admission; clients indicating divorce at follow-up ranged from 11% to a high of 23% in 2008.

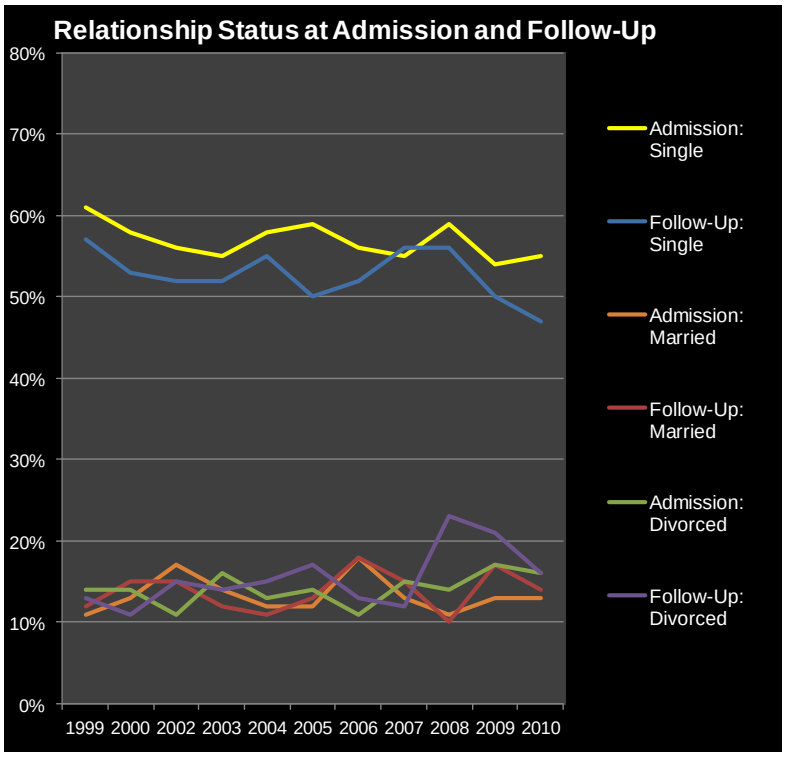
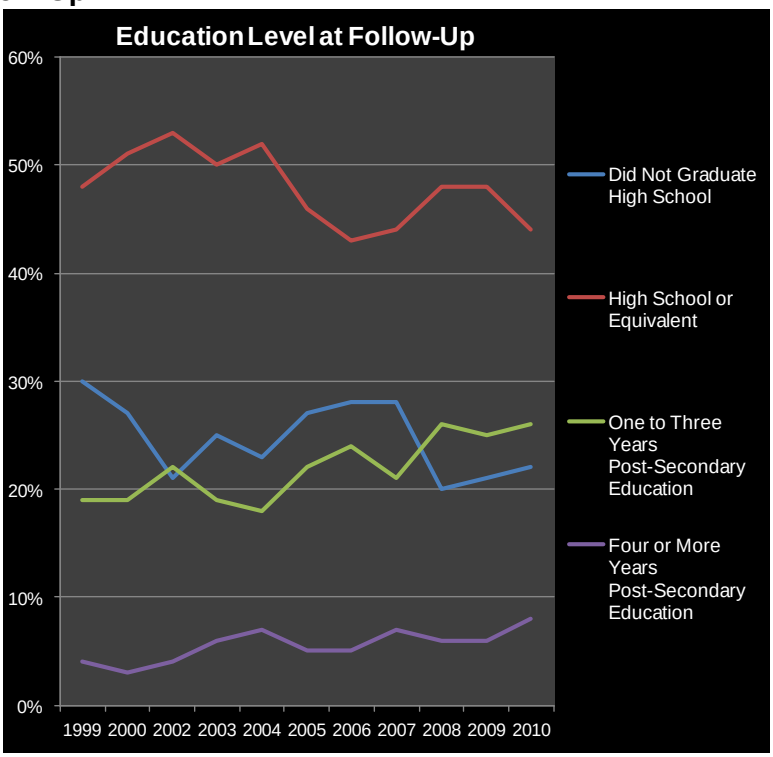


Figure 17. Education Level at Follow-Up

Admission data are not included in Figure 17 since not all admission datasets provide a response category for a General Education Degree (GED). Therefore, admission and follow-up comparisons cannot be made because the GED question is specifically asked at follow-up. At follow-up each year, between 43% and 53% of clients reported a high school or equivalent level of education. Between 20% and 30% of clients indicated they had not graduated from high school and 23% to 34% reported an education level beyond high school.

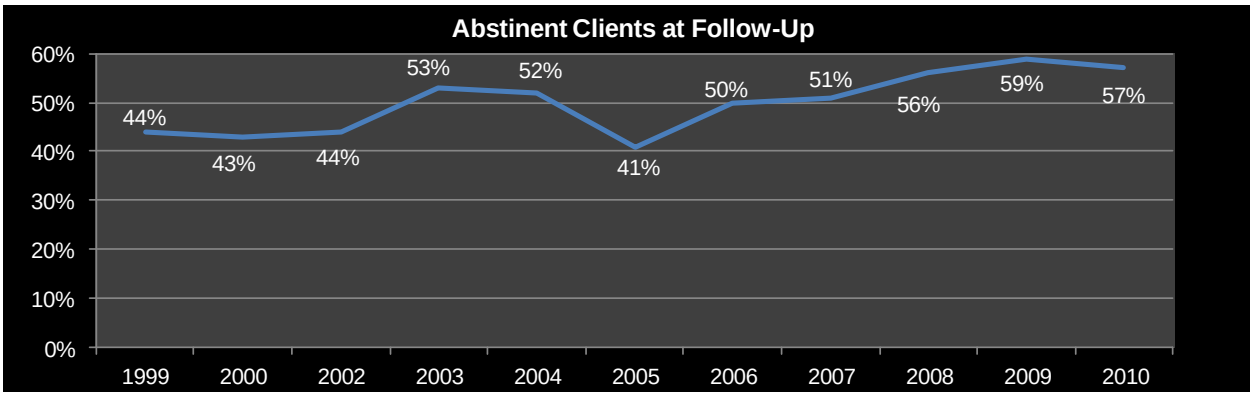


OUTCOMES: ABSTINENCE

Abstinence refers to abstinence from all substances in the previous six months (follow-up period). The follow-up interviews occur approximately six months after the client is discharged from treatment; therefore, the follow-up period refers to the six months between the client's discharge from treatment and the follow-up interview.

Figure 18. Abstinence at Follow-Up

Abstinence has shown a significant positive trend from 1999 to 2010 (Kendall's Tau-b Test, $p < 0.02$).



Figures 19 through 22 on the following pages examine abstinence at follow-up in relation to other variables at admission and follow-up.

Figure 19. Primary Substance at Admission by Abstinence at Follow-Up

The three primary substances that clients reported most often at admission were alcohol, marijuana, and methamphetamine respectively. In Figure 19, the percentages represent the number of abstinent clients out of the number of total clients who indicated that primary substance at admission. There are statistically significant associations between primary substance at admission and abstinence at follow-up in seven of the eleven years: 1999, 2002-2006, and 2010 (Cochran-Mantel-Haenszel Tests, $p < 0.05$). Cocaine is excluded from this figure due to the low numbers of clients with completed interviews that reported cocaine as the primary substance at admission during all years.

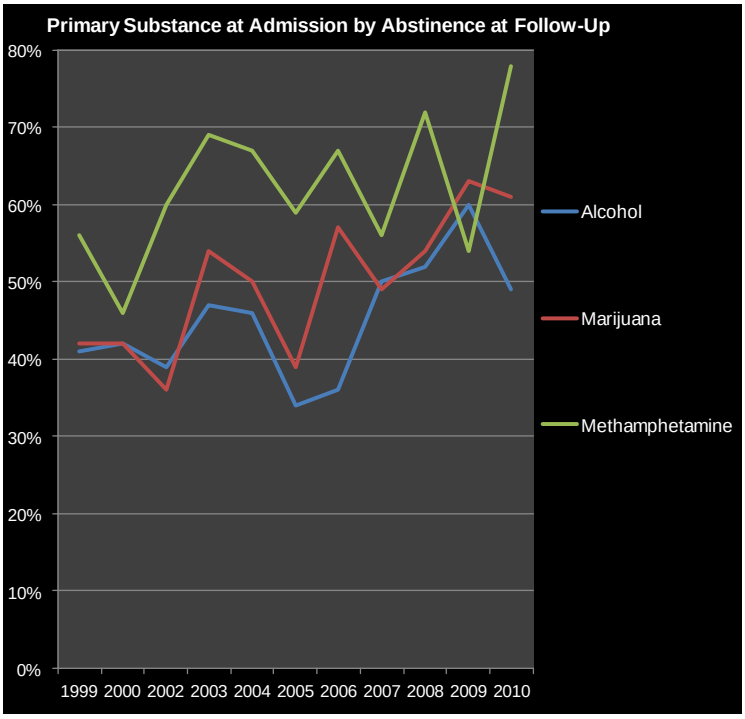


Figure 20. Arrests at Follow-Up by Abstinence at Follow-Up

In Figure 20, the percentages represent abstinent clients at follow-up who indicated they had been arrested since treatment discharge out of the total number of abstinent clients; and non-abstinent clients who reported arrests at follow-up out of the total number of non-abstinent clients. There are statistically significant associations between arrests and abstinence at follow-up in nine of the eleven years: 1999, 2000, and 2004 through 2010 (Cochran-Mantel-Haenszel Tests, $p < 0.05$).

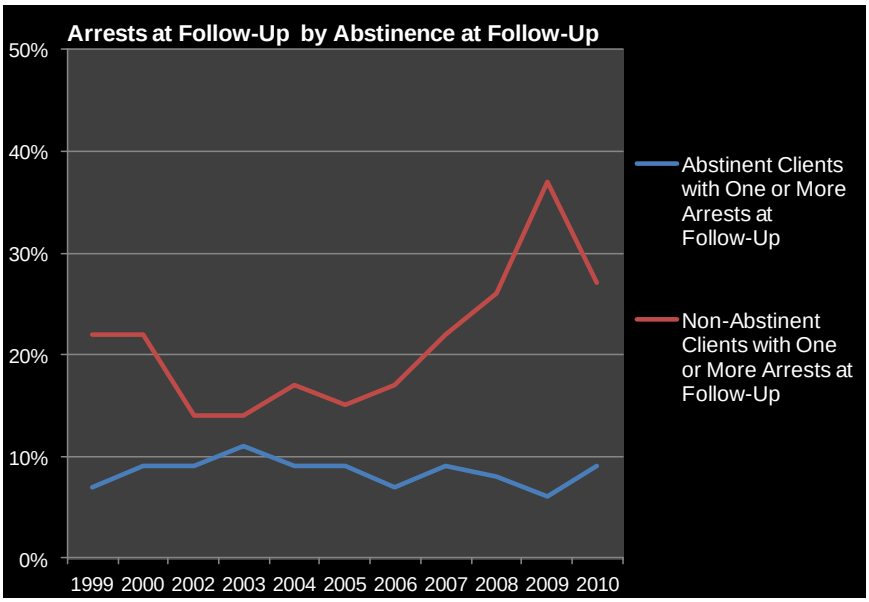


Figure 21. Employment at Follow-Up by Abstinence at Follow-Up

In Figure 21, the percentages represent abstinent clients reporting employment (full or part-time) out of the total number of abstinent clients and non-abstinent clients reporting employment out of the total number of non-abstinent clients. There are statistically significant associations between employment at follow-up and abstinence at follow-up in four of the eleven years: 1999, 2000, 2007, and 2009 (Cochran-Mantel-Haenszel Tests, $p < 0.05$).

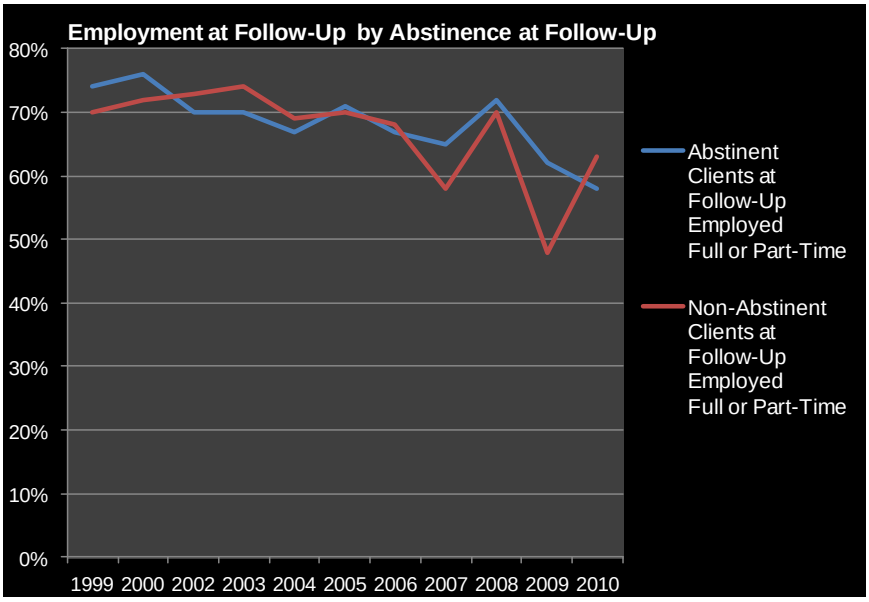
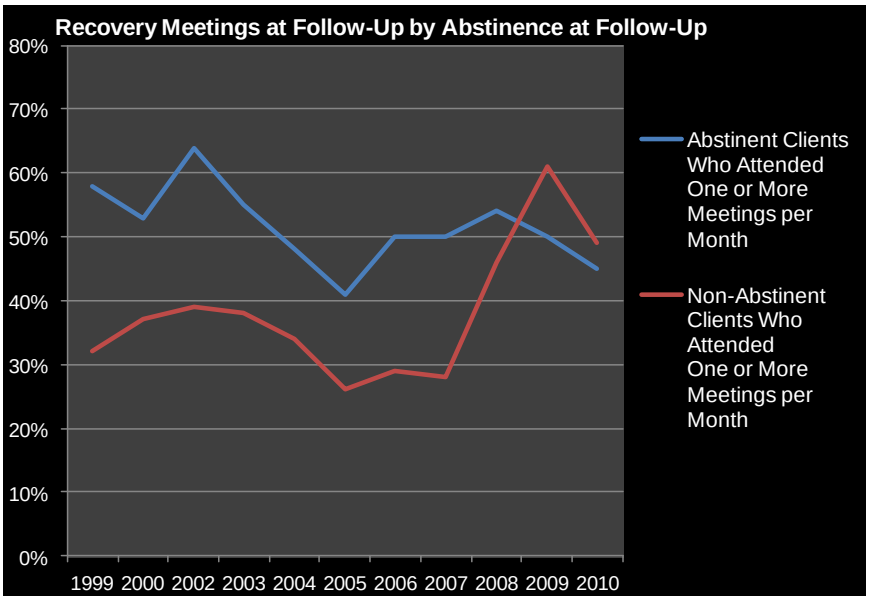


Figure 22. AA, NA, or Similar Meetings Attended at Follow-Up by Abstinence at Follow-Up

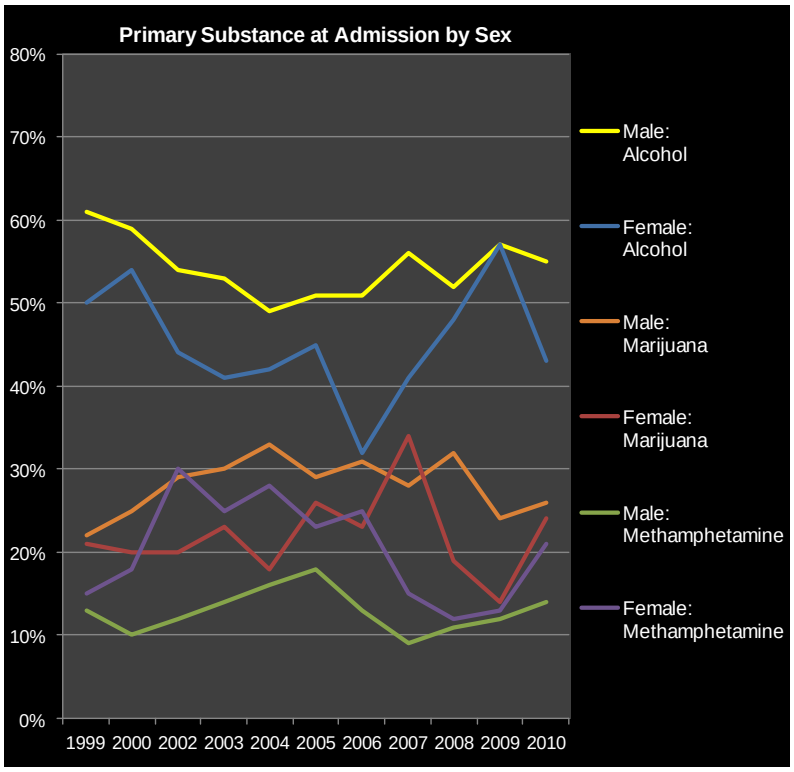


In Figure 22, the percentages represent abstinent clients at follow-up who indicated they had attended at least one voluntary recovery support meeting per month since discharge out of the total number of abstinent clients; and non-abstinent clients at follow-up who indicated they had attended recovery support meetings since discharge out of the total number of non-abstinent clients. There are statistically significant associations between meeting attendance and abstinence at follow-up in two of the eleven years: 1999 and 2004 (Cochran-Mantel-Haenszel Tests, $p < 0.05$).

OUTCOMES: SEX

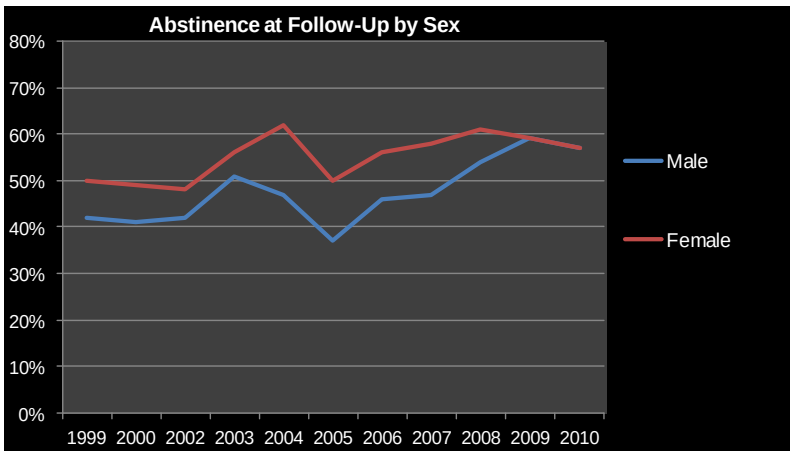
Figures 23 and 24 on the following page present the primary substance reported at admission and abstinence at follow-up by sex.

Figure 23. Primary Substance at Admission by Sex



The three primary substances that clients reported most often were alcohol, marijuana, and methamphetamine respectively. Figure 23 shows the percentage of males and females reporting these three substances at admission each year. Over all years, males reported alcohol as the primary substance at admission more often than any other substance, ranging from 49% in 2004 to 61% in 1999. Females indicating alcohol as the primary substance at admission fluctuated between 32% in 2006 to 57% in 2009. Marijuana as the primary substance at admission ranged from 22% to 33% for males and 14% to 24% for females. There was a steady increase in the percentage of males reporting methamphetamine as their primary substance at admission from 2000 to 2005 and for females from 2000 to 2006. More recently clients indicating methamphetamine as the primary substance at admission has decreased, however 21% of females in 2010 reported methamphetamine as the primary substance at admission.

Figure 24. Abstinence at Follow-Up by Sex



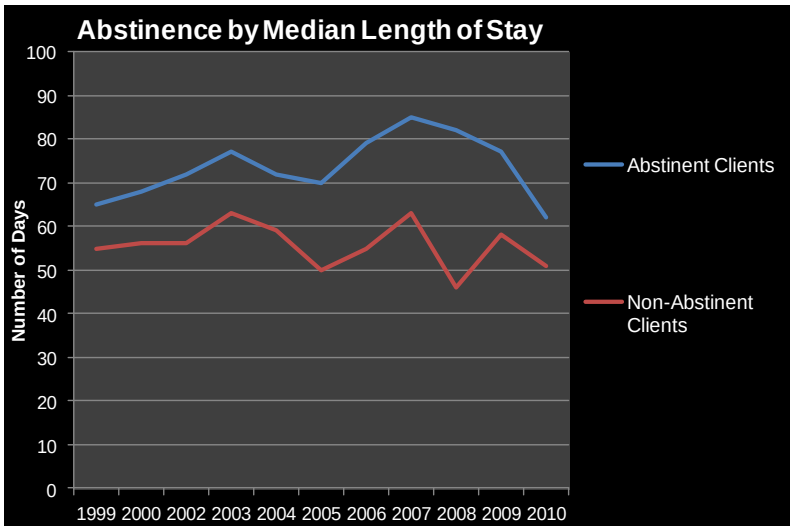
Abstinence for males ranged from 37% in 2005 to 59% in 2009. Females reporting abstinence at follow-up fluctuated between 48% in 2002 to 62% in 2004. Recently, in 2009 and 2010, the percentage of males and females indicating abstinence at follow-up was the same, 59% and 57% respectively.

OUTCOMES: LENGTH OF STAY AND DISCHARGE

Length of stay is defined as the number of days from admission to treatment through discharge. Figure 25 examines length of stay related to abstinence at follow-up.

Figure 25. Abstinence by Median Length of Stay

In 1999 through 2009, there were significant differences between length of stay and abstinence at follow-up (Jonckheere-Terpstra Tests, $p < 0.05$). Results for clients admitted in 2010 may change as more interviews are conducted with these clients.



Unlike the previous figure in this section that includes data only from clients who completed follow-up interviews, data in Table 8 and Figures 26 through 29 on the following pages are drawn from all discharged clients who were in the OMS sample for whom discharge data have been received.

Table 8. Primary Substance at Admission by Median Length of Stay

Table 8 presents the median length of stay for all discharged clients in the OMS sample, as well as for the most often reported primary substances at admission by year. Results for 2010 may change as more clients are discharged from treatment.

	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Clients in OMS Sample	55	51	57	59	63	56	56	57	53	63	60
Alcohol	56	50	57	59	61	50	56	54	49	51	54
Marijuana/Hashish	59	59	56	63	62	60	59	57	56	76	63
Methamphetamine	44	59	64	56	84	65	69	79	53	77	63
Cocaine/Crack	34	28	46	56	60	28	52	45	57	70	47

Figures 26 through 29 present the percentage of clients in each length of stay category for the four more frequently reported substances at admission. It is important to note that as more clients who were admitted in 2010 are discharged from treatment, the length of stay results for 2010 may change.

Figure 26. Length of Stay: Alcohol as Primary Substance at Admission

There are statistically significant associations between length of stay for clients who reported alcohol as the primary substance at admission compared to clients who reported other primary substances at admission in three of the eleven years: 2005, 2009 and 2010 (Jonckheere-Terpstra Tests, $p < 0.05$).

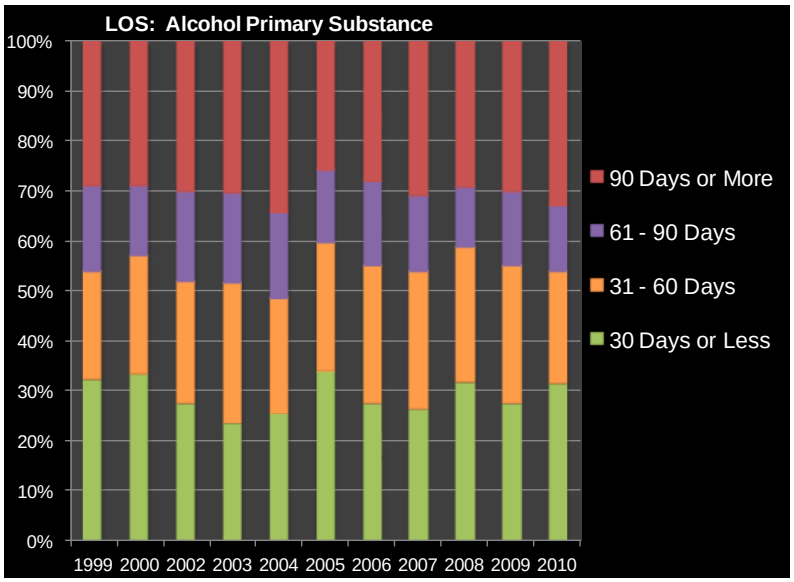


Figure 27. Length of Stay: Marijuana as Primary Substance at Admission

There are statistically significant associations between length of stay for clients who reported marijuana as the primary substance at admission compared to clients who reported other primary substances at admission in one of the eleven years: 2009 (Jonckheere-Terpstra Tests, $p < 0.01$).

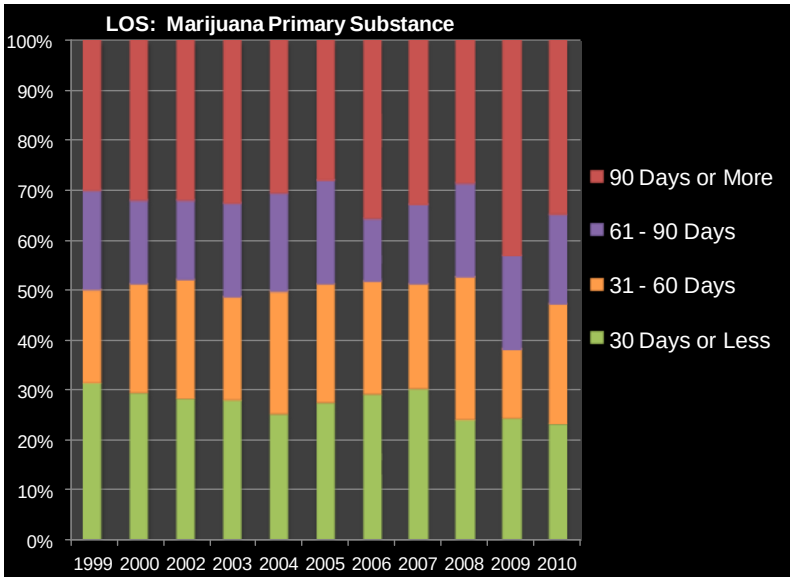


Figure 28. Length of Stay: Methamphetamine as Primary Substance at Admission

There are statistically significant associations between length of stay for clients who reported methamphetamine as the primary substance at admission compared to clients who reported other primary substances at admission in three of the eleven years: 2004, 2005, and 2007 (Jonckheere-Terpstra Tests, $p < 0.05$).

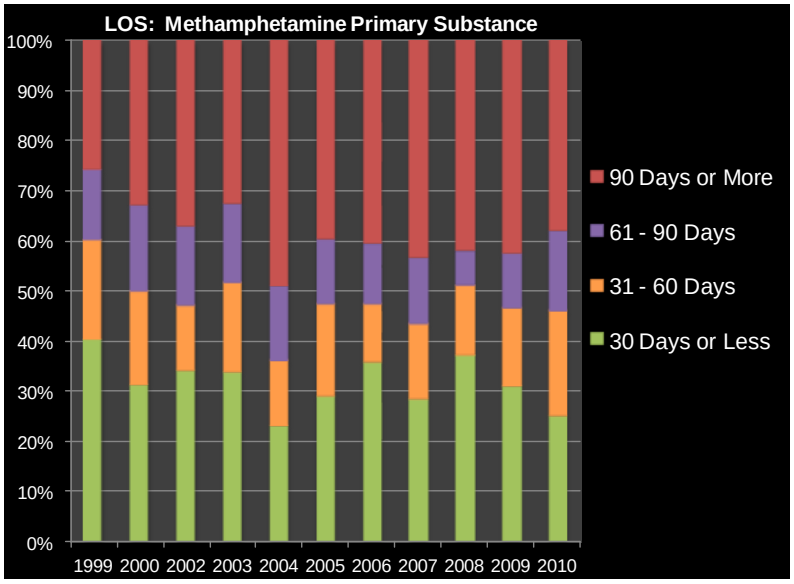
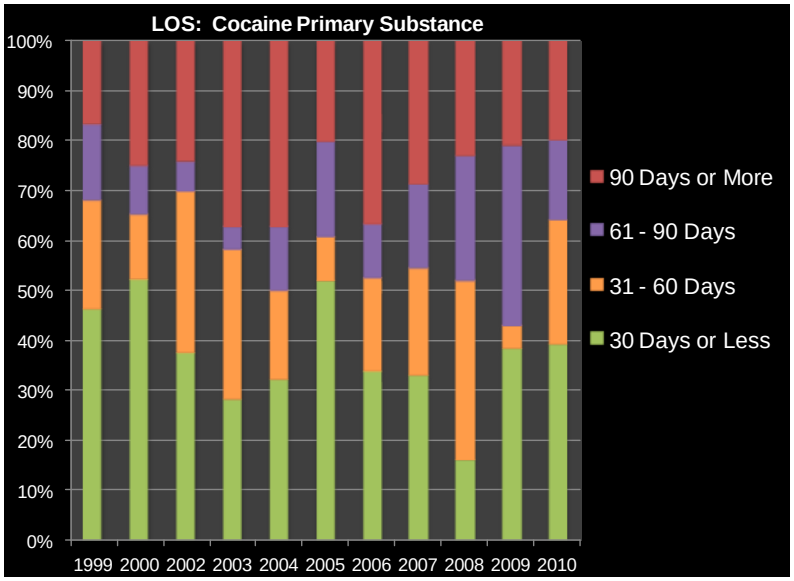


Figure 29. Length of Stay: Cocaine as Primary Substance at Admission

There are statistically significant associations between length of stay for clients who reported cocaine as the primary substance at admission compared to clients who reported other primary substances at admission in three of the eleven years: 1999, 2000, and 2005 (Jonckheere-Terpstra Tests, $p < 0.05$).



The variability in length of stay for clients reporting cocaine as the primary substance at admission may be due to the lower number of clients in the OMS sample reporting cocaine as the primary substance at admission; numbers range from a high of 112 in 2000 to a low of 24 in 2010. Caution is advised when interpreting these results.

Figures 30 through 32 show three outcome variables for the follow-up interview (abstinence, no arrests, and employment) by treatment discharge status. There are three discharge categories: successful completion; terminated (clients discharged from the program due to noncompliance, lack of treatment progress, or client leaving); and neutral (this category includes, but is not limited to, referral to another program, incarceration, or death). Data for neutral discharges are not included in the figures due to the low number of clients in the neutral discharge category with completed interviews, ranging from 4% to 7% of clients over all years. It is important to note that clients who were successfully discharged comprise the majority of the clients interviewed in all years.

Figure 30. Abstinence at Follow-Up by Discharge Status

There are statistically significant associations between abstinence at follow-up and discharge status in seven of the eleven years: 2000, 2003, 2004, 2005, 2006, 2007, and 2009 (Cochran-Mantel-Haenszel Tests, $p < 0.05$).

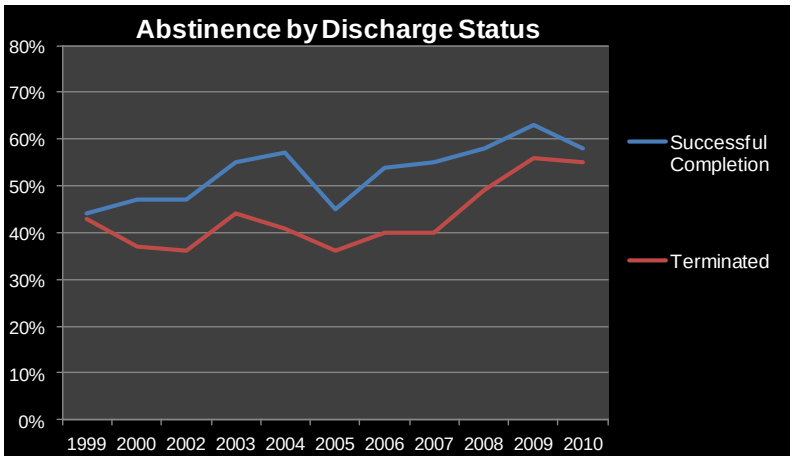


Figure 31. No Arrests at Follow-Up by Discharge Status

There are statistically significant associations between no arrests at follow-up and discharge status in eight of the eleven years: 2000, 2002, 2003, 2004, 2005, 2006, 2007, and 2010 (Cochran-Mantel-Haenszel Tests, $p < 0.05$).

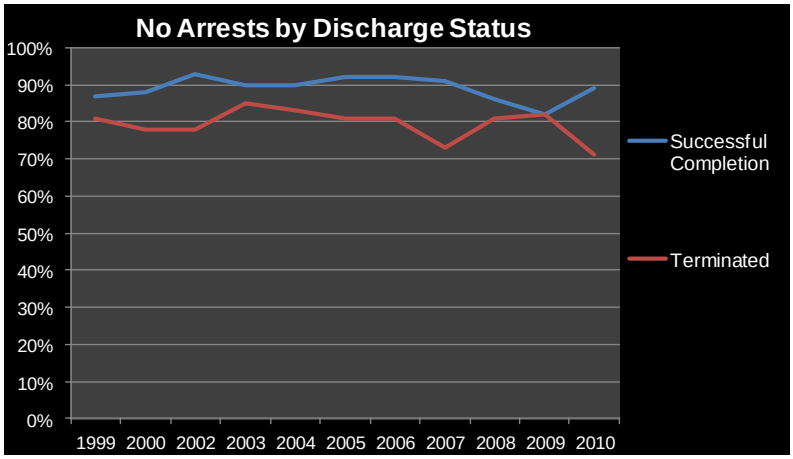


Figure 32. Employment at Follow-Up by Discharge Status

There are statistically significant associations between employment (full or part-time) at follow-up and discharge status in seven of the eleven years: 1999, 2000, 2002, 2004, 2006, 2008, 2010 (Cochran-Mantel-Haenszel Tests, $p < 0.05$).