THE IOWA
CONSORTIUM
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

MINORITY CLIENTS ENTERING SUBSTANCE ABUSE TREATMENT FOR THE FIRST TIME: 10 YEAR TRENDS

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Summary

The percent of minority clients (Black/African American and Latino/Hispanic) entering substance abuse treatment for the first time has been steadily increasing over the last 10 years. These groups of clients show demographic differences among themselves and when compared to Whites. The profile of alcohol versus illicit drug use also differs considerably with Latinos most affected by alcohol. Cocaine use among Black clients and Methamphetamine use among White and Latino clients has dropped substantially over the last 10 years. Wait time to enter treatment differed somewhat, but the relationship with cultural group was somewhat complex and may be due to other factors, such as location. Treatment completion and length of stay also varied by cultural group, however 6-months after discharge, abstinent rates were similar for all groups.

Suggestions:
- Survey current levels of cultural competency across Iowa's treatment agencies and prevention effort staff
- Promote and increase the number of multilingual treatment and prevention staff
- Consider culture specific prevention efforts in a culturally competent way
- Perform more in depth analyses on wait times to determine the source of the differences in current wait times among the race/ethnic groups
- Promote culturally appropriate treatment programs to improve successful completion rates

Minority Clients Entering Substance Abuse Treatment for the First Time: 10 year trends

The U.S. Census estimates that minorities make up less than 10% of Iowa's population.[1] Black persons account for less than 3% and the Latino population less than 5%. While of interest, Iowa's minority population is generally too small for in depth analyses of substance abuse treatment in any given year. However, over 10 years, there should be sufficient numbers to provide a modest investigation for trends among treatment issues of first time clients entering substance abuse treatment.

The following analyses focus on Black (African/American) and Latino (Hispanic) clients and their first time admissions to substance abuse treatment in Iowa. Whites are used for comparison. During the period 2000 – 2009, there were 113,217 first time admissions, including 99,198 Whites (86.1%), 7,815 Blacks (6.8%), and 6,204 Latinos (5.4%). Less than 2% of the first time admissions were excluded either because of missing data or indicating a different race (e.g., American Indian, Asian). Figure 1 shows the percent of these minority groups entering treatment for the first time. The percentage of Blacks and Latinos entering has been significantly increasing.[2]

Figure 1: Percent of Black and Latino first time admissions entering treatment from 2000 to 2009

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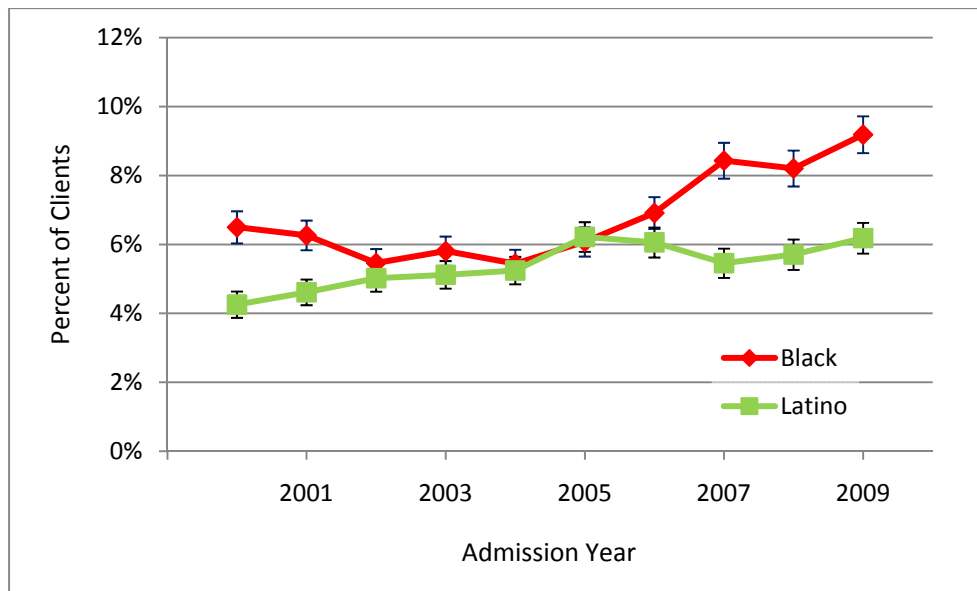
[1] http://quickfacts.census.gov/qfd/states/19000.html
[2] Jonckheere-Terpstra test, Black: z = 13.04, p < 0.0001; Latino z = 8.09, p < 0.0001

Demographic differences among minority clients

Latino first time clients were significantly younger (average age = 28.0 years old) than Whites (average age = 29.5) and Blacks (age = 29.2).[3]

Table 1: Demographic characteristics for minorities

	White n = 99,198	Black n = 7,815	Latino N = 6,204
Sex[*]			
Male	68.3%	74.6%	80.1%
Female	31.7	25.4	19.9
Education[*]			
< High School	34.9%	45.4%	60.5%
High School	40.7	37.1	27.3
Some College	18.9	15.1	10.0
College	3.9	1.8	1.6
Post Graduate	1.6	0.5	0.6
Relationship Status[*]			
Single	58.1%	68.0%	56.0%
Married/Cohabitating	24.6	21.8	31.2
Separated/Divorced	16.4	9.6	12.3
Widowed	0.9	0.7	0.5
Employment Status[*]			
Employed full time	37.7%	23.9%	43.6%
Employed part time	14.3	11.5	10.6
Unemployed-looking	17.5	25.8	17.9
Not in labor force	30.5	38.8	28.0

*Statistically significant at $p < 0.0001$.

The pattern of simple demographics shows interesting differences between Whites and the minorities, as well as between Blacks and Latinos. Both minorities had higher percents of males than their White counterparts. While the educational attainment of both minorities was disadvantaged, the effect is more striking in the Latino clients. Although the younger average age among the Latinos may have had an effect, the percent of Latinos under the age of 21 (30.0%) was similar to the percent of Whites under the age of 21 (30.9%).

While Blacks had slightly fewer clients who were married or cohabitating than Whites, the Latino clients had considerably more clients in this relationship situation. Considerably more Black clients were single than either White or Latino clients.

More Latino clients were employed full time than either Whites or Blacks; Blacks were less frequently employed than Whites. More Black clients were unemployed and looking for work and not in the labor force than either Whites or Latinos. When stating reasons for not being in the labor force, Whites (46.7%), Blacks (36.8%), and Latinos (55.1%) most often listed "Student". Black clients more often gave disability (17.2%) and incarceration (18.9%) as reasons compared to either Whites or Latinos.

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[3] Kruskal-Wallis χ^2 = 1892.29, df = 2, $p < 0.0001$

Despite the employment pattern of more Latinos working full time, they also had lower average taxable monthly incomes (mean = $1248) than either the Whites (mean = $1792) or Blacks (mean = $1,333).[4]

Source of income shows a similar picture. More Latinos report income from wages (52.1%) than either Whites (47.8%) or Blacks (34.4%). Whites reported no source of income less often (14.6%) than did Latinos (18.6%) or Blacks (23.5%).

The most frequently mentioned living arrangement for all race/ethnic groups was "Living with parents", with 32.4% of Whites, 24.5% of Blacks, and 27.5% of Latinos reporting that category. More Whites reported living alone (15.2%) than Blacks (11.2%) or Latinos (10.4%). More Blacks reported living in prison or jail (6.0%) than Whites or Latinos (both less than 2%).

The three groups differed in the percent of clients reporting an arrest. The Latinos most frequently reported being arrested at least once in the past year (71.4%), followed by Blacks (67.5%) and Whites (61.1%). The increased percent of arrests in the Latino group was mostly due to Operating a Vehicle (OMVI) arrests. More than one in three Latinos reported an OMVI (37.7%) arrest while only 15.9% of Blacks reported an OMVI arrest. Whites reported an intermediate 27.2%.

Referral source also differed among the groups, although the largest source of difference regarded OMVI and other criminal justice referrals. Latinos were referred from an OMVI (25.9%) more than Whites (19.5%) or Blacks (10.6%). However, Blacks were more often referred by other criminal justice sources (49.1%) compared to Latinos (38.7%) or Whites (32.4%). Self referrals were more frequent in Whites (12.8%) than Blacks (10.0%) or Latinos (8.4%). The other referral sources were relatively similar across groups.

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[4] Kruskal-Wallis χ^2 = 290.53, df = 2, p < 0.0001

Substance Use Profile

There was no significant difference between the race/ethnic groups in the age of first use of their primary substance. The average age of first use for Whites was 17.1 years old, 17.4 years for Blacks, and 17.0 for Latinos. There were differences in the alcohol versus illicit drug pattern among the groups. Latinos were primarily alcohol only clients, which may correspond to their more frequent referral for OMVI. Blacks were infrequently in treatment for alcohol only; usually their referrals included both alcohol and drugs.

Figure 2: Problem substance use pattern (drugs and alcohol) for White, Black, and Latino first time admissions over 10 years.
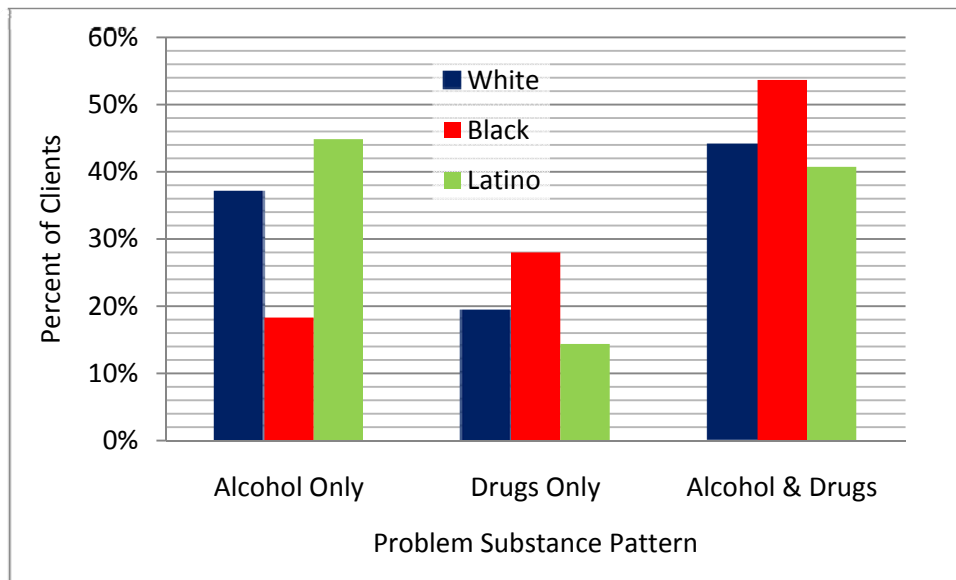
Analyses indicate that the differences among the race/ethnic groups over the 10 year period have shown some evidence of divergent patterns. However, many of the 10 year trends show more consistency across groups than differences. The following analyses focus on substances mentioned by more than 1% in one of the groups for at least one year. The figures are shown only if there is a significant (p < 0.01) difference between the groups over time, or if there was evidence of a trend of more or fewer mentions.

Substance use profiles for Whites, Blacks, and Latinos over a decade

Figure 3: Alcohol mentions in first time admissions

The differences among the race/ethnic groups appear fairly consistent, with Latinos reporting alcohol most often and Blacks reporting alcohol least often. The three groups did differ in the trends over time. There are no significant 10 year trends for Latinos or Blacks, but there is a significantly increasing trend of alcohol mentions among Whites.[5]
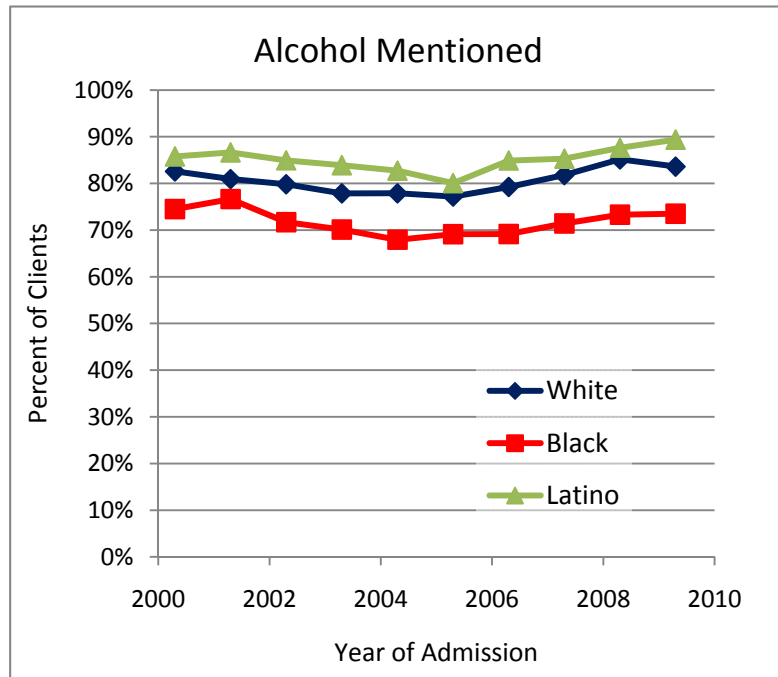
Figure 4: Marijuana mentions in first time admissions

The race/ethnic groups differ substantially in the frequency of marijuana mentions. The trends over time differ, too.[6] There is a slight but significant decrease in marijuana mentions among Whites and a slight but significant increase among Blacks.

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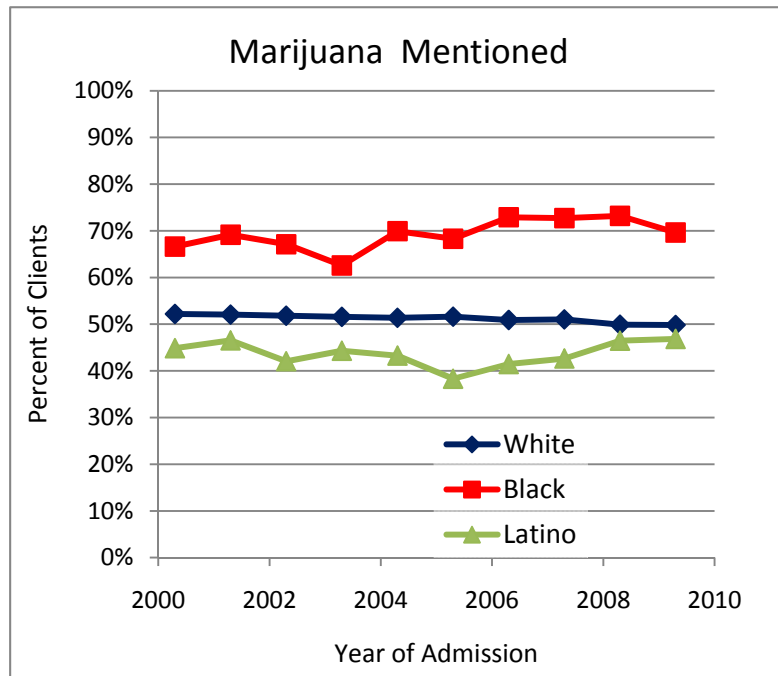
[5] Significant interaction Wald χ^2 = 9.28, df = 2, p < 0.0097, odds ratio for Whites 1.019, 95% confidence interval: 1.014, 1.025
[6] Significant interaction Wald χ^2 = 23.32, df = 2, p < 0.0001

There are pronounced differences in cocaine use patterns across the groups. Early in the period, the percent of Black clients reporting cocaine was much higher than either Whites or Latinos.[7] The pattern over time has changed with the percent among Black clients dropping substantially.[8] The percent of cocaine mentions among Whites and Latinos has not changed significantly over the last 10 years.
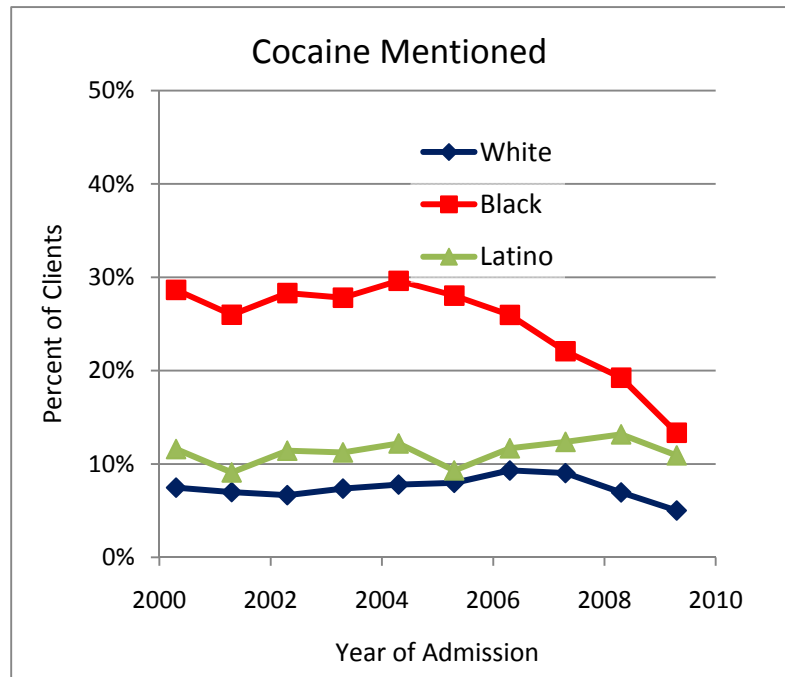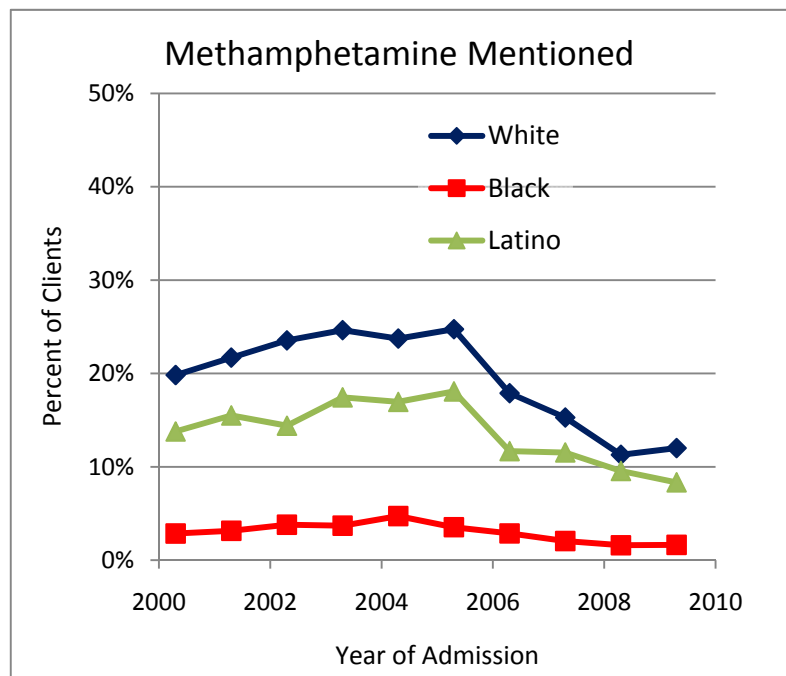
Figure 5: Cocaine mentions in first time admissions

There are clear patterns among the three groups regarding methamphetamine.[9] There has also been a general decline among all groups in its mention with the odds decreasing consistently across groups about 7.2% per year.[10]

Figure 6: Methamphetamine mentions in first time admissions

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[7] Wald χ^2 = 64.16, df = 2, p < 0.0001
[8] Significant interaction Wald χ^2 = 63.12, df = 2, p < 0.0001
[9] Wald χ^2 = 1081.18, df = 2, p < 0.0001
[10] Wald χ^2 = 70.33, df = 2, p < 0.0001

Whites tend to mention opiates more often than the other race/ethnic groups. Over all years, 2.4% of Whites mentioned opiates while only 1.2% of Latinos did. Less than 0.7% of Blacks mentioned this class of drug. There is also an increasing trend in opiate mentions, which is consistent across all groups.[11] The odds of an opiate mention have been increasing by slightly less than 1.2% yearly, and exceeded 5% of White clients.

Figure 7: Opiate mentions in first time admissions
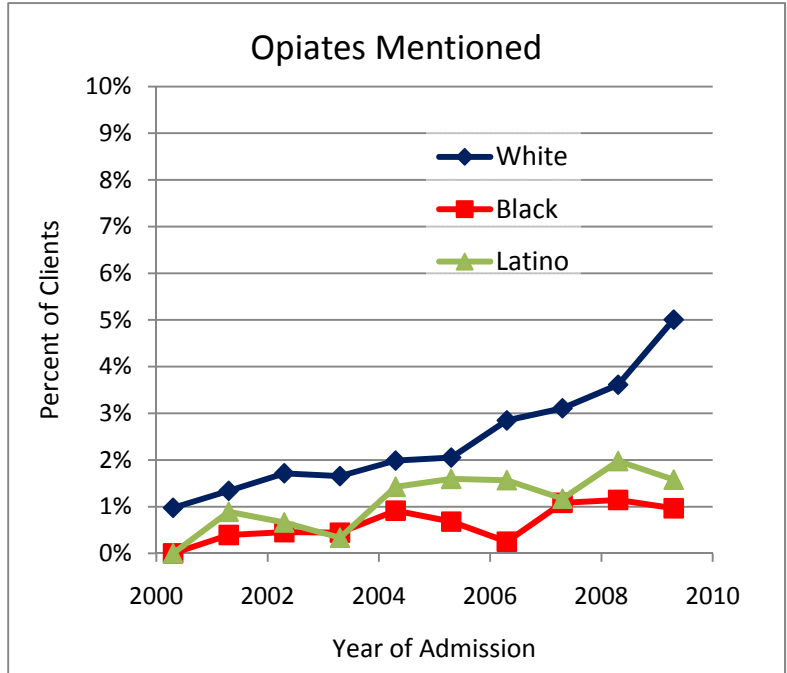
Ecstasy has shown a significant increase in mentions over the past 10 years.[12] This upward trend is more pronounced among the Black clients than either Whites or Latinos.[13]

There were no mentions of ecstasy in 2000 or 2001 among Black clients. Since 2004, there has been a rise in mentions reaching 2.9% in 2009.
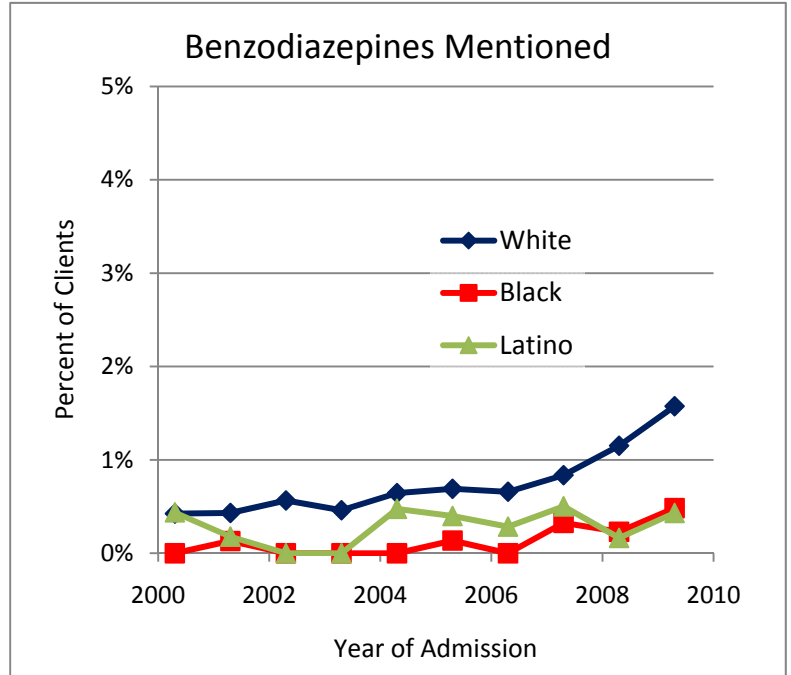
Figure 8: Ecstasy mentions in first time admissions

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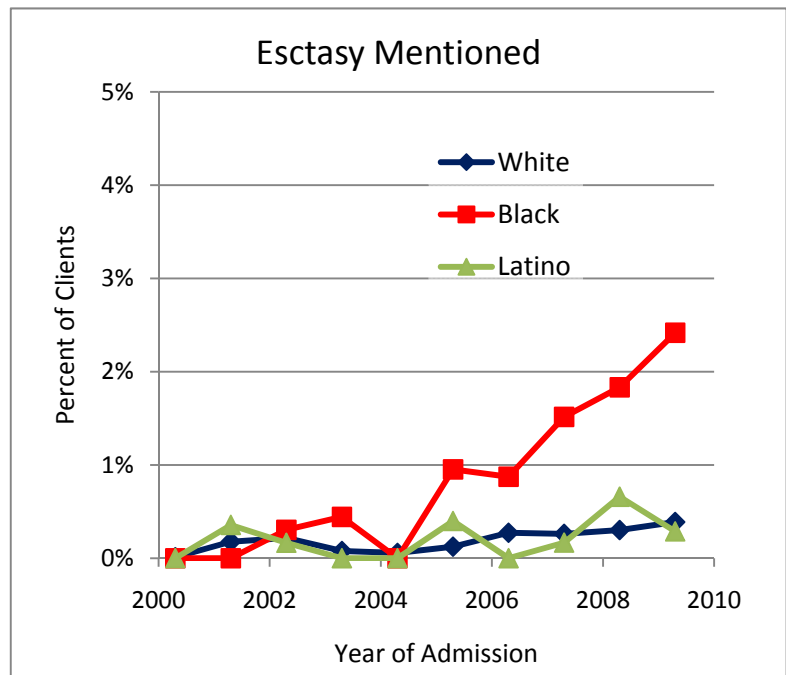
[11] Wald χ^2 = 47.02, df = 1, p < 0.0001
[12] Wald χ^2 = 31.6, df = 1, p < 0.0001
[13] Significant interaction Wald χ^2 = 10.92, df = 2, p < 0.0043

Benzodiazepine mentions, although infrequent, have been increasing over the 10-year period. While this is most noticeable among Whites, the trend is also seen in the minority groups.

Other notable trends include a marginally significant decrease in heroin use, which was consistent among all groups. There was also a significant decrease in hallucinogen mentions over the period. This trend appeared to be present across all groups. Inhalants were mentioned by 1.01% of Latinos in 2009, however, no significant trends emerged across time or groups and in all other years the mentions were less than 1%. Methadone, PCP, amphetamines, other stimulants, tranquilizers, barbiturates, other sedatives, over the counter medications, steroids, oxycodone, other analgesics, and other drugs, all were mentioned less in less than 1% of the clients.

Wait-time, Treatment completion, length of stay, and abstinence for pregnant clients

Wait time differed among the race/ethnic groups.[14] The median times were 2 days for White clients, 1 day for Black clients, and 3 days for Latino clients. However, the mean times showed a different picture with Whites waiting the fewest mean number of days and Blacks the most. The pattern of wait times is shown in Figure 10. The differing wait times may reflect differences in location (urban versus rural), work schedules, and family responsibilities. The percent of clients obtaining treatment within one week was similar across groups: 73% White, 72% Black, and 69% Latino, although the percent was significantly less for Latinos.[15]

Figure 10: Wait times for Black, White, and Latino clients
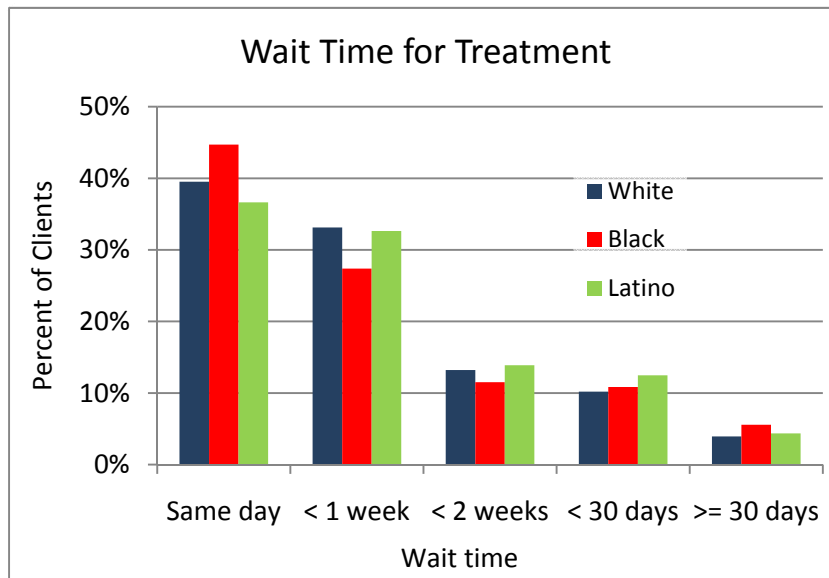
Length of stay also differed among the groups.[16] Median time in treatment for Whites was 49 days. The median time for Blacks was 45 days and for Latino clients, 53 days.

The percents of clients who successfully completed treatment differed significantly among the race/ethnic groups.[17] While 67.0% of the Whites and 67.4% of the Latinos completed treatment, only 55.6% of the Black clients successfully completed. The difference remained after adjusting for age, sex, and length of stay. Figure 11 shows the percent of clients successfully completing treatment for each month of treatment.
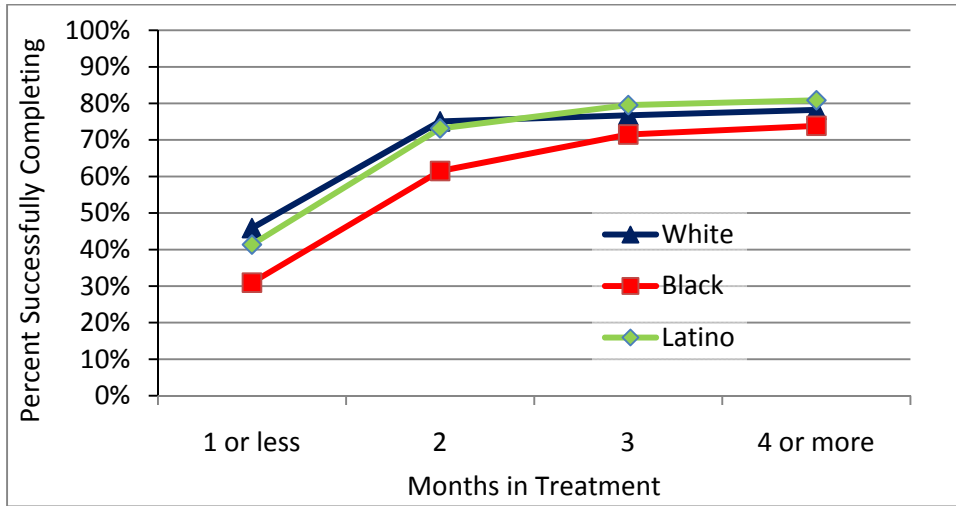
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[14] Kruskal-Wallis χ^2 = 66.61, df = 2, p < 0.0001
[15] χ^2 = 28.38, df = 1, p < 0.0001
[16] Kruskal-Wallis χ^2 = 57.39, df = 2, p < 0.0001
[17] χ^2 = 354.87, df = 2, p < 0.0001

Figure 12: Percent successful completions for first time admissions to substance abuse treatment

The improvement in successful completion rates over time was most pronounced in the Black clients. Notably after three or more months of treatment, there were minimal differences between the race/ethnic groups.

Post treatment follow-up data were available for 2,185 of these clients (1,825 Whites, 280 Blacks, and 80 Latinos) using the Outcomes Management System.[18] There were no significant differences in abstinence rates across the race/ethnic groups, despite the differences in successful completions and lengths of stay.

Figure 13: Abstinence 6 months after treatment discharge
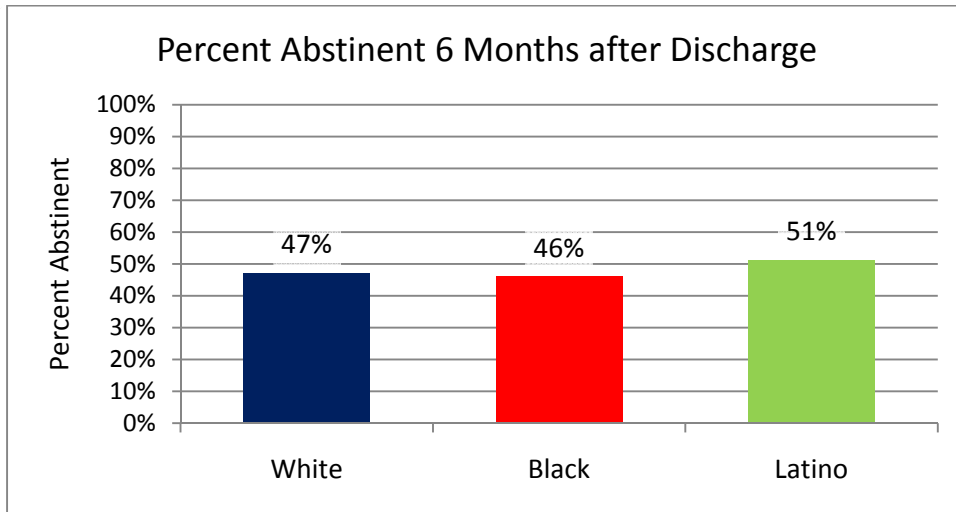
[18] Koch, N., Clayton, R., & Arndt, S. (2009). Iowa outcomes monitoring system: Year 11 Report. (Iowa Department of Public Health contract #5889NA01). Iowa City, IA: Iowa Consortium for Substance Abuse Research and Evaluation Iowa Department of Public Health. Available at: http://iconsortium.subst-abuse.uiowa.edu/downloads/IDPH/OMS%20Year%2011%20Final%20Report%202009.pdf

Conclusions

The demographic makeup of Iowa is changing, with a growing percent of minorities.[19] The percent of clients entering substance abuse treatment is also increasing. In the 10-year period studied, the percent of minority first-time admissions increased by almost 150%, from 10.9% in 2000 to 15.7% in 2009. This increasing population makes for interesting challenges to Iowa's substance abuse treatment facilities. The two minority groups considered here varied widely in demographics, as well as educational and employment support. They also varied in their problem substance use profile and treatment completion status. Thus, treatment facilities need to flexibly adapt to growing numbers of clients from these different racial and ethnic minority groups.

Suggestions:
- Survey current levels of cultural competency across Iowa's treatment agencies and prevention effort staff
- Promote and increase the number of multilingual treatment and prevention staff
- Consider culture specific prevention efforts in a culturally competent way

Wait times, length of stay, and treatment completion rates varied across the cultural groups.

Suggestions:
- Perform more in depth analyses on wait times to determine the source of the differences in current wait times among the race/ethnic groups
- Promote culturally appropriate treatment programs to improve successful completion rates

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[19] http://www.latinoaffairs.iowa.gov/Pages/Data.htm and
http://www.iowadatacenter.org/Publications/aaprofile2010