




2014

**KENTUCKY
DUI
ASSESSMENT
REPORT**

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2014 Division of Behavioral Health Driving Under the Influence Program

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This report was developed under a contract from the Kentucky Division of Behavioral Health to the University of Kentucky Center on Drug and Alcohol Research. The following individuals contributed to data preparation, data analysis, writing, and production of this report: Matthew Webster (Principal Investigator), Megan Dickson, Aleigha Colwell, and Steve Cook. Copies of this report can be requested by emailing the Kentucky DUI Project at kydui@uky.edu. Previous DUI assessment annual reports and related information can be found on the project's website <http://cdar.uky.edu/dui/>.

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Executive Summary

In calendar year 2014, there were approximately 131 licensed and certified DUI Assessment Programs and 21,321 DUI assessments were submitted to the Kentucky Division of Behavioral Health. These records include education and treatment information for persons convicted of DUI who were assessed and referred for an intervention. Using the Web-based Kentucky DUI Assessment Instrument, records are submitted once the initial substance abuse assessment is performed. The University of Kentucky Center on Drug and Alcohol Research is contracted by the Division of Behavioral Health to receive these records from DUI assessment programs and to maintain this information in a database. This report provides information on assessments conducted from January 1, 2014 through December 31, 2014 and also provides trends from 2003 to 2014.

The typical person assessed for DUI in Kentucky in 2014 was a white male in his 30's who was convicted of a first DUI offense with a blood alcohol level between 0.08 and 0.15 g/dL. There was a 50.3% chance the typical offender met DSM-5 diagnostic criteria for a substance use disorder in the past 12 months, and a 97.2% chance they were referred to either a 20-hour education intervention or an outpatient alcohol/drug treatment program.

- For 2014, the number of DUI Assessments submitted was 21,321.

Gender:

- Males 75.5%
 - Females 24.5%
-
- Program referrals* were made to:
 - 20-Hour Education 47.5%
 - Outpatient 49.7%
 - IOP or Residential 2.8%

*Only the highest level of care is presented for persons referred to more than one level of care

- Overall, 84.3% of persons were compliant with their education/treatment referrals. Persons who were non-compliant were most likely to have been under 40 years of age, African American, have multiple DUI convictions, and met at least two DSM-5 substance use disorder criteria in the past 12 months. Additionally, non-compliant persons scored higher on the AUDIT and DAST screening instruments and were under the influence of drugs at the time of their current DUI. Possessing multiple risk factors appears to increase the risk of non-compliance.
- 4,968 (23.3%) assessments submitted were for persons under the influence of drugs at the time of their DUI arrest.

- The percentage of individuals who met DSM-5 criteria for a substance use disorder in the past 12 months was higher for males (51.4%) than for females (47.0%). However, females were more likely to report a severe substance use disorder (16.9% vs. 15.8%) and were more likely to specifically report a drug use disorder (19.6% vs. 14.7%).
- DUI offenders assessed in the Western-Central region of Kentucky were most likely to be involved in an alcohol-only DUI. Offenders in the Western-Central region also had the highest average AUDIT score and were most likely to report an alcohol use disorder according to DSM-5 criteria.
- Drug problems, as measured by the DAST screening instrument, were most prevalent among DUI offenders in the Eastern region of Kentucky. Offenders in the Eastern region also had the highest rates of drug-involved DUIs.
- The percentage of DUI assessments conducted for multiple DUI offenders has remained relatively stable.
- During 2013, DUI offenders were slightly more likely to be referred to an education intervention than outpatient treatment. However, during 2014, DUI offenders were more likely to be referred to outpatient (49.7%) than education (47.5%) or any other form of treatment (2.8%).
- Compared to those involved in an alcohol- or drug-only DUI, offenders under the influence of both alcohol and drugs at the time of their current DUI were more often referred to outpatient or another form of treatment (57.2%).

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Study Overview

The Kentucky Revised Statute 189A.040 requires Kentucky licensed drivers convicted of Driving Under the Influence (DUI) to receive a substance abuse assessment by a state certified DUI assessor in a state licensed and certified DUI assessment program¹. DUI Assessment programs are required (908 KAR 1:310 Section 6(1)(a)4) to enter assessment records via the Web-based Kentucky DUI Assessment Instrument (KDAI) within three (3) business days of the assessment. The University of Kentucky Center on Drug and Alcohol Research (CDAR) serves as the repository for state DUI assessment records. The data is stored in a database from which this report was developed.

The purpose of the assessment is to determine the extent to which the person has a drug and/or alcohol problem and to make a referral to an appropriate level of care to address it. If treatment need is determined, a person can be referred to one or more of the following modalities: outpatient, intensive outpatient, or residential treatment. Referral may also include an education intervention or an education intervention coupled with treatment. If a person finishes their education and/or treatment requirements consistent with his or her referral within a stipulated timeframe, the person is considered “compliant.” However, if the person fails to meet the referral requirements he/she is considered “non-compliant.” In either case, once a person is designated as compliant or non-compliant, that assessment record is “completed.” Assessment records previously submitted using KDAI are updated to include completion information once an individual is identified as compliant or non-compliant.

Data Description

DUI assessment records provide demographic information about the person, information about their DUI offense, results of the assessment, and education/treatment information. Demographic information includes age, gender, race/ethnicity, and marital status. DUI offense information includes current DUI information, DUI conviction history, and county of conviction. Records include three assessment instruments:

- Alcohol Use Disorders Identification Test (AUDIT)² – The AUDIT was developed by the World Health Organization as a screening method for excessive drinking. The test consists of 10 questions scored from 0 to 4. A combined score of 8 or more is considered as positive (i.e., the individual is likely to have a drinking problem).
- Drug Abuse Screening Test (DAST)³ – The DAST was developed to assess the extent of drug problems. The test consists of 28 true/false questions with a score of 1 or 0. A combined score of 5 or more is considered as positive (i.e., the individual is likely to have a drug problem).
- DSM-5⁴ checklist for Substance Use Disorders. The Diagnostic and Statistical Manual, Fifth Edition (DSM-5) was developed by the American Psychiatric Association as the standard for psychiatric diagnoses. The DSM-5 specifies three categories of substance use disorders: mild, moderate and severe. Meeting 2-3 criteria within a 12-month period indicates a mild disorder; 4-5 criteria, a

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moderate disorder; and 6 criteria or more, a severe substance use disorder. The DSM-5 was incorporated into KDAI in June 2014.

Information about the intervention referral is also noted. This includes the education and/or level(s) of treatment to which the person is referred, as well as the person's compliance with that referral.

Sample

This report presents DUI assessment records entered into KDAI between January 1, 2014 and December 31, 2014 as well as trends detailing changes in assessment results over the past several years. In 2014, a total of 21,321 assessment records were entered by licensed and certified DUI assessors. It should be noted that the number of submitted assessment records in 2014 is not the same as the number of completed assessment records or the number of DUI convictions in 2014 because persons can be convicted, assessed, and complete their intervention in separate years. Of the 21,321 assessment records submitted in 2014, only 15,829 records were also "completed" before December 31, 2014.

Limitations

There are several limitations to these data. First, there is the issue of incomplete, erroneous, and/or missing data. Table 1 presents the level of missing data.

Table 1: Missing Data

| | <u>2014</u> | |
|---------------------------|---------------------|---------------------|
| | Missing Assessments | Percentage of Cases |
| Age | 8 | 0.04% |
| Race | 3,968 | 18.6% |
| Marital Status | 5,085 | 23.8% |
| Blood Alcohol Content | 9,644 | 45.2% |
| Recommended Level of Care | 244 | 1.1% |

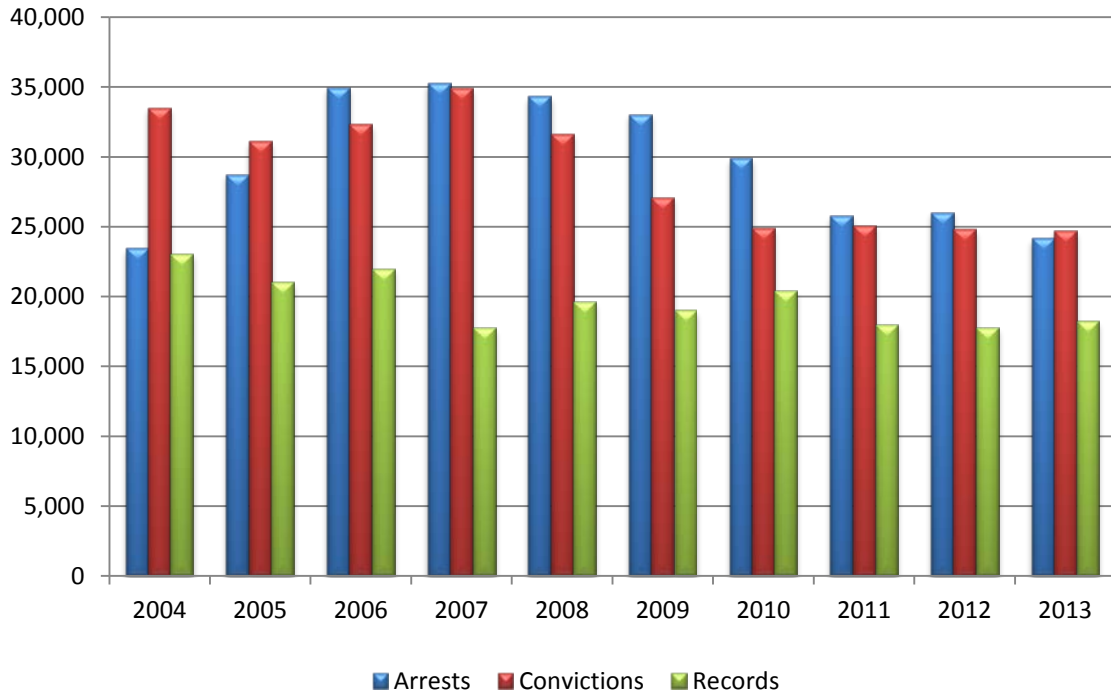
Transitioning to the KDAI from the previous DUI assessment system has successfully reduced the amount of missing data, but certain fields remain problematic. Blood Alcohol Content has the highest percentage of missing cases, which is largely due to individuals who were not tested, refused the test, or did not remember the level. Other variables, such as race and marital status, have a significant amount of missing cases because they are optional fields.

The second limitation is that these data represent a subset of a larger, unknown number of DUIs in Kentucky. For example, in 2013 there were 24,160 DUI arrests and 18,212 completed assessments⁵. This difference emphasizes the dangers in comparing frequencies of arrests, convictions, and assessments as there are different requirements and timelines for compiling each of these types of records. Figure 1 presents the number

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of DUI arrests and convictions submitted to the Kentucky State Police, and completed DUI assessment records for 2004 through 2013. 2014 data were not available at the time this report was written.

Figure 1: DUI Arrests, DUI Convictions, and Completed Records, 2004 through 2013



* Arrest and conviction data from Kentucky State Police are only available through 2013.

This report presents DUI assessment records submitted in 2014, which are independent of violation date and date of conviction. Caution should be used in comparing these data to other data. For example, a portion of the unaccounted records includes out-of-state licensees who are arrested in Kentucky but are not required to receive a Kentucky assessment. Assessments would also not be completed or submitted for persons who are incarcerated for an extensive period of time following their DUI. In addition, persons who are arrested for DUI may plea bargain to a lesser charge.

A third limitation is that most of the data are self-reported, which can be limited by recall.

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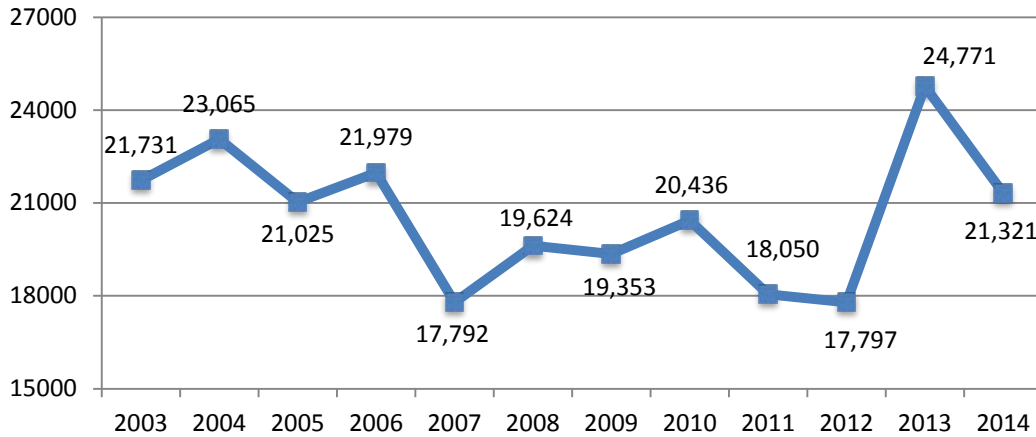
SECTION ONE
DEMOGRAPHICS

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1.1 Number of DUI Assessments Submitted in 2014

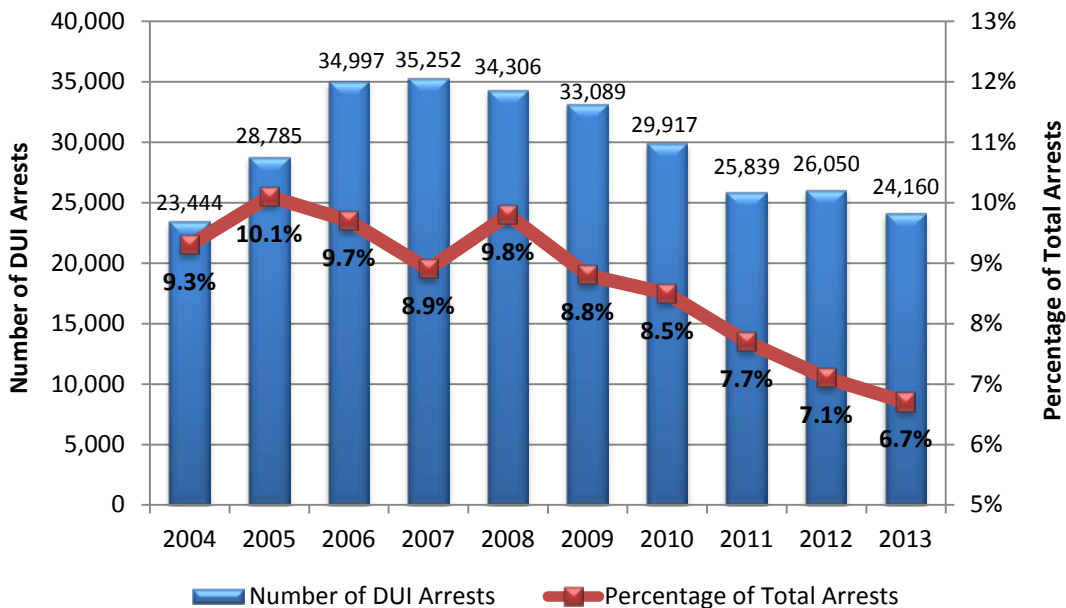
The number of DUI assessments submitted in calendar year 2014 was 21,321. Figure 1.1 presents the number of assessments CDAR received on behalf of the Division of Behavioral Health from 2003 through 2014. The average number of assessments received has been 20,579 per year.

Figure 1.1: Number of Assessments 2003 to 2014



In 2013 there were 24,160 arrests for DUI which represented 7.1% of all arrests in Kentucky in that year. Figure 1.2 presents the number of DUI arrests from 2004 to 2013 and the percentage of total arrests in Kentucky those DUIs represent.

Figure 1.2: Number of DUI Arrests and Percentage of Total Arrests 2004 to 2013



* Arrest and conviction data from Kentucky State Police is available only through 2013.

1.2 DUI Assessments by Gender

Of the 21,321 assessments, 16,092 (75.5%) were males and 5,229 (24.5%) were females.

Figure 1.3:
Assessments by Gender*

* Missing Data = 0 Assessments

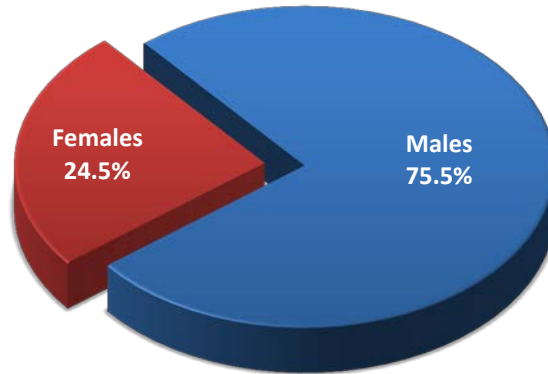
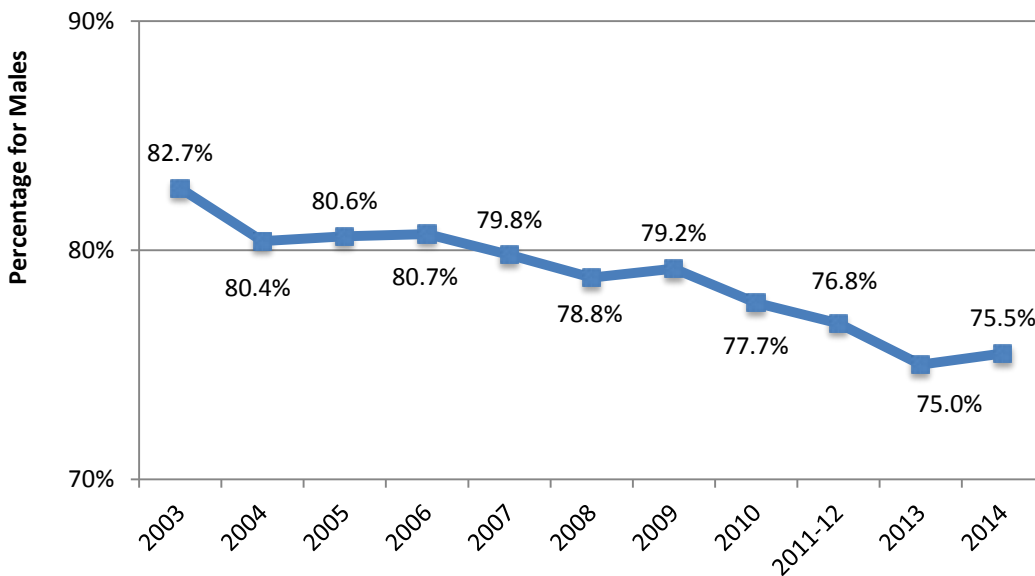


Figure 1.4 presents the percentage of assessments that were for males from 2003 through 2014. The percentage of males has slowly decreased over the past twelve years.

Figure 1.4: Percentage of Assessments that were for Males 2003 to 2014

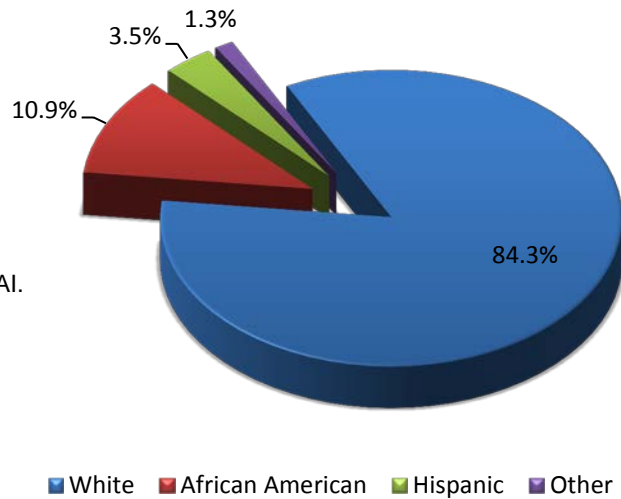


1.3 Assessments by Race/Ethnicity

Of those assessments for which race was reported in 2014, the majority were for White persons (84.3%), while only 1,891 assessments (10.9%) were submitted for African American persons and 837 submitted for Hispanic persons or persons of another racial/ethnic background (4.8%). Figure 1.5 presents the number of assessments by race/ethnicity.

Figure 1.5:
Assessments by Race/Ethnicity*

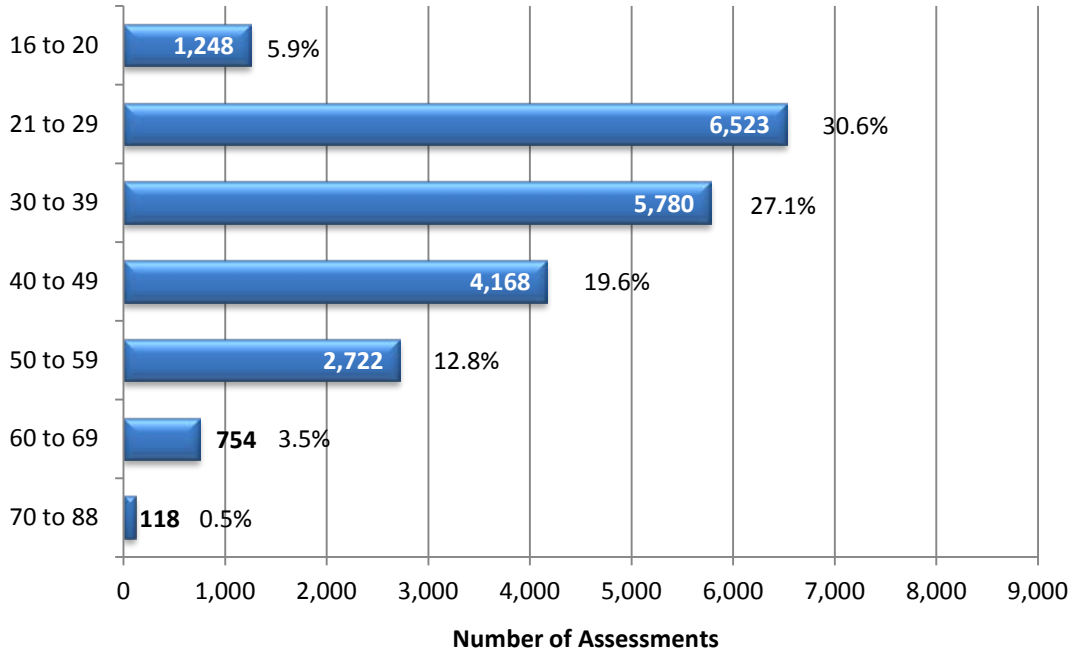
* Missing Data = 3,968 Assessments
Race/Ethnicity is an optional field in KDAI.



1.4 Assessments by Age

The majority of assessments submitted in 2014 were for persons between 21 and 39 years of age (57.7%). There were 1,248 assessments (5.9%) submitted for persons who were between 16 and 20 years of age at the time they were convicted. Figure 1.6 presents the number of assessments by age at conviction.

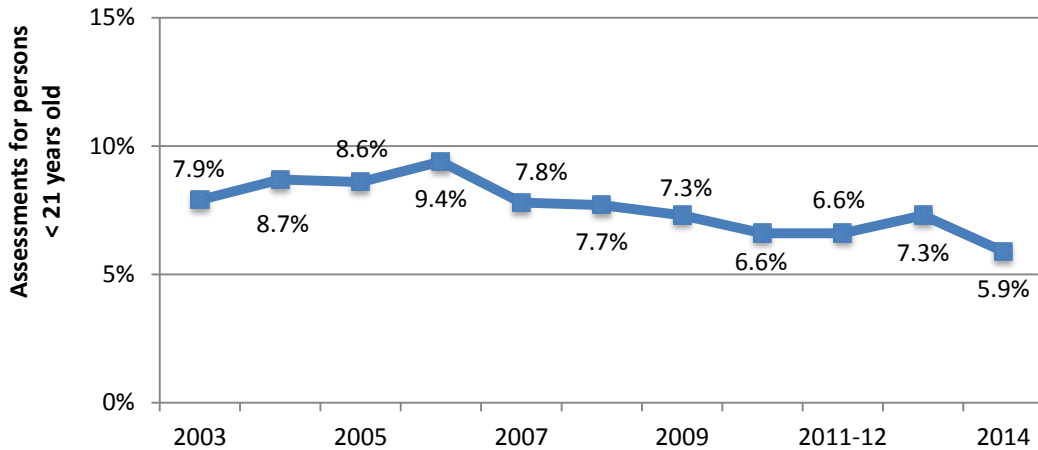
Figure 1.6: Assessments by Age at Conviction*



* Missing Data = 8 Assessments

Figure 1.7 presents the number of assessments for underage persons (< 21 years old), which has declined overall since 2006.

Figure 1.7: Percentage of Assessments that were for Underage Persons 2003 to 2014

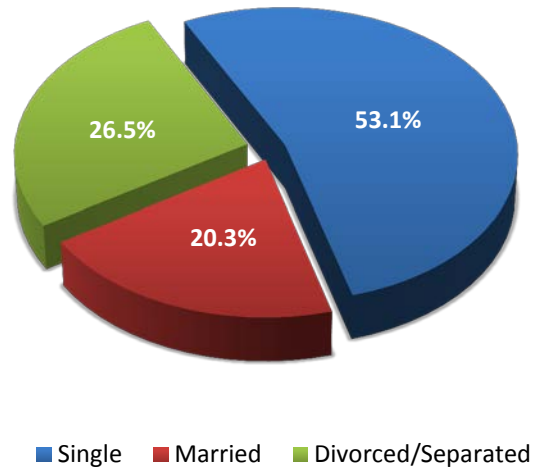


1.5 Assessments by Marital Status

Of the 16,236 assessments that reported marital status, the majority were for persons who were single (53.1%). Only 20.3% of assessments were submitted for persons who were married and 26.5% for persons who were either divorced or separated. Figure 1.8 presents the number of assessments by marital status.

Figure 1.8:
Assessments by Marital Status*

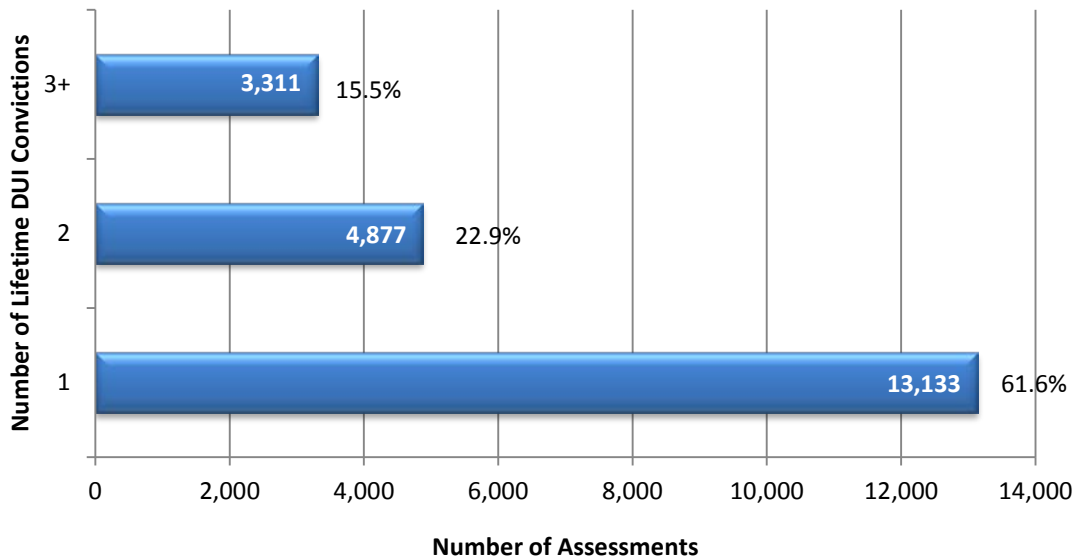
* Missing Data = 5,085 Assessments
Marital status is an optional field in KDAI.



1.6 Prior DUI Convictions

Figure 1.9 presents frequencies of lifetime DUI convictions. This number includes the DUI conviction that resulted in the current assessment.

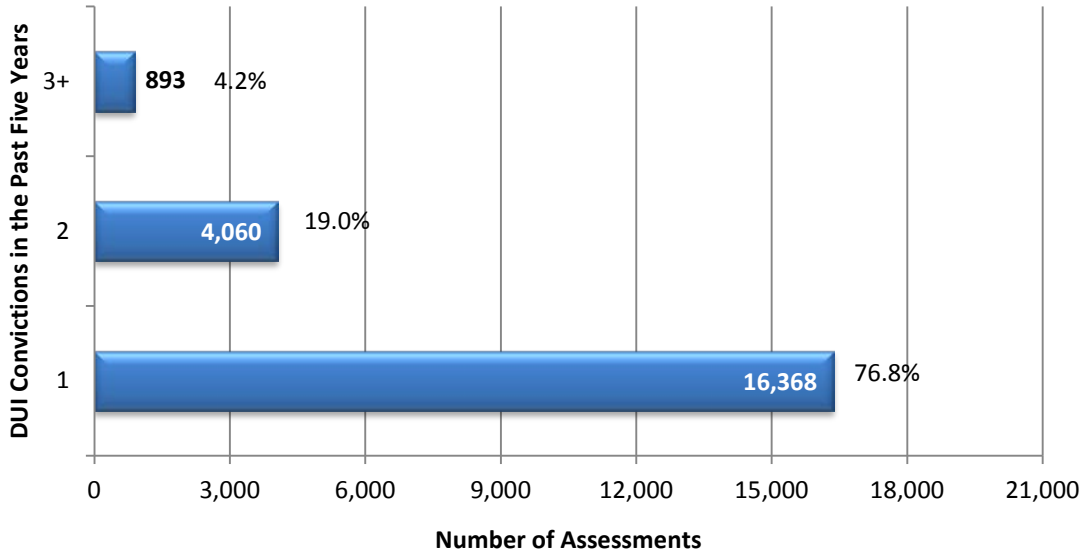
Figure 1.9: Lifetime DUI Convictions*



* Missing Data = 0 Assessments

Figure 1.10 presents frequencies of DUI convictions within the past five years. This number includes the DUI conviction that resulted in the current assessment.

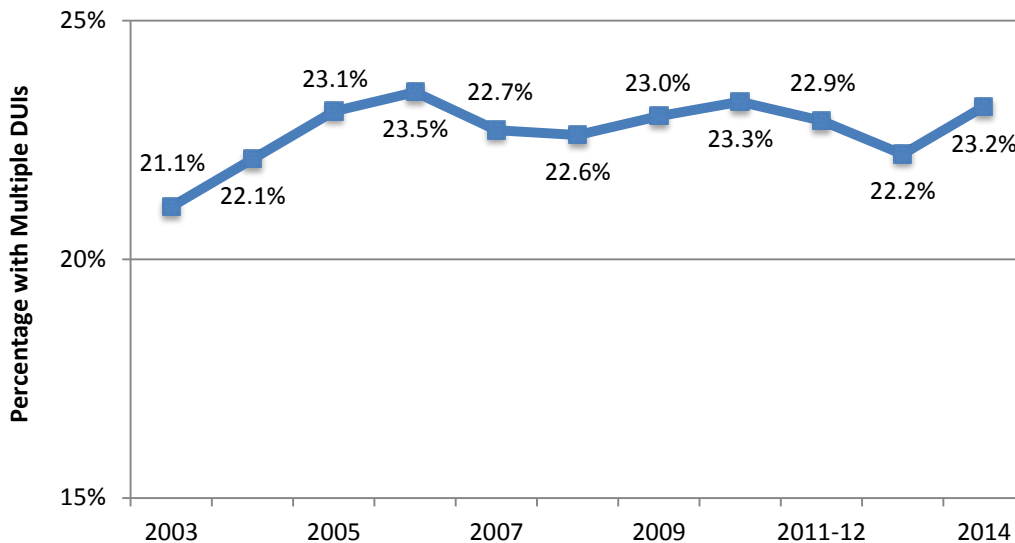
Figure 1.10: DUI Convictions in the Previous Five Years*



* Missing Data = 0 Assessments

Figure 1.11 presents the percentage of assessments that had multiple DUI convictions in the five years prior to the current assessment. The percentage of persons convicted with multiple DUIs (in the five years prior to the current assessment) has remained relatively stable since 2003.

Figure 1.11: Percentage of Assessments for persons who had Multiple DUI Convictions in the Previous Five Years between 2003 and 2014



Demographics Summary

Three out of four DUI assessments were for males and more than 80% were for White persons. The majority were also for persons between 21 and 39 years old and for persons who were single, never married. More than one-third were for persons who had two or more lifetime DUI offenses, while 23.2% had multiple DUI convictions within the past five years.

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SECTION TWO
SUBSTANCES INVOLVED IN DUI ARREST

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2.1 Assessments by Substance(s) Involved in DUI Arrest

The majority of assessments submitted in 2014 were for alcohol-involved DUIs (82.1%). Only 23.3% of assessments were submitted for drug-involved DUIs, including drug-only DUIs and DUIs that involved both drugs and alcohol. The type of drugs involved in DUIs in 2014 included marijuana (8.9%), opiates (8.0%), and sedatives (4.7%). Figures 2.1 and 2.2 present the number of DUI assessments by the substance(s) involved.

Figure 2.1:
Assessments by Type of Substance(s) Involved in DUI Arrest *

* Missing Data = 36 Assessments

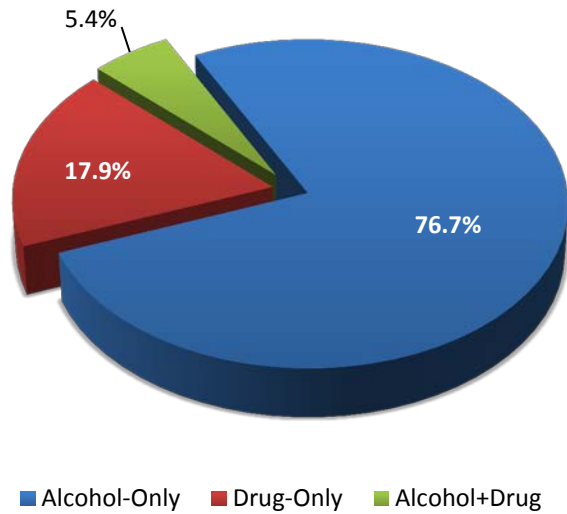
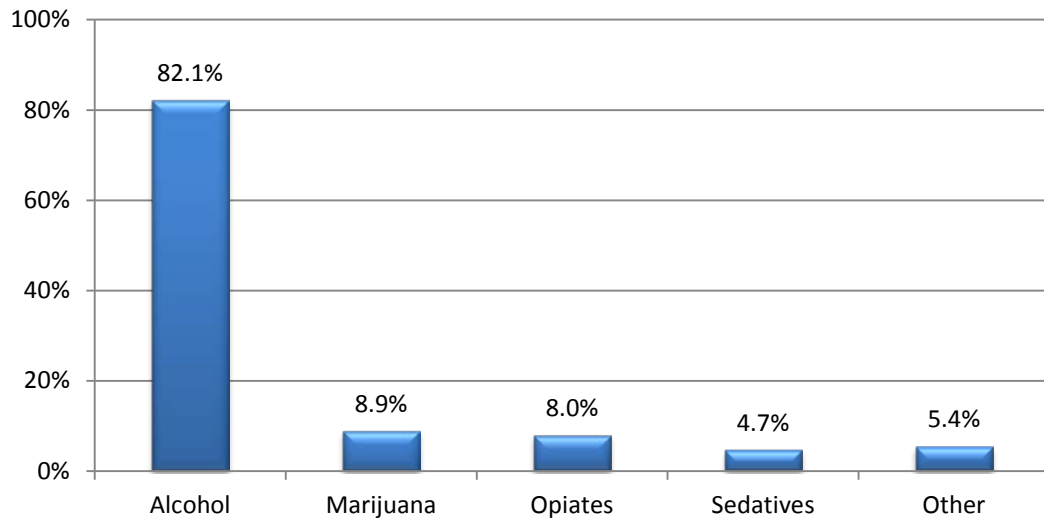


Figure 2.2: Assessments by Specific Substance Involved in DUI Arrest*

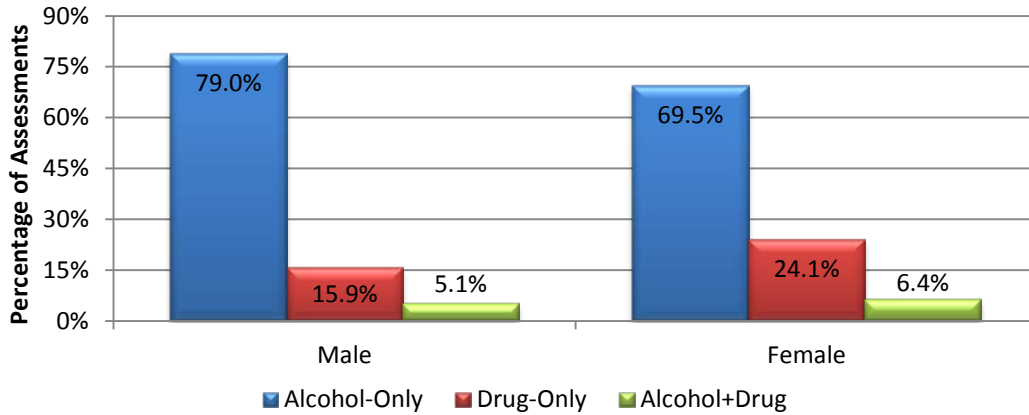


* Other includes cocaine, amphetamines, inhalants, hallucinogens, PCP, and an "other drug" category.

2.2 Substance(s) Involved in DUI Arrest by Gender

Figure 2.3 presents the type of substance(s) involved by gender of persons convicted of DUI. Both male and female DUI offenders were most often involved in an alcohol-only DUI. Female offenders, however, were more likely (30.5%) to have a drug-involved DUI than male offenders (21.0%).

Figure 2.3: Substance(s) Involved in DUI Arrest by Gender*

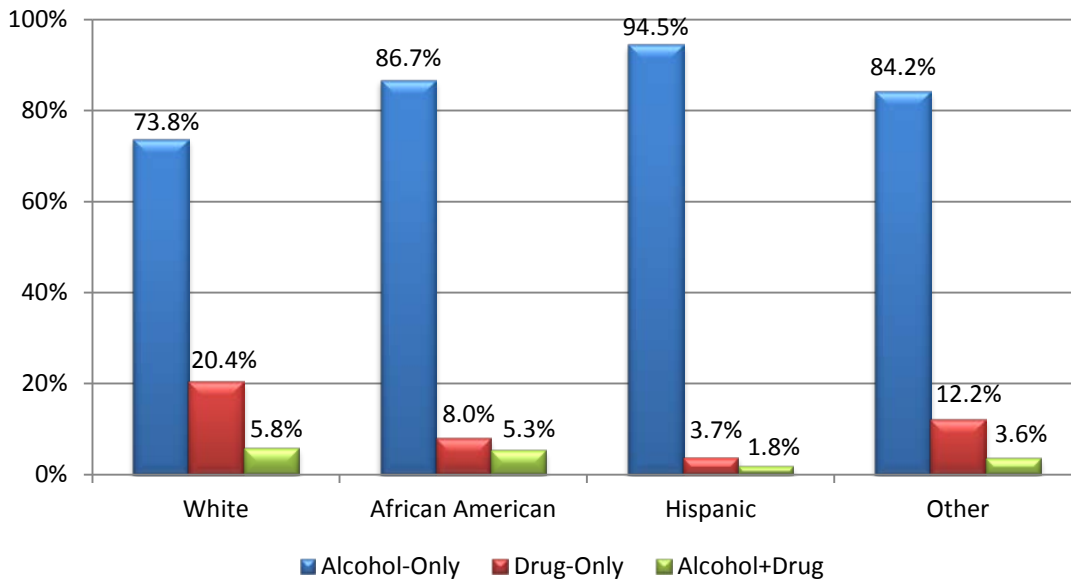


* Missing Data = 36 Assessments

2.3 Substance(s) Involved in DUI Arrest by Race/Ethnicity

Figure 2.4 presents the type of substance(s) involved by race/ethnicity. In 2014, White persons were the most likely to have driven under the influence of drugs while a higher percentage of Hispanic persons (94.5%) were involved in alcohol-only DUIs compared to other racial/ethnic categories.

Figure 2.4: Substance(s) Involved in DUI Arrest by Race*

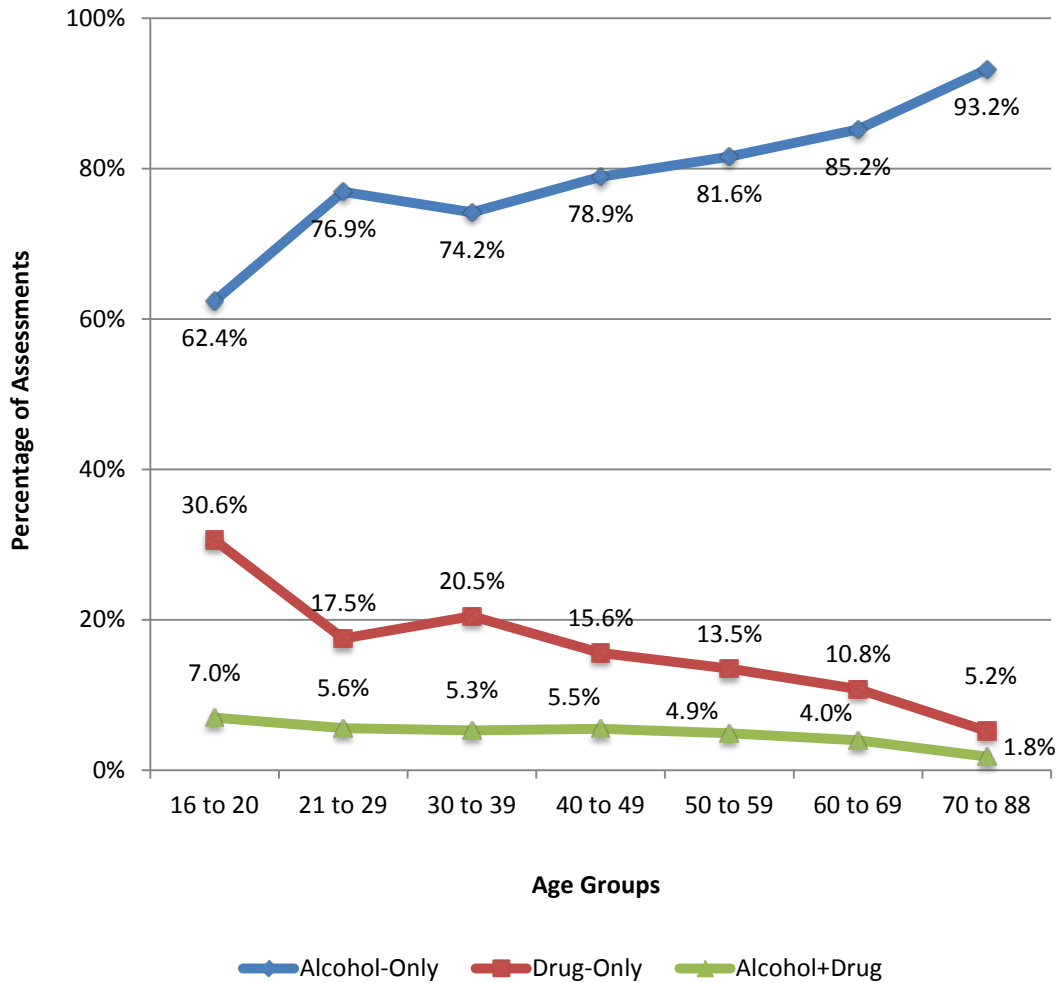


* Missing Data = 3,998 Assessments. Race/Ethnicity is an optional field in KDAI.

2.4 Substance(s) Involved in DUI Arrest by Age

In 2014, there was a relationship between the offender’s age at conviction and the type of substance(s) involved in the current DUI. Compared to other age groups, older persons were more likely to be involved in an alcohol-only DUI while persons between the ages of 16 and 39 were more likely to be involved in a drug-only DUI. Figure 2.5 presents the type DUI for each age group.

Figure 2.5: Substance(s) Involved in DUI Arrest by Age at Conviction*

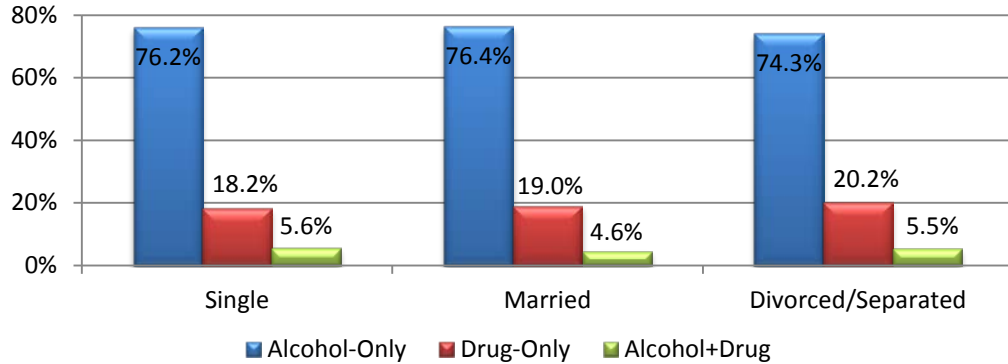


* Missing Data = 44 Assessments

2.5 Substance(s) Involved in DUI Arrest by Marital Status

Figure 2.6 presents DUI type by marital status. Compared to other groups, a higher percentage of single persons had an alcohol-only DUI (76.2%) and a DUI that involved both alcohol and drugs (5.6%). Divorced/Separated persons were slightly more likely (20.2%) than the other groups to have a drug-only DUI.

Figure 2.6: Substance(s) Involved in DUI Arrest by Marital Status*

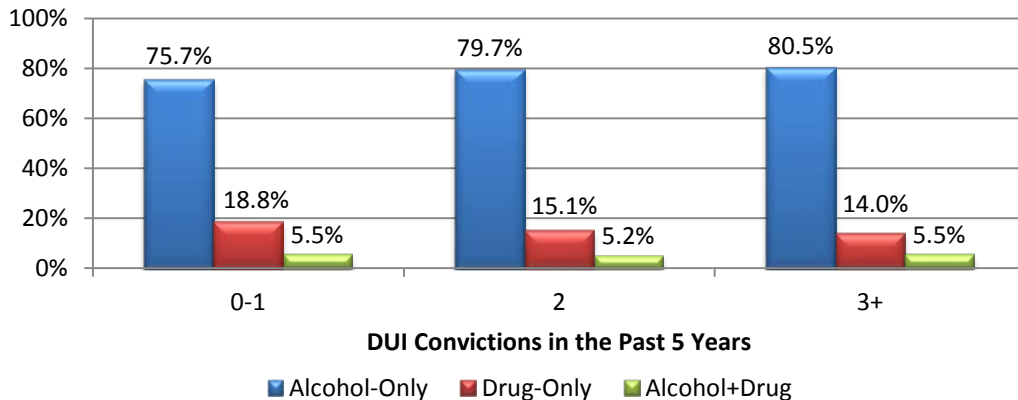


* Missing Data = 5,116 Assessments. Marital status is an optional field in KDAI.

2.6 Substance(s) Involved in DUI Arrest by Number of Convictions

Figure 2.7 presents the relationship between the type of DUI and the number of DUI convictions in the past five years. Persons convicted of their first DUI in the past five years (18.8%) were most likely to have a drug-only DUI.

Figure 2.7: Substance(s) Involved in DUI Arrest by Number of DUI Convictions in the Past 5 Years*



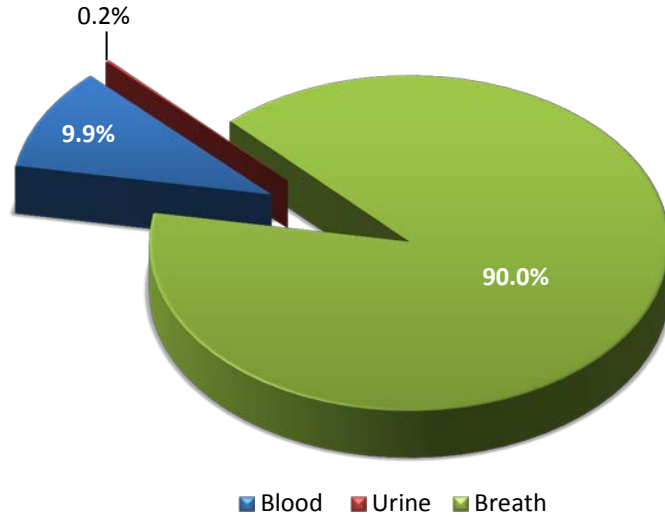
* Missing Data = 36 Assessments

2.7 Alcohol/Drug Tests

In 2014, assessment information revealed that a majority of DUI offenders had their Blood Alcohol Content (BAC) measured with their current DUI (63.5%). Of the 13,539 offenders who had their BAC measured, a majority had their breath tested (90.0%) while only 0.2% were urine-tested. Figure 2.8 presents the number of DUI assessments by method of BAC measurement.

Figure 2.8:
Assessments by BAC
Measurement Method*

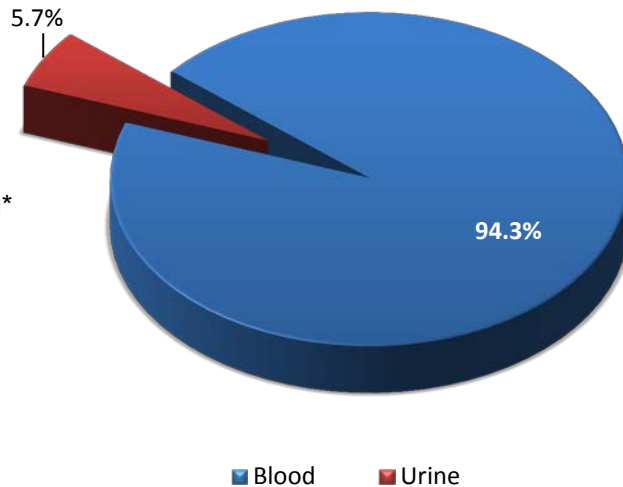
* Missing Data = 28 Assessments
Not Tested = 7,782 Individuals



Assessment information also revealed that only a small percentage of DUI offenders were drug tested with their current DUI (14.5%). Of the 3,093 tested, most had their blood tested (94.3%). Figure 2.9 presents the number of DUI assessments by method of drug testing.

Figure 2.9:
Assessments by Drug Test Method*

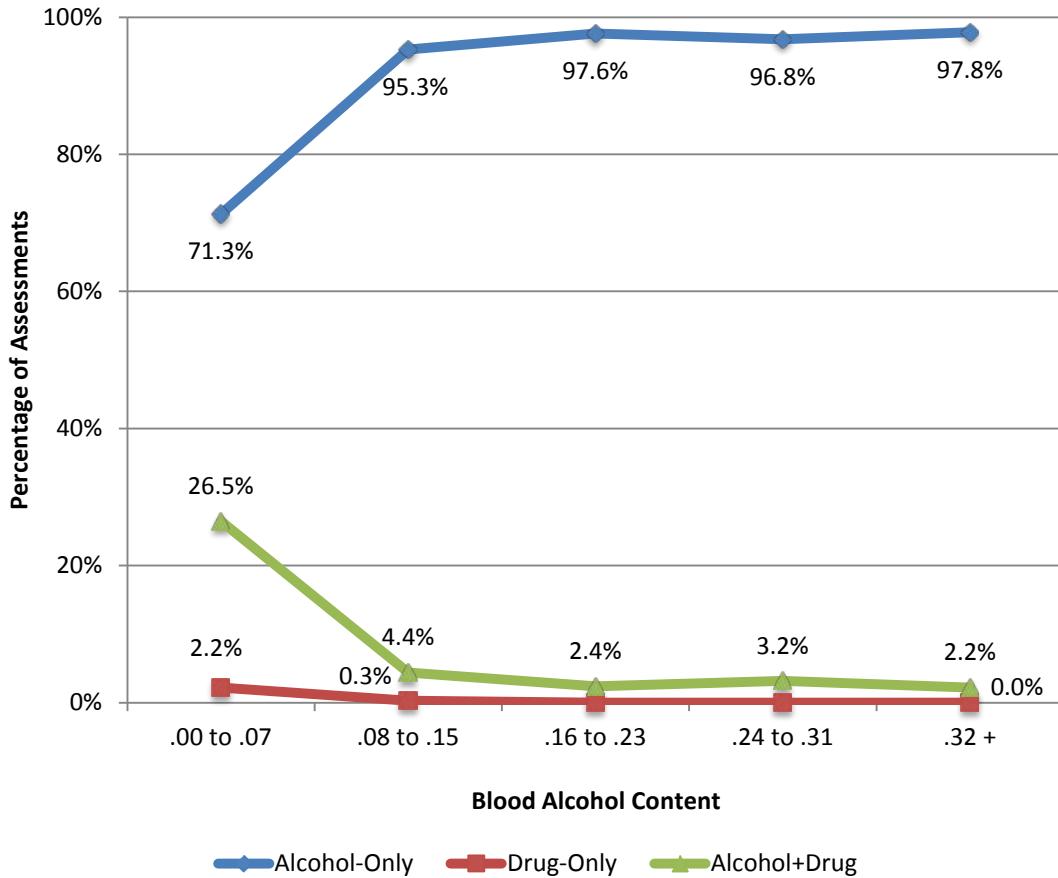
* Missing Data = 0 Assessments
Not Tested = 18,228 Individuals



2.8 Substance(s) Involved in DUI Arrest by Blood Alcohol Content

Figure 2.10 presents trends for BAC and the type of substance(s) involved in the current DUI. There was a relationship between BAC and type of DUI with higher BACs reported for individuals involved in alcohol-only DUIs.

Figure 2.10: Substance(s) Involved in DUI Arrest by Blood Alcohol Content*



* Missing Data = 9,658 Assessments. This includes both alcohol- and drug-involved offenders.

Substances Summary

More than 4 out of 5 DUI assessments were for DUIs that involved alcohol. Women and White persons were most likely to have driven under the influence of drugs in relation to males and non-Whites. Age was also related to drug involvement. Drug-involved DUI offenders were more likely to be younger than 21 and were more likely to be first time DUI offenders.

SECTION THREE
SCREENING

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3.1 AUDIT and DAST by Gender

The Alcohol Use Disorders Identification Test (AUDIT) is designed to identify problem drinking. The test consists of 10 questions each scored from 0 to 4. The final score is computed as the sum of the 10 individual question scores. A final score of 8 or more suggests a likely drinking problem. Males had a higher average score than females (see Table 3.1). Appendix A (page 85) contains average scores for each AUDIT question by gender.

Table 3.1: AUDIT Scores*

| | Males | Females | Total |
|-----------------------|---------------|---------------|---------------|
| Positive (8+) | 5,167 (32.1%) | 1,189 (22.7%) | 6,356 (29.8%) |
| Average Score | 6.54 | 5.30 | 6.24 |
| Number of Assessments | 16,092 | 5,229 | 21,321 |

* Missing Data = 0 Assessments

The Drug Abuse Screening Test (DAST) assesses drug use problems. The test consists of 28 true/false questions scored as 1 or 0. A summed score of 5 or more identifies a person with a potential drug problem. Females had a higher average score than males (see Table 3.2). Appendix B (page 88) contains average scores for each DAST question by gender.

Table 3.2: DAST Scores*

| | Males | Females | Total |
|-----------------------|---------------|---------------|---------------|
| Positive (5+) | 3,389 (21.1%) | 1,316 (25.2%) | 4,705 (22.1%) |
| Average Score | 2.83 | 3.51 | 2.99 |
| Number of Assessments | 16,092 | 5,229 | 21,321 |

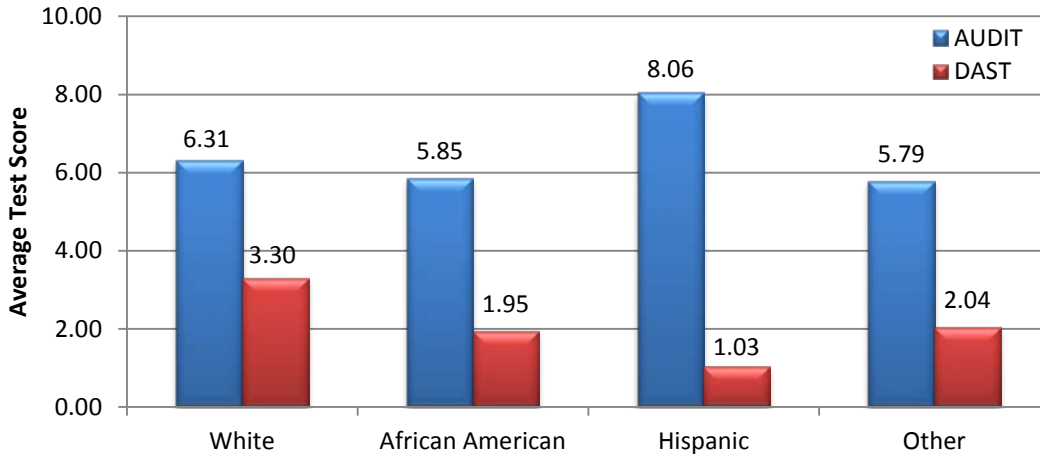
* Missing Data = 11 Assessments

Please note that screening instruments do not dictate a level of care. Screening instruments, in combination with a face-to-face interview, assist clinicians in determining the appropriate level of care for individuals.

3.2 AUDIT and DAST by Race/Ethnicity

Figure 3.1 presents the AUDIT and DAST scores by race/ethnicity. Hispanic persons had the highest average AUDIT scores (8.06) while White persons had the highest average DAST scores (3.30). Figure 3.3 presents the average AUDIT and DAST scores by race/ethnicity.

Figure 3.1: AUDIT and DAST by Race/Ethnicity*

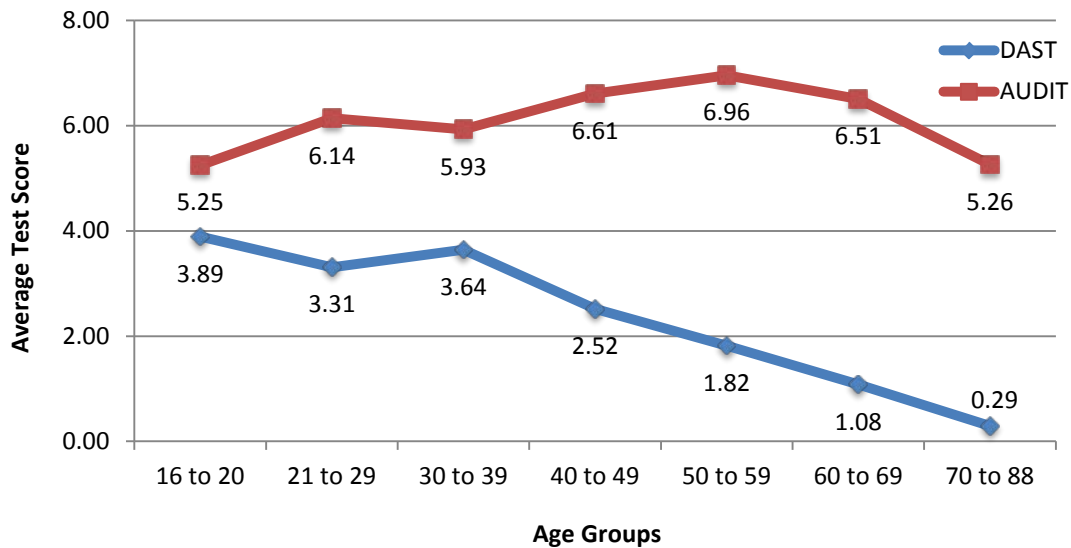


* Missing Data = 3,968 DUI Convictions for AUDIT and DAST. Race/Ethnicity is an optional field in KDAI.

3.3 AUDIT and DAST by Age

Figure 3.2 presents the AUDIT and DAST scores by age groups. AUDIT scores increase overall with the age of DUI offenders, while DAST scores are lower for older offenders.

Figure 3.2: AUDIT and DAST by Age at Conviction*

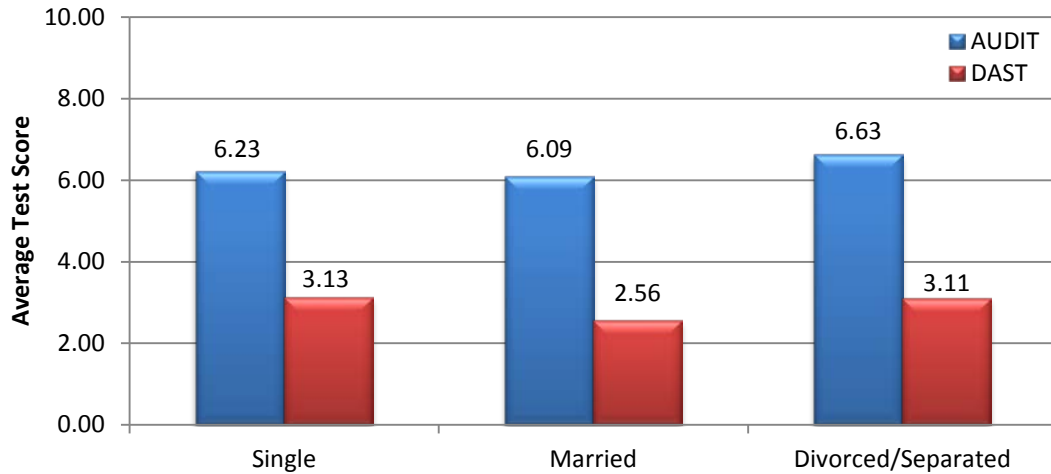


* Missing Data = 8 DUI Convictions for AUDIT and DAST

3.4 AUDIT and DAST by Marital Status

Figure 3.3 presents AUDIT and DAST scores by marital status of persons convicted of DUI. Married persons have the lowest average AUDIT (6.09) and DAST (2.56) scores.

Figure 3.3: AUDIT and DAST by Marital Status*

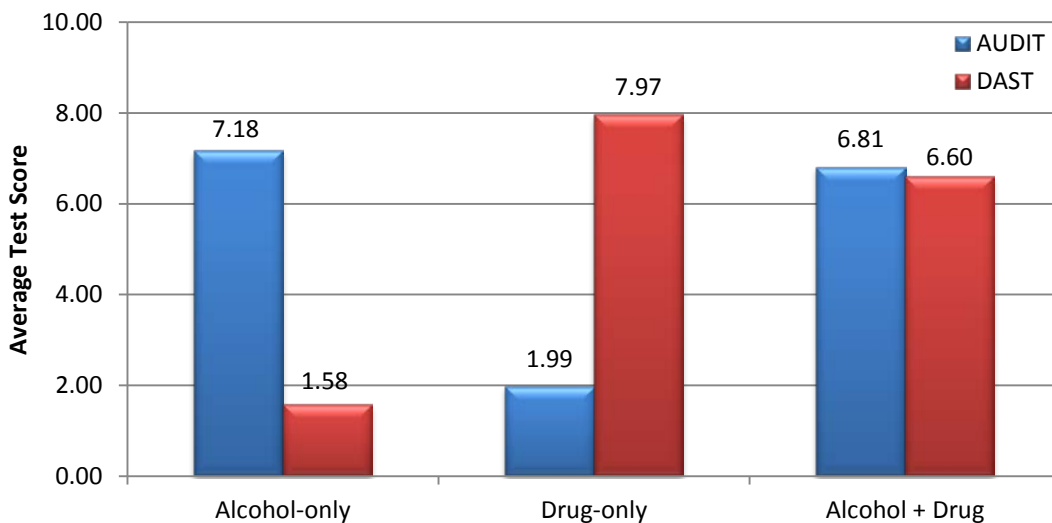


* Missing Data = 5,085 DUI Convictions for AUDIT and DAST. Marital status is an optional field in KDAI.

3.5 AUDIT and DAST by Substance(s) Involved in DUI Arrest

Figure 3.4 presents AUDIT and DAST scores for each of the DUI types. As expected, AUDIT scores are higher for individuals with alcohol-involved DUIs compared to those who had drug-only DUIs. Conversely, DAST scores were significantly higher for those individuals who had drug-involved DUIs.

Figure 3.4: AUDIT and DAST by Substance(s) Involved in DUI Arrest *

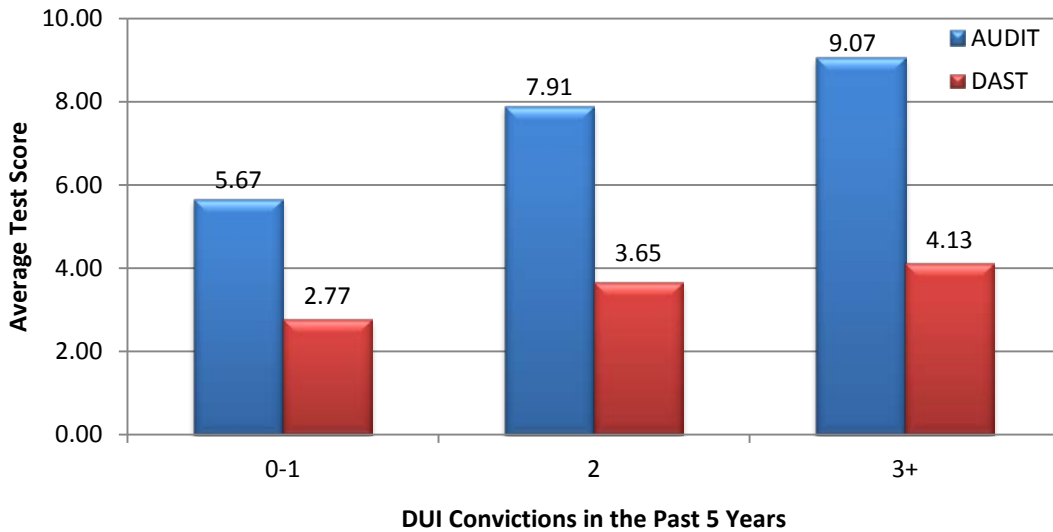


* Missing Data = 36 DUI Convictions for AUDIT and DAST

3.6 AUDIT and DAST by Number of Convictions

Figure 3.5 presents the relation between AUDIT and DAST scores and the number of DUI convictions in the past five years. Persons convicted of their first DUI in the past five years had an average score of 5.67 on the AUDIT and 2.77 on the DAST. Similar to lifetime DUI convictions, offenders with three or more prior convictions had higher average scores on both the AUDIT and DAST (9.07; 4.13).

Figure 3.5: AUDIT and DAST by Number of DUI Convictions in the Past 5 Years*



* Missing Data = 0 DUI Convictions for AUDIT and DAST

3.7 DSM-5 Substance Use Disorders by Gender

As mentioned in the Background (page 10), the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) was not incorporated into KDAI until June 2014. Thus, of the 21,321 assessments submitted in 2014, only 11,832 were conducted using the DSM-5. According to the DSM-5, individuals who meet two or more DSM criteria for a given substance within a 12-month period have a substance use disorder. Table 3.3 presents the percentage of DUI offenders with substance use disorders separated by gender. In 2014, females convicted of DUI had a higher rate of drug use disorders (19.6%) than males convicted of DUI (14.7%), while males had a higher rate of alcohol use disorders (42.4% vs. 33.9%).

Table 3.3: DSM-5 Substance Use Disorders by Gender*

| | Males | Females | Total |
|-----------------------------|---------------|---------------|---------------|
| No Disorder | 4,367 (48.6%) | 1,511 (53.0%) | 5,878 (49.7%) |
| Alcohol Use Disorder Only | 3,294 (36.7%) | 781 (27.4%) | 4,075 (34.4%) |
| Drug Use Disorder Only | 810 (9.0%) | 374 (13.1%) | 1,184 (10.0%) |
| Alcohol & Drug Use Disorder | 509 (5.7%) | 186 (6.5%) | 695 (5.9%) |

* Missing Data = 0 Assessments

Table 3.4 presents the percentage of DUI offenders with substance use disorders by severity separated by gender. Meeting 2-3 criteria within a 12-month period indicates a mild disorder; 4-5 criteria, a moderate disorder; and 6 criteria or more, a severe substance use disorder. In 2014, females convicted of DUI had a slightly higher rate of severe substance use disorders (16.9%) than males convicted of DUI (15.8%), while males had a higher rate of both mild (23.8% vs. 21.2%) and moderate (11.8% vs. 9.0%) substance use disorders.

Table 3.4: DSM-5 Substance Use Disorder Severity by Gender*

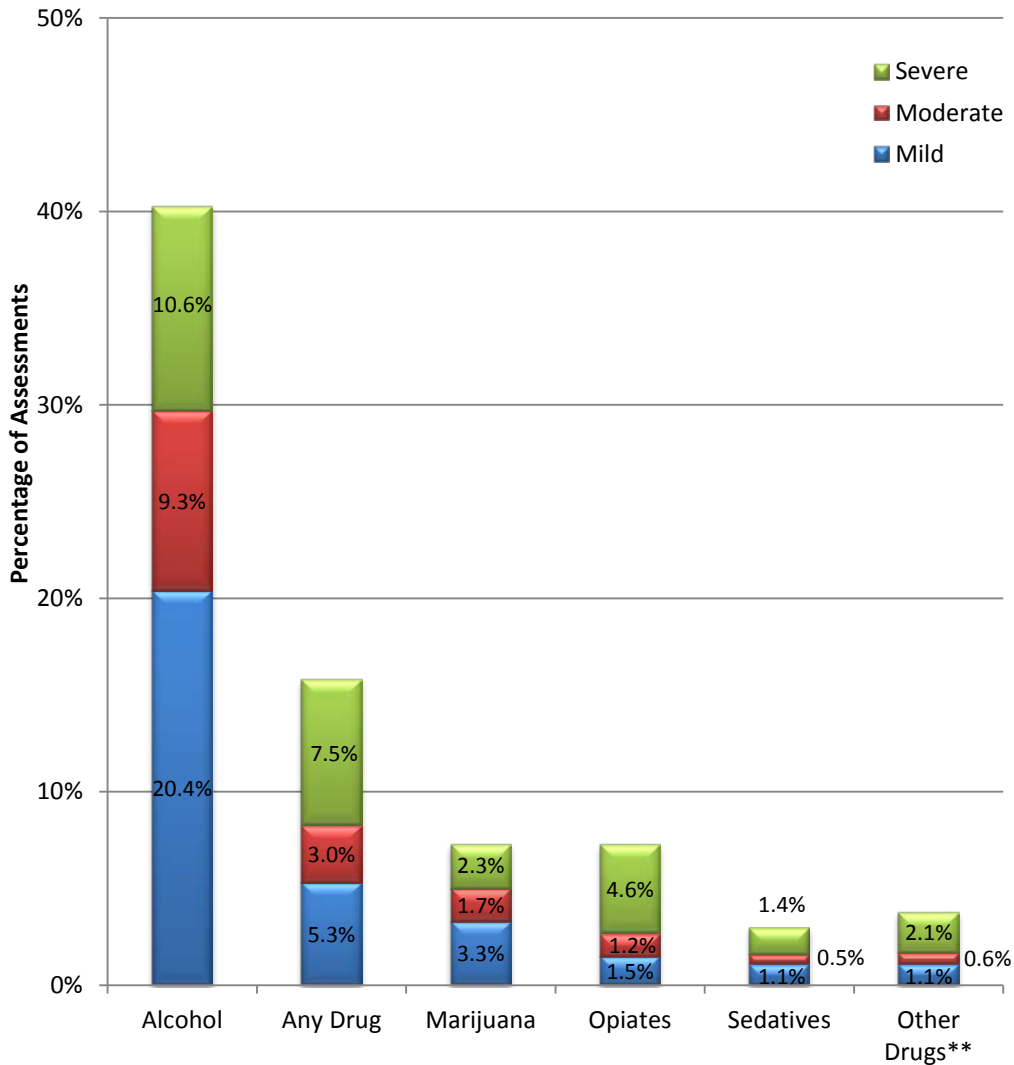
| | Males | Females | Total |
|----------|---------------|-------------|---------------|
| Mild | 2,136 (23.8%) | 604 (21.2%) | 2,740 (23.2%) |
| Moderate | 1,058 (11.8%) | 256 (9.0%) | 1,314 (11.1%) |
| Severe | 1,419 (15.8%) | 481 (16.9%) | 1,900 (16.1%) |

* Missing Data = 0 Assessments

3.8 DSM-5 Substance Use Disorder Severity for Alcohol and Drugs

Figure 3.6 presents substance use disorder information across individual substances. Individuals were most likely to meet criteria for an alcohol use disorder (40.3%) followed by marijuana and opiate use disorders (7.3%). Individuals are least likely to meet criteria for a sedative use disorder (3.0%). The highest percentage of severe substance use disorders were for alcohol (10.6%).

Figure 3.6: DSM-5 Substance Use Disorders By Individual Substances*



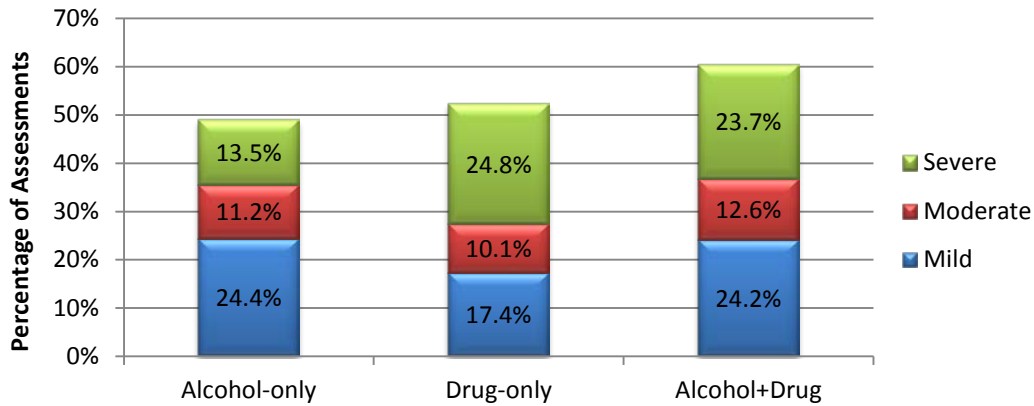
* Missing Data = 0 Assessments

**Other drugs include cocaine, amphetamines, hallucinogens, inhalants, PCP, and any other drugs not mentioned.

3.9 DSM-5 Substance Use Disorders by Substance(s) Involved in DUI Arrest

Figure 3.7 presents DSM-5 substance use disorder severity based on whether the DUI arrest was alcohol-involved, drug-involved, or both alcohol and drugs were involved. Individuals whose current DUI involved both alcohol and drugs were more likely to meet criteria (60.5%) for a substance use disorder than those involved in alcohol-only (49.1%) or drug-only DUIs (52.3%). Individuals whose current DUI involved only drugs were most likely to meet criteria for a severe substance use disorder (24.8%).

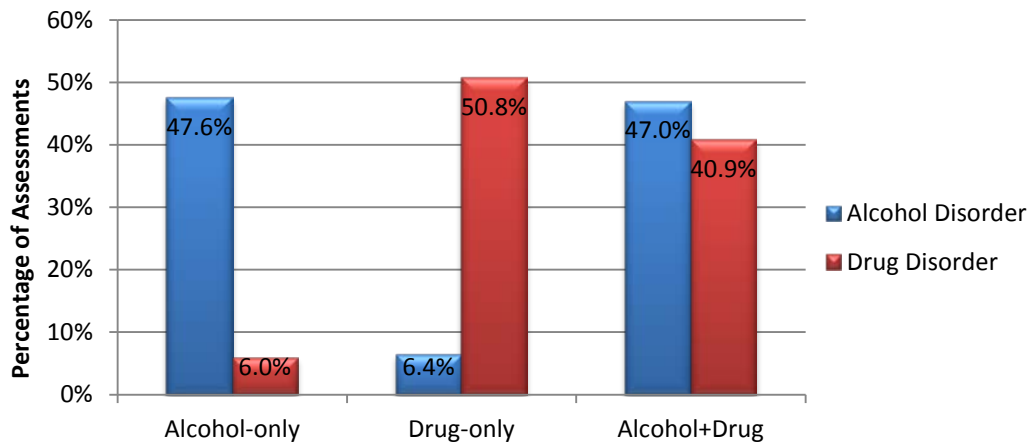
Figure 3.7: DSM-5 Substance Use Disorder Severity by Substance(s) Involved in DUI Arrest*



* Missing Data = 36 Assessments

Figure 3.8 presents DSM-5 substance use disorders based on the substance(s) involved in the DUI arrest. Individuals whose current DUI involved only drugs were more likely to meet criteria (50.8%) for a drug use disorder while those involved in alcohol-only DUIs were more likely to meet criteria for an alcohol use disorder (47.6%).

Figure 3.8: DSM-5 Substance Use Disorders by Substance(s) Involved in DUI Arrest*

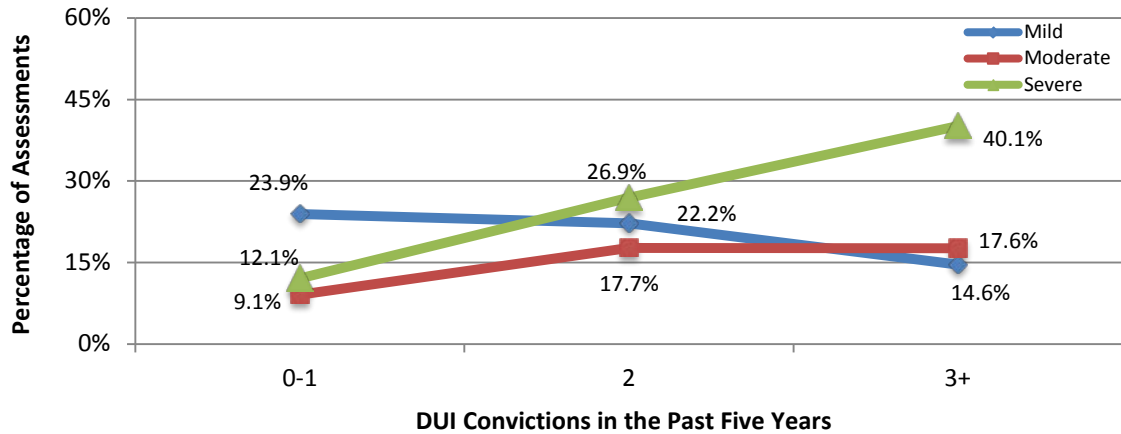


* Missing Data = 36 Assessments

3.10 DSM-5 Substance Use Disorders by Number of Convictions

Figures 3.9 and 3.10 compare the percentage of persons who reported DSM-5 criteria for a substance use disorder with the number of previous DUI convictions in the past five years. As presented in Figure 3.9, the percentage of persons who met criteria for a moderate or severe substance use disorder increases overall as the number of DUI convictions in the past five years increases. The percentage of persons reporting a mild substance use disorder decreases as the number of convictions increases.

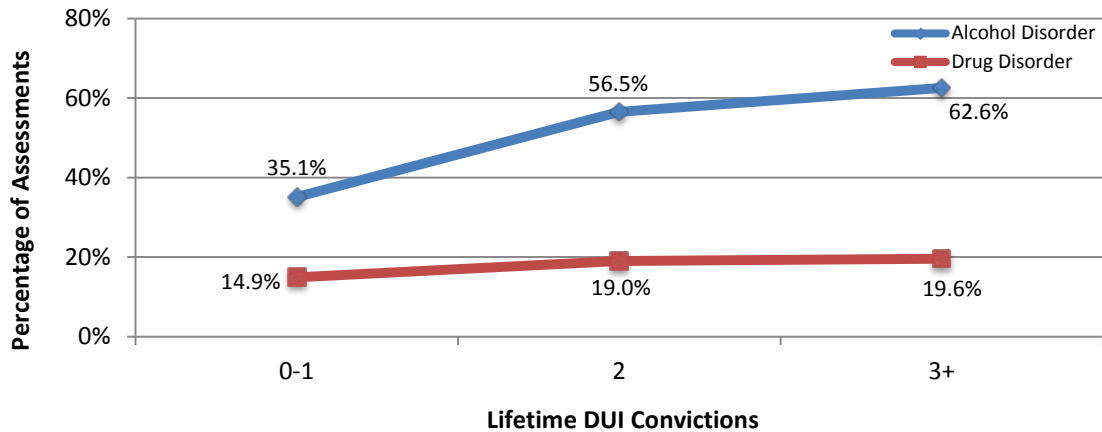
Figure 3.9: DSM-5 Substance Use Disorder Severity by Number of DUI Convictions in the Past Five Years*



* Missing Data = 0 Assessments

As shown in Figure 3.10, the percentage of persons reporting DSM criteria for an alcohol use disorder increases as the number of DUI convictions in the past 5 years increases while the percentage of persons reporting a drug use disorder remains fairly stable.

Figure 3.10: DSM-5 Substance Use Disorders by Number of DUI Convictions in the Past Five Years*

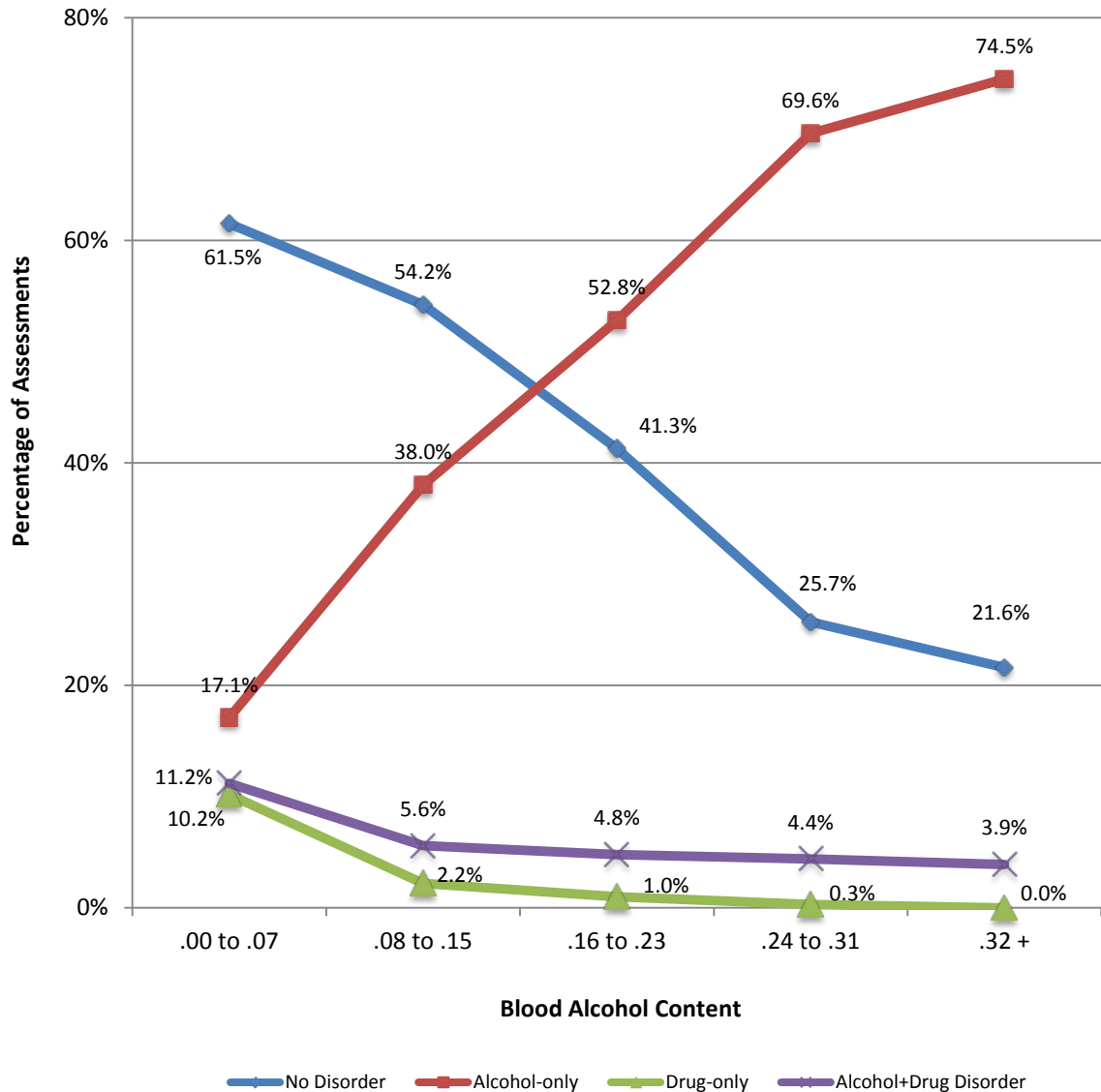


* Missing Data = 0 Assessments

3.11 DSM-5 Substance Use Disorders by Blood Alcohol Content

There was a relationship between Blood Alcohol Content (BAC) and individuals who met DSM-5 criteria for a substance use disorder in their lifetime. Figure 3.11 presents substance use disorders based on BAC level. Persons who were convicted with a higher BAC (.16+) were more likely to self-report DSM-5 criteria for an alcohol use disorder while those convicted with a lower BAC (less than .15) were more likely to report DSM-5 criteria for a drug-use disorder or no substance use disorder.

Figure 3.11: Percentage of Persons Meeting Substance Use Disorder Criteria by Blood Alcohol Content (g/dL)*



* Missing Data = 5,277 Assessments

Screening Summary

Interesting demographic differences were found on the AUDIT and DAST. Specifically, women and those 40 years old and younger had higher DAST scores but lower AUDIT scores than males and persons 40 and older. Demographic differences in DSM-5 criteria were also noteworthy with females being more likely to report a drug use disorder and a severe substance use disorder. Lastly, individuals whose current DUI involved drugs were more likely to report two or more substance use disorder criteria in the past 12 months than those involved in alcohol-only DUIs.

Additional screening information can be found throughout the 2014 Kentucky DUI Assessment Report. AUDIT information can be found Sections 5.8, 6.5, and 7.5. DAST information can be found in Sections 5.9, 6.5, and 7.3. DSM information can be found in Sections 4.9, 5.10, 6.5, and 7.4.

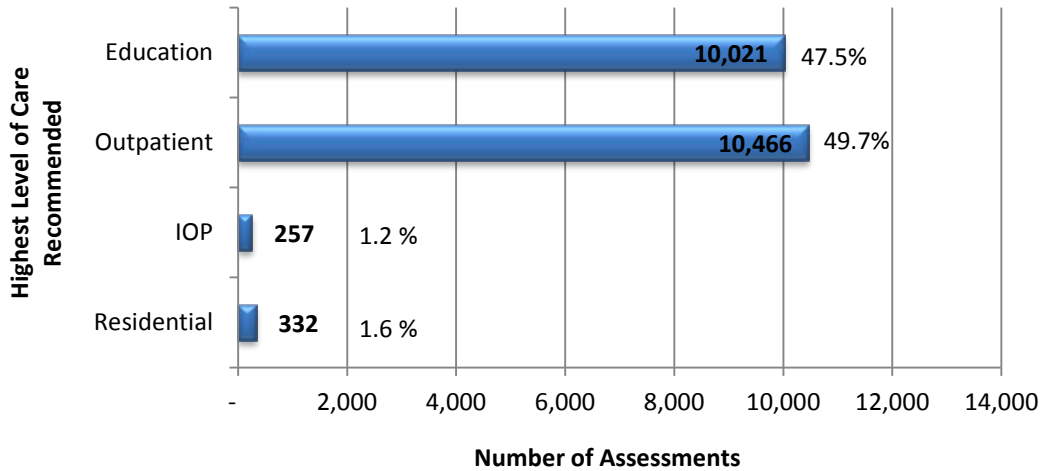
SECTION FOUR
TREATMENT REFERRALS

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4.1 Level of Care Recommended

Figure 4.1 presents the assessors’ education and treatment intervention referrals. Only the highest level of care recommended is provided. For example, if an individual was recommended for outpatient (OP) and intensive outpatient (IOP), only the IOP recommendation is presented. Figure 4.1 indicates that almost everyone assessed (97.2%) was referred for education or outpatient treatment as their highest level of care.

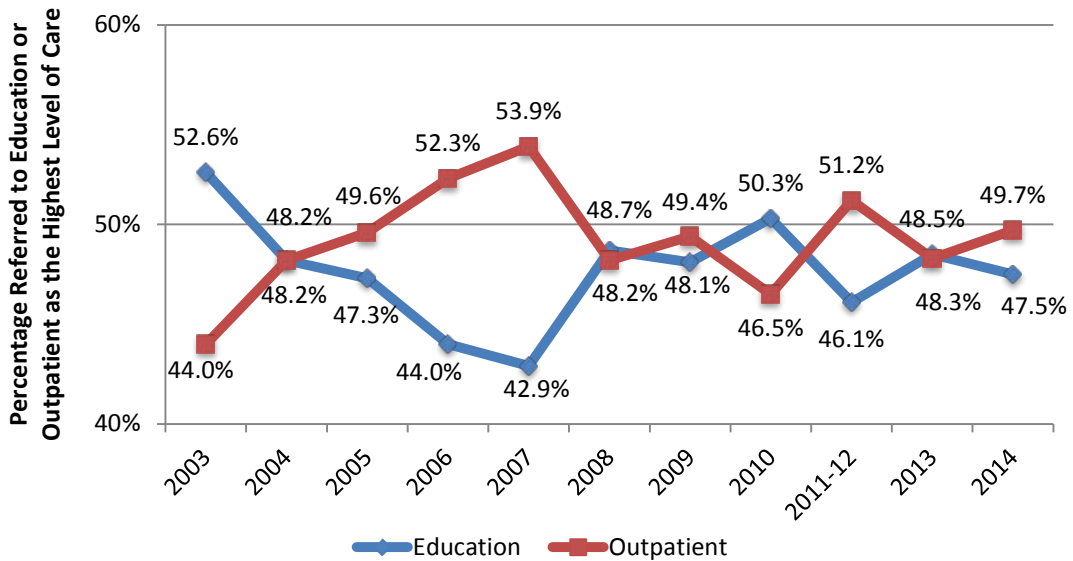
Figure 4.1: Highest Level of Care Recommended*



* Missing Data = 245 Assessments

Figure 4.2 presents the percentage of assessments that were referred for education or outpatient as the highest level of care from 2003 to 2014. The percentage of education versus outpatient referrals remained similar between 2008 and 2014.

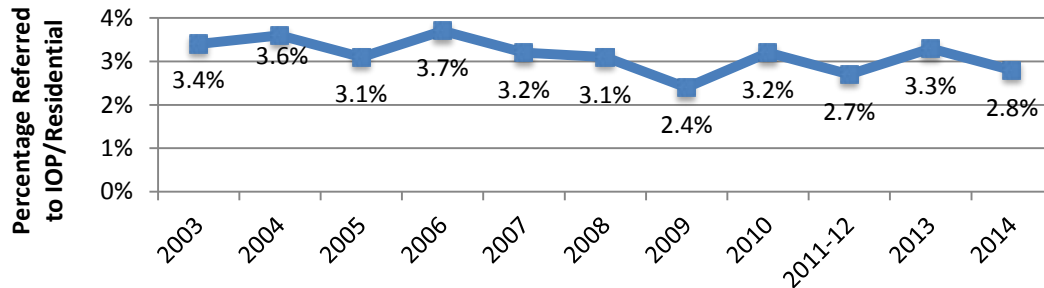
Figure 4.2: Education and Outpatient Referrals 2003 to 2014



TREATMENT REFERRALS

Figure 4.3 presents the percentage of assessments referred for IOP and/or residential treatment from 2003 to 2014. The percentage of assessments with an IOP or residential referral has remained relatively stable over the past eleven years.

Figure 4.3: Intensive Outpatient and Residential Treatment Referrals 2003 to 2014



4.2 Total Referrals

Table 4.1 presents the number of referrals to each level of care, including multiple referrals. This represents the total number of intervention referrals to a specific intervention regardless of how many other levels of care were recommended.

Table 4.1: Total Referrals*†

| | |
|----------------------|--------|
| Education | 10,559 |
| Outpatient | 10,552 |
| Intensive Outpatient | 279 |
| Residential | 332 |

* Missing Data = 0 Assessments

† Some assessments are counted twice because some individuals are referred to more than one level of care

Table 4.2 presents all intervention combinations. It is interesting to note that approximately 30.4% of persons recommended for residential services were also recommended for an additional level of care.

Table 4.2: Total Referrals by Combination*

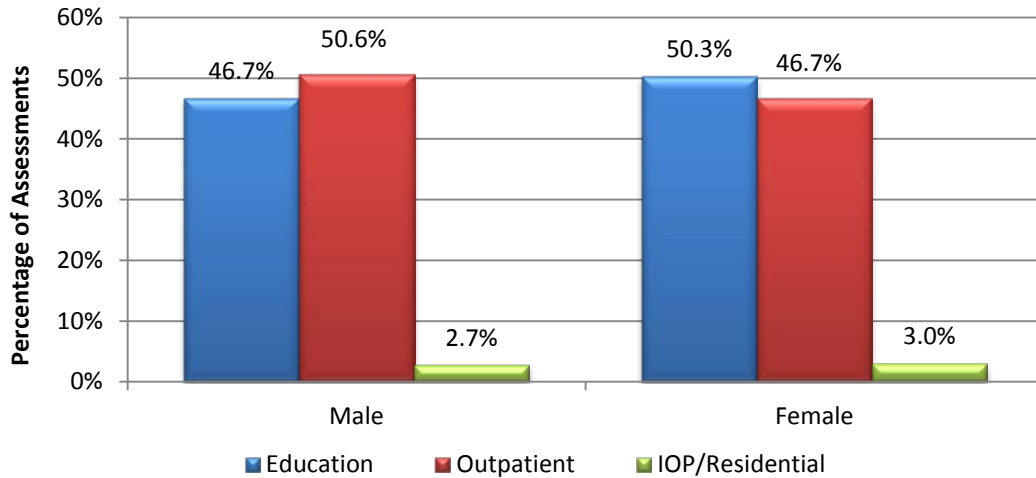
| | | | |
|----------------------|--------|----------------------|-----|
| Education | 10,021 | Res & IOP | 22 |
| Outpatient | 9,942 | Res & IOP & Edu | 0 |
| OP & Edu | 524 | Res & IOP & OP | 0 |
| Intensive Outpatient | 237 | Res & IOP & OP & Edu | 0 |
| IOP & Edu | 1 | | |
| IOP & OP | 19 | Key: | |
| IOP & OP & Edu | 0 | Education | Edu |
| Residential | 231 | Outpatient | OP |
| Res & Edu | 12 | Intensive Outpatient | IOP |
| Res & OP | 66 | Residential | Res |
| Res & OP & Edu | 1 | | |

* Missing Data = 245 Assessments

4.3 Recommended Level of Care by Gender

Figure 4.4 presents the highest level of care recommended by gender of persons convicted of DUI. Male DUI offenders were most often referred to an outpatient intervention (50.6%) as their highest level of care while female offenders were most often referred to an education intervention (50.3%) as their highest level of care.

Figure 4.4: Highest Level of Care by Gender*

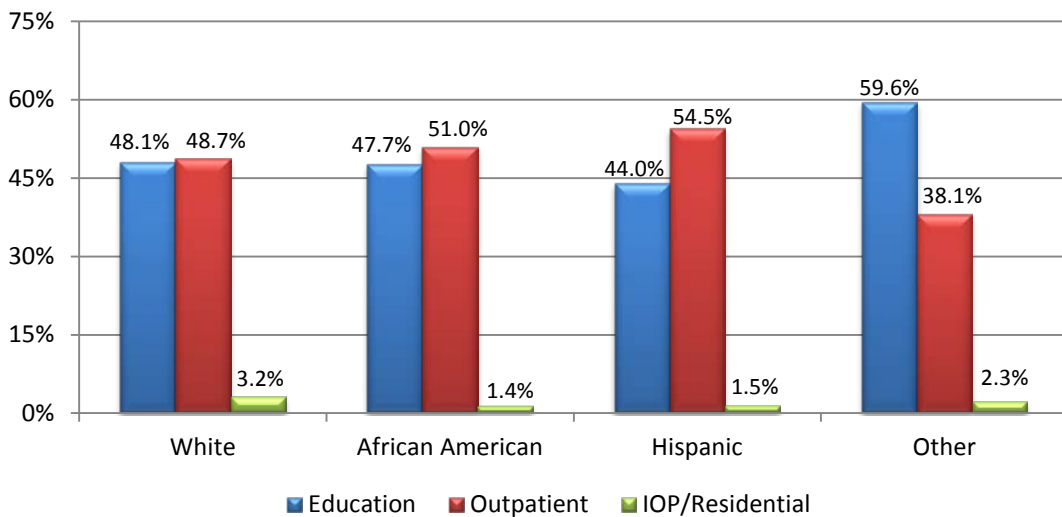


* Missing Data = 245 Assessments

4.4 Recommended Level of Care by Race/Ethnicity

Figure 4.5 presents the highest level of care recommended by race/ethnicity in 2014. Compared to other racial/ethnic groups, Hispanic persons (54.5%) were more often referred to outpatient treatment while White persons were more often referred to IOP/residential treatment.

Figure 4.5: Highest Level of Care by Race*

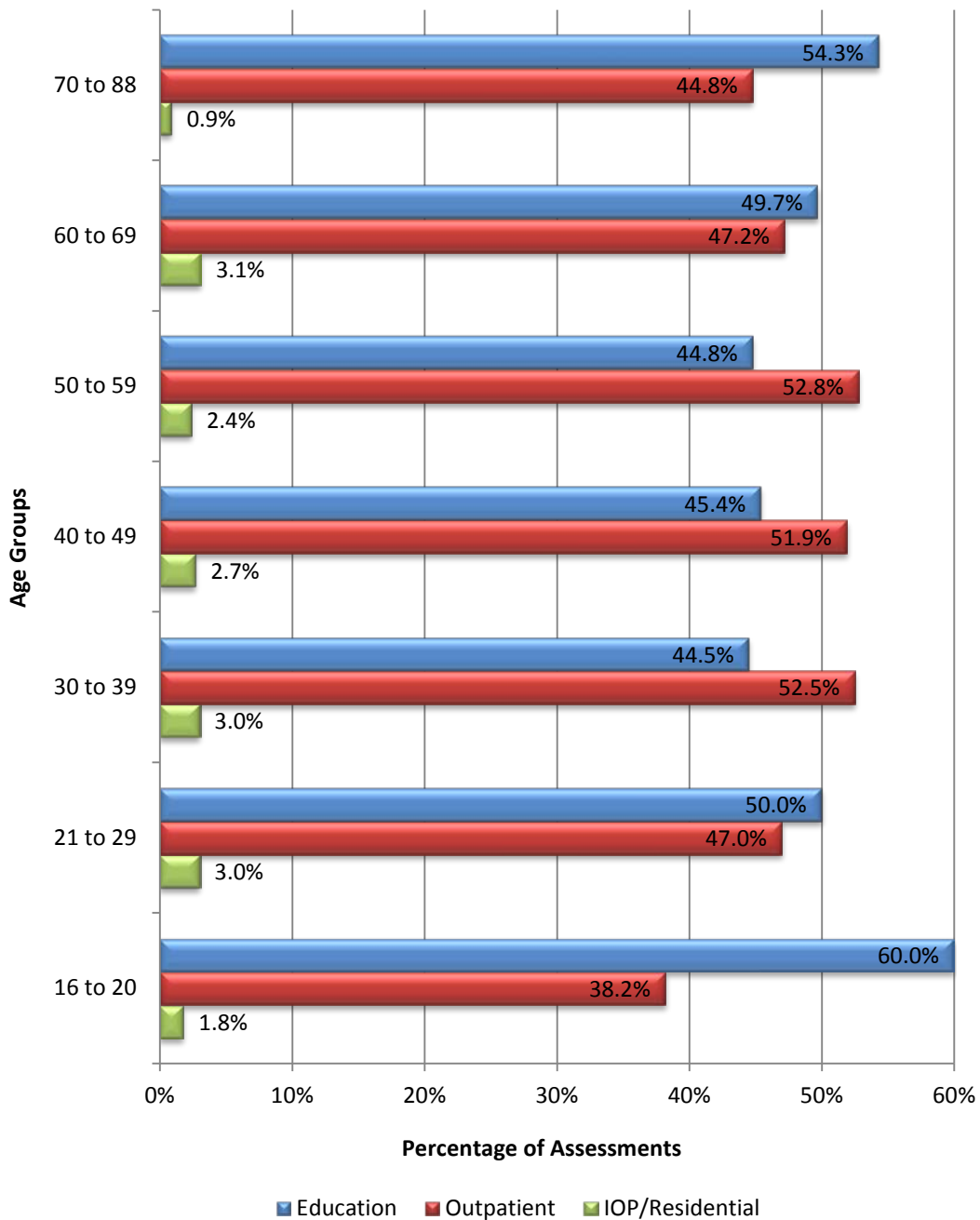


* Missing Data = 4,128 Assessments. Race/Ethnicity is an optional field in KDAI.

4.5 Recommended Level of Care by Age

Figure 4.6 presents the highest level of care recommended for each age group. Persons who are between the ages of 60 and 69 were more likely to be referred to intensive outpatient or residential treatment as their highest level of care than individuals in other age groups while younger persons between the ages of 16 and 20 were more likely to be referred to an education intervention.

Figure 4.6: Highest Level of Care by Age at Conviction*

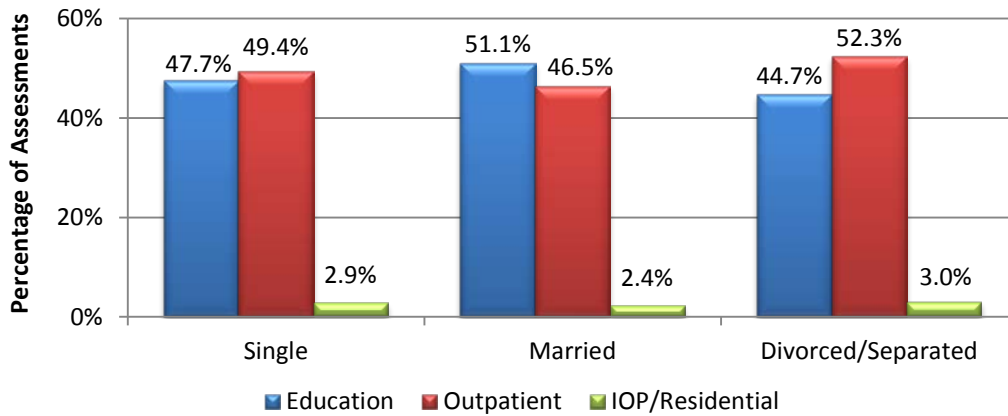


* Missing Data = 252 Assessments

4.6 Recommended Level of Care by Marital Status

Figure 4.7 presents the highest level of care recommended by marital status of persons convicted of DUI. Divorced/separated DUI offenders were most often referred to an outpatient intervention (52.3%) as their highest level of care while married offenders were most often referred to an education intervention (51.1%) as their highest level of care.

Figure 4.7: Highest Level of Care by Marital Status*

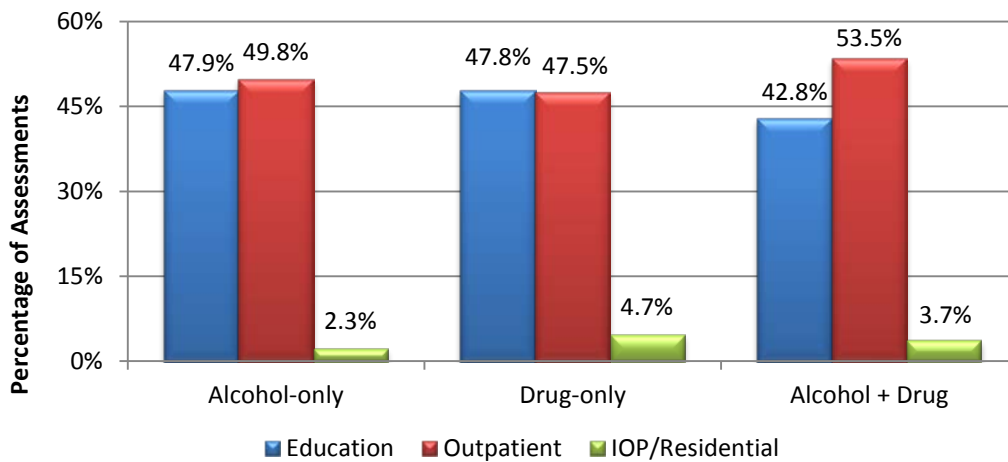


* Missing Data = 5,242 Assessments. Marital status is an optional field in KDAI.

4.7 Recommended Level of Care by Substance(s) Involved in DUI Arrest

Figure 4.8 presents the highest level of care recommended by the type of substance(s) involved in the current DUI offense. Offenders having either an alcohol-only or drug-only DUI were most likely to be referred to an education intervention as their highest level of care. However, offenders with a DUI that involved both drugs and alcohol were more likely (53.5%) to be referred to outpatient treatment than individuals with either an alcohol-only DUI (49.8%) or a drug-only DUI (47.5%).

Figure 4.8: Highest Level of Care by Substance(s) Involved in DUI Arrest *

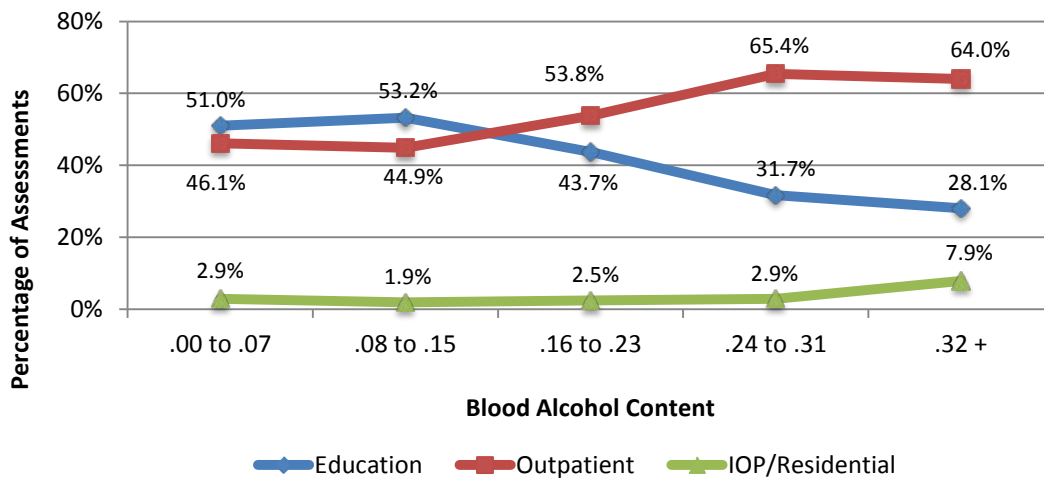


* Missing Data = 281 Assessments

4.8 Recommended Level of Care by Blood Alcohol Content

Figure 4.9 presents the highest level of care recommended and the Blood Alcohol Content of the current DUI. Persons who are under twice the legal limit (< 0.16 g/dL) were more likely to receive an education intervention. Persons above 0.16 g/dL were more likely to receive an outpatient recommendation. There is a trend for persons with higher BACs to be recommended for intensive outpatient or residential services.

Figure 4.9: Highest Level of Care by Blood Alcohol Content*

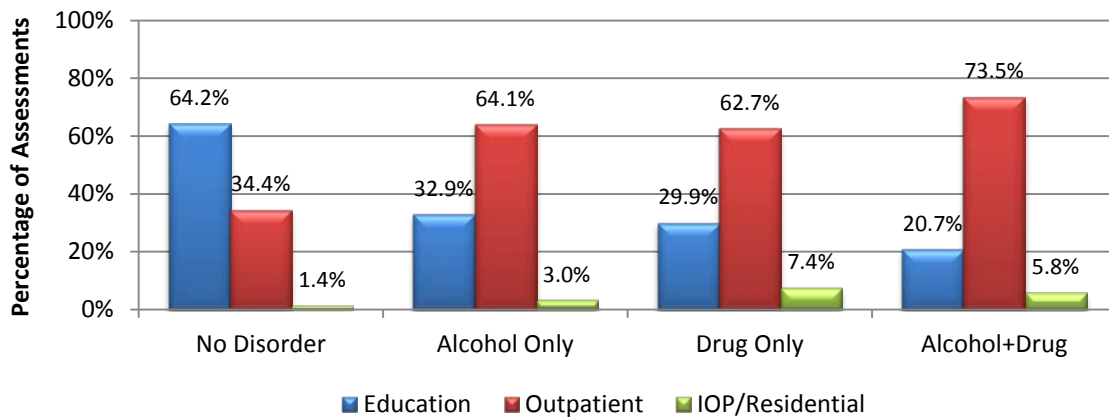


* Missing Data = 9,785 Assessments. This includes both alcohol- and drug-involved offenders.

4.9 Recommended Level of Care by DSM-5 Substance Use Disorders

Figure 4.10 presents the highest level of care by DSM-5 criteria. Persons who met two or more alcohol and drug use disorder criteria in the past 12 months were more likely than other DUI offenders to have received a treatment recommendation (79.3%). Persons who met less than 2 substance use disorder criteria were most likely to be referred to an education intervention (64.2%).

Figure 4.10: Highest Level of Care by DSM-5 Substance Use Disorders*

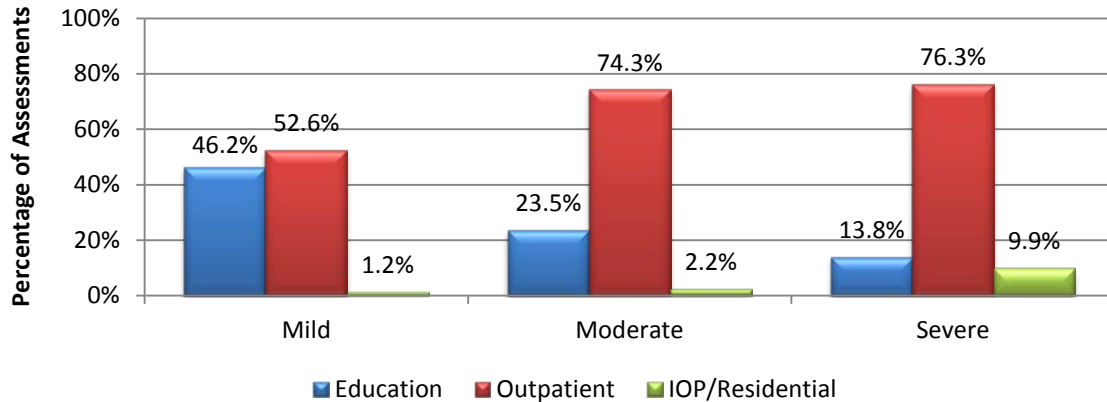


* Missing Data = 103 Assessments

TREATMENT REFERRALS

Figure 4.11 presents the highest level of care recommended by DSM-5 substance use disorder severity. Individuals meeting criteria for a severe substance use disorder were most likely to be referred to outpatient treatment (76.3%) and either intensive outpatient or residential treatment (9.9%) compared to individuals meeting criteria for a mild or moderate substance use disorder.

Figure 4.11: Highest Level of Care by DSM-5 Substance Use Disorder Severity*



* Missing Data = 103 Assessments

Referral Summary

Most of the persons assessed during 2014 were referred to 20-hour education or an outpatient treatment intervention. There is a relationship between the level of care recommended and DSM-5 criteria, with the intensity of the treatment modality increasing as problem severity increases. The level of care recommended and blood alcohol content are related in a similar manner with referrals to more intensive treatment modalities occurring more frequently as BAC increases.

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SECTION FIVE
COMPLIANCE

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5.1 Compliant vs. Non-Compliant

Of the 21,321 assessment records submitted in 2014, 15,829 records were also completed before December 31, 2014. As described in the Background (page 10), this means that the offender either met or did not meet the requirements of intervention to which they were referred and, as a result, were identified as compliant or non-compliant. Figure 5.1 presents assessments by compliance for those records that were completed during 2014. Overall, more than three-fourths (84.3%) of persons convicted of DUI were compliant with their assigned intervention. Table 5.1 lists the reasons a person would be deemed non-compliant and the corresponding percentages.

Figure 5.1:
Compliant vs. Non-Compliant*

* Missing Data = 0 Assessments

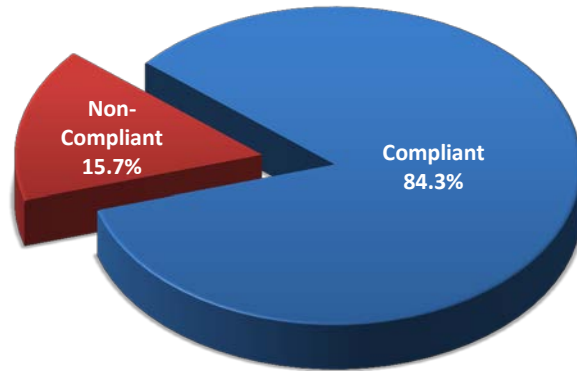
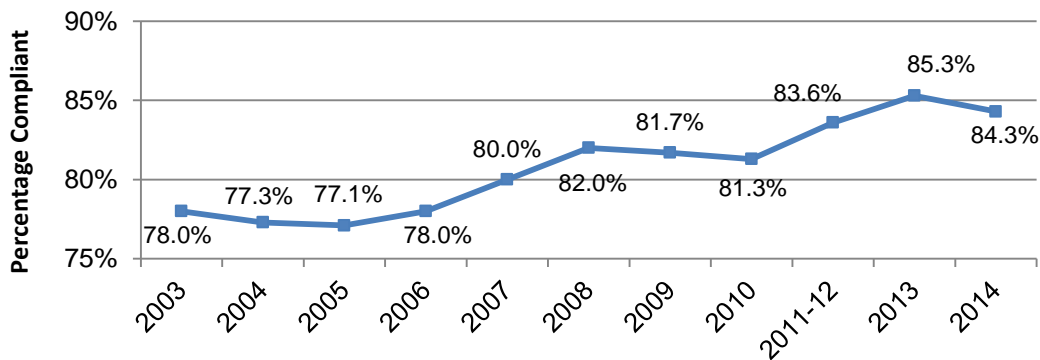


Table 5.1: Reasons for Non-Compliance

| | |
|---|-------|
| Failure to achieve treatment plan goals. | 1.4% |
| Failure to comply with rules of conduct. | 1.2% |
| Failure to comply with attendance requirements. | 90.5% |
| Failure to pay fees. | 6.9% |

Figure 5.2 presents the percentage of assessments that were compliant with their assigned education and/or treatment intervention. The percentage of compliant persons has overall increased since 2003.

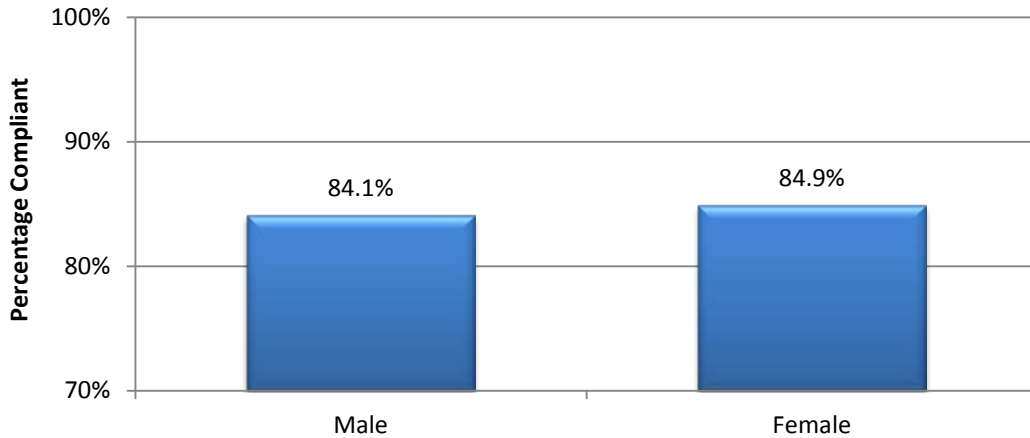
Figure 5.2: Percentage of Assessments that were Compliant 2003 to 2014



5.2 Compliance by Gender

Figure 5.3 presents compliance information by gender of persons convicted of DUI. Female DUI offenders were slightly more likely to comply with their assigned intervention (84.9%) compared to male offenders (84.1%).

Figure 5.3: Compliance by Gender*

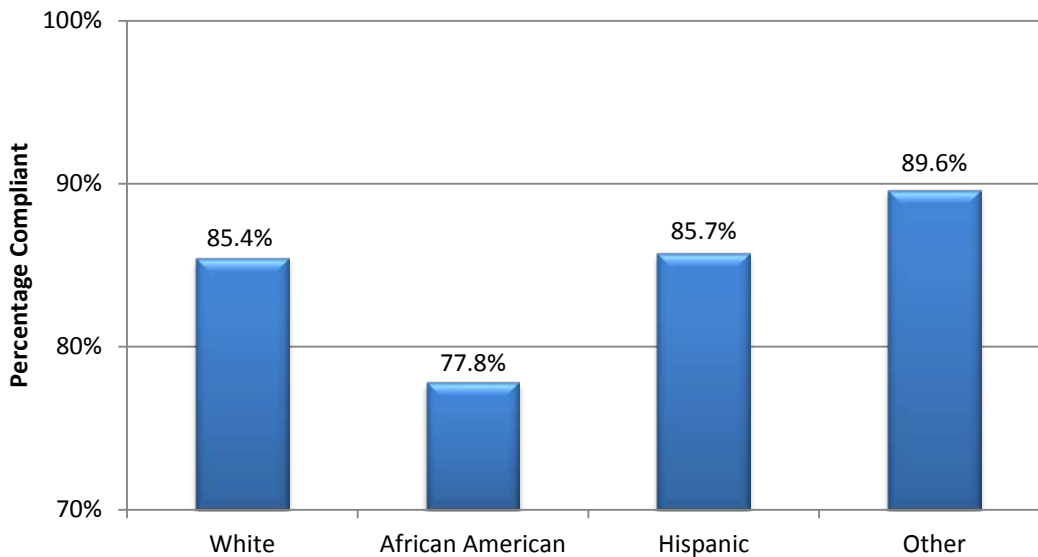


* Missing Data = 0 Assessments

5.3 Compliance by Race/Ethnicity

Figure 5.4 presents compliance by race/ethnicity. African American persons were less likely to comply (77.8%) than persons with other racial/ethnic backgrounds.

Figure 5.4: Compliance by Race/Ethnicity*

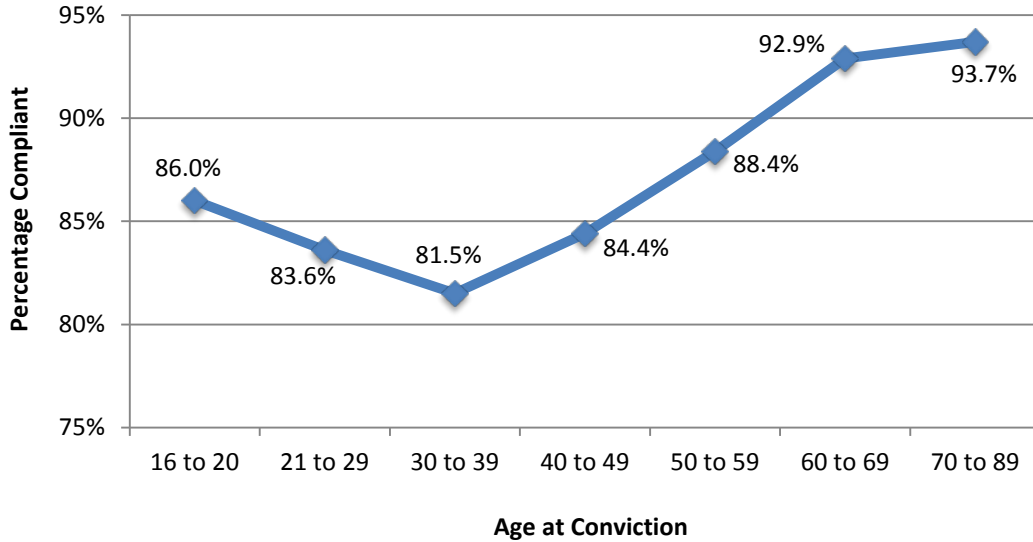


* Missing Data = 2,930 Assessments. Race/Ethnicity is an optional field in KDAI.

5.4 Compliance by Age

Figure 5.5 presents compliance rates by age groups, which indicate that younger persons tended to be less compliant.

Figure 5.5: Compliance by Age*

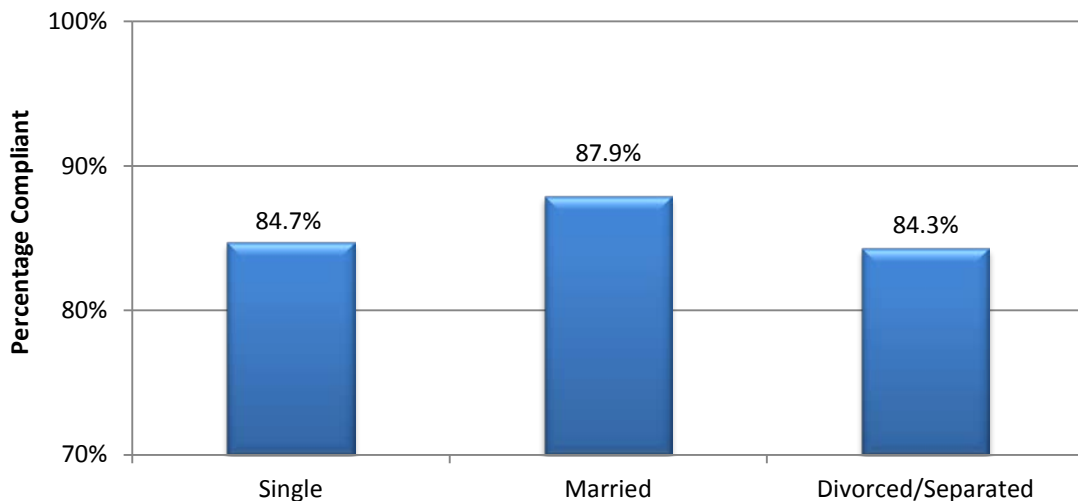


* Missing Data = 7 Assessments

5.5 Compliance by Marital Status

Figure 5.6 presents compliance information by offenders' marital status. A higher percentage of married DUI offenders (87.9%) complied with education and/or treatment recommendations compared to single offenders (84.7%) or those who were divorced/separated (84.3%).

Figure 5.6: Compliance by Marital Status*

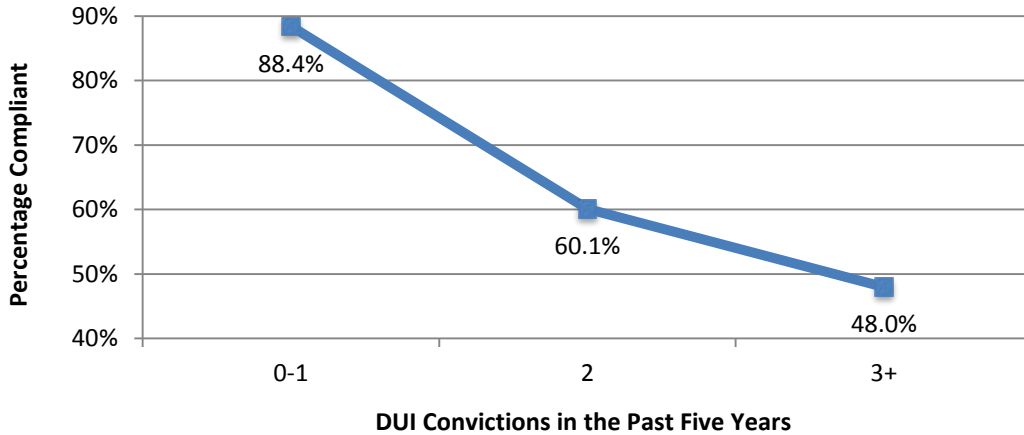


* Missing Data = 3,814 Assessments. Marital status is an optional field in KDAI.

5.6 Compliance by Number of DUI Convictions

Figure 5.7 presents compliance rates by DUI convictions in the past five years. Similar to compliance by lifetime DUI convictions, persons with multiple convictions in the past five years were less likely to be compliant with their assigned intervention than offenders convicted of only one DUI in the past five years.

Figure 5.7: Compliance by Number of DUI Convictions in the Past 5 Years*

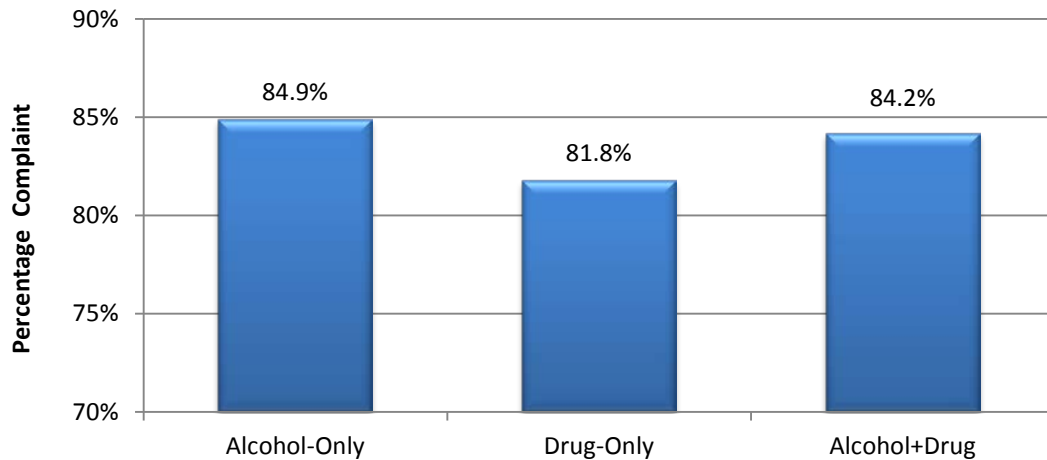


* Missing Data = 0 Assessments

5.7 Compliance by Substance(s) Involved in DUI Arrest

Individuals who reported driving under the influence of drugs with their current DUI had lower rates of compliance (81.8%) compared to offenders involved in alcohol-only DUIs (84.9%). Individuals whose current DUI involved both alcohol and drugs were only marginally less compliant (84.2%) compared to individuals with alcohol-only DUIs. Figure 5.8 presents compliance rates by the substance(s) involved in the current DUI.

Figure 5.8: Compliance by Substance(s) Involved in DUI Arrest *

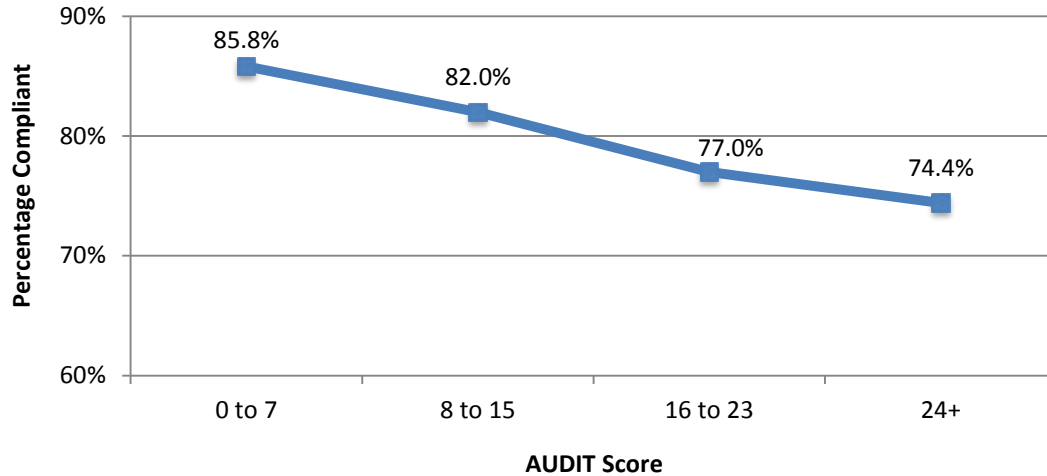


* Missing Data = 10 Assessments

5.8 Compliance by AUDIT Scores

Figure 5.9 presents compliance by AUDIT scores. Scores were grouped into four categories. The four groups represent Negative (persons who scored 0-7), Positive (8-15), 2x Positive (16-23), and 3x Positive (24 and higher). Higher AUDIT scores were associated with lower compliance.

Figure 5.9: Compliance by AUDIT Score*

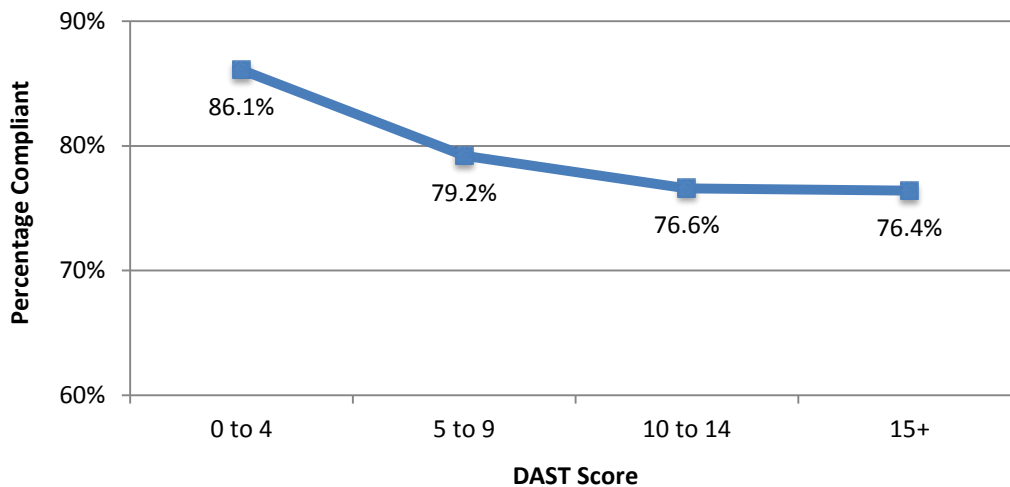


* Missing Data = 0 Assessments

5.9 Compliance by DAST Scores

Figure 5.10 presents compliance by DAST score ranges. DAST scores were also grouped into four categories. The four groups represent Negative (persons who scored 0-4), Positive (5-9), 2x Positive (10-14), and 3x Positive (15 and higher). Higher DAST scores were associated with lower compliance rates.

Figure 5.10: Compliance by DAST Scores*

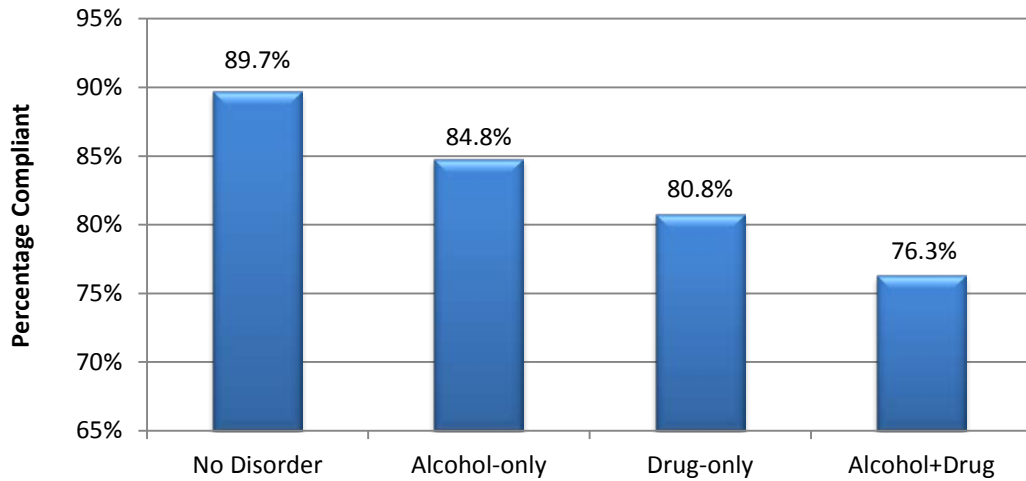


* Missing Data = 0 Assessments

5.10 Compliance by DSM-5 Substance Use Disorders

Figure 5.11 presents intervention compliance by DSM-5 substance use disorder type. Persons who met two or more substance use disorder criteria in the past 12 months were less likely to be compliant with their assigned intervention. Specifically, individuals who met two or more drug and alcohol use disorder criteria were the least likely to be compliant.

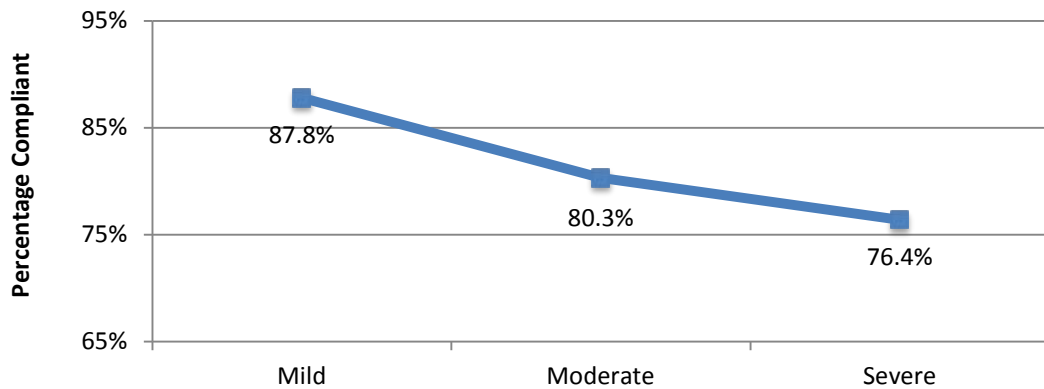
Figure 5.11: Compliance by DSM-5 Substance Use Disorders*



* Missing Data = 0 Assessments

Figure 5.12 presents compliance by DSM-5 substance use disorder severity. As severity increased, likelihood of compliance decreased.

Figure 5.12: Compliance by DSM-5 Substance Use Disorder Severity*

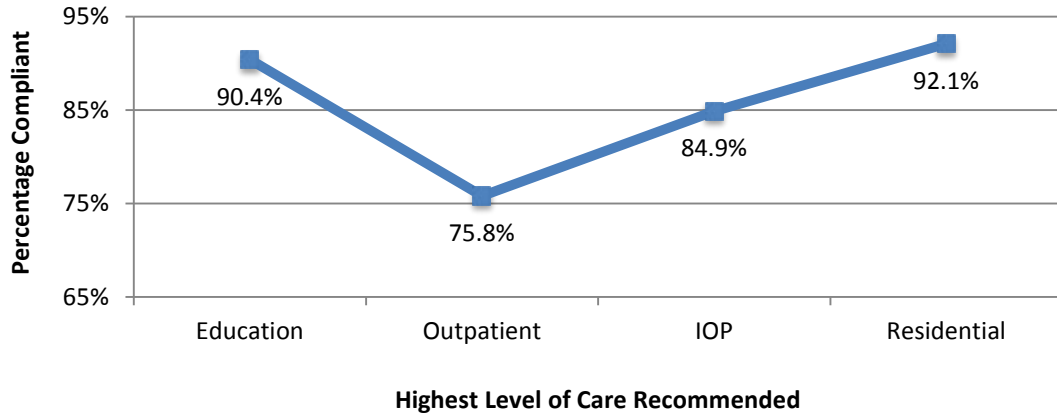


* Missing Data = 0 Assessments

5.11 Compliance by Highest Level of Care Recommended

Figure 5.13 presents compliance by the highest level of care recommended. Individuals referred for residential treatment showed the highest percentages of compliance. Persons referred to outpatient or intensive outpatient treatment were less likely to be compliant with their intervention than persons referred to residential treatment. Persons referred for education were only slightly less likely to be compliant than those referred for residential treatment.

Figure 5.13: Compliance by Highest Level of Care Recommended*



* Missing Data = 0 Assessments

Compliance Summary

Lower compliance is related to having a drug-involved DUI, more DUI convictions, higher AUDIT and DAST scores, more severe substance use disorders, and referrals to outpatient/intensive outpatient treatment. Non-compliant offenders were also more likely to be younger, single or divorced/separated, and African American. The most frequently cited reason for non-compliance was failure to comply with attendance requirements.

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SECTION SIX
MHMR REGIONS

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6.1 Assessments

Table 6.1 presents the number of programs and assessment records submitted by community mental health programs (publicly-funded) and privately-owned assessment programs. Community programs submitted an average of 327 assessments per program in 2014, while private programs submitted an average of 149 assessments per program. There were seven privately-owned programs that submitted fewer than ten assessments.

Table 6.1: Community and Privately Funded Program Assessments*

| | Community | Private |
|--|-----------|---------|
| Assessments Submitted | 3,271 | 18,050 |
| Number of Programs | 10 | 121 |
| Average Assessments per Program | 327.1 | 149.2 |

* Missing Data = 0 Assessments

6.2 Mental Health/Mental Retardation (MHMR) Regions

Kentucky has 14 MHMR regions 1 through 15, region 9 no longer exists.

IMPORTANT: MHMR Regions include all programs (public and private) within that geographic region, not just the community mental health program that shares the region name. For tables 6.2 through 6.7, the highest and lowest values for a given field are in italics.

Table 6.2 presents demographic differences between records submitted from each region. There are very few differences between regions.

Table 6.2: MHMR Demographic Differences*

| | Average Age | % Under 40 yr | % Male |
|-----------------------------------|-------------|---------------|--------------|
| Region 1 - Four Rivers | 35.9 | 63.0% | 75.4% |
| Region 2 - Pennyroyal | 36.8 | 60.0% | 76.4% |
| Region 3 - River Valley | 35.8 | 64.7% | 79.7% |
| Region 4 - Lifeskills | 35.8 | 61.8% | 76.9% |
| Region 5 - Communicare | 36.8 | 61.7% | 79.0% |
| Region 6 - Seven Counties | 36.7 | 62.7% | 76.5% |
| Region 7 - North Key | 35.5 | 66.3% | 71.4% |
| Region 8 - Comprehend | 37.6 | 58.8% | 74.2% |
| Region 10 - Pathways | 36.0 | 64.6% | 75.3% |
| Region 11 - Mountain | 36.7 | 63.3% | 72.2% |
| Region 12 - Kentucky River | 36.3 | 65.2% | 76.2% |
| Region 13 - Cumberland | 36.7 | 62.6% | 70.9% |
| Region 14 - Adanta | 36.8 | 62.0% | 75.2% |
| Region 15 - Bluegrass | 35.3 | 66.1% | 74.7% |
| All Regions | 36.1 | 63.6% | 75.5% |

* Missing Data: Age = 8 / Gender = 0

6.3 Past DUI Convictions

Table 6.3 presents the average number of convictions by region and the percentage of persons presenting for their first (0-1), second (2), or third or more (3+) DUI conviction in their lifetime. First offenders were a majority in all regions, with North Key having the highest percentage of first time offenders (67.2%). Communicare had the highest level of persons with a second conviction (27.3%) and the highest percentage of persons with three or more lifetime DUI convictions (25.6%).

Table 6.3: MHRM Lifetime DUI Convictions

| | Average | 0-1 | 2 | 3+ |
|-----------------------------------|----------------|--------------|--------------|--------------|
| Region 1 - Four Rivers | 1.98 | 50.2% | 25.2% | 23.9% |
| Region 2 - Pennyroyal | 1.73 | 59.4% | 25.6% | 15.1% |
| Region 3 - River Valley | 1.94 | 52.5% | 25.0% | 22.5% |
| Region 4 - Lifeskills | 1.82 | 58.8% | 24.0% | 17.2% |
| Region 5 - Communicare | 2.00 | 47.1% | 27.3% | 25.6% |
| Region 6 - Seven Counties | 1.61 | 65.8% | 21.5% | 12.7% |
| Region 7 - North Key | 1.51 | 67.2% | 21.5% | 11.4% |
| Region 8 - Comprehend | 1.54 | 65.0% | 22.3% | 12.7% |
| Region 10 - Pathways | 1.72 | 59.9% | 23.1% | 17.1% |
| Region 11 - Mountain | 1.51 | 67.0% | 23.1% | 9.9% |
| Region 12 - Kentucky River | 1.72 | 61.7% | 21.6% | 16.7% |
| Region 13 - Cumberland | 1.55 | 63.6% | 24.6% | 11.8% |
| Region 14 - Adanta | 1.68 | 64.0% | 21.4% | 14.6% |
| Region 15 - Bluegrass | 1.66 | 63.2% | 21.8% | 15.0% |
| All Regions | 1.69 | 61.6% | 22.9% | 15.5% |

* Missing Data = 0 Assessments

MHMR REGIONS

Table 6.4 presents information from DUI convictions in the past five years. Similar to lifetime DUI convictions, first offenders were a majority in all regions. North Key had the highest percentage of first time offenders (82.2%). Pennyroyal had the highest level of persons with a second conviction (22.6%). River Valley had the highest percentage of persons with three or more convictions in the past five years (6.4%).

Table 6.4: MHMR DUI Convictions in Past Five Years

| | Average | 0-1 | 2 | 3+ |
|-----------------------------------|----------------|--------------|--------------|-------------|
| Region 1 - Four Rivers | 1.28 | 75.0% | 22.1% | 2.8% |
| Region 2 - Pennyroyal | 1.34 | 71.8% | 22.6% | 5.5% |
| Region 3 - River Valley | 1.35 | 71.8% | 21.8% | 6.4% |
| Region 4 - Lifeskills | 1.31 | 74.0% | 21.8% | 4.2% |
| Region 5 - Communicare | 1.34 | 72.1% | 22.1% | 5.7% |
| Region 6 - Seven Counties | 1.28 | 76.8% | 18.5% | 4.7% |
| Region 7 - North Key | 1.20 | 82.2% | 15.5% | 2.3% |
| Region 8 - Comprehend | 1.23 | 80.4% | 16.2% | 3.5% |
| Region 10 - Pathways | 1.24 | 79.7% | 17.1% | 3.3% |
| Region 11 - Mountain | 1.30 | 74.7% | 21.1% | 4.2% |
| Region 12 - Kentucky River | 1.23 | 79.7% | 17.2% | 3.1% |
| Region 13 - Cumberland | 1.28 | 76.7% | 18.9% | 4.4% |
| Region 14 - Adanta | 1.24 | 80.2% | 16.4% | 3.5% |
| Region 15 - Bluegrass | 1.26 | 78.2% | 18.0% | 3.8% |
| All Regions | 1.28 | 76.8% | 19.0% | 4.2% |

* Missing Data = 0 Assessments

6.4 MHRM Regions and Blood Alcohol Content

Table 6.5 presents MHRM regions and blood alcohol content (BAC). The average BAC was consistent generally across regions. Mountain had the lowest average BAC (0.097) and Comprehend had the highest average BAC (0.155). Mountain had the highest percentage of assessment records for individuals with BACs in the 0.08 to 0.15 range (90.2%). Comprehend had the highest percentage of records reporting BACs in excess of 0.24 (9.7%).

Table 6.5: MHRM Regions and Blood Alcohol Content*

| | Avg BAC | BAC Ranges (g/dL) | | | | |
|-----------------------------------|--------------|-------------------|--------------|--------------|-------------|-------------|
| | | ≤ .07 | .08 - .15 | .16 - .23 | .24 - .31 | ≥ .32 |
| Region 1 - Four Rivers | 0.139 | 1.9% | 61.7% | 31.2% | 4.7% | 0.5% |
| Region 2 - Pennyroyal | 0.139 | 3.7% | 62.6% | 27.0% | 5.5% | 1.3% |
| Region 3 - River Valley | 0.145 | 2.2% | 60.2% | 30.6% | 6.4% | 0.6% |
| Region 4 - Lifeskills | 0.146 | 2.7% | 58.1% | 31.9% | 6.7% | 0.6% |
| Region 5 - Communicare | 0.142 | 3.3% | 62.0% | 29.8% | 4.4% | 0.6% |
| Region 6 - Seven Counties | 0.139 | 3.5% | 60.6% | 29.2% | 5.7% | 0.9% |
| Region 7 - North Key | 0.152 | 2.1% | 51.9% | 39.6% | 5.8% | 0.6% |
| Region 8 - Comprehend | 0.155 | 0.0% | 50.6% | 39.6% | 9.1% | 0.6% |
| Region 10 - Pathways | 0.139 | 2.0% | 64.4% | 27.4% | 5.9% | 0.2% |
| Region 11 - Mountain | 0.097 | 3.4% | 90.2% | 5.4% | 0.5% | 0.5% |
| Region 12 - Kentucky River | 0.114 | 2.8% | 76.1% | 16.4% | 3.8% | 0.0% |
| Region 13 – Cumberland | 0.130 | 2.3% | 68.7% | 25.5% | 3.1% | 0.4% |
| Region 14 – Adanta | 0.139 | 3.0% | 58.6% | 32.8% | 4.7% | 1.1% |
| Region 15 – Bluegrass | 0.149 | 1.9% | 54.6% | 36.3% | 6.2% | 0.9% |
| All Regions | 0.142 | 2.7% | 59.8% | 31.1% | 5.7% | 0.8% |

* Missing Data = 9,658 Assessments

6.5 MHMR Regions and Screening Instruments

Table 6.6 presents the AUDIT and DAST average scores and percentage of positive assessments for each test by MHMR region. Table 6.7 presents the percentage of assessed persons who met DSM-5 substance use disorder criteria by MHMR region.

Table 6.6: MHMR Regions and AUDIT/DAST Scores*

| | AUDIT | | DAST | |
|----------------------------|---------|------------|---------|------------|
| | Average | % Positive | Average | % Positive |
| Region 1 - Four Rivers | 6.9 | 35.4% | 2.8 | 23.0% |
| Region 2 - Pennyroyal | 6.6 | 33.4% | 3.3 | 25.6% |
| Region 3 - River Valley | 6.7 | 34.5% | 2.7 | 21.9% |
| Region 4 - Lifeskills | 6.5 | 30.0% | 3.0 | 23.2% |
| Region 5 - Communicare | 6.5 | 30.5% | 3.0 | 20.7% |
| Region 6 - Seven Counties | 7.0 | 35.0% | 2.6 | 18.5% |
| Region 7 - North Key | 7.0 | 34.3% | 2.2 | 15.1% |
| Region 8 - Comprehend | 4.8 | 18.1% | 3.5 | 23.8% |
| Region 10 - Pathways | 4.8 | 21.1% | 4.1 | 27.8% |
| Region 11 - Mountain | 3.2 | 12.5% | 4.1 | 29.3% |
| Region 12 - Kentucky River | 4.7 | 21.4% | 5.8 | 41.6% |
| Region 13 - Cumberland | 3.4 | 13.2% | 4.1 | 33.4% |
| Region 14 - Adanta | 5.2 | 23.2% | 4.8 | 35.1% |
| Region 15 - Bluegrass | 6.5 | 30.1% | 2.3 | 16.5% |
| All Regions | 6.2 | 29.8% | 3.0 | 22.1% |

*Missing Data = 0 AUDIT/ 0 DAST Assessments

Table 6.7: MHMR Regions and DSM-5 Substance Use Disorders*

| | No Disorder | Alcohol-only | Drug-only | Alcohol+Drug |
|----------------------------|-------------|--------------|-----------|--------------|
| Region 1 - Four Rivers | 39.4% | 39.1% | 11.6% | 9.9% |
| Region 2 - Pennyroyal | 42.2% | 37.3% | 13.5% | 7.0% |
| Region 3 - River Valley | 25.9% | 48.8% | 10.8% | 14.5% |
| Region 4 - Lifeskills | 49.0% | 33.6% | 8.6% | 8.8% |
| Region 5 - Communicare | 68.0% | 21.8% | 7.0% | 3.2% |
| Region 6 - Seven Counties | 40.1% | 47.7% | 5.5% | 6.6% |
| Region 7 - North Key | 46.7% | 42.7% | 6.4% | 4.2% |
| Region 8 - Comprehend | 43.7% | 41.7% | 10.6% | 4.0% |
| Region 10 - Pathways | 60.9% | 18.7% | 15.3% | 5.2% |
| Region 11 - Mountain | 62.4% | 13.7% | 21.0% | 3.0% |
| Region 12 - Kentucky River | 35.8% | 25.4% | 34.2% | 4.6% |
| Region 13 - Cumberland | 64.8% | 13.6% | 18.5% | 3.1% |
| Region 14 - Adanta | 65.6% | 13.8% | 17.3% | 3.4% |
| Region 15 - Bluegrass | 61.3% | 29.0% | 6.8% | 3.0% |
| All Regions | 49.7% | 34.4% | 10.0% | 5.9% |

* Missing Data = 0 Assessments

6.6 MHMR Regions and Level of Care

Table 6.8 presents the highest level of care assigned and overall compliance level by MHMR region. Level of care refers only to the highest level assigned for each assessment. When two or more levels of care were assigned, only the highest level is presented here. Compliance refers to the percentage of assessments that were considered compliant on completion.

Table 6.8: MHMR Regions and Level of Care*

| | Education | Outpatient | IOP | Residential | Compliance** |
|-----------------------------------|--------------|--------------|-------------|-------------|--------------|
| Region 1 - Four Rivers | 55.1% | 44.3% | 0.2% | 0.4% | 84.3% |
| Region 2 - Pennyroyal | 51.2% | 47.7% | 0.2% | 1.0% | 82.5% |
| Region 3 - River Valley | 42.6% | 54.4% | 1.4% | 1.7% | 75.6% |
| Region 4 - Lifeskills | 34.3% | 64.0% | 0.3% | 1.4% | 88.4% |
| Region 5 - Communicare | 58.2% | 37.4% | 1.5% | 2.9% | 73.0% |
| Region 6 - Seven Counties | 38.9% | 57.8% | 2.0% | 1.3% | 83.2% |
| Region 7 - North Key | 39.2% | 57.8% | 1.8% | 1.2% | 88.9% |
| Region 8 - Comprehend | 54.5% | 39.8% | 3.3% | 1.2% | 82.1% |
| Region 10 - Pathways | 47.2% | 43.1% | 3.8% | 5.9% | 91.0% |
| Region 11 - Mountain | 66.1% | 30.1% | 0.8% | 3.1% | 80.3% |
| Region 12 - Kentucky River | 21.1% | 77.8% | 0.0% | 1.1% | 80.2% |
| Region 13 - Cumberland | 77.0% | 20.8% | 0.7% | 1.5% | 89.3% |
| Region 14 - Adanta | 56.4% | 42.5% | 0.0% | 1.0% | 88.9% |
| Region 15 - Bluegrass | 53.2% | 44.9% | 0.7% | 1.1% | 85.2% |
| All Regions | 47.5% | 49.7% | 1.2% | 1.6% | 84.3% |

* Missing Data = 245 level of care assessments

**Of the 21,321 assessments submitted during 2014, only 15,829 were also completed during 2014.

Region Summary

Although there are fewer community mental health programs, these programs submitted a higher average of assessments per year compared to privately-owned programs. There was variability between regions in demographics, past DUI offenses, screening instrument results, intervention referrals, and education/treatment outcomes. Specifically, a higher percentage of assessments from regions in the western part of the state (e.g., River Valley and Communicare) were for males. The Communicare region also had the highest average number of lifetime DUIs, however this region had the lowest rate of substance use disorders according to DSM-5 criteria. The Pathways region had the highest rate of referral to both intensive outpatient and residential treatment in addition to the highest compliance rates compared to other regions in Kentucky. In general, these variations were consistent with previous years.

SECTION SEVEN
DIVISION OF BEHAVIORAL
HEALTH REGIONS

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7.1 Number of Assessments and Demographics by DBH Region

Each DUI regional coordinator is responsible for monitoring and providing support to licensed and certified DUI assessment programs within a specific region of the state. For a map of these regions, please see Appendix F (page 95). Table 7.1 presents the number of assessments, average age of persons assessed, and the percentage of assessments that were for males, White, and married persons by Division of Behavioral Health (DBH) Regions. The Eastern and Western-Central regions had slightly older individuals receiving DUI assessments. Persons assessed for a DUI in the Eastern region were also more likely to be White and married. Individuals in the Western region were more likely to be male.

Table 7.1: Assessments and Demographics by DBH Region

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|------------------------|---------|---------|---------|-----------------|
| Assessments | 5,458 | 4,653 | 6,130 | 5,080 |
| % Male* | 73.6% | 74.1% | 77.5% | 76.3% |
| % White** | 84.6% | 96.5% | 82.5% | 75.1% |
| % Married*** | 18.3% | 23.1% | 21.2% | 18.7% |
| Average Age**** | 35.34 | 36.58 | 36.13 | 36.63 |

* Missing Data = 0 Assessments

** Missing Data = 3,968 Assessments

*** Missing Data = 5,085 Assessments

**** Missing Data = 8 Assessments

7.2 Blood Alcohol Content by DBH Region

Table 7.2 presents the average Blood Alcohol Content, for which BAC information was available and percentage of assessments that were 0.08 g/dL or higher.

Table 7.2: Blood Alcohol Content by DBH Region*

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|--------------------|---------|---------|---------|-----------------|
| Average BAC | 0.150 | 0.132 | 0.143 | 0.140 |
| % ≥ 0.08 | 98.0% | 97.5% | 97.3% | 96.6% |

* Missing Data = 9,644 Assessments

7.3 AUDIT and DAST Scores by DBH Region

Table 7.3 presents AUDIT and DAST scores by DBH region. The Western-Central region had the highest percentage of persons with a positive AUDIT score. The Eastern region had the highest percentage of persons with a positive DAST score.

Table 7.3: AUDIT and DAST Scores by DBH Region

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|---------------|---------|---------|---------|-----------------|
| AUDIT* | | | | |
| Positive | 31.3% | 18.6% | 32.7% | 35.0% |
| Average Score | 6.63 | 4.37 | 6.62 | 7.05 |
| DAST** | | | | |
| Positive | 16.0% | 32.2% | 22.9% | 18.4% |
| Average Score | 2.25 | 4.42 | 2.95 | 2.54 |

* Missing Data = 0 Assessments

** Missing Data = 0 Assessments

7.4 DSM-5 Substance Use Disorders by DBH Region

Table 7.4 presents the percentage of persons who met DSM-5 criteria for a substance use disorder in the past 12 months. The Western-Central region had the highest percentage of individuals meeting criteria for an alcohol use disorder only (48.2%) while the Eastern region had the highest percentage of individuals meeting criteria for a drug use disorder only (19.0%). The Western region had the highest percentage of individuals meeting substance use disorder criteria for both alcohol and drugs (9.1%).

Table 7.4: DSM-5 Substance Use Disorders by DBH Region*

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|-----------------------------|---------|---------|---------|-----------------|
| No Disorder | 57.2% | 59.3% | 44.0% | 39.8% |
| Alcohol Use Disorder Only | 32.8% | 17.9% | 36.7% | 48.2% |
| Drug Use Disorder Only | 6.5% | 19.0% | 10.2% | 5.5% |
| Alcohol & Drug Use Disorder | 3.5% | 3.8% | 9.1% | 6.5% |

* Missing Data = 0 Assessments

Table 7.5 presents the percentage of DUI offenders with substance use disorders by severity separated by DBH Region. In 2014, the Western-Central region had the highest percentage of substance use disorders (60.2%).

Table 7.5: DSM-5 Substance Use Disorder Severity by DBH Region*

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|----------|---------|---------|---------|-----------------|
| Mild | 23.9% | 16.9% | 24.4% | 26.4% |
| Moderate | 8.6% | 6.6% | 12.8% | 15.7% |
| Severe | 10.2% | 17.2% | 18.8% | 18.1% |

* Missing Data = 0 Assessments

7.5 Level of Care and Compliance by DBH Region

Table 7.6 presents the distribution of the highest level of care recommended by DBH region. The Eastern region had the highest percentage of persons recommended for education and residential treatment. Table 7.6 also presents the percentage of persons who were compliant with their education and/or treatment referral. Compliance was highest in the Central and Eastern regions.

Table 7.6: Level of Care and Compliance by DBH Region

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|-------------------------------|---------|---------|---------|-----------------|
| Highest Level of Care* | | | | |
| Education | 48.4% | 56.7% | 46.7% | 39.3% |
| Outpatient | 49.3% | 39.4% | 51.2% | 57.5% |
| IOP | 1.1% | 1.2% | 0.7% | 1.9% |
| Residential | 1.2% | 2.6% | 1.4% | 1.2% |
| Compliance** | 86.2% | 87.0% | 81.2% | 83.3% |

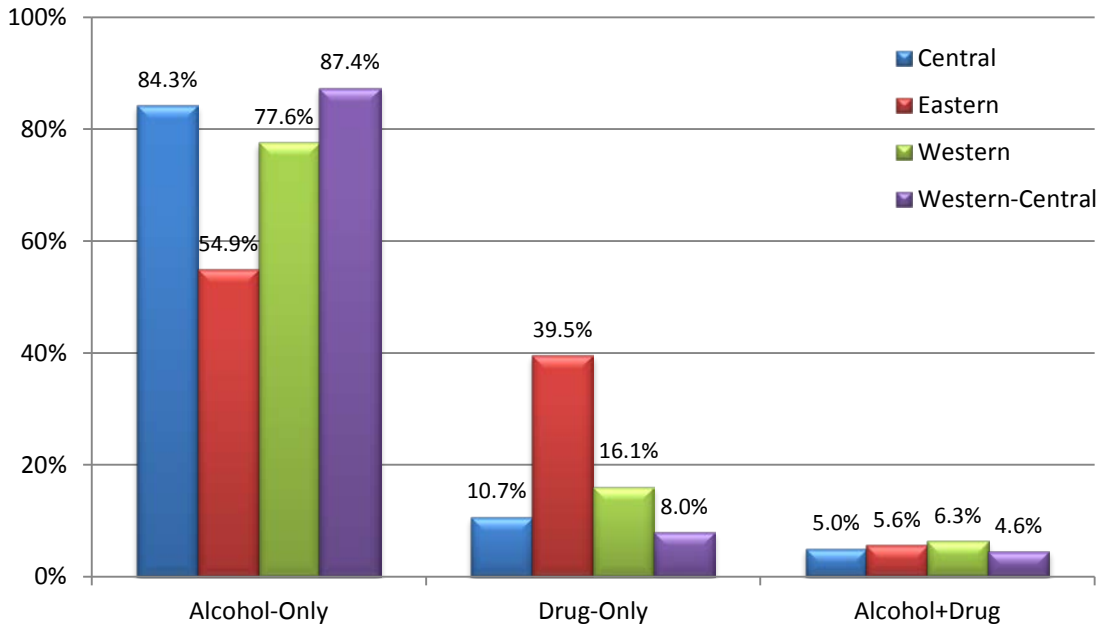
* Missing Data = 245 Assessments

** Of the 21,321 assessments submitted during 2014, only 15,829 were also completed during 2014.

7.6 Substance(s) Involved in DUI Arrest by DBH Region

Figure 7.1 presents DUI type by DBH region. The Western-Central region had the highest percentage of individuals with an alcohol-only DUI (87.4%). The Eastern region had the highest percentage of individuals with a drug-only DUI (39.5%).

Figure 7.1: Substance(s) Involved in DUI Arrest by DBH Region*



* Missing Data = 569 Assessments

Table 7.7 presents the distribution of the types of drugs (other than alcohol) involved in DUIs by DBH region. The Eastern and Western regions had the highest percentage of DUIs involving marijuana. The Eastern region also had the highest percentage of DUIs involving opiates, sedatives, and other drugs. Although low in overall prevalence, the Western region had the highest percentage of amphetamine-involved DUIs.

Table 7.7: Specific Drugs (other than Alcohol) Involved in DUI by DBH Region

| | CENTRAL | EASTERN | WESTERN | WESTERN-CENTRAL |
|--------------|---------|---------|---------|-----------------|
| Marijuana | 5.6% | 12.7% | 11.1% | 6.0% |
| Cocaine | 0.5% | 0.6% | 0.5% | 0.3% |
| Opiates | 5.4% | 19.3% | 5.7% | 3.0% |
| Sedatives | 2.5% | 11.1% | 4.4% | 1.5% |
| Amphetamines | 0.4% | 1.5% | 2.7% | 0.6% |
| Other Drugs | 2.9% | 8.1% | 2.0% | 2.7% |

Division of Behavioral Health Regions Summary

There was similarity across regions, but with a few notable exceptions. First, the percentage of persons who met DSM-5 criteria for only an alcohol use disorder ranged from a low of 9.9% for the Eastern region to 28.3% in the Western-Central region. Second, a significantly smaller percentage of persons in the Western-Central region (39.3%) were referred to education as their highest level of care compared to other areas of the state. Third, AUDIT scores in the Eastern region (4.37) were noticeably lower than in other regions, whereas the percentage of persons who scored 5 or higher on the DAST in the Eastern region (32.2%) significantly exceeded the percentages for the other regions of Kentucky. Lastly, the Eastern region also had more than double the rate of drug-involved DUIs (45.1%) compared to the rest of the state.

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REFERENCES

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REFERENCES

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APPENDICES

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Appendix A: AUDIT Responses and Average Scores by Gender
1. How often do you have a drink containing alcohol?

| | Males | Females | Total |
|----------------------------|-------|---------|-------|
| (0) Never | 18.8% | 25.0% | 20.3% |
| (1) Monthly or less | 26.5% | 30.5% | 27.5% |
| (2) 2 to 4 times a month | 28.2% | 26.0% | 27.7% |
| (3) 2 to 3 times a week | 18.6% | 13.0% | 17.2% |
| (4) 4 or more times a week | 7.9% | 5.5% | 7.3% |
| Average Score | 1.70 | 1.43 | 1.64 |

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

| | Males | Females | Total |
|----------------|-------|---------|-------|
| (0) 1 or 2 | 34.8% | 48.9% | 38.2% |
| (1) 3 or 4 | 29.2% | 29.5% | 29.3% |
| (2) 5 or 6 | 19.9% | 13.2% | 18.3% |
| (3) 7, 8, or 9 | 8.2% | 4.2% | 7.2% |
| (4) 10 or more | 7.9% | 4.2% | 7.0% |
| Average Score | 1.25 | 0.86 | 1.16 |

3. How often do you have six or more drinks on one occasion?

| | Males | Females | Total |
|---------------------------|-------|---------|-------|
| (0) Never | 36.7% | 53.2% | 40.7% |
| (1) Less than monthly | 33.0% | 29.3% | 32.1% |
| (2) Monthly | 14.9% | 9.5% | 13.6% |
| (3) Weekly | 12.1% | 6.0% | 10.6% |
| (4) Daily or almost daily | 3.3% | 2.0% | 3.0% |
| Average Score | 1.12 | 0.74 | 1.03 |

4. How often during the last year have you found that you were not able to stop drinking once you had started?

| | Males | Females | Total |
|---------------------------|-------|---------|-------|
| (0) Never | 80.0% | 82.3% | 80.6% |
| (1) Less than monthly | 11.6% | 10.8% | 11.4% |
| (2) Monthly | 3.9% | 2.7% | 3.6% |
| (3) Weekly | 2.8% | 2.6% | 2.7% |
| (4) Daily or almost daily | 1.7% | 1.6% | 1.7% |
| Average Score | 0.35 | 0.30 | 0.34 |

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

| | Males | Females | Total |
|---------------------------|-------|---------|-------|
| (0) Never | 81.8% | 82.0% | 81.9% |
| (1) Less than monthly | 13.4% | 13.5% | 13.4% |
| (2) Monthly | 2.7% | 2.0% | 2.5% |
| (3) Weekly | 1.7% | 1.9% | 1.7% |
| (4) Daily or almost daily | 0.4% | 0.6% | 0.5% |
| Average Score | 0.26 | 0.26 | 0.26 |

6. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

| | Males | Females | Total |
|---------------------------|-------|---------|-------|
| (0) Never | 93.7% | 94.4% | 93.9% |
| (1) Less than monthly | 3.4% | 3.1% | 3.3% |
| (2) Monthly | 1.2% | 0.8% | 1.1% |
| (3) Weekly | 1.1% | 0.9% | 1.0% |
| (4) Daily or almost daily | 0.6% | 0.8% | 0.7% |
| Average Score | 0.11 | 0.11 | 0.11 |

7. How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?

| | Males | Females | Total |
|---------------------------|-------|---------|-------|
| (0) Never | 70.7% | 70.5% | 70.6% |
| (1) Less than monthly | 21.1% | 21.2% | 21.1% |
| (2) Monthly | 3.9% | 3.2% | 3.7% |
| (3) Weekly | 2.3% | 2.5% | 2.4% |
| (4) Daily or almost daily | 2.0% | 2.6% | 2.2% |
| Average Score | 0.44 | 0.45 | 0.44 |

8. How often during the last year have you had a feeling of guilt or remorse after drinking?

| | Males | Females | Total |
|---------------------------|-------|---------|-------|
| (0) Never | 80.6% | 80.1% | 80.5% |
| (1) Less than monthly | 14.5% | 15.1% | 14.7% |
| (2) Monthly | 2.9% | 2.7% | 2.8% |
| (3) Weekly | 1.5% | 1.6% | 1.5% |
| (4) Daily or almost daily | 0.5% | 0.5% | 0.5% |
| Average Score | 0.27 | 0.27 | 0.27 |

9. Have you or someone else been injured as a result of your drinking?

| | Males | Females | Total |
|-----------------------------------|-------|---------|-------|
| (0) No | 90.3% | 90.8% | 90.4% |
| (2) Yes, but not in the last year | 5.9% | 4.8% | 5.6% |
| (4) Yes, during the last year | 3.8% | 4.4% | 4.0% |
| Average Score | 0.27 | 0.27 | 0.27 |

10. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?

| | Males | Females | Total |
|-----------------------------------|-------|---------|-------|
| (0) No | 75.5% | 81.0% | 76.8% |
| (2) Yes, but not in the last year | 10.7% | 7.9% | 10.0% |
| (4) Yes, during the last year | 13.8% | 11.1% | 13.2% |
| Average Score | 0.77 | 0.60 | 0.73 |

Appendix B: DAST Responses by Gender

Percentages represent those who answered “yes” to each specific question except for questions 4, 5, and 7 which are reverse scored.

1. Have you used drugs other than those required for medical reasons?

| Males | Females | Total |
|-------|---------|-------|
| 33.7% | 34.9% | 34.0% |

2. Have you abused prescription drugs?

| Males | Females | Total |
|-------|---------|-------|
| 12.7% | 18.7% | 14.1% |

3. Do you abuse more than one drug at a time?

| Males | Females | Total |
|-------|---------|-------|
| 8.3% | 10.7% | 8.9% |

4. Can you get through the week without using drugs (other than those required for medical reasons)?

| Males | Females | Total |
|-------|---------|-------|
| 3.4% | 4.3% | 3.7% |

Percentage of persons who responded "no"

5. Are you always able to stop using drugs when you want to?

| Males | Females | Total |
|-------|---------|-------|
| 6.6% | 8.8% | 7.2% |

Percentage of persons who responded "no"

6. Do you abuse drugs on a continuous basis?

| Males | Females | Total |
|-------|---------|-------|
| 5.2% | 6.3% | 5.5% |

7. Do you try to limit your drug use to certain situations?

| Males | Females | Total |
|-------|---------|-------|
| 13.6% | 15.6% | 14.1% |

Percentage of persons who responded "no"

8. Have you had "blackouts" or "flashbacks" as a result of drug use?

| Males | Females | Total |
|-------|---------|-------|
| 5.8% | 8.8% | 6.5% |

9. Do you ever feel bad about your drug abuse?

| Males | Females | Total |
|-------|---------|-------|
| 14.9% | 19.6% | 16.0% |

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10. Does your spouse (or parents) ever complain about your involvement with drugs?

| Males | Females | Total |
|-------|---------|-------|
| 11.4% | 13.1% | 11.8% |

11. Do your friends or relatives know or suspect you abuse drugs?

| Males | Females | Total |
|-------|---------|-------|
| 15.2% | 16.4% | 15.5% |

12. Has drug abuse ever created problems between you and your spouse?

| Males | Females | Total |
|-------|---------|-------|
| 8.7% | 11.3% | 9.3% |

13. Has any family member ever sought help for problems related to your drug use?

| Males | Females | Total |
|-------|---------|-------|
| 4.8% | 6.4% | 5.2% |

14. Have you ever lost friends because of your use of drugs?

| Males | Females | Total |
|-------|---------|-------|
| 7.7% | 10.2% | 8.3% |

15. Have you ever neglected your family or missed work because of your use of drugs?

| Males | Females | Total |
|-------|---------|-------|
| 8.6% | 12.3% | 9.5% |

16. Have you ever been in trouble at work because of drug abuse?

| Males | Females | Total |
|-------|---------|-------|
| 5.0% | 5.6% | 5.1% |

17. Have you ever lost a job because of drug abuse?

| Males | Females | Total |
|-------|---------|-------|
| 5.0% | 5.7% | 5.2% |

18. Have you gotten into fights when under the influence of drugs?

| Males | Females | Total |
|-------|---------|-------|
| 6.7% | 8.1% | 7.1% |

19. Have you ever been arrested because of unusual behavior while under the influence of drugs?

| Males | Females | Total |
|-------|---------|-------|
| 11.0% | 14.7% | 11.9% |

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20. Have you ever been arrested for driving while under the influence of drugs?

| Males | Females | Total |
|-------|---------|-------|
| 20.0% | 25.7% | 21.4% |

21. Have you engaged in illegal activities to obtain drugs?

| Males | Females | Total |
|-------|---------|-------|
| 12.7% | 13.2% | 12.8% |

22. Have you ever been arrested for possession of illegal drugs?

| Males | Females | Total |
|-------|---------|-------|
| 17.3% | 15.6% | 16.9% |

23. Have you ever experienced withdrawal symptoms as a result of heavy drug intake?

| Males | Females | Total |
|-------|---------|-------|
| 8.9% | 13.9% | 10.1% |

24. Have you had medical problems as a result of your drug use?

| Males | Females | Total |
|-------|---------|-------|
| 2.7% | 4.6% | 3.2% |

25. Have you ever gone to anyone for help for a drug problem?

| Males | Females | Total |
|-------|---------|-------|
| 9.9% | 14.4% | 11.0% |

26. Have you ever been in the hospital for medical problems related to your drug use?

| Males | Females | Total |
|-------|---------|-------|
| 3.0% | 5.1% | 3.5% |

27. Have you ever been involved in a treatment program specifically related to drug use?

| Males | Females | Total |
|-------|---------|-------|
| 11.3% | 14.7% | 12.2% |

28. Have you been treated as an outpatient for problems related to drug abuse?

| Males | Females | Total |
|-------|---------|-------|
| 8.4% | 12.1% | 9.3% |

Appendix C: DSM-5 Substance Use Disorder Criteria by Gender

(1) The substance is often taken in larger amounts or over a longer period than was intended

| Males | Females | Total |
|-------|---------|-------|
| 38.5% | 35.3% | 37.7% |

(2) There is a persistent desire or unsuccessful efforts to cut down or control substance use

| Males | Females | Total |
|-------|---------|-------|
| 21.2% | 20.8% | 21.1% |

(3) A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects

| Males | Females | Total |
|-------|---------|-------|
| 13.8% | 13.7% | 13.8% |

(4) Craving, or a strong desire or urge to use the substance

| Males | Females | Total |
|-------|---------|-------|
| 19.5% | 18.4% | 19.2% |

(5) Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home

| Males | Females | Total |
|-------|---------|-------|
| 15.3% | 16.4% | 15.6% |

(6) Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance

| Males | Females | Total |
|-------|---------|-------|
| 18.8% | 19.4% | 18.9% |

(7) Important social, occupational, or recreational activities are given up or reduced because of substance use

| Males | Females | Total |
|-------|---------|-------|
| 15.4% | 15.0% | 15.3% |

(8) Recurrent substance use in situations in which it is physically hazardous

| Males | Females | Total |
|-------|---------|-------|
| 51.2% | 48.1% | 50.5% |

(9) Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance

| Males | Females | Total |
|-------|---------|-------|
| 15.2% | 18.6% | 16.0% |

(10) Tolerance, as defined by either of the following:

(a) a need for markedly increased amounts of the substance to achieve Intoxication or desired effect

(b) markedly diminished effect with continued use of the same amount of the substance

| Males | Females | Total |
|-------|---------|-------|
| 38.1% | 34.0% | 37.1% |

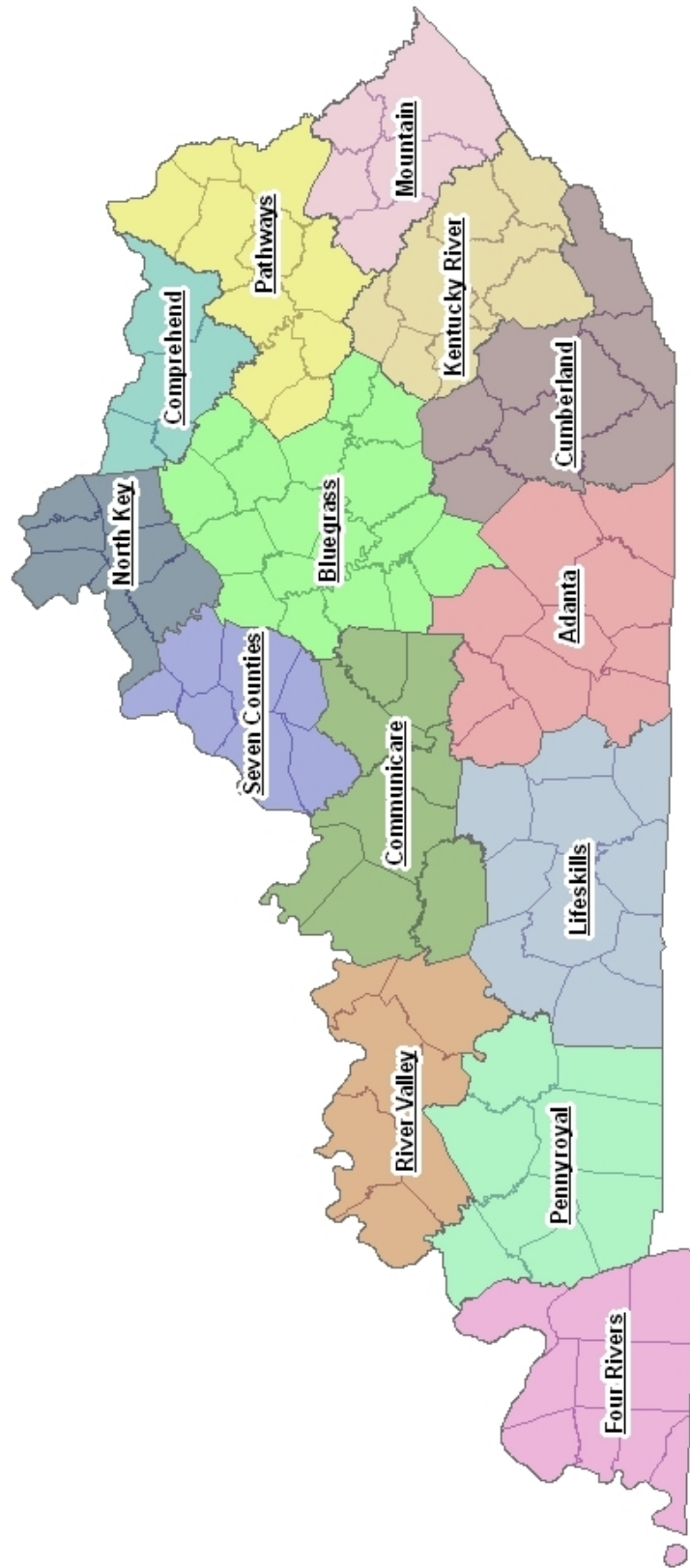
(11) Withdrawal, as manifested by either of the following:

(a) the characteristic withdrawal syndrome for the substance

(b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

| Males | Females | Total |
|-------|---------|-------|
| 14.9% | 16.0% | 15.1% |

Appendix E: Map of Kentucky by MHMR Region



Appendix F: Map of Kentucky by DBH Region

