




2013

**KENTUCKY
DUI
ASSESSMENT
REPORT**

**Prepared for:
Natalie Kelly, Director
Division of Behavioral Health**

**Prepared by:
Center on Drug and Alcohol Research
University of Kentucky
February 2014**



2013 Division of Behavioral Health Driving Under the Influence Program

DUI Program Manager	—	Lee Etta Cummings
Central Region Coordinator	—	Deniece Bell
Eastern Region Coordinator	—	Wilma Terry
Western Central Region Coordinator	—	Andrea Williams
Western Region Coordinator	—	Stephen Shore



This report was developed under a contract from the Kentucky Division of Behavioral Health to the Center on Drug and Alcohol Research at the University of Kentucky. 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/>.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 5

BACKGROUND 7

DEMOGRAPHICS 13

 1.1 Number of DUI Assessments Submitted in 2013 15

 1.2 DUI Assessments by Gender 16

 1.3 Assessments by Race/Ethnicity..... 17

 1.4 Assessments by Age..... 18

 1.5 Assessments by Marital Status..... 19

 1.6 Prior DUI Convictions 19

SUBSTANCES INVOLVED IN DUI..... 23

 2.1 Assessments by Type of Substance(s) Involved in DUI..... 25

 2.2 DUI Type by Gender..... 26

 2.3 DUI Type by Race/Ethnicity..... 26

 2.4 DUI Type by Age..... 27

 2.5 DUI Type by Marital Status..... 27

 2.6 DUI Type by Number of Convictions..... 28

 2.7 Alcohol/Drug Tests 29

 2.8 DUI Type by Blood Alcohol Content 30

SCREENING 31

 3.1 AUDIT and DAST 33

 3.2 AUDIT and DAST by Race/Ethnicity 34

 3.3 AUDIT and DAST by Age..... 34

 3.4 AUDIT and DAST by Marital Status..... 35

 3.5 AUDIT and DAST by DUI Type..... 35

 3.6 AUDIT and DAST by Number of Convictions 36

 3.7 DSM-IV-TR Abuse and Dependence Criteria 37

 3.8 DSM-IV-TR Criteria by DUI Type..... 38

 3.9 DSM-IV-TR Abuse and Dependence Criteria by Number of Convictions 39

 3.10 DSM-IV-TR Criteria and Blood Alcohol Content..... 40

TREATMENT REFERRALS..... 43

 4.1 Level of Care Recommended..... 45

 4.2 Recommended Level of Care by DSM-IV-TR Criteria..... 46

 4.3 Total Referrals..... 47

 4.4 Recommended Level of Care by Gender 48

 4.5 Recommended Level of Care by Race/Ethnicity 48

 4.6 Recommended Level of Care by Age 49

 4.7 Recommended Level of Care by Marital Status 50

 4.8 Recommended Level of Care by Blood Alcohol Content..... 50

 4.9 Recommended Level of Care by DUI Type..... 51

COMPLIANCE.....	53
5.1 Compliant vs. Non-Compliant	55
5.2 Compliance by Gender.....	56
5.3 Compliance by Race/Ethnicity.....	56
5.4 Compliance by Age.....	57
5.5 Compliance by Marital Status	57
5.6 Compliance by Number of DUI Convictions.....	58
5.7 Compliance by DSM-IV-TR Criteria.....	59
5.8 Compliance by Highest Level of Care Recommended	59
5.9 Compliance by AUDIT Scores	60
5.10 Compliance by DAST Scores	60
5.11 Compliance by DUI Type.....	61
MHMR REGIONS.....	63
6.1 Assessments	65
6.2 Mental Health/Mental Retardation (MHMR) Regions	65
6.3 Past DUI Convictions.....	66
6.4 MHMR Regions and Blood Alcohol Content.....	68
6.5 MHMR Regions and Screening Instruments	69
6.6 MHMR Regions and Level of Care	70
DIVISION OF BEHAVIORAL HEALTH REGIONS	71
7.1 Number of Assessments and Demographics by DBH Region.....	73
7.2 AUDIT and DAST Scores by DBH Region.....	73
7.3 Blood Alcohol Content by DBH Region.....	74
7.4 DSM-IV-TR Criteria by DBH Region.....	74
7.5 Level of Care and Compliance by DBH Region.....	75
7.6 DUI Type & Substances Involved by DBH Region	76
REFERENCES	79
APPENDICES	83

Executive Summary

In calendar year 2013, there were approximately 120 licensed and certified DUI Assessment Programs and 24,771 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, 2013 through December 31, 2013 and also provides trends from 2003 to 2013.

The typical person assessed for DUI in Kentucky in 2013 was a 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 57.3% chance the typical offender met DSM-IV-TR diagnostic criteria for substance abuse or substance dependence in their lifetime, and a 96.8% chance they were referred to either a 20-hour education intervention or an outpatient alcohol/drug treatment program. This finding is consistent with previous years.

- For 2013, the number of DUI Assessments submitted was 24,771.
Gender:
 - Males 75.0%
 - Females 25.0%

- Program referrals* were made to:
 - 20-Hour Education 48.5%
 - Outpatient 48.3%
 - IOP or Residential 3.3%

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

- Overall, 85.3% 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 three DSM-IV-TR criteria for substance dependence in their lifetime. 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.

- The percentage of individuals who met DSM-IV-TR criteria for substance abuse or who met three or more criteria for substance dependence in their lifetime was higher for males (58.8%) than for females (52.8%). This will be the final year in which the DSM-IV-TR criteria will be used for DUI assessments. The Kentucky DUI Assessment Instrument will replace the DSM-IV-TR with DSM-5 substance use disorder criteria in 2014.
- 5,499 (22.2%) assessments submitted were for persons under the influence of drugs at the time of their current DUI.
- 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.
- 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 2011-12, DUI offenders were most likely to be referred to outpatient treatment as their highest level of care. However, during 2013, slightly more DUI offenders were referred to education (48.5%) than outpatient treatment (48.3%) or any other form of treatment.
- 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 (63.3%).

BACKGROUND

This page left intentionally blank.

Study Overview

The Kentucky Revised Statute 189A.040 requires Kentucky licensed drivers convicted of Driving Under the Influence (DUI) to receive an assessment by a state certified DUI assessor in a state licensed and certified DUI assessment program¹. DUI Assessment programs using the Web-based Kentucky DUI Assessment Instrument (KDAI) are required (908 KAR 1:310 Section 6(1)(a)4) to enter assessment records via the internet 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 and receives an electronic file from DUI assessment programs every time an assessment is submitted using KDAI. 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-IV-TR⁴ checklist for Substance Abuse and Dependence. The Diagnostic and Statistical Manual, Fourth Edition (DSM-IV-TR) was developed by the American Psychiatric Association as the standard for psychiatric diagnoses. A person who meets three (or more) of the seven dependence criteria within a 12-

BACKGROUND

month period is considered as dependent on the substance in question. A person who meets at least one of four abuse criteria is considered as abusing the substance. The DSM-5 was published in May 2013 and is in the process of being incorporated into KDAI. New DUI assessments will use DSM-5 substance use disorder criteria, and DSM-IV-TR information will be preserved for those assessments conducted prior to the transition.

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. The Kentucky DUI Assessment program was pilot tested by certified assessors and their input was integral in determining which assessment instruments were included.

Sample

This report presents DUI assessment records submitted to CDAR between January 1, 2013 and December 31, 2013 as well as trends detailing changes in assessment results over the past several years. In 2013, a total of 24,771 assessment records were received from licensed and certified DUI Assessment Programs using KDAI. It should be noted that the number of submitted assessment records in 2013 are not the same as the number of completed assessment records or the number of DUI convictions in 2013 because persons can be convicted, assessed, and complete their intervention in separate years. Of the 24,771 assessment records submitted in 2013, only 18,212 records were also "completed" before December 31, 2013.

Limitations

There are several limitations to this 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>2013</u>	
	Missing Assessments	Percentage of Cases
Age	577	2.3%
Race	5,495	22.2%
Marital Status	7,133	28.8%
AUDIT Score	0	0.0%
DAST Score	11	0.4%
Blood Alcohol Content	11,468	46.3%
Recommended Level of Care	830	3.4%

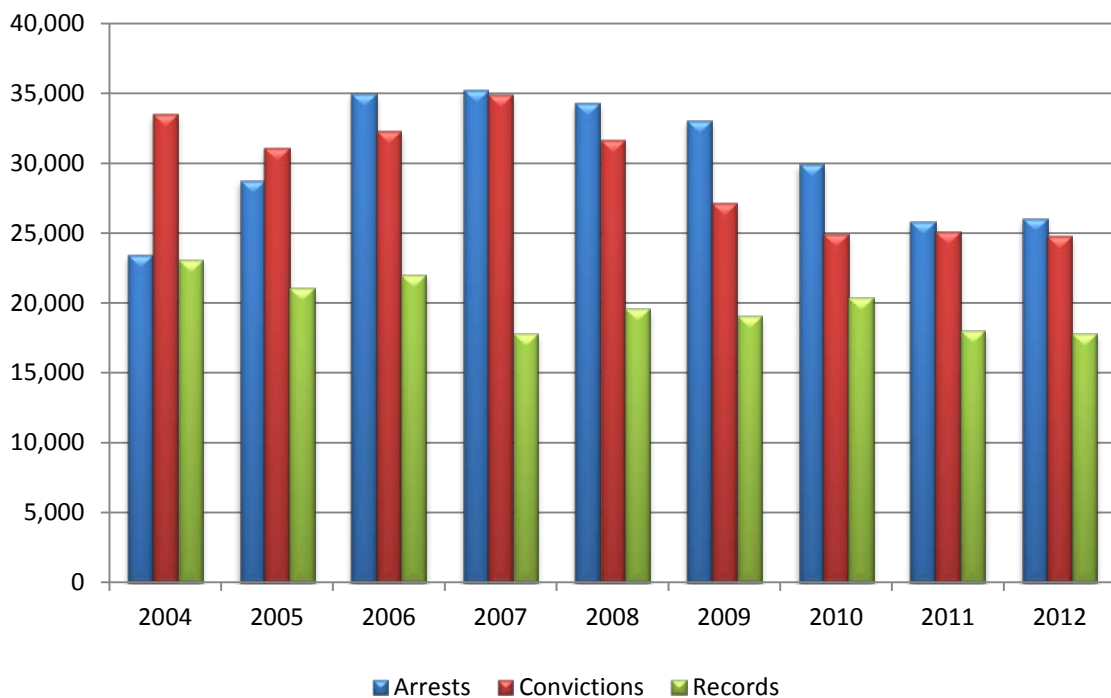
Transitioning to the KDAI has successfully reduced the amount of missing data, but certain fields remain problematic. Blood Alcohol Content has the highest percentage of missing cases, which is largely due to individuals who either refused the test or did not

BACKGROUND

remember the level. Other variables, such as race and marital status, have a significant amount of missing cases because they are optional fields in the online assessment.

The second limitation is that these data represent a subset of a larger, unknown number of DUIs in Kentucky. For example, in 2012 there were 26,050 DUI arrests, 24,805 DUI convictions, and 17,797 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 of DUI arrests and convictions submitted to the Kentucky State Police, and completed assessment records submitted to CDAR for 2004 through 2012. 2013 data were not available at the time this report was written.

Figure 1: DUI Arrests, DUI Convictions, and Completed Records, 2004 through 2012



* Arrest and conviction data from Kentucky State Police is only available through 2012.

This report presents assessments submitted in 2013, 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. Persons who are arrested for DUI may plea bargain to a lesser charge or plea bargain to remove the DUI charge altogether.

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

This page left intentionally blank.

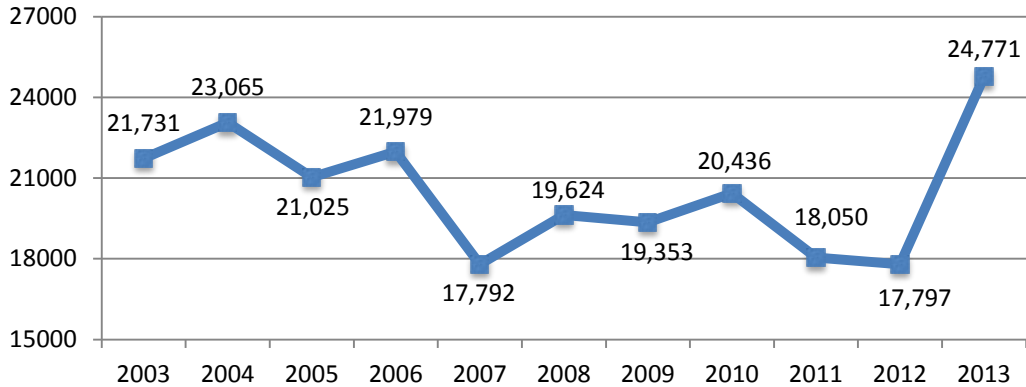
SECTION ONE
DEMOGRAPHICS

This page left intentionally blank.

1.1 Number of DUI Assessments Submitted in 2013

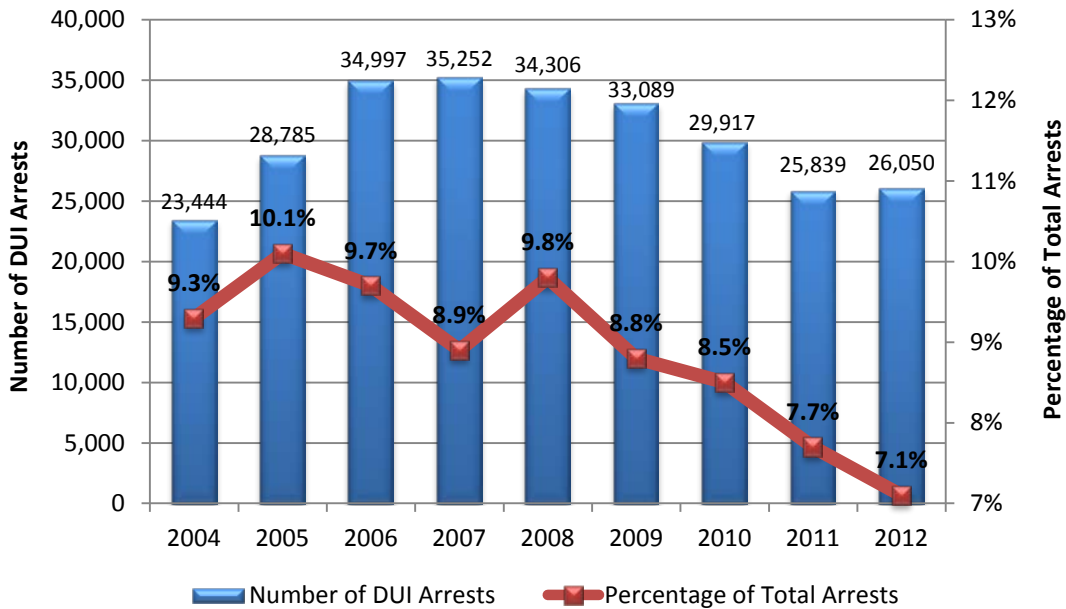
The number of DUI assessments submitted in calendar year 2013 was 24,771. Figure 1.1 presents the number of assessments CDAR received on behalf of the Division of Behavioral Health from 2003 through 2013. The average number of assessments received has been 20,511 per year. The increase in assessments in 2013 is likely attributed to the transition to an online system, which protects against data loss and ensures data submission.

Figure 1.1: Number of Assessments 2003 to 2013



In 2012 there were 26,050 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 2012 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 2012



* Arrest and conviction data from Kentucky State Police is available only through 2012.

1.2 DUI Assessments by Gender

Of the 24,771 assessments, 18,574 (75%) were males and 6,197 (25%) were females.

Figure 1.2:
Assessments by Gender*

* Missing Data = 0 Assessments

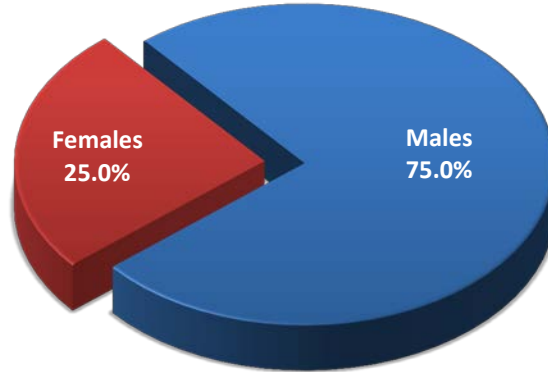
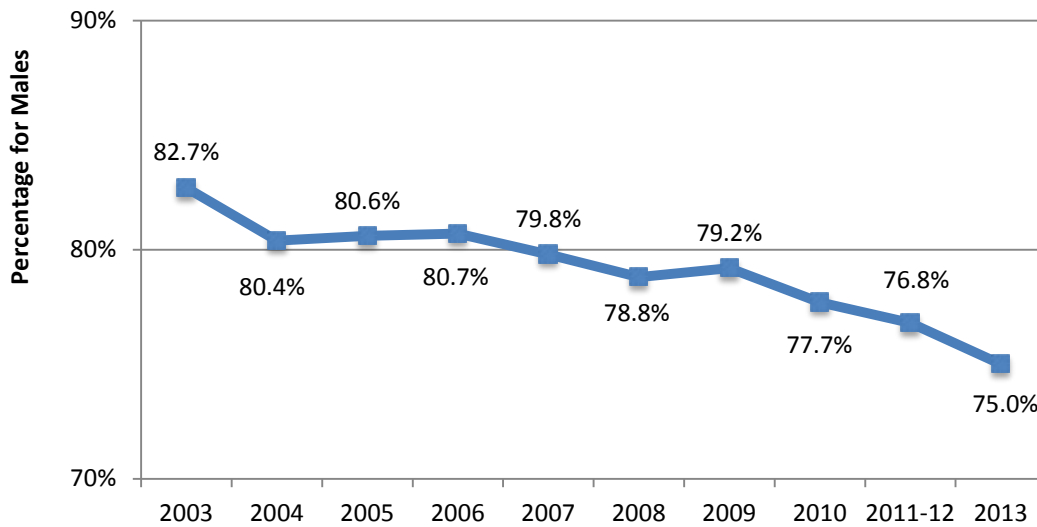


Figure 1.3 presents the percentage of assessments that were for males from 2003 through 2013. The percentage of males has slowly decreased over the past eleven years.

Figure 1.3: Percentage of Assessments that were for Males 2003 to 2013

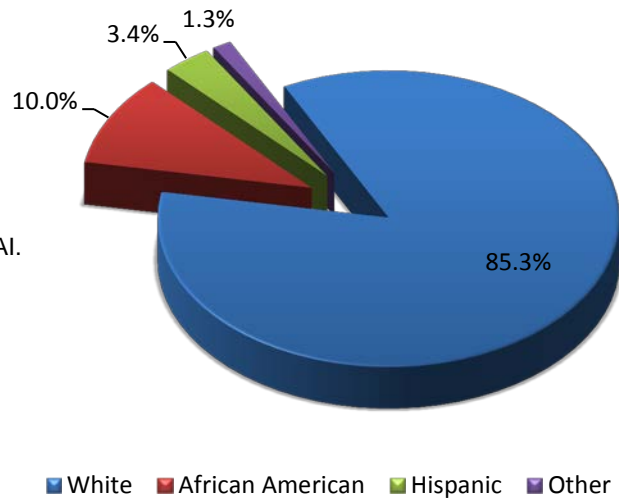


1.3 Assessments by Race/Ethnicity

The majority of assessments submitted in 2013 were for White persons (85.3%), while only 1,926 assessments (10.0%) were submitted for African American persons and 898 submitted for Hispanic persons or persons of another racial/ethnic background (4.7%). Figure 1.4 presents the number of assessments by race/ethnicity.

Figure 1.4:
Assessments by Race/Ethnicity*

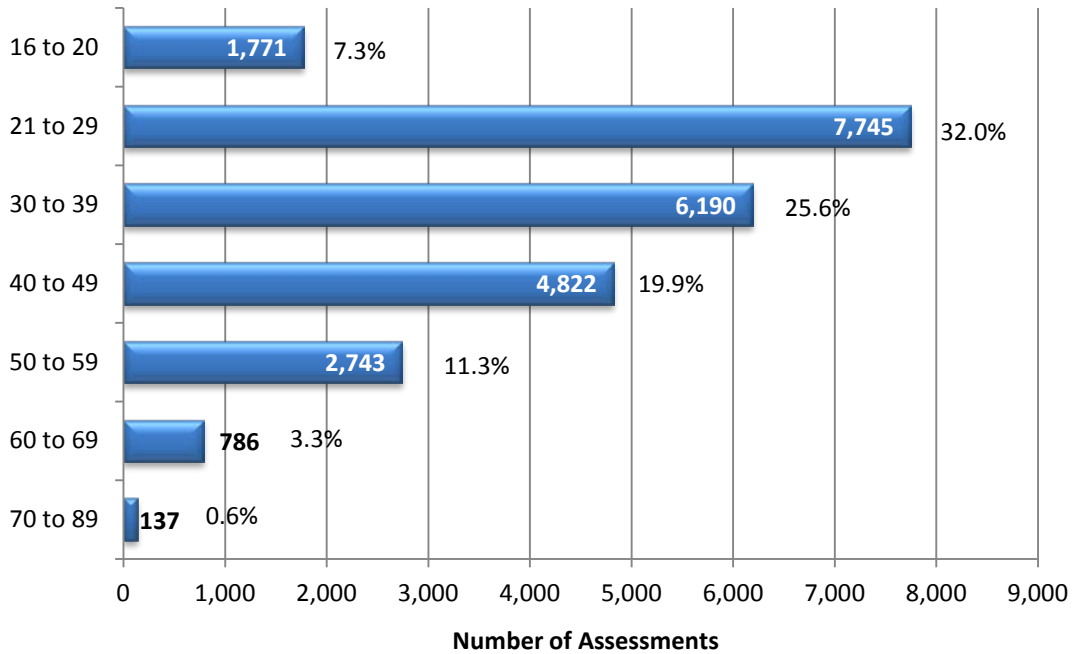
* Missing Data = 5,495 Assessments
Race/Ethnicity is an optional field in KDAI.



1.4 Assessments by Age

The majority of assessments submitted in 2013 were for persons between 21 and 39 years of age (57.6%). There were 1,771 assessments (7.3%) submitted for persons who were between 16 and 20 years of age at the time they were convicted. Figure 1.5 presents the number of assessments by age at conviction.

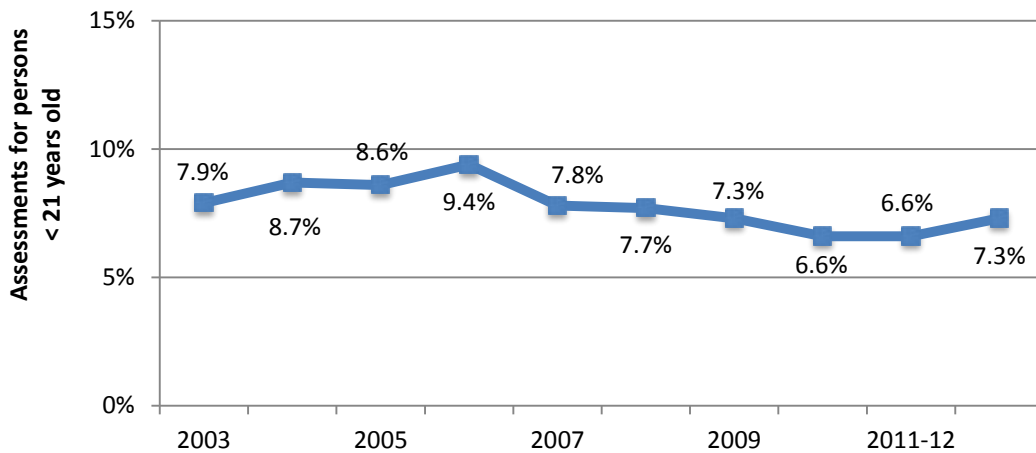
Figure 1.5: Assessments by Age at Conviction*



* Missing Data = 577 Assessments

Figure 1.6 presents the number of assessments for underage persons, which has remained steady in recent years.

Figure 1.6: Percentage of Assessments that were for Underage Persons 2003 to 2013

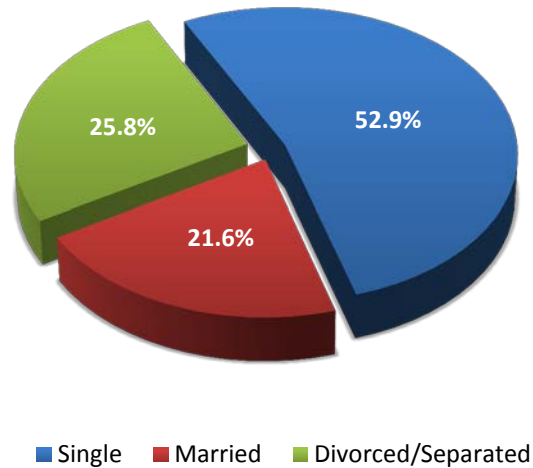


1.5 Assessments by Marital Status

Of the 17,638 assessments that reported marital status, the majority were for persons who were single (52.9%). Only 21.6% of assessments were submitted for persons who were married and 25.8% for persons who were either divorced or separated. Figure 1.7 presents the number of assessments by marital status.

Figure 1.7:
Assessments by Marital Status*

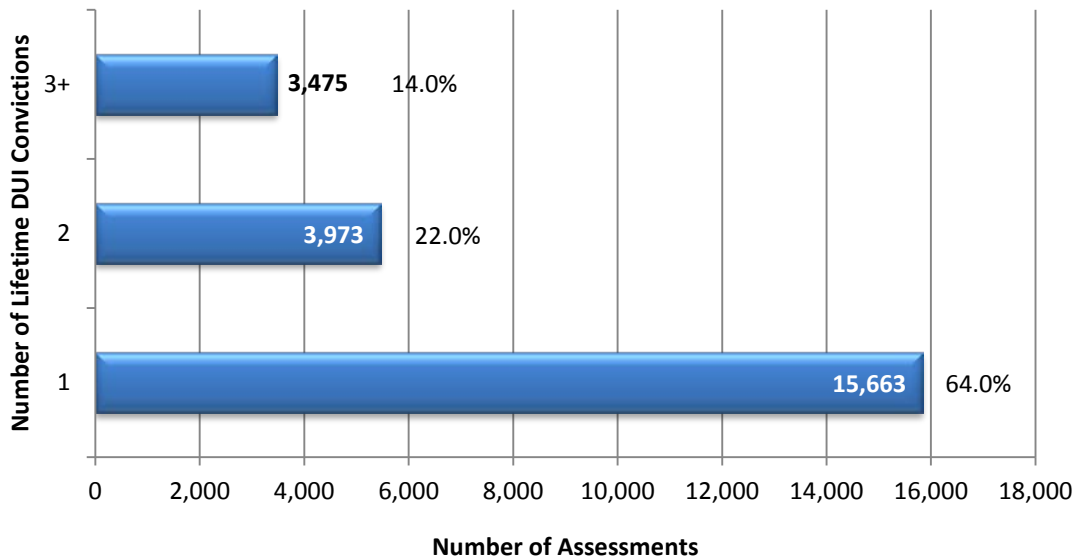
* Missing Data = 7,133 Assessments
Marital status is an optional field in KDAI.



1.6 Prior DUI Convictions

Figure 1.8 presents frequencies of lifetime DUI convictions. This number includes the DUI conviction that resulted in the current assessment.

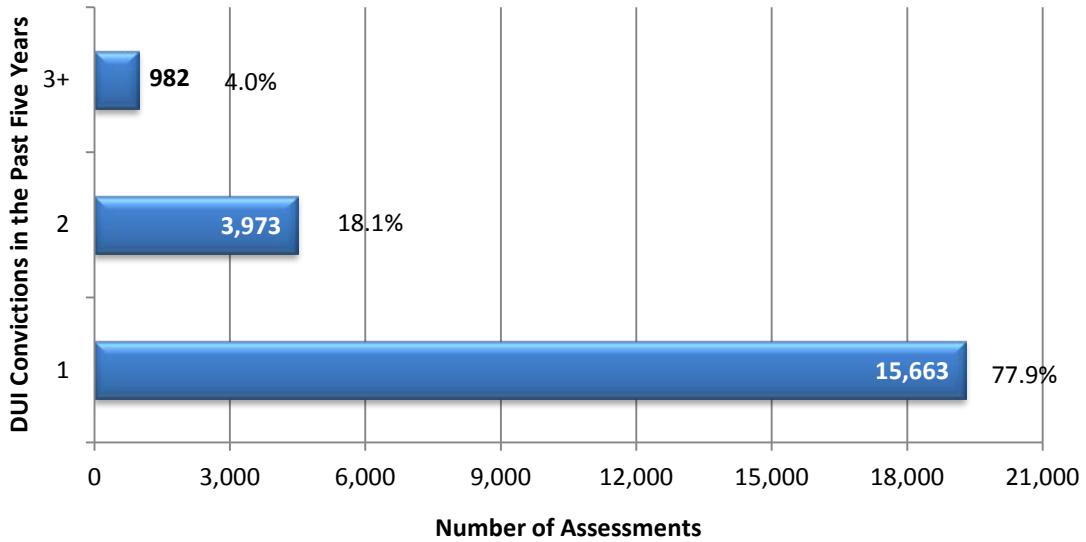
Figure 1.8: Lifetime DUI Convictions*



* Missing Data = 0 Assessments

Figure 1.9 presents frequencies of multiple DUI convictions within the past five years. This number includes the DUI conviction that resulted in the current assessment.

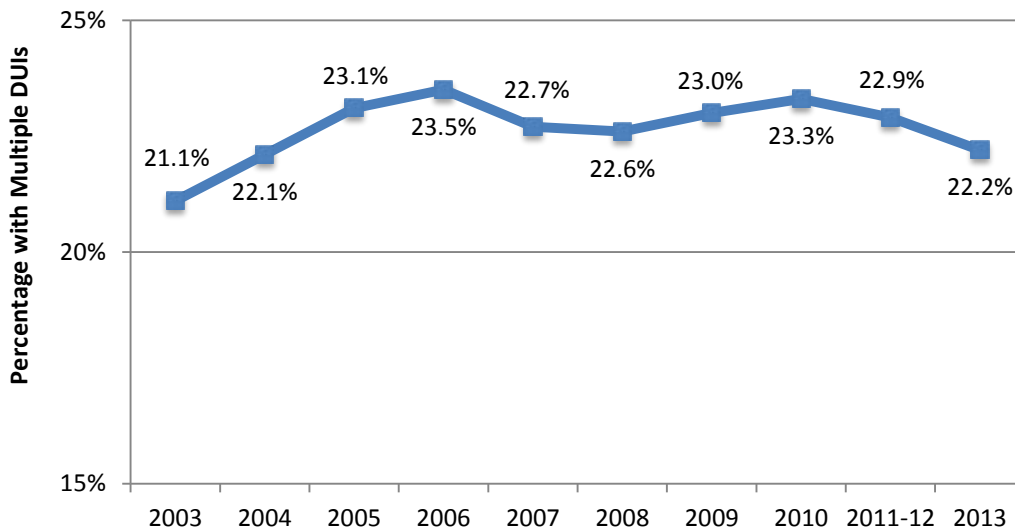
Figure 1.9: DUI Convictions in the Previous Five Years*



* Missing Data = 0 Assessments

Figure 1.10 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 1.10: Percentage of Assessments for persons who had Multiple DUI Convictions in Years 2003 to 2013



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 40 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 22.2% had multiple DUI convictions within the past five years.

This page left intentionally blank.

SECTION TWO
SUBSTANCES INVOLVED IN DUI

This page left intentionally blank.

2.1 Assessments by Type of Substance(s) Involved in DUI

The majority of assessments submitted in 2013 were for alcohol-involved DUIs (83.1%). Only 22.2% 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 2013 included marijuana (8.3%), opiates (7.9%), and sedatives (4.5%). 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 *

* Missing Data = 569 Assessments

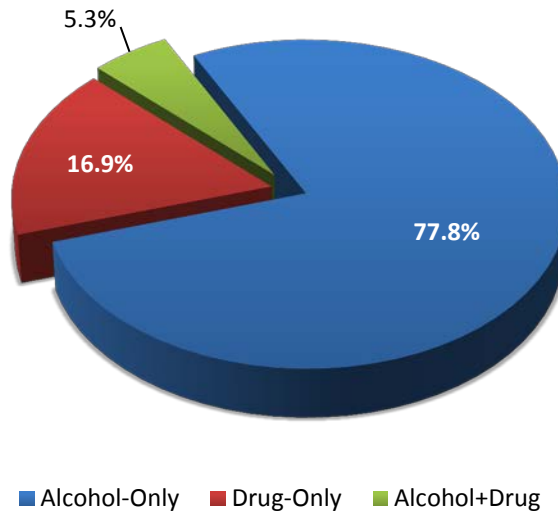
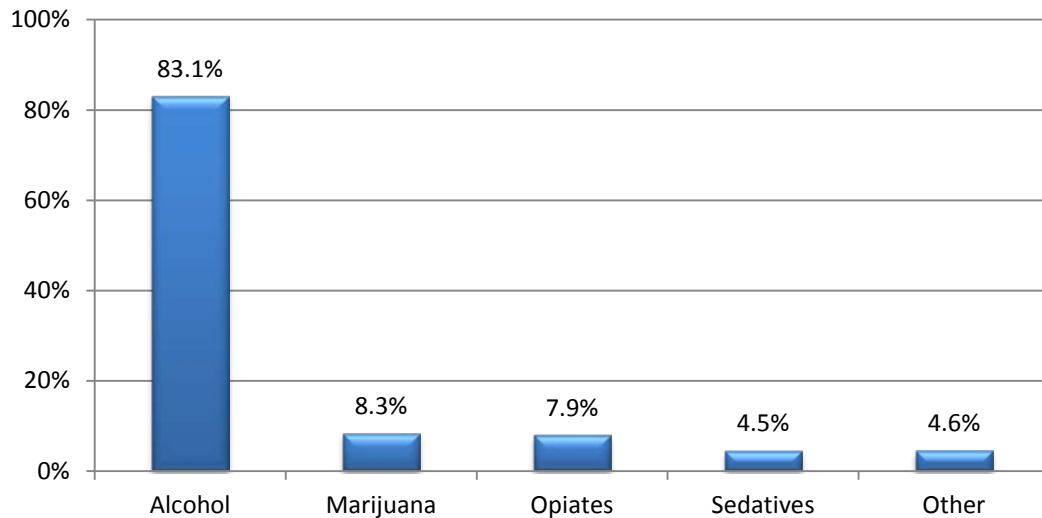


Figure 2.2: Assessments by Specific Substances Involved*

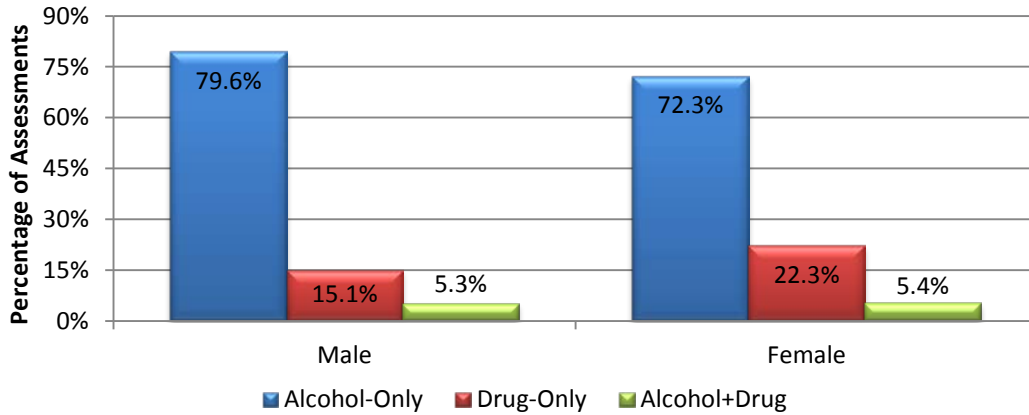


* Other includes cocaine, amphetamines, inhalants, hallucinogens, PCP, and an "other drug" category.

2.2 DUI Type 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 (27.6%) to have driven under the influence of drugs than male offenders (20.4%).

Figure 2.3: DUI Type by Gender*

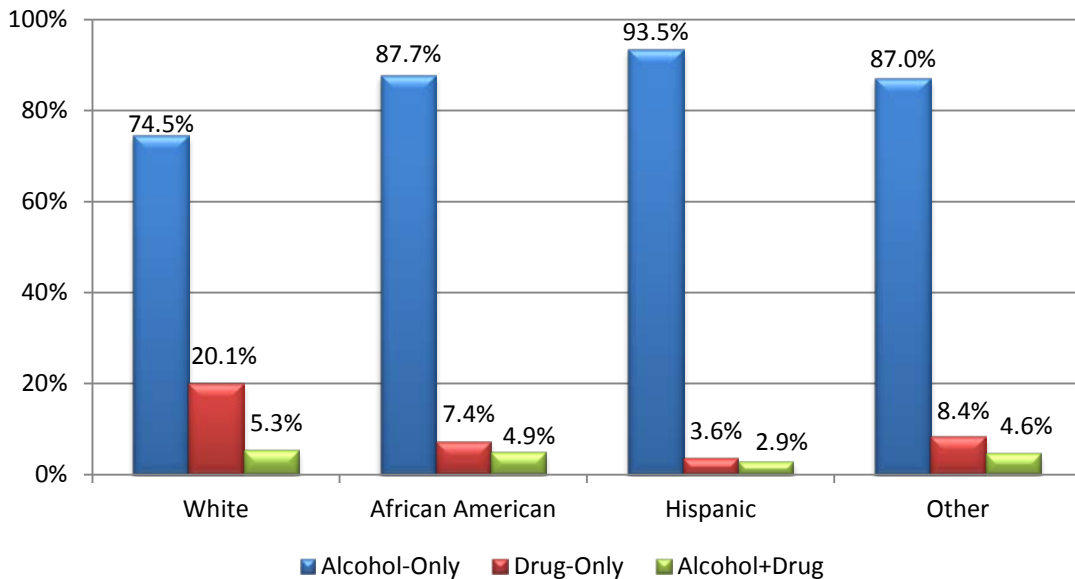


* Missing Data = 830 Assessments

2.3 DUI Type by Race/Ethnicity

Figure 2.4 presents the type of substance(s) involved by race/ethnicity. In 2013, White persons were the most likely to have driven under the influence of drugs while a higher percentage of Hispanic persons (93.5%) were involved in alcohol-only DUIs compared to other racial/ethnic categories.

Figure 2.4: DUI Type by Race*

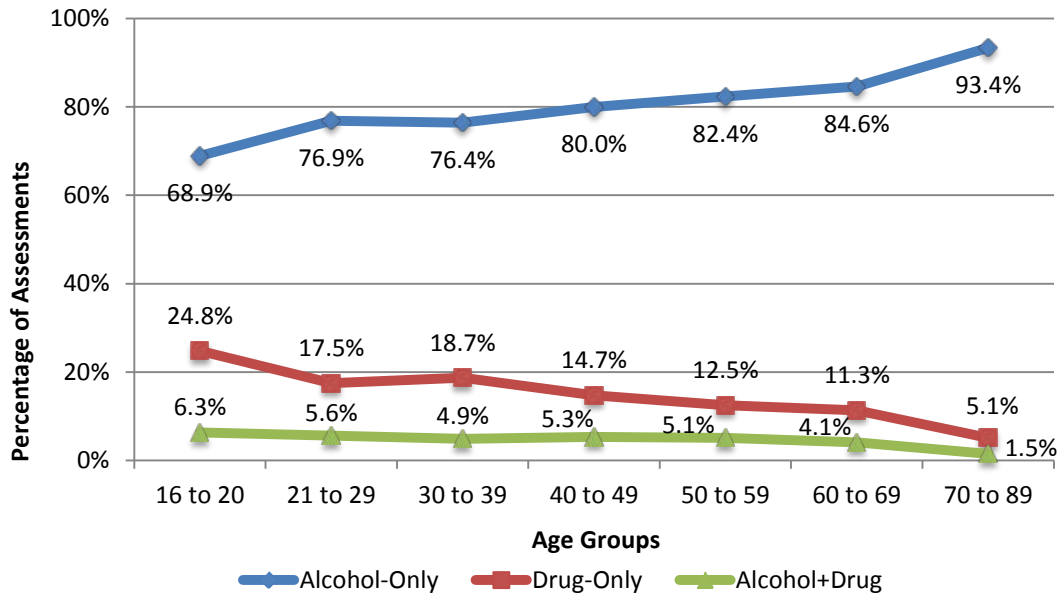


* Missing Data = 5,918 Assessments. Race/Ethnicity is an optional field in KDAI.

2.4 DUI Type by Age

In 2013, 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: DUI Type by Age at Conviction*

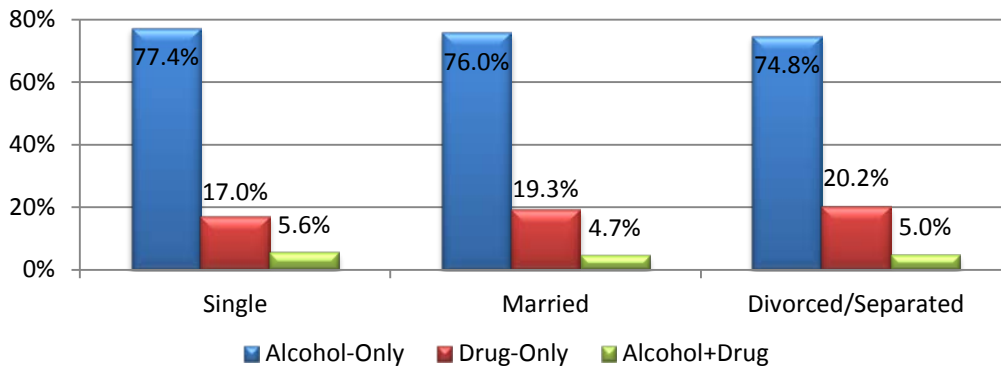


* Missing Data = 578 Assessments

2.5 DUI Type 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 (77.4%) and a DUI that involved both alcohol and drugs (5.6%). Divorced/Separated persons were more likely (20.2%) than the other groups to have a drug-only DUI.

Figure 2.6: DUI Type by Marital Status*

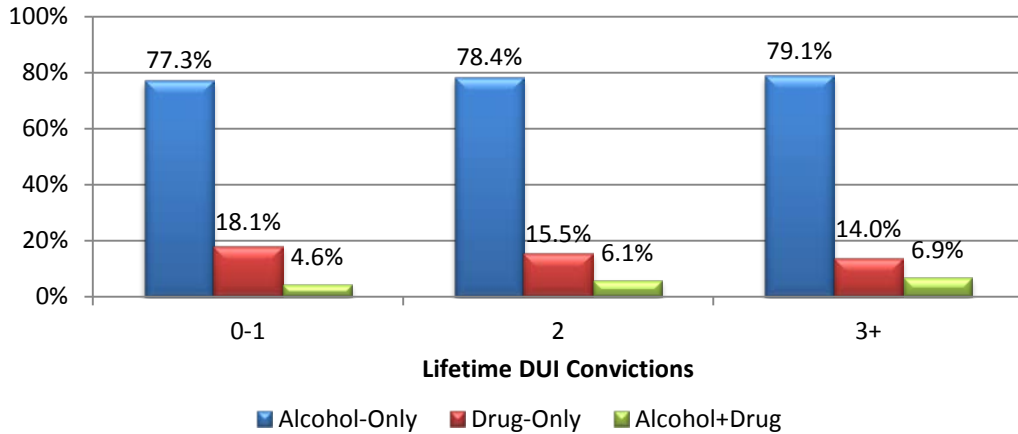


* Missing Data = 7,518 Assessments. Marital status is an optional field in KDAI.

2.6 DUI Type by Number of Convictions

Figure 2.7 presents the relationship between the type of DUI and the number of lifetime DUI convictions. A higher percentage of persons convicted of their first DUI (18.1%) had a drug-only DUI than offenders convicted of two or more DUIs in their lifetime. However, offenders with multiple lifetime DUI offenses were more likely to have driven under the influence of both alcohol and drugs for their current DUI than first time offenders.

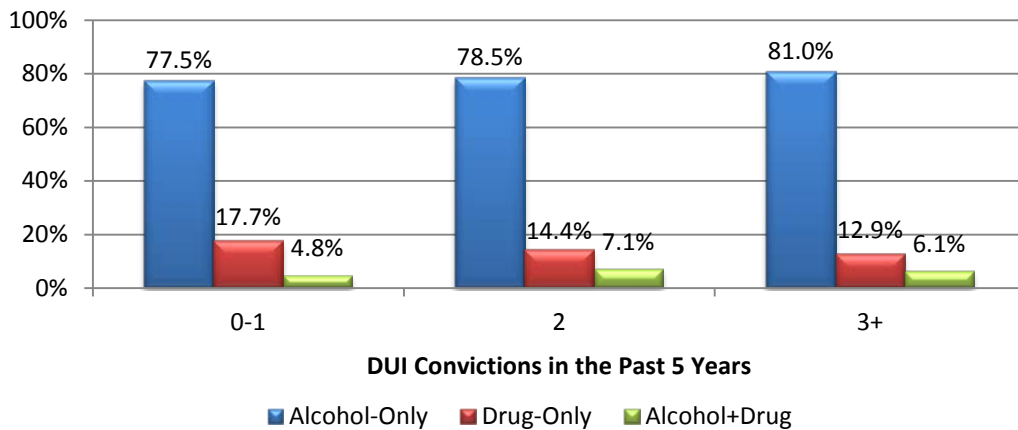
Figure 2.7: DUI Type by Number of Lifetime DUI Convictions*



* Missing Data = 569 Assessments

Figure 2.8 presents the relationship between the type of DUI and the number of DUI convictions in the past five years. Similar to lifetime DUI trends, persons convicted of their first DUI in the past five years (17.7%) were most likely to have a drug-only DUI, while offenders with multiple DUI offenses in the past five years were more likely to have driven under the influence of both alcohol and drugs for their current offense than DUI offenders only convicted of one DUI in the past five years.

Figure 2.8: DUI Type by Number of DUI Convictions in the Past 5 Years*



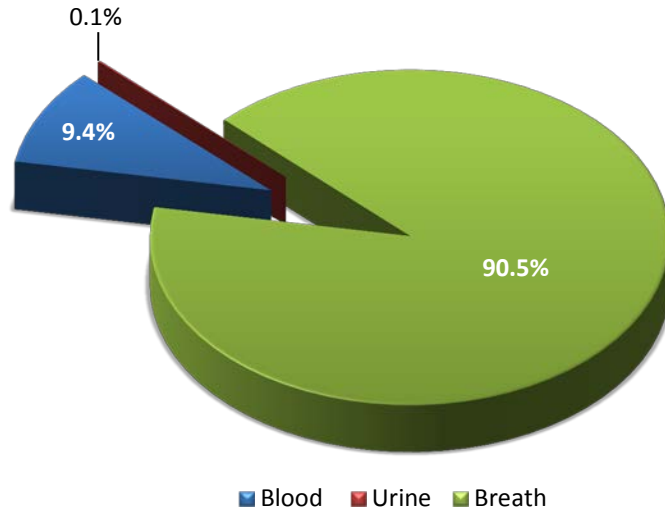
* Missing Data = 569 Assessments

2.7 Alcohol/Drug Tests

In 2013, assessment information revealed that a majority of DUI offenders had their Blood Alcohol Content (BAC) measured with their current DUI (64.0%). Of those 15,497 offenders who had their BAC measured, a majority had their breath tested (90.5%) while only 0.1% were urine-tested. Figure 2.9 presents the number of DUI assessments by method of BAC measurement.

Figure 2.9:
Assessments by BAC
Measurement Method*

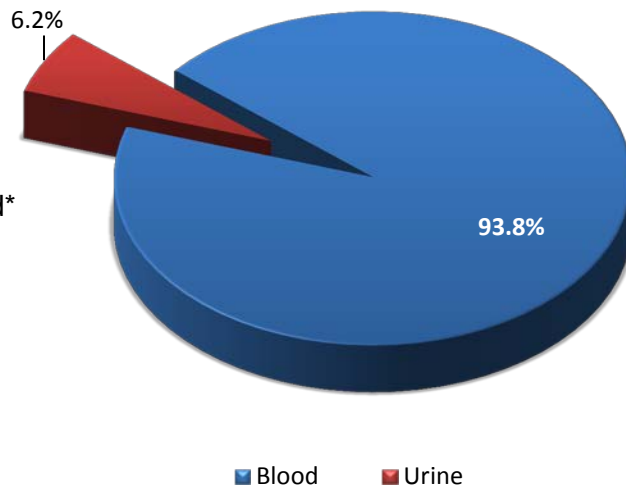
* Missing Data = 605 Assessments
Not Tested = 8,705 Individuals



Assessment information also revealed that only a small percentage of DUI offenders were drug tested with their current DUI (14.4%). Of the 3,477 tested, most had their blood tested (93.8%). Figure 2.10 presents the number of DUI assessments by method of drug testing.

Figure 2.10:
Assessments by Drug Test Method*

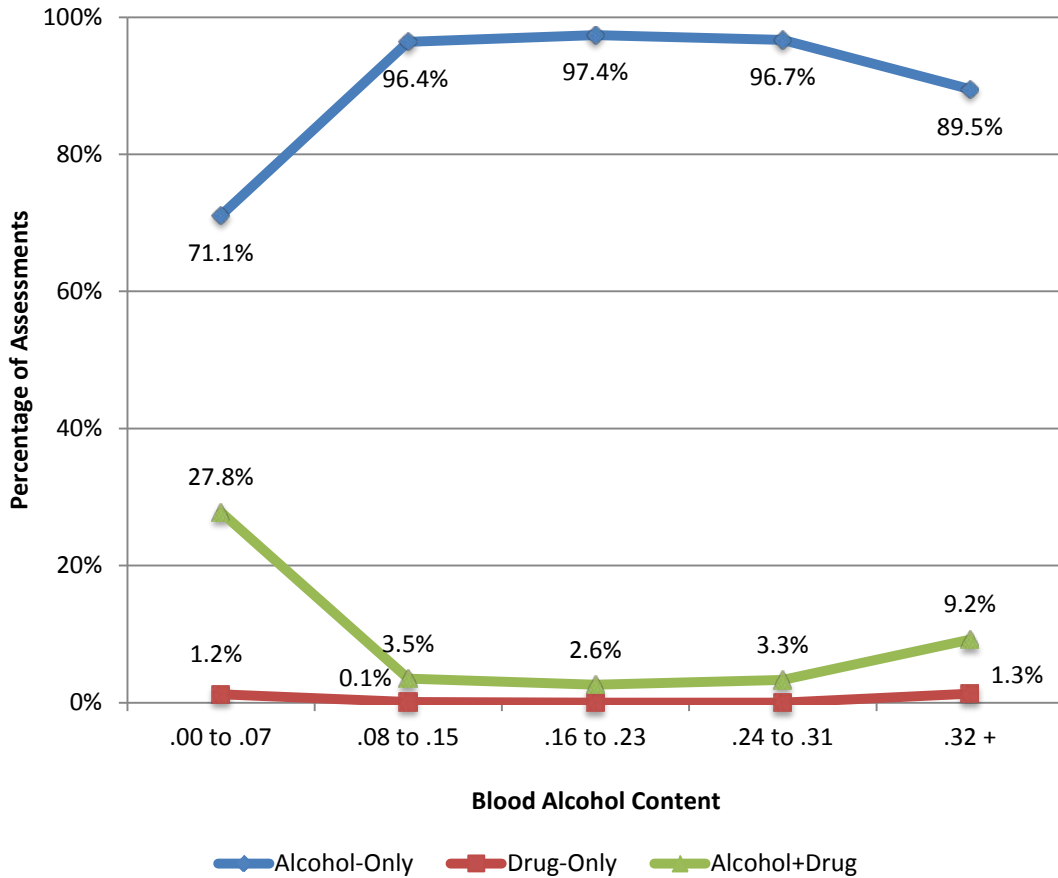
* Missing Data = 568 Assessments
Not Tested = 20,726 Individuals



2.8 DUI Type 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: DUI Type by Blood Alcohol Content*



* Missing Data = 11,468 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

This page left intentionally blank.

3.1 AUDIT and DAST

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 is considered indicative of a 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+)	5,827 (31.4%)	1,614 (26.0%)	7,441 (30.0%)
Average Score	6.39	5.37	6.13
Number of Assessments	18,574	6,197	24,771

* 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).

Table 3.2: DAST Scores*

	Males	Females	Total
Positive (5+)	3,679 (19.8%)	1,492 (24.1%)	5,171 (20.9%)
Average Score	2.68	3.36	2.85
Number of Assessments	18,567	6,193	24,760

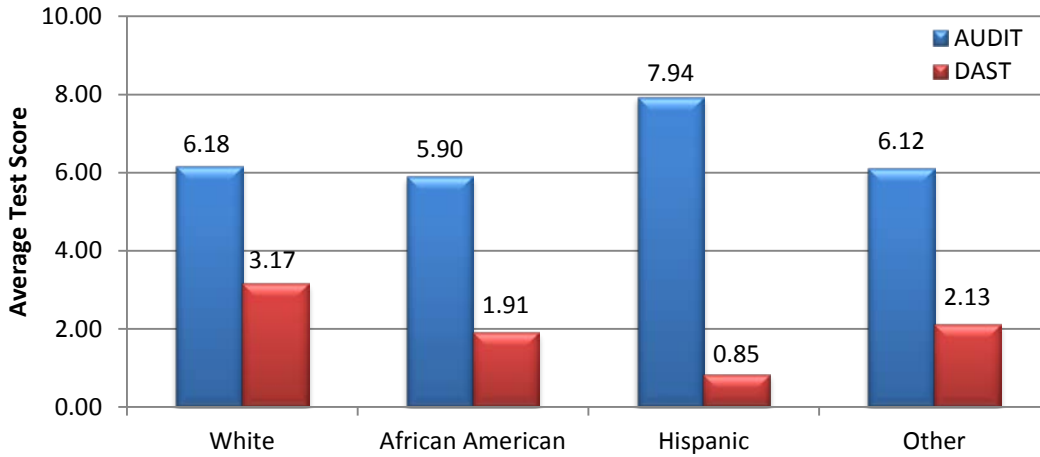
* Missing Data = 11 Assessments

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 (7.94) while White persons had the highest average DAST scores (3.17). Figure 3.3 presents the average AUDIT and DAST scores by race/ethnicity.

Figure 3.1: AUDIT and DAST by Race/Ethnicity*

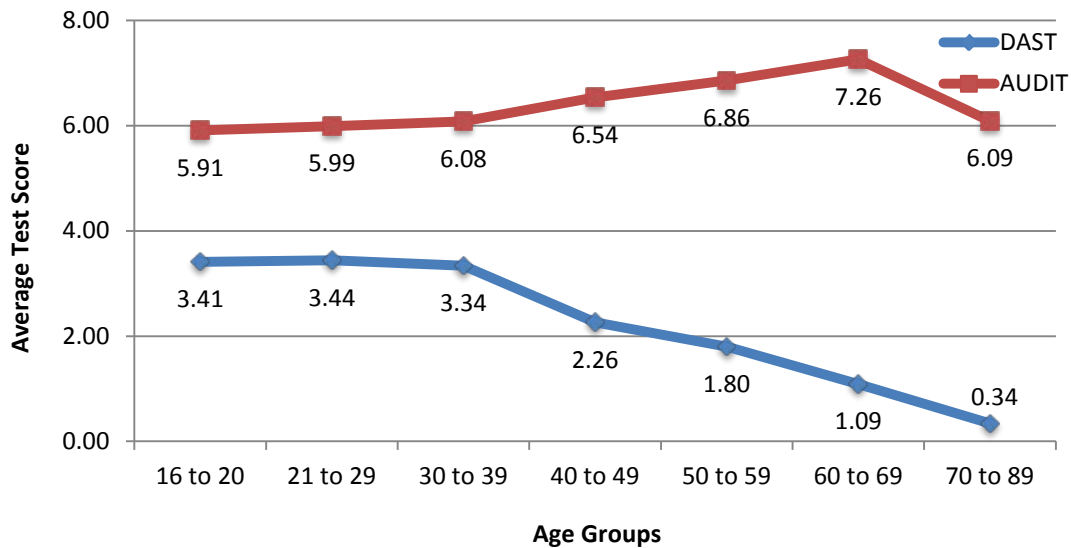


* Missing Data = 5,495 DUI Convictions for AUDIT and 5,505 for DAST. Race/Ethnicity is an optional field in KDAI.

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*

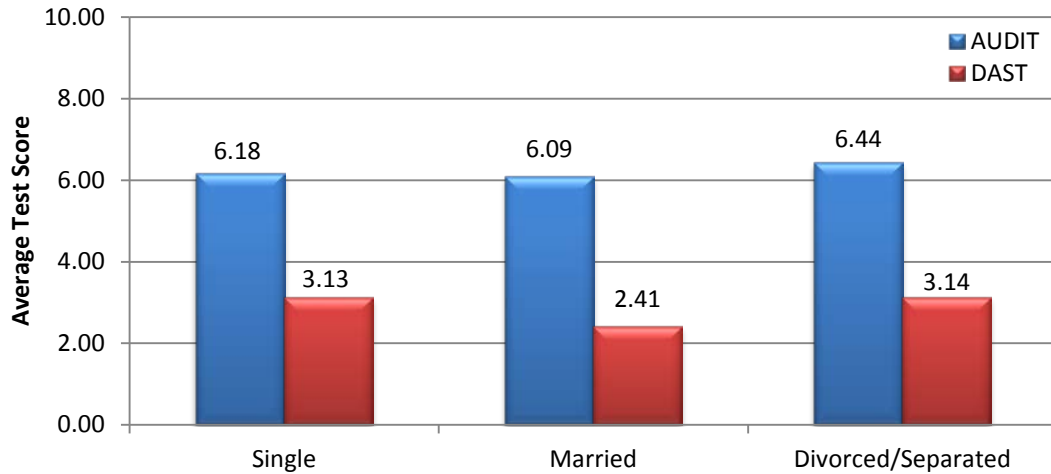


* Missing Data = 577 DUI Convictions for AUDIT and 588 for DAST

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 (2.41) scores.

Figure 3.3: AUDIT and DAST by Marital Status*

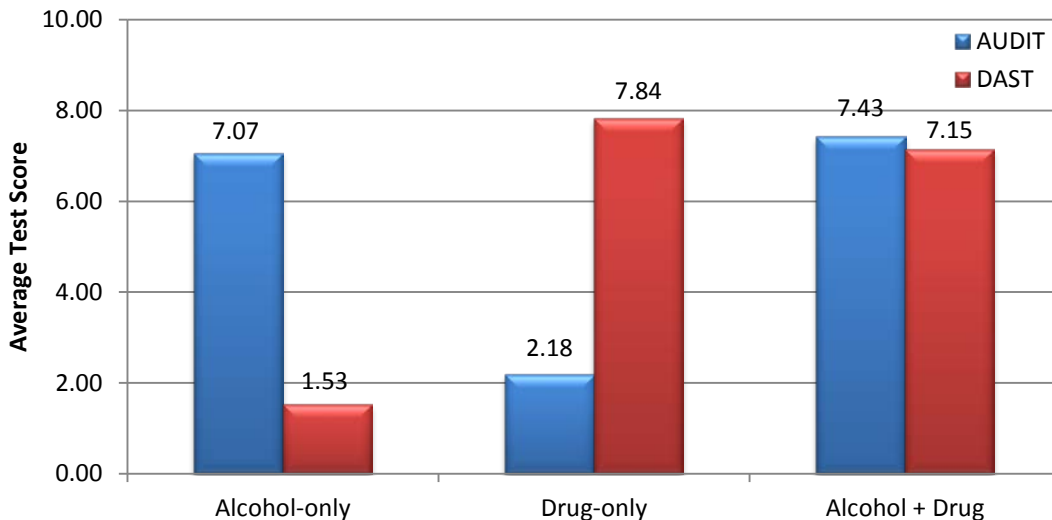


* Missing Data = 7,133 DUI Convictions for AUDIT and 7,141 for DAST. Marital status is an optional field in KDAI.

3.5 AUDIT and DAST by DUI Type

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 DUI Type*

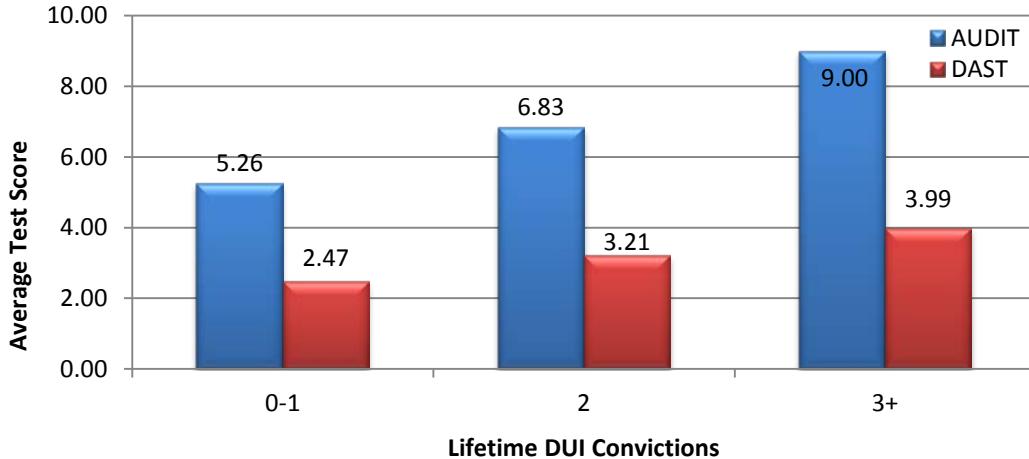


* Missing Data = 569 DUI Convictions for AUDIT and 580 for DAST

3.6 AUDIT and DAST by Number of Convictions

Figure 3.5 presents the relation between AUDIT and DAST scores and the number of lifetime DUI convictions. Persons convicted of their first DUI had an average score of 5.26 on the AUDIT and 2.47 on the DAST. Those persons with three or more prior convictions scored 9.00 on the AUDIT and 3.99 on the DAST.

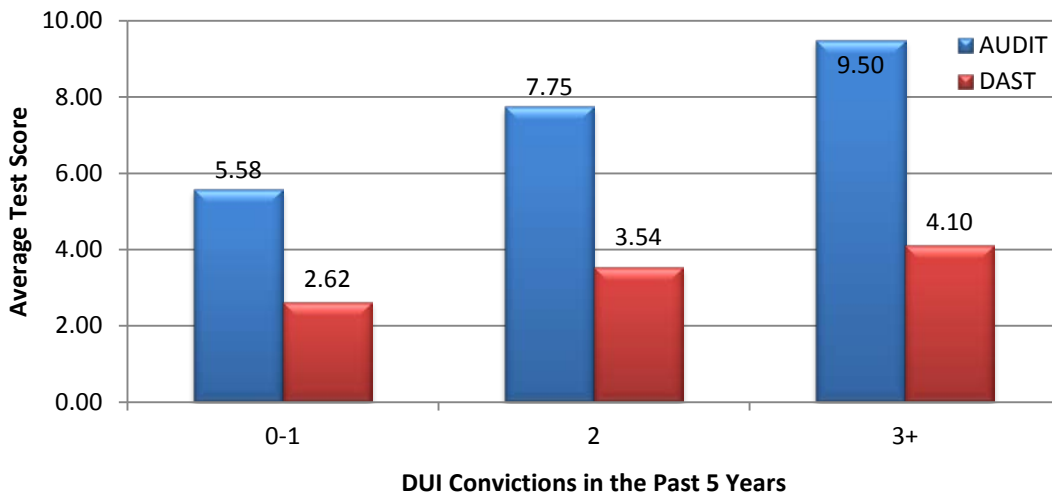
Figure 3.5: AUDIT and DAST by Number of Lifetime DUI Convictions*



* Missing Data = 0 DUI Convictions for AUDIT and 11 for DAST

Figure 3.6 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 5.58 on the AUDIT and 2.62 on the DAST, while offenders with three or more prior convictions scored 9.5 on the AUDIT and 4.10 on the DAST.

Figure 3.6: AUDIT and DAST by Number of DUI Convictions in the Past 5 Years*

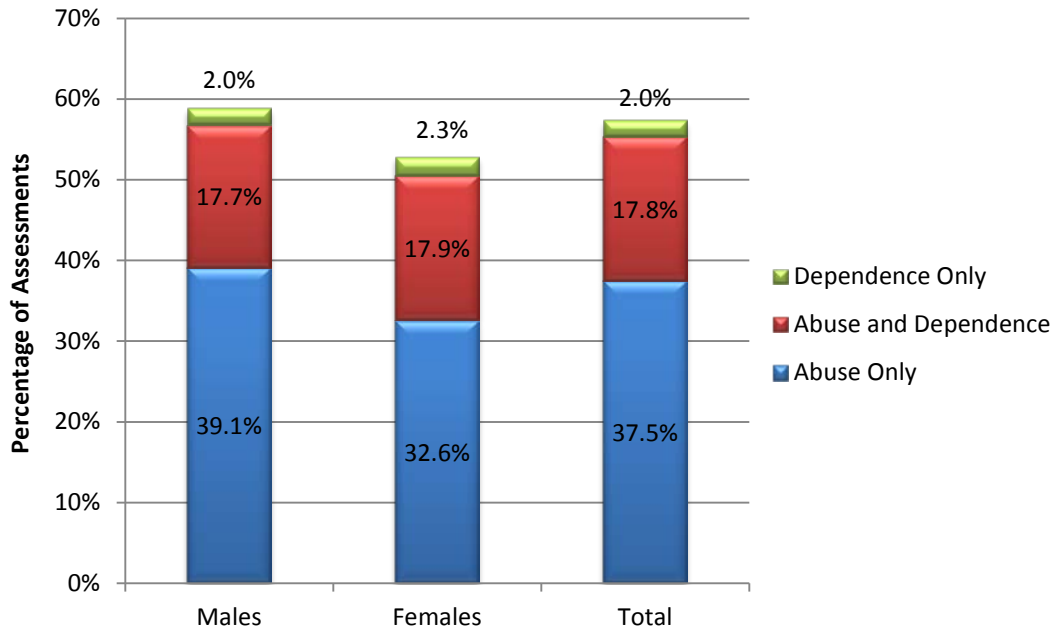


* Missing Data = 0 DUI Convictions for AUDIT and 11 for DAST

3.7 DSM-IV-TR Abuse and Dependence Criteria

In 2013, females convicted of DUI had a slightly higher rate of dependence (20.2%) than males convicted of DUI (19.7%). The top section of each bar in Figure 3.7 presents individuals who met three or more dependence criteria in their lifetime but no abuse criteria. The lower section shows individuals who met abuse criteria and less than three dependence criteria. The center section shows persons who met criteria for abuse and three or more dependence criteria in their lifetime. Appendix C (page 91) presents responses for each DSM-IV-TR criteria by gender.

Figure 3.7: Percentage of Persons Meeting DSM-IV-TR Abuse and/or Dependence Criteria by Gender*



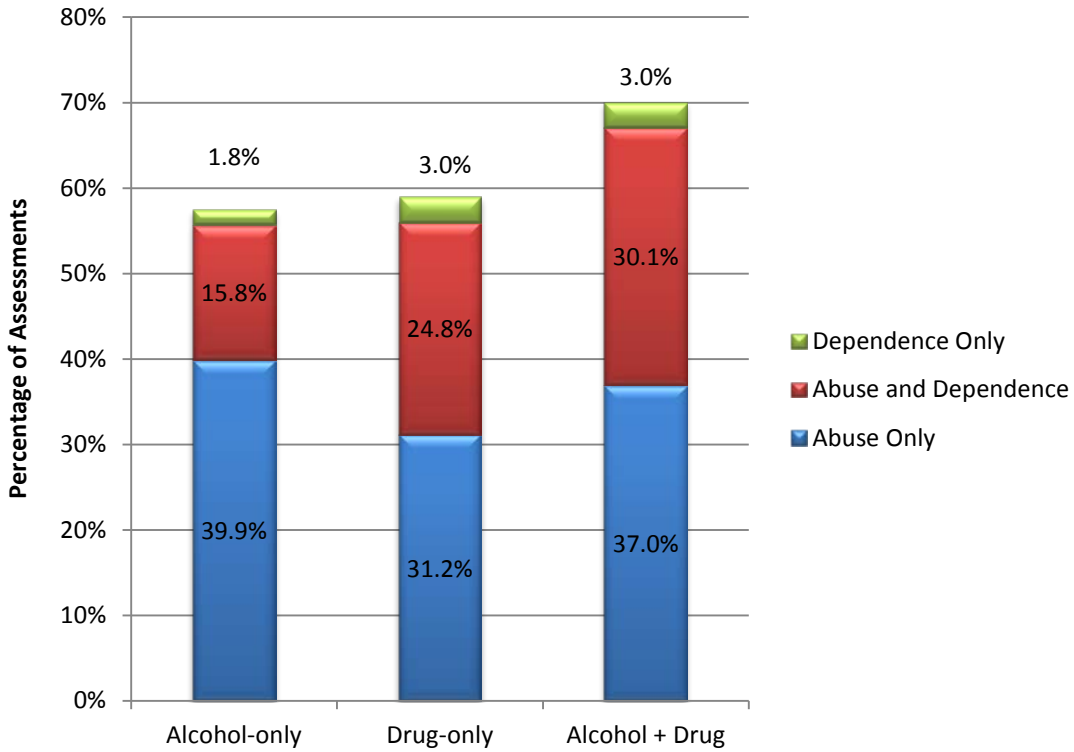
* Missing Data = 0 Assessments

It is important to note that these data do not present a clinical DSM-IV-TR diagnosis. Dependence in this case means that the person met at least three DSM-IV-TR dependence criteria in his/her lifetime. A clinical DSM-IV-TR dependence diagnosis requires meeting three (or more) criteria which occur within the same 12-month time frame. Abuse means that the person met self-reported DSM-IV-TR criteria for abuse in their life. Neither diagnostic category takes the possibility of remission into consideration.

3.8 DSM-IV-TR Criteria by DUI Type

Figure 3.8 presents DSM-IV-TR criteria for each of the DUI types. Individuals whose current DUI involved both alcohol and drugs were more likely to meet dependence criteria (33.1%) than those involved in alcohol-only DUIs (17.6%) or drug-only DUI (27.8%). As previously discussed in Section 3.7, these data should not be interpreted as a clinical diagnosis.

Figure 3.8: DSM-IV-TR Criteria by DUI Type*

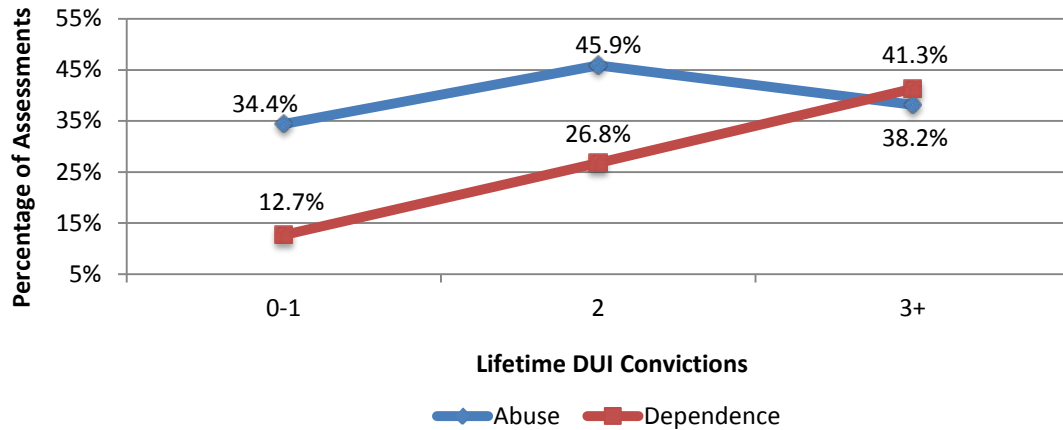


* Missing Data = 569 Assessments

3.9 DSM-IV-TR Abuse and Dependence Criteria by Number of Convictions

Figure 3.9 compares the percentage of persons who reported DSM-IV-TR criteria for abuse or dependence with the number of lifetime DUI convictions. The percentage of persons who reported three or more dependence criteria in their lifetime increases as the number of lifetime DUI convictions increases.

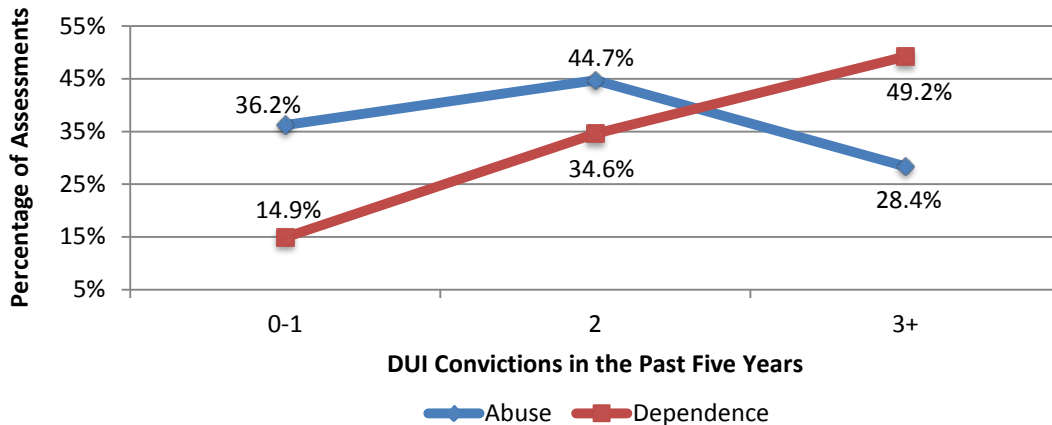
Figure 3.9: Percentage of Persons Meeting Dependence or Abuse Criteria by Number of Lifetime DUI Convictions*



* Missing Data = 0 Assessments

Figure 3.10 compares the percentage of persons who reported DSM-IV-TR criteria for abuse or dependence with the number of previous DUI convictions in the past five years. The percentage of persons who reported three or more dependence criteria in their lifetime increases as the number of DUI convictions increases in the past five years. The percentage of persons reporting abuse, however, decreases overall as the number of convictions increases. This may be due to the increased number of persons reporting dependence criteria.

Figure 3.10: Percentage of Persons Meeting Dependence or Abuse Criteria by Number of DUI Convictions in the Past Five Years

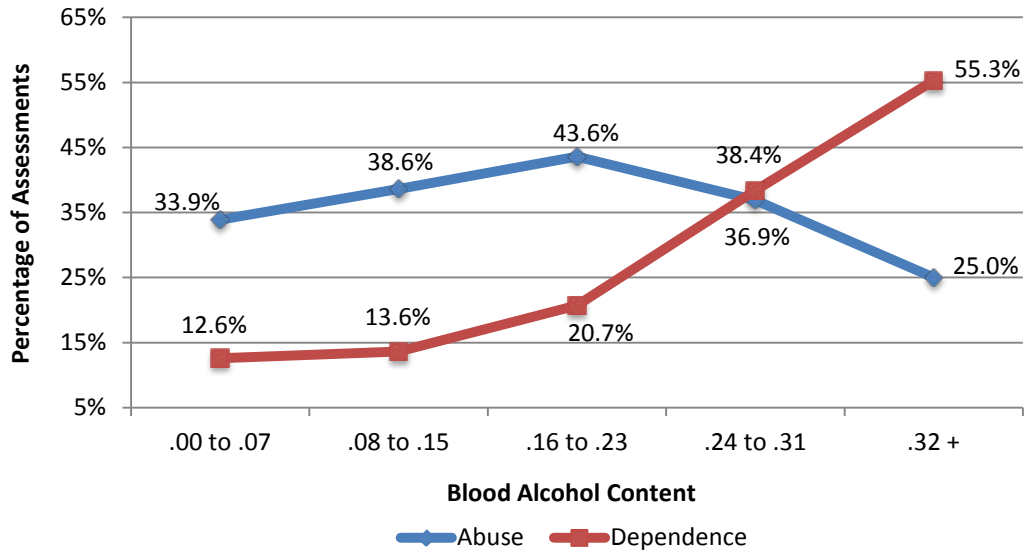


* Missing Data = 0 Assessments

3.10 DSM-IV-TR Criteria and Blood Alcohol Content

There was a relationship between Blood Alcohol Content (BAC) and individuals who met DSM-IV-TR abuse and/or 3 or more dependence criteria in their lifetime. Figure 3.11 presents trends for BAC and DSM-IV-TR dependence and abuse criteria. Persons who were convicted with a higher BAC (.24+) were more likely to self-report DSM-IV-TR criteria for dependence.

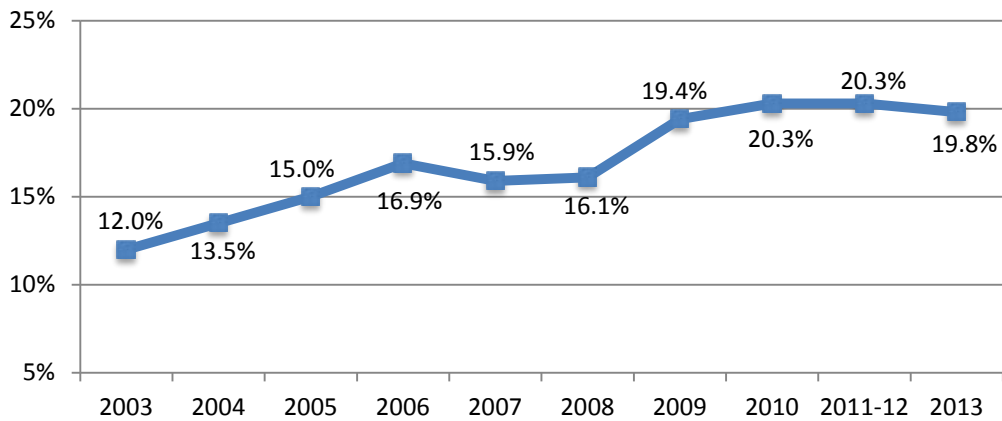
Figure 3.11: Percentage of Persons Meeting Abuse or Dependence Criteria by Blood Alcohol Content*



* Missing Data = 11,468 Assessments

Figure 3.12 presents the percentage of assessed persons who met at least three lifetime DSM-IV-TR criteria for dependence from 2003 to 2013. Overall, the percentage of assessed persons who met dependence criteria has increased over the past eleven years.

Figure 3.12: DSM-IV-TR Dependence 2003 to 2013



Screening Summary

AUDIT and DAST scores, DSM-IV-TR criteria, and blood alcohol content are all closely related. Interesting demographic differences were found on the AUDIT and DAST. Specifically, women, White persons, and those 40 years old and younger had higher DAST scores but lower AUDIT scores than males, those of other racial/ethnic backgrounds, and persons older than 40 and older. Differences in DSM-IV-TR criteria by DUI type were also noteworthy with individuals whose current DUI involved drugs being more likely to report three or more dependence criteria in their lifetime than those involved in alcohol-only DUIs.

This page left intentionally blank.

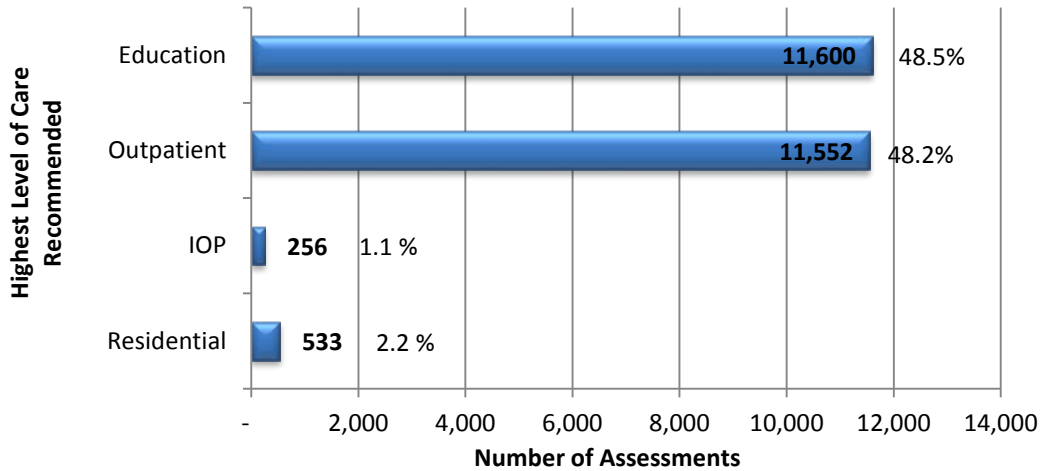
SECTION FOUR
TREATMENT REFERRALS

This page left intentionally blank.

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 (96.8%) was referred for education or outpatient treatment as their highest level of care.

Figure 4.1: Highest Level of Care Recommended*



* Missing Data = 830 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 2013. The percentage of education versus outpatient referrals remained similar between 2008 and 2013.

Figure 4.2: Education and Outpatient Referrals 2003 to 2013

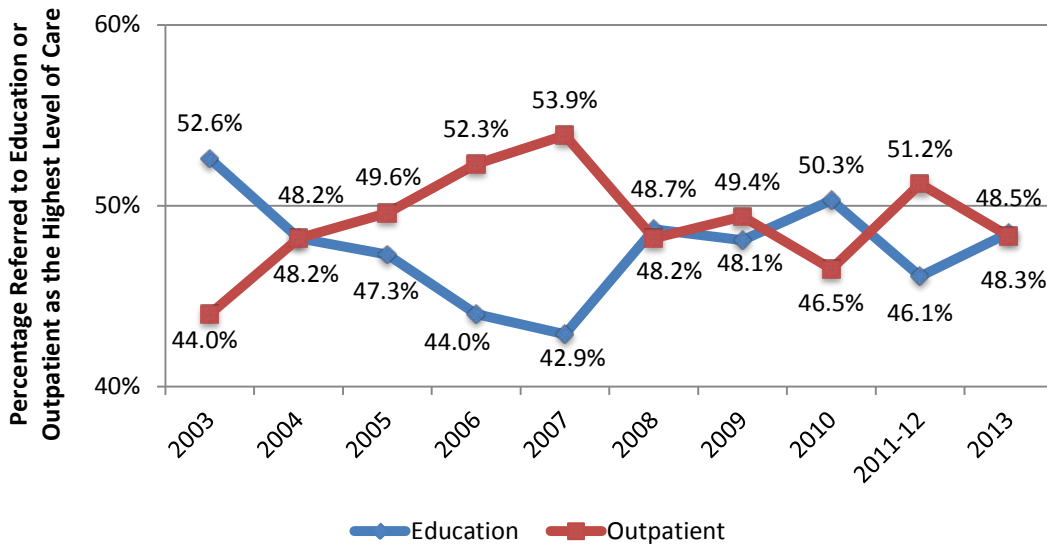
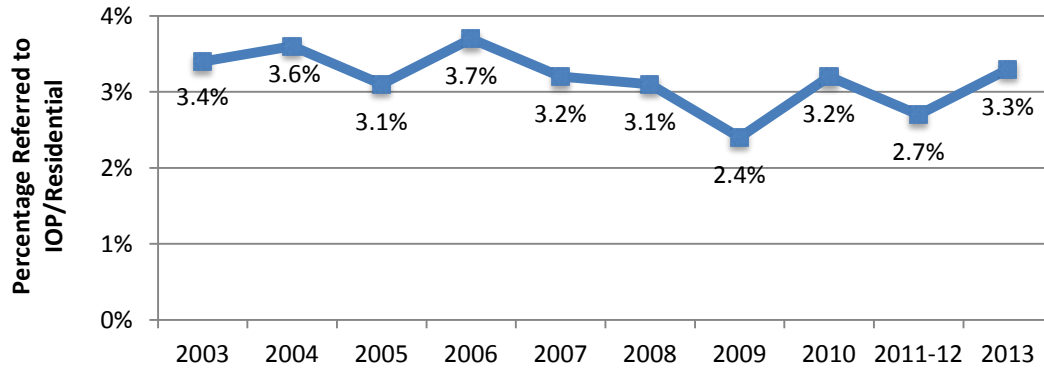


Figure 4.3 presents the percentage of assessments referred for IOP and/or residential treatment from 2003 to 2013. The percentage of assessments with an IOP or residential referral has remained relatively stable over the past eleven years.

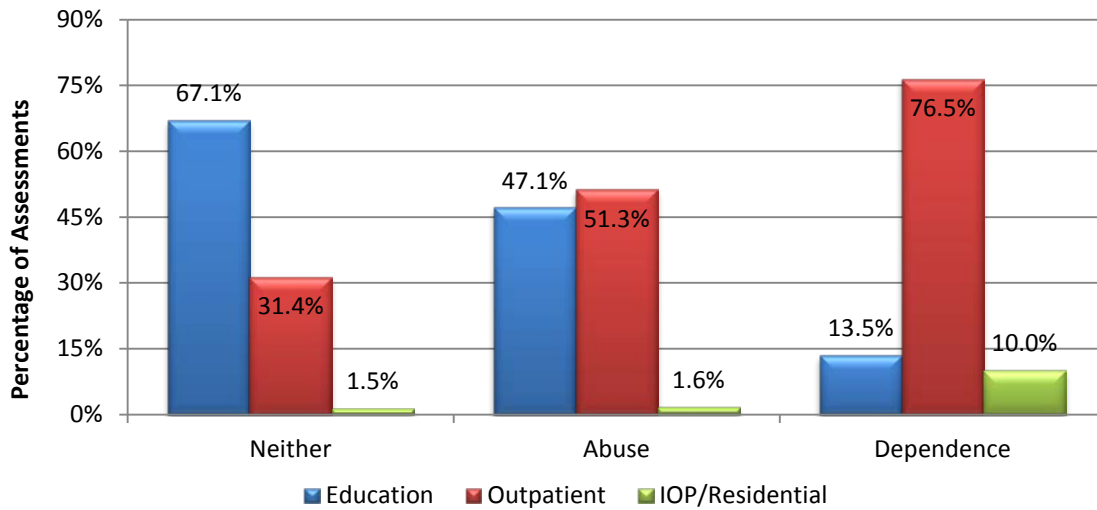
Figure 4.3: Intensive Outpatient and Residential Treatment Referrals 2003 to 2013



4.2 Recommended Level of Care by DSM-IV-TR Criteria

Figure 4.4 presents the highest level of care recommended by DSM-IV-TR criteria. Treatment referrals are related to DSM-IV-TR criteria. Persons who met three or more dependence criteria in their lifetime were more likely than other DUI offenders to have received an IOP or residential treatment recommendation. Persons who did not meet criteria for abuse or dependence were most often referred for education. Persons who met three or more dependence criteria in their lifetime were more likely to have been referred for a treatment intervention than those who met criteria for abuse who in turn were more likely to have been referred for a treatment intervention than those persons who did not meet DSM-IV-TR criteria for abuse or dependence.

Figure 4.4: Highest Level of Care by DSM-IV-TR Criteria*



* Missing Data = 830 Assessments

4.3 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	12,722
Outpatient	11,749
Intensive Outpatient	272
Residential	533

* Missing Data = 830 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 40.7% of persons recommended for residential services were also recommended for an additional level of care.

Table 4.2: Total Referrals by Combination*

Education	11,600
Outpatient	10,459
OP & Edu	1093
Intensive Outpatient	237
IOP & Edu	13
IOP & OP	4
IOP & OP & Edu	2
Residential	316
Res & Edu	10
Res & OP	189
Res & OP & Edu	2
Res & IOP	14
Res & IOP & Edu	2
Res & IOP & OP	0
Res & IOP & OP & Edu	0

Key:

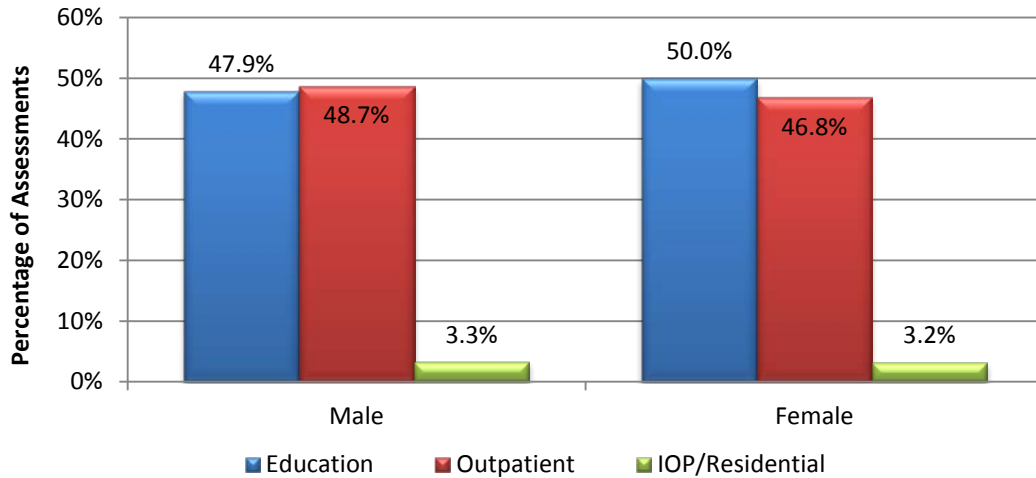
Education	Edu
Outpatient	OP
Intensive Outpatient	IOP
Residential	Res

* Missing Data = 830 Assessments

4.4 Recommended Level of Care by Gender

Figure 4.5 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 (48.7%) as their highest level of care while female offenders were most often referred to an education intervention (50.0%) as their highest level of care.

Figure 4.5: Highest Level of Care by Gender*

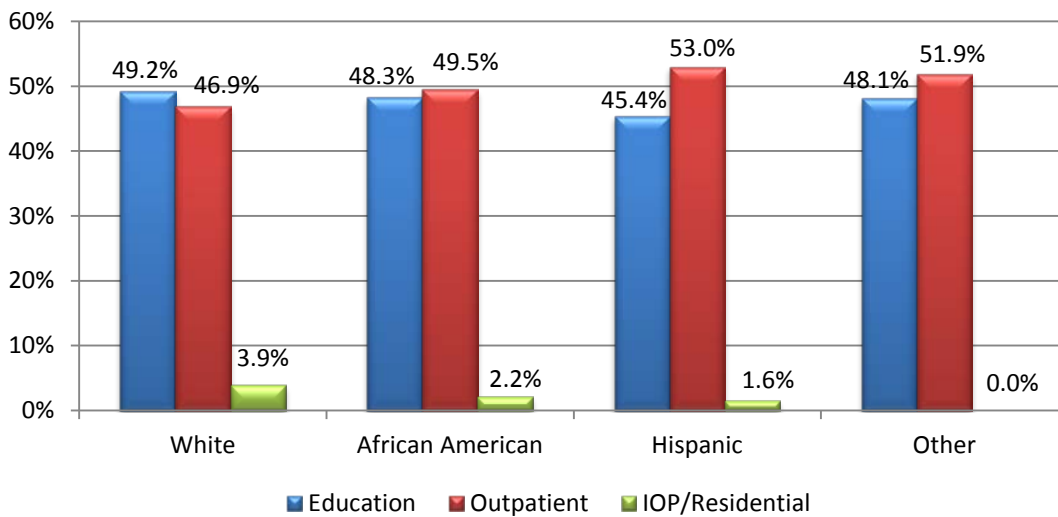


* Missing Data = 830 Assessments

4.5 Recommended Level of Care by Race/Ethnicity

Figure 4.6 presents the highest level of care recommended by race/ethnicity in 2013. Compared to other racial/ethnic groups, White persons were more likely to be referred to an education intervention (49.2%) and IOP/residential treatment (3.9%) while Hispanic persons (93.5%) were more often referred to outpatient treatment.

Figure 4.6: Highest Level of Care by Race*

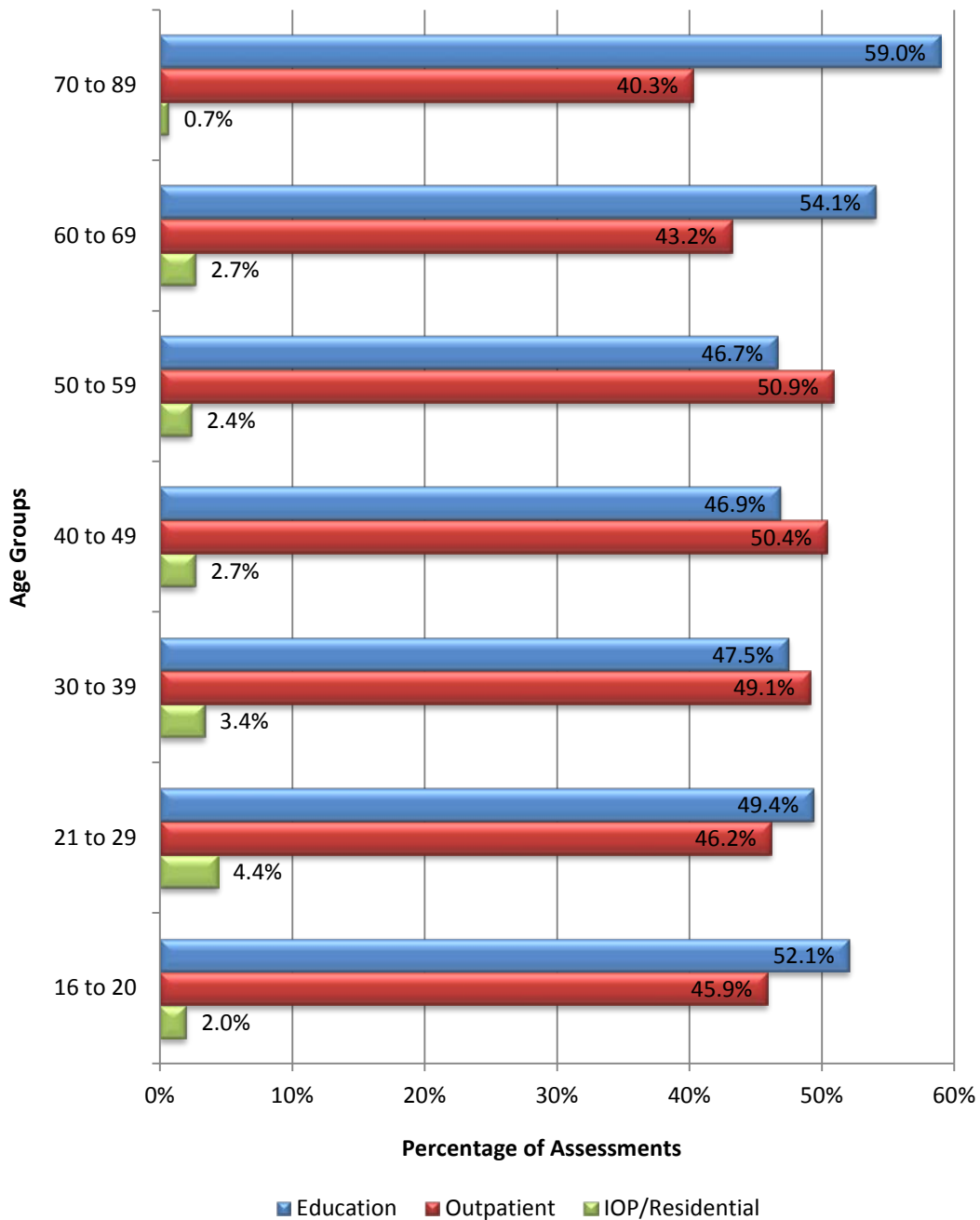


* Missing Data = 6,073 Assessments. Race/Ethnicity is an optional field in KDAI.

4.6 Recommended Level of Care by Age

Figure 4.7 presents the highest level of care recommended for each age group. Persons who are between the ages of 21 and 39 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 older persons between the ages of 60 and 89 were more likely to be referred to an education intervention.

Figure 4.7: Highest Level of Care by Age at Conviction*

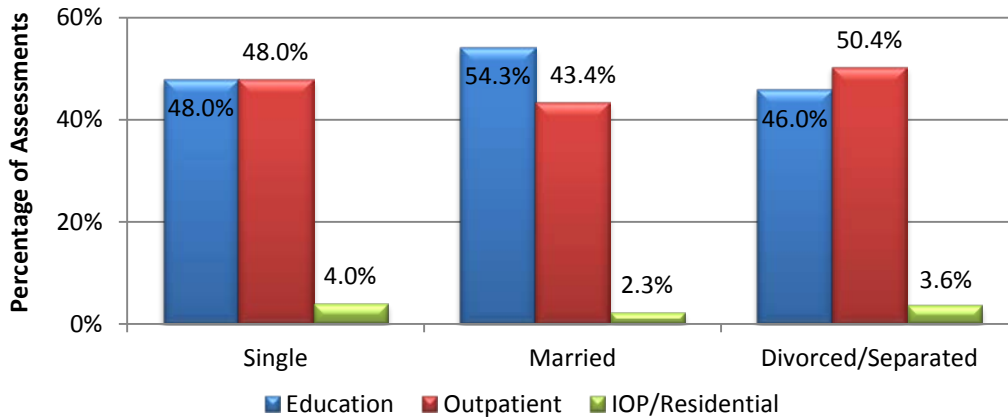


* Missing Data = 897 Assessments

4.7 Recommended Level of Care by Marital Status

Figure 4.8 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 (48.7%) as their highest level of care while female offenders were most often referred to an education intervention (50.0%) as their highest level of care.

Figure 4.8: Highest Level of Care by Marital Status*

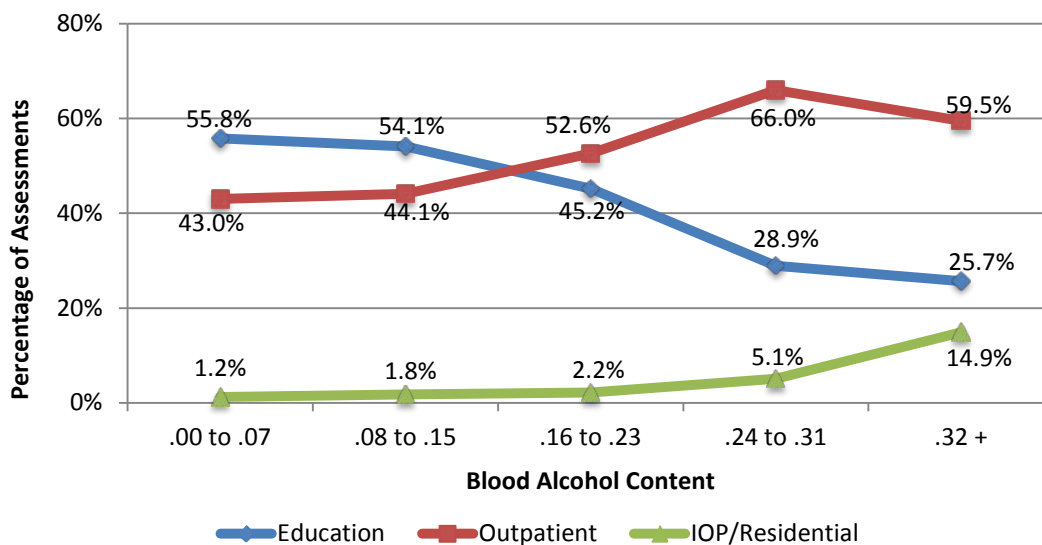


* Missing Data = 7,664 Assessments. Marital status is an optional field in KDAI.

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*

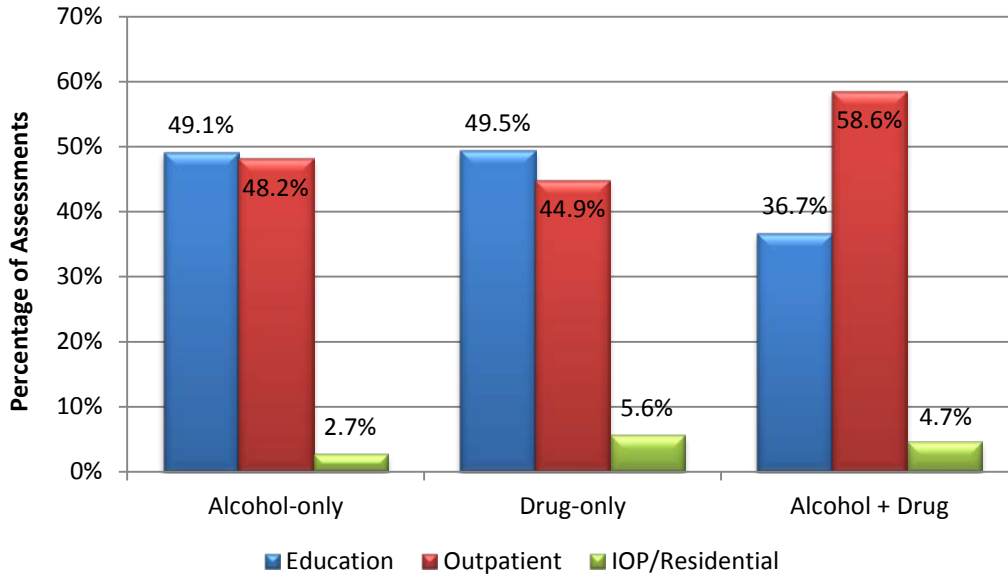


* Missing Data = 11,652 Assessments. This includes both alcohol- and drug-involved offenders.

4.9 Recommended Level of Care by DUI Type

Figure 4.10 presents the highest level of care recommended by the type of DUI. 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 significantly more likely (58.6%) to be referred to outpatient treatment than individuals with either an alcohol-only DUI (48.2%) or a drug-only DUI (44.9%).

Figure 4.10: Highest Level of Care by DUI Type*



* Missing Data = 890 Assessments

Referral Summary

Most of the persons assessed during 2013 were referred to 20-hour education or an outpatient treatment intervention. There is a relationship between the level of care recommended and DSM-IV-TR 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.

This page left intentionally blank.

SECTION FIVE
COMPLIANCE

This page left intentionally blank.

5.1 Compliant vs. Non-Compliant

Of the 24,771 assessment records submitted in 2013, 18,212 records were also completed before December 31, 2013. 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 2013. Overall, more than three-fourths (85.3%) 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

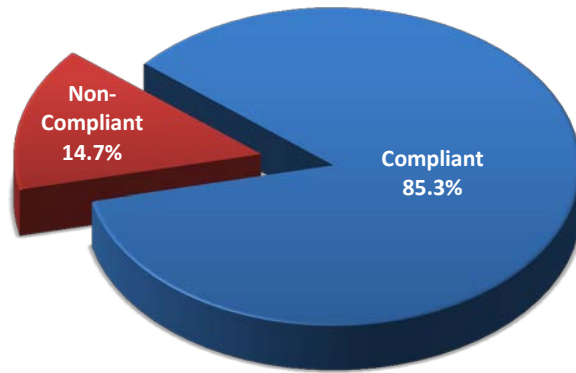
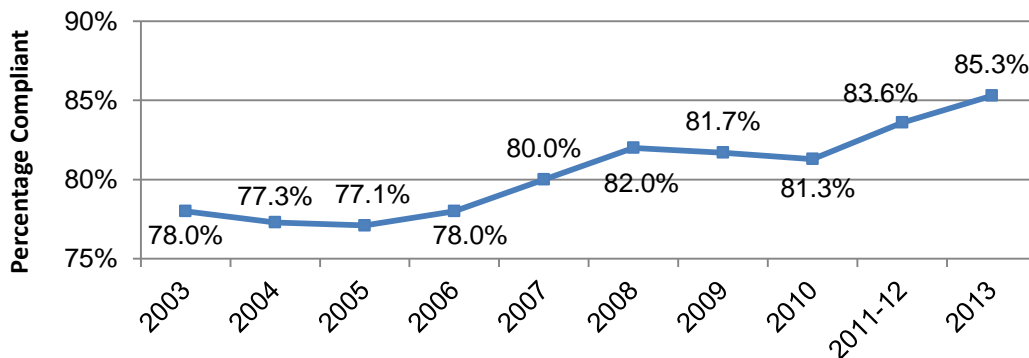


Table 5.1: Reasons for Non-Compliance

Failure to achieve treatment plan goals.	1.7%
Failure to comply with rules of conduct.	0.8%
Failure to comply with attendance requirements.	91.6%
Failure to pay fees.	5.9%

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.

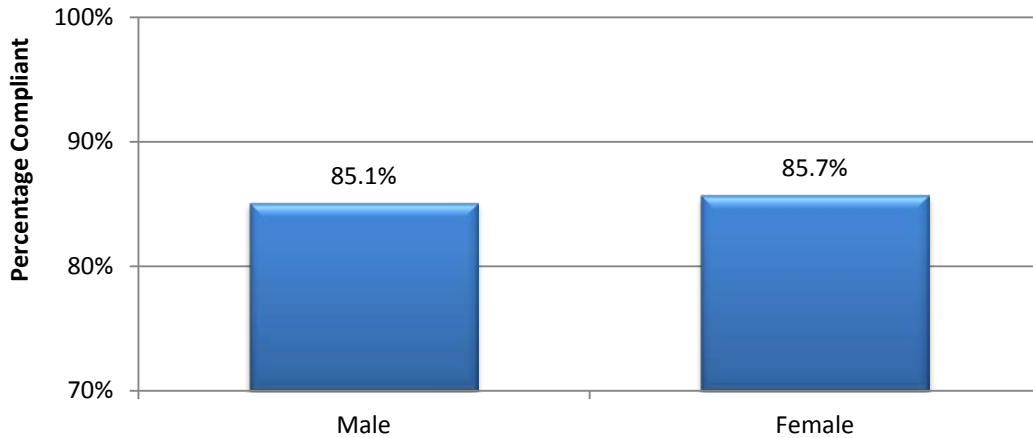
Figure 5.2: Percentage of Assessments that were Compliant 2003 to 2013



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 (85.7%) compared to male offenders (85.1%).

Figure 5.3: Compliance by Gender*

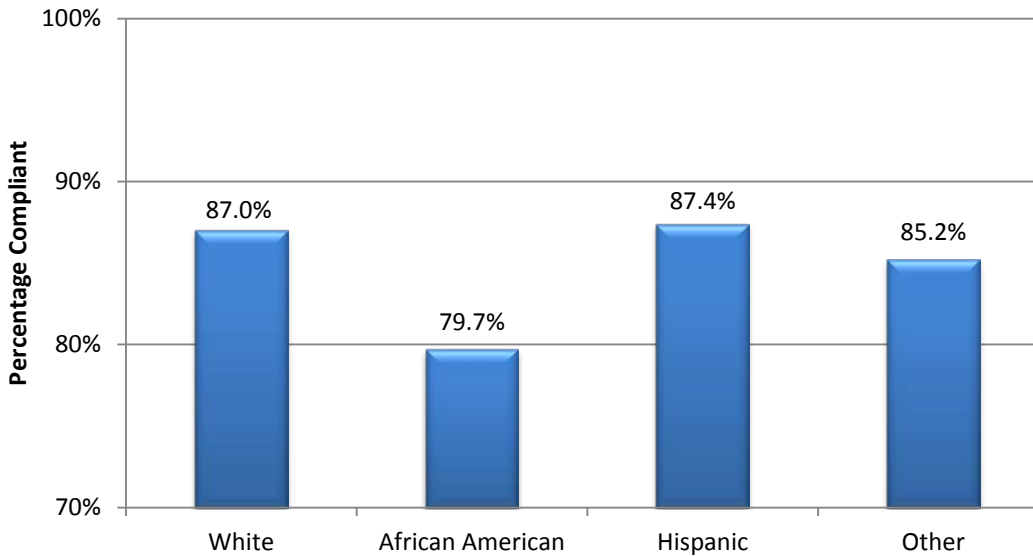


* Missing Data = 0 Assessments

5.3 Compliance by Race/Ethnicity

Figure 5.4 presents compliance by race/ethnicity. White and Hispanic offenders had the highest compliance rates (87.0% and 87.4%) while African American persons were the least likely to comply (79.7%).

Figure 5.4: Compliance by Race/Ethnicity*

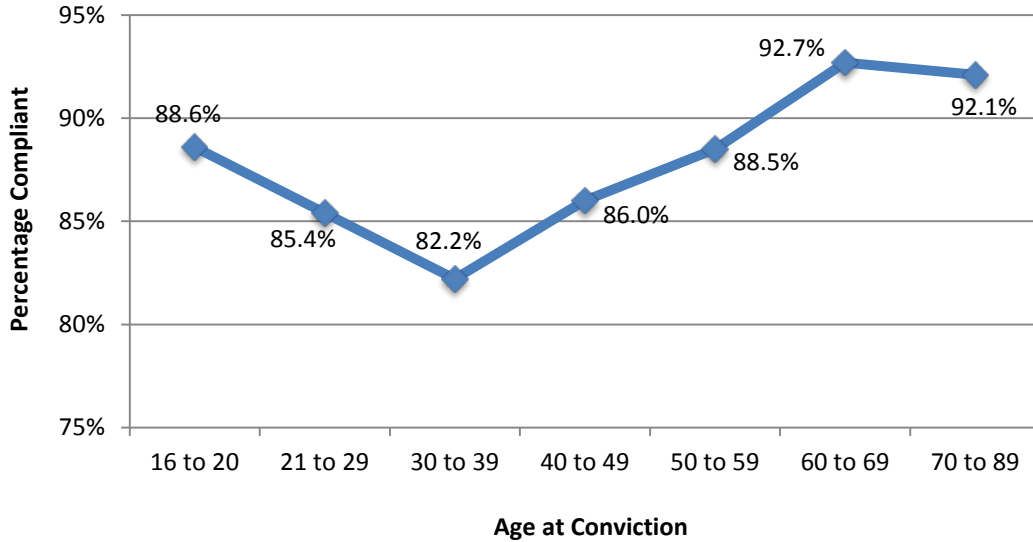


* Missing Data = 4,127 Assessments. Race/Ethnicity is an optional field in KDAI.

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*

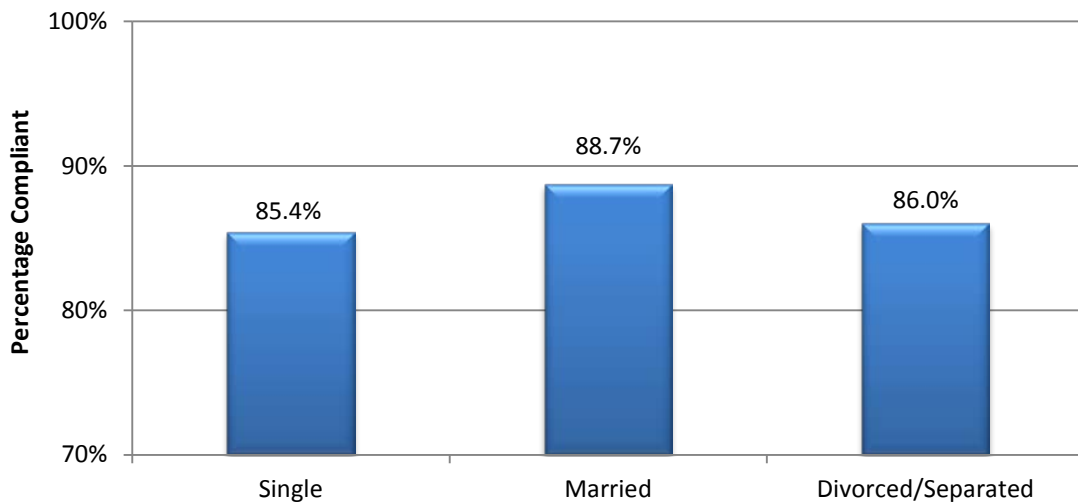


* Missing Data = 860 Assessments

5.5 Compliance by Marital Status

Figure 5.6 presents compliance information by offenders' marital status. A higher percentage of married DUI offenders (88.7%) complied with education and/or treatment recommendations compared to single offenders (85.4%) or those who were divorced/separated (86.0%).

Figure 5.6: Compliance by Marital Status*

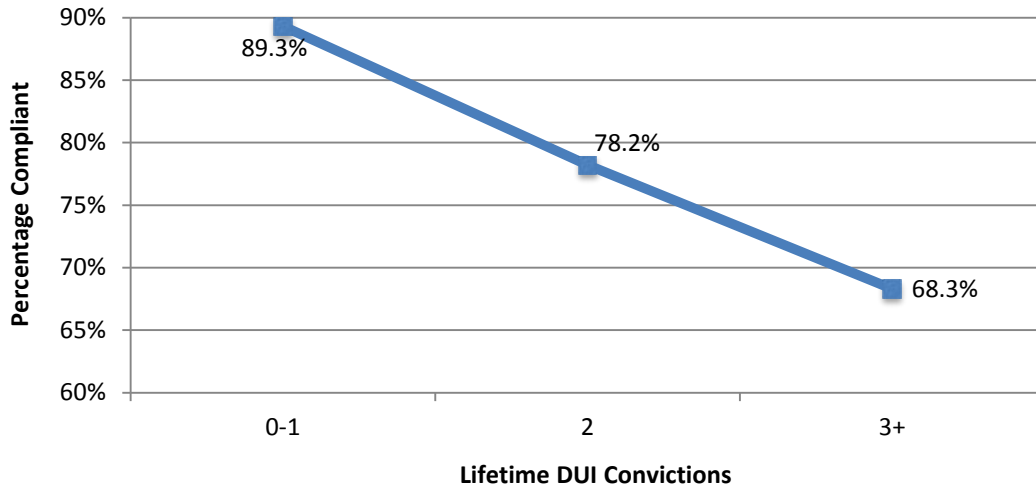


* Missing Data = 5,372 Assessments. Marital status is an optional field in KDAI.

5.6 Compliance by Number of DUI Convictions

Figure 5.7 presents compliance rates by lifetime DUI convictions. Persons with multiple convictions were less likely to be compliant with education and/or treatment recommendations. Persons with two DUI convictions were less likely to be compliant than persons convicted of their first DUI while persons with three or more lifetime convictions were less likely to be compliant than persons convicted of their second DUI.

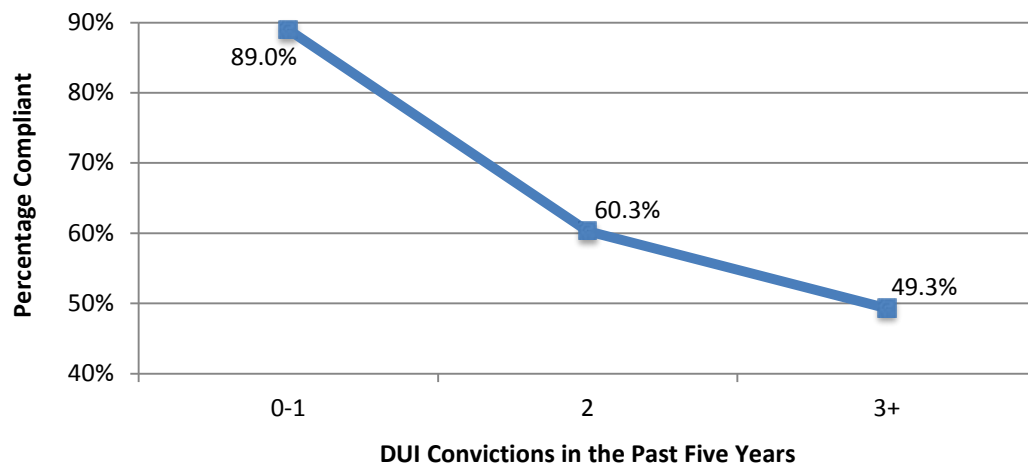
Figure 5.7: Compliance by Number of Lifetime DUI Convictions*



* Missing Data = 0 Assessments

Figure 5.8 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 5.8: Compliance by Number of DUI Convictions in the Past 5 Years*

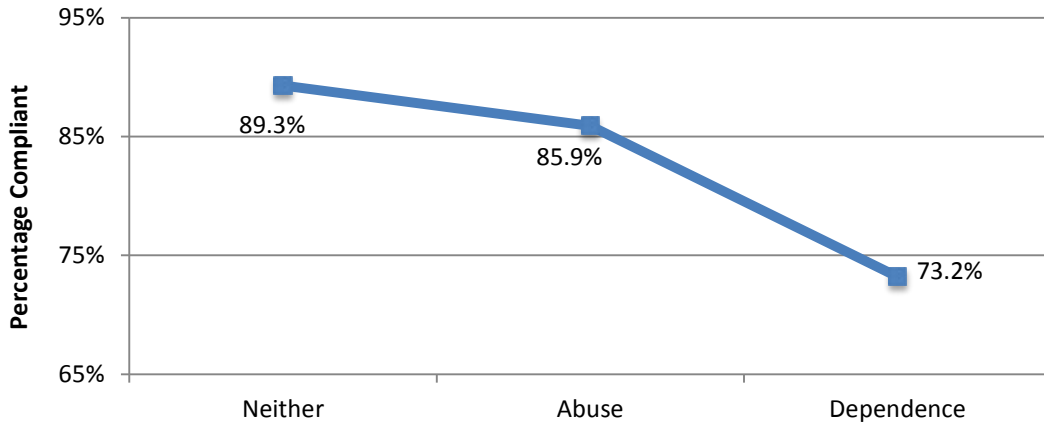


* Missing Data = 0 Assessments

5.7 Compliance by DSM-IV-TR Criteria

Figure 5.9 presents intervention compliance by DSM-IV-TR criteria. Persons who met three or more lifetime substance dependence criteria were less likely to be compliant with their assigned intervention.

Figure 5.9: Compliance by DSM-IV-TR Criteria*

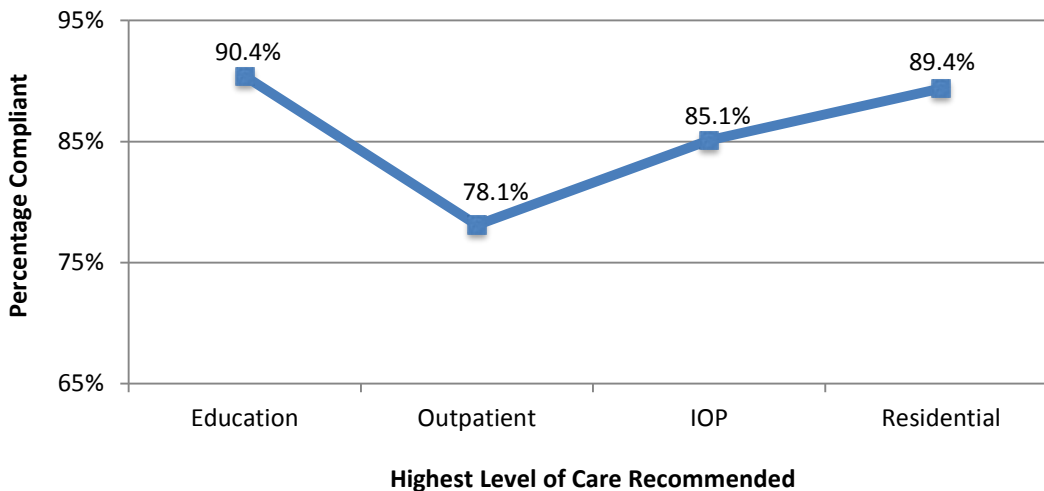


* Missing Data = 0 Assessments

5.8 Compliance by Highest Level of Care Recommended

Figure 5.10 presents compliance by the highest level of care recommended. Individuals referred for education 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 education. Persons referred for residential treatment were only marginally less likely to be compliant than those referred for education.

Figure 5.10: Compliance by Highest Level of Care Recommended*

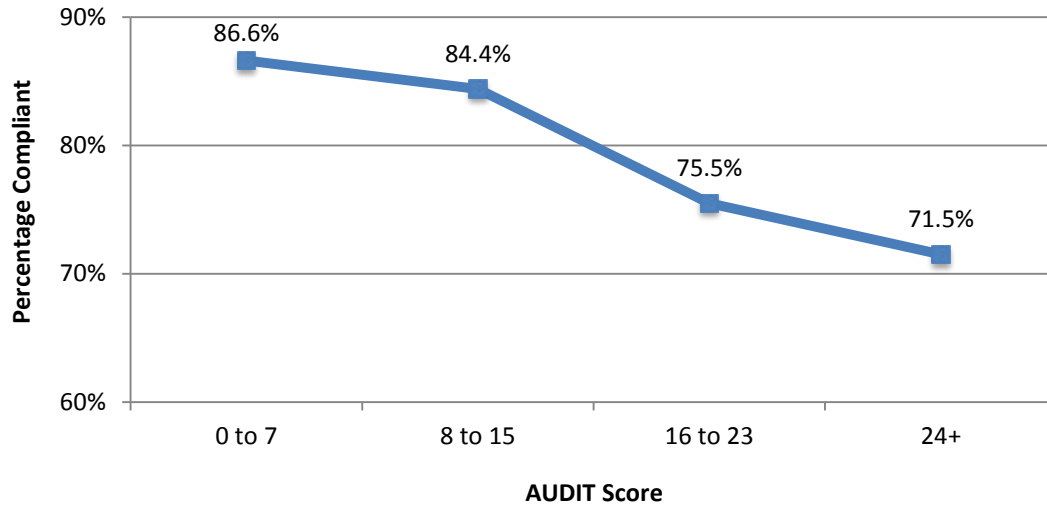


* Missing Data = 7 Assessments

5.9 Compliance by AUDIT Scores

Figure 5.11 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 5.11: Compliance by AUDIT Score*

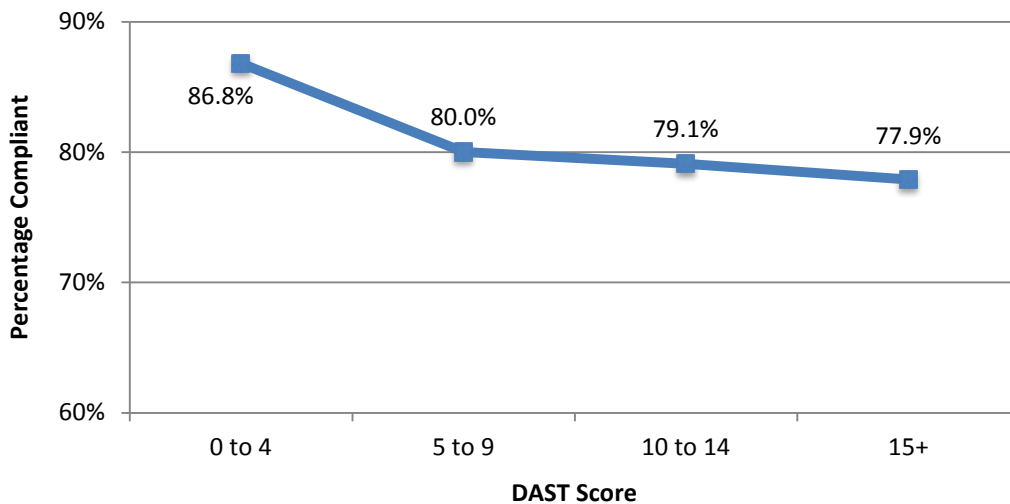


* Missing Data = 0 Assessments

5.10 Compliance by DAST Scores

Figure 5.12 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 5.12: Compliance by DAST Scores*

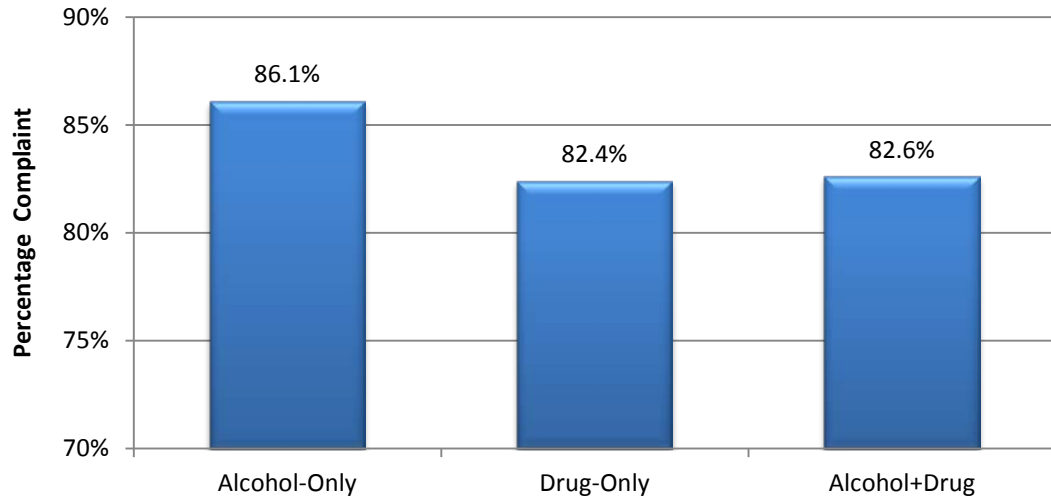


* Missing Data = 0 Assessments

5.11 Compliance by DUI Type

Individuals who reported driving under the influence of drugs with their current DUI had lower rates of compliance compared to offenders involved in alcohol-only DUIs. Figure 5.13 presents compliance rates by DUI type.

Figure 5.13: Compliance by DUI Type*



* Missing Data = 10 Assessments

Compliance Summary

Lower compliance is related to having a drug-involved DUI, more DUI convictions, higher AUDIT and DAST scores, 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.

This page left intentionally blank.

SECTION SIX
MHMR REGIONS

This page left intentionally blank.

6.1 Assessments

Table 6.1 presents the number of programs and assessment records submitted by community mental health programs (publicly funded) and private assessment programs. Community programs submitted an average of 375 assessments per program in 2013, while private programs submitted an average of 180 assessments per program. There were twelve programs that submitted fewer than ten assessments.

Table 6.1: Community and Privately Funded Program Assessments*

	Community	Private
Assessments Submitted	3,750	21,021
Number of Programs	10	117
Average Assessments per Program	375.0	179.67

* 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	35.7	64.0%	75.2%
Region 2 - Pennyroyal	35.8	64.8%	73.4%
Region 3 - River Valley	35.5	65.1%	77.7%
Region 4 - Lifeskills	34.6	65.2%	77.0%
Region 5 - Communicare	35.4	65.4%	79.2%
Region 6 - Seven Counties	35.5	64.5%	73.6%
Region 7 - North Key	35.0	66.5%	73.1%
Region 8 - Comprehend	35.7	64.3%	75.5%
Region 10 - Pathways	35.7	64.0%	76.2%
Region 11 - Mountain	36.2	65.2%	75.1%
Region 12 - Kentucky River	36.7	60.4%	76.6%
Region 13 - Cumberland	35.9	65.2%	74.1%
Region 14 - Adanta	36.0	63.6%	76.0%
Region 15 - Bluegrass	35.0	66.1%	74.5%
All Regions	35.4	64.9%	75.0%

* Missing Data: Age = 577 / 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 Pennyroyal having the highest percentage of first time offenders (68.4%). Kentucky River had the highest level of persons with a second conviction (28.6%), and Communicare had the highest percentage of persons with three or more lifetime DUI convictions (23.4%).

Table 6.3: MHMR Lifetime DUI Convictions

	Average	0-1	2	3+
Region 1 - Four Rivers	1.89	53.7%	26.2%	20.1%
Region 2 - Pennyroyal	1.55	68.4%	20.1%	11.5%
Region 3 - River Valley	1.89	54.2%	24.7%	21.1%
Region 4 - Lifeskills	1.73	65.2%	19.1%	15.7%
Region 5 - Communicare	1.95	52.7%	23.9%	23.4%
Region 6 - Seven Counties	1.53	67.4%	21.3%	11.2%
Region 7 - North Key	1.53	66.0%	23.3%	10.7%
Region 8 - Comprehend	1.43	67.9%	22.8%	9.3%
Region 10 - Pathways	1.71	57.6%	27.6%	14.8%
Region 11 - Mountain	1.43	71.9%	19.7%	8.4%
Region 12 - Kentucky River	1.65	59.1%	28.6%	12.3%
Region 13 - Cumberland	1.64	64.3%	20.1%	15.6%
Region 14 - Adanta	1.70	65.0%	18.8%	16.2%
Region 15 - Bluegrass	1.60	65.8%	20.7%	13.6%
All Regions	1.64	63.9%	22.0%	14.0%

* 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. Comprehend had the highest percentage of first time offenders (82.3%). River Valley had the highest level of persons with a second conviction (24.2%). Communicare had the highest percentage of persons with three or more convictions in the past five years (5.7%).

Table 6.4: MHMR DUI Convictions in Past Five Years

	Average	0-1	2	3+
Region 1 - Four Rivers	1.28	75.8%	20.6%	3.6%
Region 2 - Pennyroyal	1.27	77.6%	18.2%	4.2%
Region 3 - River Valley	1.35	70.5%	24.2%	5.3%
Region 4 - Lifeskills	1.24	79.3%	17.3%	3.4%
Region 5 - Communicare	1.33	72.6%	21.7%	5.7%
Region 6 - Seven Counties	1.26	77.4%	19.0%	3.5%
Region 7 - North Key	1.23	79.9%	17.1%	3.0%
Region 8 - Comprehend	1.21	82.3%	14.3%	3.4%
Region 10 - Pathways	1.28	76.0%	20.0%	4.0%
Region 11 - Mountain	1.22	79.9%	18.1%	2.0%
Region 12 - Kentucky River	1.22	80.2%	17.2%	2.7%
Region 13 - Cumberland	1.27	78.2%	16.9%	4.9%
Region 14 - Adanta	1.25	80.7%	13.9%	5.3%
Region 15 - Bluegrass	1.24	80.7%	14.8%	4.5%
All Regions	1.26	77.9%	18.2%	4.0%

* 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 (0.110) and Comprehend had the highest average BAC (0.157). Mountain had the highest percentage of assessment records for individuals with BACs in the 0.08 to 0.15 range (80.9%). Bluegrass had the highest percentage of records reporting BACs in excess of 0.24 (7.9%).

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	0.141	3.7%	59.4%	31.8%	4.8%	0.4%
Region 2 - Pennyroyal	0.139	3.7%	60.5%	30.9%	4.5%	0.4%
Region 3 - River Valley	0.138	1.8%	64.2%	30.3%	3.5%	0.2%
Region 4 - Lifeskills	0.149	1.8%	57.0%	33.8%	6.6%	0.8%
Region 5 - Communicare	0.144	3.6%	61.0%	28.7%	5.8%	0.8%
Region 6 - Seven Counties	0.142	2.4%	61.8%	29.8%	5.5%	0.6%
Region 7 - North Key	0.148	2.9%	53.7%	38.8%	4.0%	0.6%
Region 8 - Comprehend	0.157	1.5%	48.9%	42.9%	5.3%	1.5%
Region 10 - Pathways	0.137	2.6%	65.2%	25.1%	6.4%	0.6%
Region 11 - Mountain	0.110	4.6%	80.9%	12.3%	1.6%	0.5%
Region 12 - Kentucky River	0.117	4.0%	78.1%	13.6%	4.0%	0.3%
Region 13 – Cumberland	0.145	1.7%	66.6%	25.5%	5.6%	0.7%
Region 14 – Adanta	0.142	2.5%	60.2%	30.7%	6.6%	0.0%
Region 15 – Bluegrass	0.151	2.2%	55.1%	34.7%	7.2%	0.7%
All Regions	0.143	2.6%	60.7%	30.7%	5.4%	0.6%

* Missing Data = 11,468 Assessments

6.5 MHRM Regions and Screening Instruments

Table 6.6 presents the AUDIT and DAST average scores and percentage of assessments that were positive for each test by MHRM region. Table 6.7 presents the percentage of assessed persons who met DSM-IV-TR criteria by MHRM region.

Table 6.6: MHRM Regions and AUDIT/DAST Scores*

	AUDIT		DAST	
	Average	% Positive	Average	% Positive
Region 1 - Four Rivers	6.8	33.6%	2.5	20.5%
Region 2 - Pennyroyal	6.2	31.2%	3.0	23.9%
Region 3 - River Valley	6.4	31.1%	2.8	22.5%
Region 4 - Lifeskills	6.3	30.1%	3.0	22.8%
Region 5 - Communicare	6.3	30.1%	2.8	20.5%
Region 6 - Seven Counties	7.2	38.1%	2.2	15.3%
Region 7 - North Key	6.4	32.6%	1.9	12.6%
Region 8 - Comprehend	4.4	14.3%	3.3	21.9%
Region 10 - Pathways	4.3	19.7%	4.4	32.3%
Region 11 - Mountain	4.2	17.4%	3.8	28.9%
Region 12 - Kentucky River	5.2	25.2%	4.4	33.2%
Region 13 - Cumberland	3.9	16.4%	4.6	34.5%
Region 14 - Adanta	5.2	25.6%	4.3	32.1%
Region 15 - Bluegrass	6.1	27.3%	2.5	16.9%
All Regions	6.1	30.0%	2.8	20.9%

*Missing Data = 0 AUDIT/ 11 DAST Assessments

Table 6.7: MHRM Regions and DSM-IV-TR Criteria*

	Neither	Abuse Only	Dependence
Region 1 - Four Rivers	36.9%	40.9%	22.2%
Region 2 - Pennyroyal	41.6%	42.2%	16.2%
Region 3 - River Valley	31.5%	47.1%	21.5%
Region 4 - Lifeskills	32.6%	42.4%	25.0%
Region 5 - Communicare	66.6%	21.7%	11.7%
Region 6 - Seven Counties	35.4%	40.0%	24.6%
Region 7 - North Key	30.8%	51.9%	17.2%
Region 8 - Comprehend	59.5%	17.3%	23.2%
Region 10 - Pathways	44.9%	28.8%	26.3%
Region 11 - Mountain	60.7%	24.8%	14.4%
Region 12 - Kentucky River	19.8%	52.7%	27.4%
Region 13 - Cumberland	61.3%	25.4%	13.3%
Region 14 - Adanta	44.8%	32.6%	22.6%
Region 15 - Bluegrass	57.0%	30.5%	12.5%
All Regions	42.7%	37.5%	19.8%

* Missing Data = 0 Assessments

6.6 MHRM Regions and Level of Care

Table 6.8 presents the highest level of care assigned and overall compliance level by MHRM 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: MHRM Regions and Level of Care*

	Education	Outpatient	IOP	Residential	Compliance**
Region 1 - Four Rivers	50.3%	48.7%	0.0%	0.9%	90.4%
Region 2 - Pennyroyal	51.5%	44.0%	1.9%	2.7%	84.9%
Region 3 - River Valley	50.6%	45.3%	1.3%	2.8%	73.1%
Region 4 - Lifeskills	37.9%	59.4%	0.1%	2.6%	91.0%
Region 5 - Communicare	55.8%	41.6%	0.9%	1.7%	73.4%
Region 6 - Seven Counties	36.3%	60.6%	1.8%	1.3%	85.0%
Region 7 - North Key	37.3%	56.3%	0.8%	5.6%	88.6%
Region 8 - Comprehend	45.5%	50.5%	2.3%	1.8%	84.9%
Region 10 - Pathways	42.4%	48.6%	2.2%	6.8%	89.2%
Region 11 - Mountain	80.7%	17.8%	0.2%	1.4%	86.3%
Region 12 - Kentucky River	43.0%	55.4%	0.4%	1.2%	88.2%
Region 13 - Cumberland	70.5%	26.1%	0.0%	3.4%	85.8%
Region 14 - Adanta	52.2%	46.9%	0.1%	0.8%	86.9%
Region 15 - Bluegrass	60.9%	37.1%	1.1%	0.9%	86.3%
All Regions	48.5%	48.3%	1.1%	2.2%	85.3%

* Missing Data = 6,559 level of care assessments

**Of the 24,771 assessments submitted during 2013, only 18,212 were also completed during 2013.

Region Summary

There was variability between regions in demographics, screening instrument results, intervention referrals, and education/treatment outcomes. In general, these variations were consistent with previous years.

SECTION SEVEN
DIVISION OF BEHAVIORAL
HEALTH REGIONS

This page left intentionally blank.

7.1 Number of Assessments and Demographics by DBH Region

Each 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 region had slightly older individuals receiving DUI assessments and they were 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	5,809	5,241	7,343	6,378
% Male*	73.8%	75.4%	76.7%	73.7%
% White**	86.0%	96.4%	83.2%	77.3%
% Married***	17.7%	25.1%	22.3%	19.3%
Average Age****	34.99	35.98	35.38	35.46

* Missing Data = 0 Assessments

** Missing Data = 5,495 Assessments

*** Missing Data = 7,133 Assessments

**** Missing Data = 577 Assessments

7.2 AUDIT and DAST Scores by DBH Region

Table 7.2 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 7.2: AUDIT and DAST Scores by DBH Region

	CENTRAL	EASTERN	WESTERN	WESTERN-CENTRAL
AUDIT*				
Positive	29.4%	20.2%	30.8%	37.9%
Average Score	6.22	4.49	6.34	7.16
DAST**				
Positive	15.4%	32.4%	22.0%	15.2%
Average Score	2.28	4.35	2.80	2.18

* Missing Data = 0 Assessments

** Missing Data = 11 Assessments

7.3 Blood Alcohol Content by DBH Region

Table 7.3 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 7.3: Blood Alcohol Content by DBH Region*

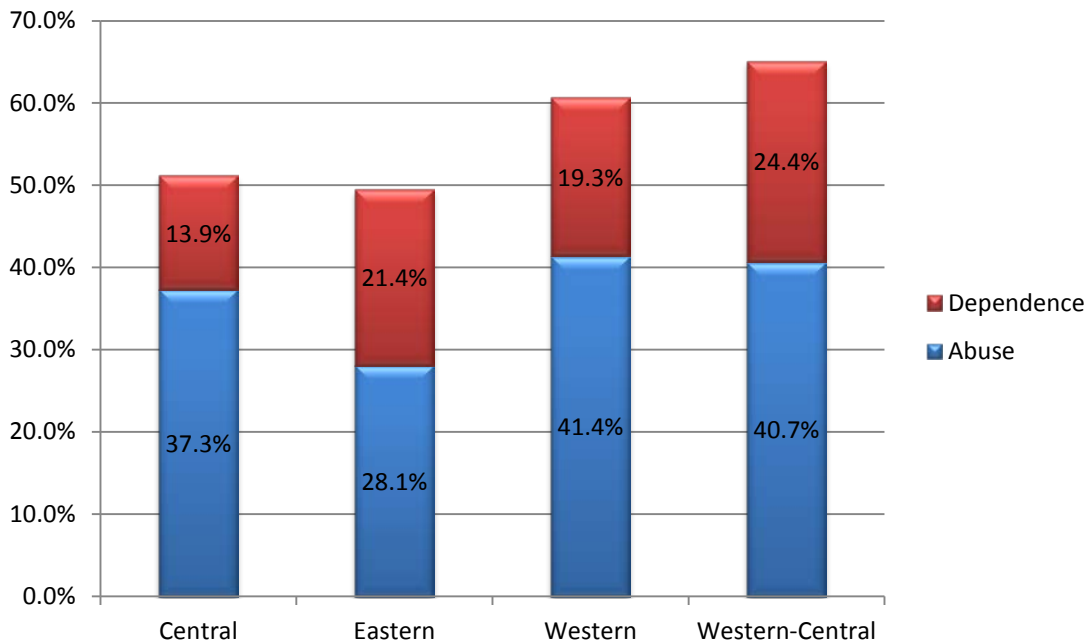
	CENTRAL	EASTERN	WESTERN	WESTERN-CENTRAL
Average BAC	0.150	0.133	0.142	0.142
% ≥ 0.08	97.6%	96.9%	97.4%	97.6%

* Missing Data = 11,468 Assessments

7.4 DSM-IV-TR Criteria by DBH Region

Figure 7.1 presents the percentage of persons who met DSM-IV-TR criteria for substance abuse and the percentage of persons who met at least three dependence criteria in their lifetime. Persons who met three or more dependence criteria were not included as abuse. The Western region had the highest percentage of individuals meeting abuse criteria (41.4%) and the Western-Central region had a higher percentage of individuals meeting dependence criteria than other regions (24.4%).

Figure 7.1: DSM-IV-TR Criteria by DBH Region*



* Missing Data = 0 Assessments

7.5 Level of Care and Compliance by DBH Region

Table 7.4 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 7.4 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 7.4: Level of Care and Compliance by DBH Region

	CENTRAL	EASTERN	WESTERN	WESTERN- CENTRAL
Highest Level of Care*				
Education	52.3%	56.5%	49.9%	36.8%
Outpatient	44.0%	39.9%	47.1%	60.2%
IOP	1.0%	0.7%	0.8%	1.7%
Residential	2.7%	2.9%	2.2%	1.3%
Compliance**				
	87.0%	87.0%	82.7%	85.1%

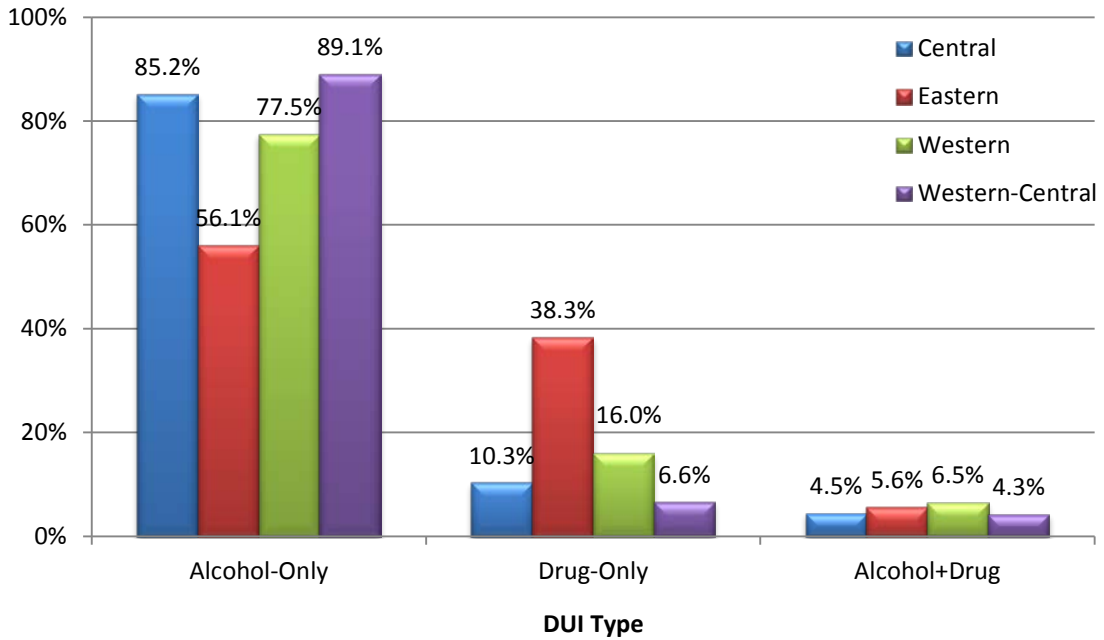
* Missing Data = 830 Assessments

** Of the 24,771 assessments submitted during 2013, only 18,212 were also completed during 2013.

7.6 DUI Type & Substances Involved by DBH Region

Figure 7.2 presents DUI type by DBH region. The Western-Central region had the highest percentage of individuals with an alcohol-only DUI (89.1%). The Eastern region had the highest percentage of individuals with a drug-only DUI (38.3%).

Figure 7.1: DUI Type by DBH Region*



* Missing Data = 569 Assessments

Table 7.5 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 and cocaine. The Eastern region also 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 7.5: Specific Drugs (other than Alcohol) Involved in DUI by DBH Region

	CENTRAL	EASTERN	WESTERN	WESTERN-CENTRAL
Marijuana	5.7%	10.8%	10.8%	5.7%
Cocaine	0.3%	0.4%	0.4%	0.3%
Opiates	4.1%	21.3%	5.8%	2.6%
Sedatives	2.6%	10.3%	4.3%	1.9%
Amphetamines	0.2%	1.1%	2.5%	0.3%
Other Drugs	3.5%	6.9%	2.1%	1.3%

Division of Behavioral Health Regions Summary

There was similarity across regions, but with a few notable exceptions. First, the percentage of persons who met three or more DSM-IV-TR criteria for substance dependence ranged from a low of 13.9% for the Central region to 24.4% in the Western-Central region. Second, a significantly smaller percentage of persons in the Western-Central region (36.8%) were referred to education as their highest level of care than other areas of the state (52.9%). Third, AUDIT scores in the Western-Central region (7.16) were noticeably higher than in other regions (5.68). Next, the percentage of persons who scored 5 or higher on the DAST in the Eastern region (32.4%) significantly exceeded the percentage for the rest of Kentucky (17.5%). Lastly, the Eastern region had more than double the rate of drug-involved DUIs (43.9%) compared to the rest of the state (16.1%).

This page left intentionally blank.

REFERENCES

This page left intentionally blank.

REFERENCES

- 1 – Kentucky Revised Statutes (2010). Alcohol or substance abuse treatment and education programs -- Sentencing offenders to programs -- Regulation of programs -- Appeals of decisions regarding licensure of education and treatment facilities and programs (Chapter 189A.040).
- 2 – Babor TF, De La Fuente JR, Saunders JB, et al, (1992). *The Alcohol Use Disorders Identification Test*, World Health Organization, Department of Mental Health and Substance Dependence, New York.
- 3 – Skinner HA (1982). The Drug Abuse Screening Test, *Addictive Behaviors*, Vol. 7, 363-371.
- 4 – American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision. Washington, DC.
- 5 – Kentucky State Police (2013). *Crime in Kentucky: Commonwealth of Kentucky 2012 Crime Report*. Published by the Kentucky State Police, Frankfort, KY.
Retrieved from: http://www.kentuckystatepolice.org/pdf/cik_2012.pdf.

This page left intentionally blank.

APPENDICES

This page left intentionally blank.

Appendix A: AUDIT Responses and Average Scores by Gender

1. How often do you have a drink containing alcohol?

	Males	Females	Total
(0) Never	19.1%	23.0%	20.1%
(1) Monthly or less	26.9%	31.6%	28.1%
(2) 2 to 4 times a month	28.3%	29.1%	28.5%
(3) 2 to 3 times a week	18.5%	12.0%	16.9%
(4) 4 or more times a week	7.2%	4.4%	6.5%
Average Score	1.68	1.43	1.62

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

	Males	Females	Total
(0) 1 or 2	34.0%	44.7%	36.7%
(1) 3 or 4	29.5%	28.9%	29.4%
(2) 5 or 6	20.3%	17.7%	19.7%
(3) 7, 8, or 9	8.6%	4.7%	7.6%
(4) 10 or more	7.6%	4.0%	6.7%
Average Score	1.26	0.95	1.18

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

	Males	Females	Total
(0) Never	35.9%	49.1%	39.2%
(1) Less than monthly	33.1%	30.0%	32.4%
(2) Monthly	15.4%	13.0%	14.8%
(3) Weekly	12.6%	6.2%	11.0%
(4) Daily or almost daily	3.0%	1.7%	2.7%
Average Score	1.14	0.81	1.06

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	80.8%	78.3%	80.2%
(1) Less than monthly	11.5%	15.2%	12.4%
(2) Monthly	3.7%	3.1%	3.5%
(3) Weekly	2.6%	2.0%	2.5%
(4) Daily or almost daily	1.4%	1.2%	1.4%
Average Score	0.32	0.33	0.32

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	81.5%	78.3%	80.7%
(1) Less than monthly	14.1%	17.5%	14.9%
(2) Monthly	2.6%	2.3%	2.5%
(3) Weekly	1.8%	1.9%	1.9%
(4) Daily or almost daily	0.0%	0.0%	0.0%
Average Score	0.25	0.28	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	94.4%	95.2%	94.6%
(1) Less than monthly	3.2%	2.6%	3.0%
(2) Monthly	1.0%	0.8%	1.0%
(3) Weekly	0.7%	0.6%	0.7%
(4) Daily or almost daily	0.7%	0.8%	0.7%
Average Score	0.10	0.09	0.10

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	72.5%	72.0%	72.3%
(1) Less than monthly	20.2%	20.6%	20.3%
(2) Monthly	3.5%	3.5%	3.5%
(3) Weekly	2.2%	2.1%	2.1%
(4) Daily or almost daily	1.7%	1.9%	1.8%
Average Score	0.40	0.41	0.41

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

	Males	Females	Total
(0) Never	80.8%	80.0%	80.6%
(1) Less than monthly	14.4%	14.8%	14.5%
(2) Monthly	3.0%	3.1%	3.1%
(3) Weekly	1.3%	1.5%	1.4%
(4) Daily or almost daily	0.4%	0.5%	0.5%
Average Score	0.26	0.28	0.27

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

	Males	Females	Total
(0) No	91.0%	91.7%	91.2%
(2) Yes, but not in the last year	5.6%	4.3%	5.3%
(4) Yes, during the last year	3.3%	4.0%	3.5%
Average Score	0.25	0.25	0.25

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	76.6%	82.9%	78.2%
(2) Yes, but not in the last year	10.6%	6.8%	9.6%
(4) Yes, during the last year	12.8%	10.3%	12.2%
Average Score	0.72	0.55	0.68

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
32.8%	33.3%	32.9%

2. Have you abused prescription drugs?

Males	Females	Total
12.7%	18.3%	14.1%

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

Males	Females	Total
7.8%	10.4%	8.5%

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

Males	Females	Total
3.3%	5.1%	3.8%

Percentage of persons who responded "no"

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

Males	Females	Total
6.1%	10.0%	7.1%

Percentage of persons who responded "no"

6. Do you abuse drugs on a continuous basis?

Males	Females	Total
5.0%	6.7%	5.4%

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

Males	Females	Total
15.3%	16.2%	15.5%

Percentage of persons who responded "no"

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

Males	Females	Total
5.9%	9.1%	6.7%

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

Males	Females	Total
13.9%	19.4%	15.3%

APPENDICES

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

Males	Females	Total
10.9%	12.9%	11.4%

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

Males	Females	Total
13.9%	15.7%	14.4%

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

Males	Females	Total
8.0%	11.0%	8.7%

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

Males	Females	Total
4.3%	6.5%	4.8%

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

Males	Females	Total
7.2%	9.8%	7.8%

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

Males	Females	Total
7.9%	11.2%	8.7%

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

Males	Females	Total
4.6%	5.4%	4.8%

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

Males	Females	Total
4.5%	4.9%	4.6%

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

Males	Females	Total
6.5%	7.8%	6.8%

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

Males	Females	Total
10.5%	13.2%	11.2%

APPENDICES

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

Males	Females	Total
19.0%	23.4%	20.1%

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

Males	Females	Total
11.3%	12.5%	11.6%

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

Males	Females	Total
16.5%	13.7%	15.8%

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

Males	Females	Total
7.9%	12.9%	9.1%

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

Males	Females	Total
2.3%	3.9%	2.7%

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

Males	Females	Total
9.1%	13.6%	10.2%

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

Males	Females	Total
2.7%	5.0%	3.3%

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

Males	Females	Total
10.2%	14.0%	11.2%

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

Males	Females	Total
7.6%	10.6%	8.3%

Appendix C: DSM-IV-TR Abuse and Dependence Criteria by Gender
Abuse Criteria
(1) Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home

Males	Females	Total
14.3%	14.8%	14.4%

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

Males	Females	Total
47.5%	41.3%	45.9%

(3) Recurrent substance-related legal problems

Males	Females	Total
34.0%	26.8%	32.2%

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

Males	Females	Total
17.2%	17.1%	17.2%

Dependence Criteria
(1) 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
38.6%	34.7%	37.6%

(2) 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
13.2%	15.3%	13.7%

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

Males	Females	Total
29.7%	28.3%	29.3%

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

Males	Females	Total
16.7%	16.1%	16.6%

APPENDICES

(5) 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
9.9%	10.9%	10.1%

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

Males	Females	Total
13.5%	14.4%	13.7%

(7) The 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
13.2%	16.8%	14.1%

Appendix E: Map of Kentucky by MHMR Region

